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**The impact of long-term performance plans on accounting
choices**

Sherif, Hanaa Abdel-Galiel, Ph.D.

City University of New York, 1987

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THE IMPACT OF LONG-TERM PERFORMANCE PLANS
ON ACCOUNTING CHOICES

by

HANAA ABDEL-GALIEL SHERIF

A Dissertation Submitted to the Graduate Faculty
in Business in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy,
The City University of New York

1987

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This manuscript has been read and accepted for the Graduate Faculty in Business in Satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Date

Vito Pastore

Chairman of Examining Committee

6/1/87

Date

John G. Ryan

Executive Officer

Dr. Steven Lilien

Dr. Harry Davis

Dr. Martin Benis

Supervisory Committee

The City University of New York

Abstract

THE IMPACT OF LONG-TERM PERFORMANCE PLANS
ON ACCOUNTING CHOICES

by

Hanaa Abdel-Galiele Sherif

Advisor: Prof. Victor Pastena

The question examined in this study is whether the adoption of long-term earning based compensations or "performance plans" controls the managers' incentives to manipulate accounting earnings to inflate their compensations. Performance plans provide managers with long term earning targets, whereas bonus schemes specify annual earning objectives. Earlier studies have examined the actual structure of the bonus plans for corporate executives and provided evidence that managers of firms with bonus plans choose accounting accruals to increase the value of their bonus awards. Although the adoption of performance plans can influence managerial accounting choices, no studies thus far have examined this proposition.

This study examines the structure of short term and long term earning based compensations "bonus schemes and performance plans." The relationship between accounting choice decisions and the parameters of both bonus schemes and performance plans is investigated. The research hypothesis predicts that the manager manipulates accounting numbers to maximize the payoff from both bonus schemes and performance plans. A model of the relationship between accrual policies of managers (as a proxy for the accounting choice decisions) and income reporting incentives of managers conditioned on the bonus and performance plan

parameters is constructed. To empirically test the model, a sample of companies which compensate their executives with both bonus schemes and performance plans is collected. A chi-square test and a t-test are performed to retest the bonus model (Healy, 1985). The tests are then performed to test the study's model which considers the parameters of both bonus schemes and performance plans.

The results of retesting the bonus model are consistent with the theory (Healy, 1985) that managers choose accounting accruals to increase the value of their bonus awards. The results of testing the study's model which considers both bonus schemes and performance plans are consistent with the theory of this study. In general, an association exists between accruals and management incentives conditioned on bonus and performance plan parameters. The implication of the results would seem to be that the existence of long-term earning based compensations does not control the managers' incentives to manipulate earnings to inflate their compensations.

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CHAPTER 1

INTRODUCTION

Accounting literature has focused on the impact of compensation plans on accounting choices. When managers' rewards are conditioned on reported income they have an incentive to select accounting procedures to increase the value of their awards. Evidence consistent with these incentive effects is provided by Hagerman and Zmijewski (1979) on the choice of depreciation method, the method of accounting for the investment tax credit, and the method of amortizing past service costs, by Dhaliwal, Salamon, and Smith (1982) on the choice of depreciation methods. On the other hand, the Watts and Zimmerman (1978) analysis of price level adjustments, the Hagerman and Zmijewski (1979) analysis of inventory valuation, and the Bowen, Noreen and Lacey (1981) analysis of interest capitalization are not consistent with the predictions of the incentive effects of management contracts. Thus, the evidence on the effect of accounting based compensation on the choice of accounting procedures should be interpreted with care. With the exception of Healy (1985), none of the studies offers a detailed examination of the specific components of the firm's compensation plan. Healy examined the actual structure of the bonus plans for corporate executives and provided evidence that managers of firms with bonus plans choose accounting accruals to increase the value of their bonus awards. Healy goes well beyond the traditional method of using a single zero-one dummy variable to estimate the impact of short term bonus plan on managerial decisions. However, Healy limited his study to firms whose form of

remuneration related to accounting earnings is a bonus plan. Companies are excluded from the sample during years that bonus and performance plans are concurrently in operation. Performance plans provide managers with long term earning targets, whereas bonus schemes specify annual earnings objectives. Consequently, performance plans provide the manager with additional compensation factor to consider when selecting accounting procedures.

Over the last decade, the trend toward long term earning based compensation or 'performance plans' has grown rapidly in the level of compensation, rate of increases and prevalence of plans. In 1970, none of the largest 100 firms used these plans; by 1984, 65 out of the 100 used them.¹ Fox (1983) analyzed the performance plans of 89 companies: 70 manufacturing, 8 commercial banks, 6 insurance, 3 retail, 2 construction. He found that, for the most recent award year (usually 1980 or 1981), the median ratio of the initial performance award to base salary was the equivalent of 55 percent. In addition, for the most recent year in which awards have actually been paid, the median value of payments was the equivalent of 43 percent of base salary. This can be compared to his findings in 1979 and 1981 in which he reported that the median value of payments was the equivalent of 34 percent of 1979 salary and 39 percent of 1981 salary.

Literature has studied the effect of long term performance plans on managerial investment decisions and market reaction to the announcement

¹Towers, Perrin, Forester & Crosby. Top 100 Compensation Study, 1985.

of these plans. Larcker (1983) provided evidence that firms adopting performance plans exhibit a significant growth in capital expenditures and a favorable security market reaction to the announcement of performance plan adoption. Although the adoption of performance plans can influence managerial accounting choices, no studies thus far have examined this proposition. It has been suggested by Smith and Watts (1982) that the existence of incentive plans such as performance plans which measure performance in terms of accounting numbers over periods of four to five years tend to control the manager's incentives to use accounting techniques to inflate compensation. Different accounting techniques merely affect the timing of accounting profit on any given investment; the sum of the profits over the investment's life is fixed. Hence, extending the number of years over which profits are measured controls the manager's incentive to manipulate profits [Smith and Watts (1982)]. However, this statement is not valid for some of the accounting techniques such as the methods of pricing inventory.

This study examines the structure of short term and long term earning based compensations "bonus schemes and performance plans." A model of the relationship between accounting choice decisions and the parameters of bonus and performance plans is constructed. The model assumes that the manager manipulates accounting numbers to maximize his award from bonus and performance plans. The model predicts conditions under which managers will select income increasing accounting procedures and also conditions when they will choose income decreasing procedures. Performance Plans are similar to bonus schemes in terms of the

performance targets, in both cases the performance targets are explicitly stated in terms of accounting numbers. The key difference between them is the length of the performance measurement period. Short term bonus plans have a one year performance measurement period while long term performance plans have a four to five year performance measurement period. Thus, the existence of long term earning based compensation does not necessarily control the manager's incentives to manipulate earning to inflate their compensation which has been demonstrated by previous studies.

To empirically test the model, a sample of companies which compensate their executives with bonus schemes and performance plans is collected. The association between accrual policies of managers (as a proxy for the accounting choice decisions) and income reporting incentives of managers conditioned on the bonus and performance plan parameters is constructed by using Chi-square test.

A Chi-square test and a t-test are performed to retest the bonus model (Healy, 1985). The tests are then performed to test the study's model which considers the parameters of both bonus schemes and performance plans.

The results of retesting the bonus model are consistent with the theory (Healy, 1985) that managers choose accounting accruals to increase the value of their bonus awards. The results of testing the study's model which considers both bonus schemes and performance plans are consistent with the theory. In general, an association exists between accruals and management incentives, conditioned on bonus and

performance plan parameters. The implication of the results would seem to be that the existence of long term earning based compensations does not control the manager's incentives to manipulate earning to inflate their compensations.

The paper is organized as follows: Chapter 2 reviews the compensation literature. Chapter 3 constructs a model for the manager's decision rule for choosing discretionary accruals conditioned on the bonus and performance plan parameters. Chapter 4 describes the sample selection and data collection. Chapter 5 describes the empirical tests and results. Chapter 6 summarizes the results, considers the limitations of the study, and suggests possible future research.

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter reviews the competing hypotheses about the existence of managerial compensation contracts and the problems encountered in the use of these contracts. In addition, previous literature on the relationship between compensation contracts and accounting choices are reviewed.

Theories Explaining the Existence of Performance Dependent Compensation Plans

There are three different hypotheses capable of explaining the observed performance dependent compensation contracts: (1) the motivation and incentive hypothesis, (2) the signalling hypothesis, and (3) the tax hypothesis. According to the motivation hypothesis, compensation plans are designed to bring the incentives of management in line with those of shareholders. It is assumed that compensation schemes are needed to motivate the managers and control the conflict of interest between owners and managers. The second hypothesis is the signalling hypothesis. Under the signalling hypothesis, managers are assumed to act in the best interest of shareholders. However, they possess inside information and attempt to signal to the market the existence of good news. One way to convey information to the market is to link the manager's compensation to the measure of performance which they are trying to signal. The market observes the compensation package which would be viewed as a credible signal regarding firms' performance and reacts accordingly. The signalling hypothesis assumes causality

which is exactly the reverse causality to the motivation and incentive hypothesis. According to the tax hypothesis, compensation plans are viewed as a means of minimizing the joint tax liabilities of the corporation and its managers. Recently, a number of authors have focused on agency problems, incentive structuring, tax considerations, and signalling issues in the investigation of financial contracts.

The incentive hypothesis has been discussed by Smith and Watts (1982). They suggest that compensation plans are adopted by corporations to address incentive problems. These include the risk aversion problem, the horizon problem, the effort problem and the over-retention problem. The risk aversion problem exists because a manager seeks to maximize his own utility. With a fixed salary contract a manager is not rewarded for taking risk. A manager will undertake riskier investments with compensation plans because the manager has a greater stake in the outcome. The horizon problem arises because the corporation has an indefinite life while the manager's claim on the corporation is a function of his tenure with the firm. A manager has incentives to invest in projects with near term payoffs even though they are less profitable than projects with longer term payoffs when he has no claim on the longer term payoffs. Incentive plans provide a means of offsetting this problem, by making his current and future remuneration conditional upon some measure of performance. The effort problem arises because the manager has disutility for effort, additional effort by the manager will increase the value of the firm but decrease his utility. Compensation plans create an incentive for the manager to work more by

rewarding him for additional effort. The over-retention problem arises because managers have incentives to retain funds in the firm to increase the coverage on their fixed salary claim. The over-retention problem can be controlled by tying the maximum payout to the level of dividends paid out.

The signalling hypothesis can explain the evidence provided by Walking and Long (1984), Lewellen, Loderer and Rosenfeld (1985) and Lambert and Larcker (1984) on mergers and acquisitions. Managers that know their merger or acquisition is a high net present value transaction will attempt to signal this fact by taking a large position in the firm's equity. This will be observed by the market which will react by increasing the price of this firm's stock [Raviv (1985)].

The tax hypothesis explains the deferral provisions in incentive plans. If the deferral is in the form of stock options, stock appreciation rights and performance plans, capital gains taxes are reduced relative to what might be payable, if the firm's stock had been issued to the manager, and if the deferral involves investment by the firm to provide for the deferred compensation, taxes are reduced to the extent the corporate tax rate is less than the manager's tax rate [Miller and Scholes (1982)]. The tax hypothesis can also explain a change in the attributes of incentive plans that occurred in the early 1970's. The switch from qualified to non-qualified options, can be explained by a shift in the real tax effects of qualified and non-qualified options [Hite and Long (1982)]. However, there are serious questions about the explanatory power of the tax reduction

hypothesis. Smith and Watts (1983) shows that the tax advantages of the incentive provisions can be obtained without establishing a formal plan tying compensation to performance. Salary compensation plus a pension plan achieves the same tax effects as options. Salary compensation with some of the salary deferred achieves the tax advantages of deferral with investment. In addition, most executives to whom the deferral provisions apply probably have marginal tax rates below the corporate tax rate, so that deferral with investment would be disadvantageous in tax terms. Smith and Watts concluded that tax effects are at best partial explanation for the nature, existence and growing popularity of incentive plans and are not likely to be the primary explanation. Incentive effects would appear to be more important given their ability to explain the nature of, and cross sectional variations in the plans. For example, taxes cannot explain why incentive plans are less frequent in regulated industries while the incentive effects of compensation plans can explain these phenomena.

Problems with Performance Dependent Compensation Plans

Market based compensations (stock options, stock appreciation rights, restricted stock and phantom stock) control the incentive problems by making the manager's compensation a function of the market value of the firm's stock. However, the stock markets unpredictable behavior does not necessarily produce a close linkage between executive performance and bonus awards. Earning related compensations (bonus schemes and performance plans) mitigate the conflict of interest between the owners and managers of a firm and the executives' rewards are based

on measures that the executives can influence and that they will truly mirror their performance. However, they also encourage executives to select accounting procedures that increase (or do not decrease) their remuneration. This incentive to manipulate accounting earning increases the measurement error between accounting earning and the firm value maximization objective. The larger the error, the lower the association between changes in earning numbers and stock price changes. While competition in the external market, the existence of internal and external auditor, and adjustments by the compensation committees for changes in accounting policies limit the manager's incentives to manipulate earning, they are unlikely to completely eliminate those incentives. Auditors limit the accounting technology available to report earnings, but managers can still select accounting procedures to report earnings which satisfy the auditing constraints² [Healy (1983)]. Adjustments by compensation committees for changes in accounting policies cannot eliminate a manager's divergent actions if it is costly for compensation plan administrators to adjust for changes in accounting policies. [Smith and Watts (1983)]. In this context, Healy, Kang, and Palepu (1985) test whether there is a change in the time series relation between executives' salary and bonus awards and earnings following the accounting change. The results indicate that the elasticity of salary and bonus compensation to reported earning does not significantly

²Deferring or accelerating recognition of sales of finished goods at year end and allocating fixed factory overheads between cost of goods sold and inventories.

change following the accounting changes. These results are consistent with the hypothesis that in awarding salary and bonus, compensation committees do not adjust reported earnings for the effect of accounting policy changes. Furthermore, Holmstrom (1982) investigated Fama's (1980) idea that reputation effects and career concern will frequently be sufficient to police moral hazard problems without recourse to explicitly output based contract. Holmstrom argued that some price mediated markets will frequently fail in the presence of asymmetric information. In that case, more elaborate contractual arrangements have to be used as substitutes for the price system. He points out that the most obvious reason for a need to contracts is the risk aversion problem. The market incentives do not protect the manager at all against risk and as such they are clearly suboptimal.

Managerial Compensation & Accounting Choices

Accounting researchers have recently studied whether accounting-based compensation contracts create incentives for managers to select accounting procedures to increase the value of their awards. Watts and Zimmerman (1978), Hagerman and Zmijewski (1979), and Bowen, Noreen, and Lacey (1981) report insignificant results. Zmijewski and Hagerman (1981) report that "it appears that the existence of management plans does influence the choice of accounting principles." These studies have been criticized for the use of zero-one dummy variable to represent the existence of a "compensation plan" proxying for the "effect of accounting method choice on management compensation" construct. Ball and Foster (1982) argue that any significant results

that are obtained from a zero-one compensation variable could be because it is a proxy for omitted variables. If most firms tie compensation in some way to reported income, then the zero-one variable can proxy for size or organizational structure. Also, compensation plans consist of various components and it is an over simplification to focus on only one component of the plans. The studies have also been criticized for having some important methodological problems. Healy (1983) claims that the studies failed to control for differences in the definition of earnings in the compensation plans. For example, he cites Bowen, Noreen and Lacey (1981) who examine the corporate decision to capitalize interest while many plans condition awards on earnings before interest. In addition, examination of the association between publicly disclosed accounting procedures and the existence of a compensation plan may understate the impact of compensation awards on accounting choices. Public disclosure of the impact of changes in accounting on earnings lowers compensation plan administrator's cost of expost adjusting for the switch in computing incentive plans. If administrators adjust for these reported changes, rational managers will use other less visible accounting changes to increase the value of their remuneration. Consequently, Healy examined the actual structure of the bonus plans and the accruals as a proxy for accounting choices and presented evidence that managers of firms with bonus plans choose accounting accruals to increase the value of the bonus awards. He concludes that managers seeking to increase their bonuses are more likely to choose accruals that decrease accounting income when the upper or lower bounds on their

bonus plans are binding. In addition, when these bounds are not binding, he concludes that managers choose accruals that increase accounting income. The overall conclusion from these studies is that managers behave opportunistically, they try to manipulate the accounting numbers on which their compensation is based. However, these results cannot be generalized with the existence of accounting based long term compensation or performance plans. Although performance plans have been used for many years by American manufacturing corporations, no one study has examined whether these long term plans could significantly influence managerial accounting choices.

CHAPTER 3
BONUS SCHEMES, PERFORMANCE PLANS,
AND ACCOUNTING CHOICES

This chapter deals with the following: (1) the features of both bonus schemes and performance plans, (2) reviews the incentive of the manager under a fixed salary plus a yearly bonus and the model provided by Healy (1983) on the association between accruals (as a proxy for accounting choice) and management incentives conditioned on bonus plan parameters, and (3) the final section describes why performance plans should be considered in a model of managerial incentives and predicts the effect of performance plans on the association between the accrual policies of managers and income reporting incentives of their compensations.

Description of Bonus Plans

Most major corporations sponsor some type of short-term incentives or 'bonus' plan where annual remuneration is based upon yearly performance. Short term compensation or 'bonus' plans have the following features:

1. The plans are administered by a committee of directors who are ineligible to receive awards from the bonus pool.
2. The period used for assessing corporate performance is one year.
3. Accounting measures such as net income, increase in net income, return on assets, or return on stockholder's equity are used to assess corporate performance.

4. Bonuses are not simple linear functions of accounting income. Rather, they are linear functions with lower and, frequently, upper bounds.
5. The lower bound is measured as a percentage of shareholders' equity, total assets, or some other measure of long-term invested capital, which net income must exceed before a bonus begins to be earned. Once net income exceeds this lower bound (earning target), the bonus increases linearly with increases in income.
6. The upper bound limits the maximum bonus that can be paid out. Once the deviation of earnings from its target exceeds the upper bound, the excess is excluded from bonus calculations. The upper bound is commonly related to cash dividend payments on common stocks², or a maximum percentage of invested capital.
7. Awards may be paid out in the form of cash, stock, or stock options.

An example of a bonus plan is the 1976 bonus contract of Bendix Corp.:

The corporation's Incentive Compensation Plan provides that Executive Compensation Committee which administers the Plan may credit to the Incentive Compensation Fund for each fiscal year an amount which does not exceed 12 percent of the Corporation's Net Earnings for such year after deducting an amount equal to 5 percent of the Capital Employed in the business (as both terms are defined

²Defining the upper bound in this way creates an incentive for the manager to increase dividend payments thereby counteracting the over-retention problem.

in the Plan) but in no event may the credit to the Fund exceed the aggregate dividends with respect to all classes of stock during such year.

The definitions of the variables used in bonus scheme vary between firms, and within a single firm across time. Earnings are defined before or after a number of factors including interest, the bonus expense, taxes, extraordinary and non-recurring items and preferred dividends. Capital is a function of the book value of equity or a function of the sum of long-term debt and equity.

Description of Performance Plans

Performance Plans are of two types: performance units or performance shares. Performance unit plans fix the amount of compensation per unit at the beginning of the award period or assign a unit value which is not related to share price (e.g., book value per share at the end of the award period). In a performance share plan, the compensation per share depends on the market price per share at the end of the performance or award period. Performance plans have the following features:

1. The key features of the long term performance plans are the "performance period" and "frequency of grants." The period used for assessing corporate performance range from three to five years. A new award period is usually started every year or every other year. Table 3.1 provides the results of the 1983 Conference Board's study of the performance plans of 89 companies (70 manufacturing, 8 commercial banks, 6 insurance, 3 retail, 2 construction). As Table 3.1 indicates, the

TABLE 3.1
 SUMMARY OF RESULTS FOR THE 1983 CONFERENCE BOARD'S STUDY
 OF THE PERFORMANCE PLANS OF 89 COMPANIES

Frequency of Grants	Total Plans		The Performance Period		
	Number	Percent	3 Years	4 Years	5 Years
Annual	51	57%	30	10	11
Every 2 years	30	34	4	20	6
Every 3 years	3	3	3		
Every 4 years	3	3		3	
Every 5 years	2	2			2
Total	89	100%	37 (42%)	33 (37%)	19 (21%)

performance period is three to four years, or somewhat less commonly, five years. Also, as a general rule, the companies do not give a contingent award at the beginning of the performance period and then wait until the performance periods end before starting a new performance period (that is, before making another award). As the table indicates, only eight plans do this. The other 81 plans have overlapping performance periods. The most common is to start a new performance period every year. The primary purpose of overlapping performance periods is to prevent one bad year early in the period from erasing the possibility of reward over the remaining years of the period. For example, in those plans that use EPS growth, the targets are typically expressed in terms of cumulative compound growth rate. If the EPS for the base period is \$1 per

share and the target is 10% compound growth over a three-year performance period, total earnings of \$3.64 per share would be needed ($\$1.10 + \$1.21 + \$1.33$). To meet the target, however, the earnings could be produced in any pattern, for example, ($\$1.33 + \$1.21 + \$1.10$). In addition, targets consist of range, that is, there is a minimum growth rate below which no payments are made, a normal, a maximum target payoff.

2. Performance goals derived from a company's long term goals of earnings growth, return on investment (usually expressed in terms of earnings per share growth, earnings, return on equity, or return on total assets) are established by the compensation committee at the beginning of the award period.
3. Each executive participating in the plan is allocated a fixed number of units or shares at the beginning of the award period. Each unit is assigned a 'fixed' dollar value, the value of each share is the share price at the end of the award period.
4. At the end of the performance period, a proportion of units or shares awarded are "earned out" depending upon the level of achievement of the targets for the performance period. A minimum goals must be exceeded in order that any award is earned. The number of units or shares earned out depends upon the degree to which performance goals are met during the award period. Further, there is an upper limit of performance at which the award is fully earned out.

5. The amount of compensation paid at the end of the award period (in cash and/or stock) is equal to the product of the number of units of shares awarded at the beginning of the award period, percentage of units or shares "earned out", and value of each unit or share.
6. If the manager leaves during the three to five year award period, the compensation is forfeited.

An example of a performance share plan is the adoption of a performance share plan by Emerson Electric in 1977 where the award period was five years, the performance measure was earning per share growth, and the number of performance shares earned out was prorated between zero and hundred percent for compounded annual EPS growth rates between twelve and fifteen percent. (See Table 3.2).

The data in Table 3.2 shows that the compound growth rate for the performance period is computed using as a basis the earnings per common share for the fiscal year 1976 = \$2.05, the earning target (lower bound) is 12 percent compound growth over a five-year performance period. Total growth in earning per share of \$7.13 would be needed over five years. An average annual growth of \$1.43 and an average annual EPS of \$3.48 over five years.

Comparing performance plans with bonus schemes shows that in both cases the performance targets are explicitly stated in terms of accounting numbers. The key difference between them is the length of the performance measurement period. Short-term bonus plans have a one year performance measurement period while long-term performance plans

TABLE 3.2

EXAMPLE OF PERFORMANCE SHARE PLAN

Emerson Electric (1977 Fiscal Year Adoption)

Type of plan:	Performance Share	
Award period:	5 Years	
Performance measure:	Earning Per Share	
Initial targets:	Average <u>Annual EPS</u>	<u>Percentage of Shares Earned Out</u>
	\geq \$3.60	100
(1976 EPS=\$2.05)	$<$ \$3.60, but \geq \$3.55	70
	$<$ \$3.55, but \geq \$3.48	50
	$<$ \$3.48	0
Form of Payment	20% cash and 80% common stock	

have a four to five years performance measurement period.

Bonus Schemes and Accounting Choices

If the manager is rewarded with a fixed salary plus a yearly bonus, the annual remuneration is based upon yearly accounting income and the manager's choice of accounting techniques may be heavily influenced by the short-term effect of his choices on reported earnings. Manager subject to a bonus are provided with incentives to manipulate accounting earnings to inflate their bonus. This section reviews the Healy's (1985) study about the association between accrual policies of managers and the income reporting incentives of their bonus contracts.

According to Healy (1985), accounting earnings are decomposed into cash flow from operations, non-discretionary accruals and discretionary

accruals. Non-discretionary accruals are accounting adjustments for the firm's cash flows mandated by accounting standard setting bodies. Discretionary accruals are adjustments to cash flows selected by the manager from a set of generally accepted procedures defined by accounting standard-setting bodies. Accruals modify the timing of reported earnings. Discretionary accruals enable the manager to transfer earnings between periods. It reflects such accounting decisions as deferral or acceleration of recognition of sale of finished goods at year end, changes in allocation of fixed factory overhead to cost of goods sold and inventories, change in the method of depreciating long-lived assets, changes in estimated salvage values or lives of depreciable assets. Accruals are estimated by the difference between reported accounting earnings and cash flow from operations. Cash flows are working capital from operations (reported in the funds statement) less changes in inventory and receivables, plus changes in payable and income taxes payable. Thus, accruals are:

$$Acc_t = -DEP_t - XI_t \cdot D_1 + \Delta AR_t + \Delta INV_t - \Delta AP_t - \left\{ \Delta TP_t + DEF_t \right\} \cdot D_2$$

where:

DEP_t = depreciation in year t;

XI_t = extraordinary items in year t,

ΔAR_t = accounts receivable in year t less accounts receivable in year t-1,

ΔINV_t = inventory in year t less inventory in year t-1,

- ΔAP_t = accounts payable in year t less accounts payable in year t-1,
- ΔTP_t = income taxes payable in year t less income taxes payable in year t-1,
- DEF_t = deferred income tax expense (credit) for year t
- D_1 = 1 if bonus plan earnings are defined after extraordinary items
= 0 if bonus plan earnings are defined before extraordinary items
- D_2 = 1 if bonus plan earnings are defined after income taxes
= 0 if bonus plan earnings are defined before income taxes

The prediction of Healy's model is based on the existence of a lower and upper bound in the structure of a bonus plan. If net income is below the lower bound, no bonus is earned. Once net income exceeds this lower bound, the bonus increased linearly with increases in income. The upper bound limits the maximum bonus that can be paid out. Once net income exceeds this upper bound, then the bonus does not increase with further increases in net income. Also, the model control for differences in the definition of earnings in the compensation plans. Healy's model predicts the following:

1. If earnings before the actions of any discretionary accounting policies is already far below the lower limit, managers will not benefit from income-increasing policies since the resulting net income will still be below the lower bound and no bonus

will be earned. Managers have incentives to select income decreasing discretionary accruals "negative accruals." These negative accruals are reversed in the subsequent year when net income is in the middle range where the bonus increases with increases in income. By deferring earning to period two, the manager maximizes his expected future award.

2. If earnings before discretionary accruals exceed the lower bound but not the upper limit, the manager has incentive to select discretionary accruals to increase income.
3. If earnings before discretionary accruals are above the upper bound, the manager has an incentive to select discretionary accruals to bring net income down to the upper limit, in the hope of being able to reverse the accrual in a subsequent year when net income is in the middle range where the bonus increases with increases in income.

The following results were reported in Healy (1985):

1. Firms whose plans have a lower bound but not upper bound: the mean accrual is somewhat more negative for firms whose earnings are below the lower bound (portfolio LOW) than for firms whose earnings are above the lower bound (portfolio MID).
2. Firms whose plans have both a lower bound and upper bound: when earnings are either below the lower bound or above the upper bound (portfolio LOW and UPP), firms have negative accruals 90 percent of the time, whereas, when earnings are in the MID range, where the bonus plan is operative, firms have negative accruals only 54 percent of the time. Also the mean accrual is

much more negative when earnings are outside the bonus plan range (either below or above) than when earnings are in the middle range.

Bonus Schemes, Performance Plans, and Accounting Choices

The previous section shows that when the manager's remuneration is based on salary plus a yearly bonus, the manager considers the earning definitions and the parameters in the bonus plans (lower and upper bounds), and selects discretionary accounting procedures and accruals to maximize his expected payoff from bonus awards. The objective function of the manager can be expressed as follows:

$$\text{MAX} \sum_{i=1}^N \frac{B^i}{(1+r)^i}$$

where:

$$\begin{aligned} B^i &= 0 && \text{IF } E^i \leq \text{MINB}^i \\ &= \alpha (E^i - \text{MINB}^i) && \text{IF } \text{MAXB}^i > E^i > \text{MINB}^i \\ &= \alpha (\text{MAXB}^i - \text{MINB}^i) && \text{IF } E^i \geq \text{MAXB}^i \end{aligned}$$

B^i = the payoff to the manager from bonus plans in year i

E^i = earnings in year i

MINB^i = lower bound on earning defined in the bonus contract

MAXB^i = upper bound on earning defined in the bonus contract

α = payout percentage defined in the bonus contract

N = the manager's employment horizon

r = the discount rate

Given this objective, the manager's decision rule for choosing discretionary accruals (see details in the previous section) are as

follows: if earning before the discretionary accruals are far below the earning targets (lower bound) specified in the plan or above the upper bound, the manager chooses income decreasing discretionary accruals (negative accruals). If earning before the discretionary accruals are within the lower and upper bound, the manager chooses income increasing discretionary accruals (positive accruals). Thus, the manager is considering only the earning definitions and the parameters of bonus plans.

Performance plans are based on long term accounting measures of corporate performance. The performance goals are expressed in terms of earning per share growth, earnings, return on equity, or return on total assets over a three to five-year performance period. A minimum goals must be exceeded to earn awards. The number of units or shares earned depends upon the degree to which performance goals are met during the award period. Further, there is an upper limit of performance at which the award is fully earned out. Also, these plans have overlapping performance periods, a new performance plan (with a separate set of performance goals and a different payoff date) is usually started every year or every other year. The most common arrangement is to start a new three-year performance period each year.

After the adoption of performance plans, the manager also considers the earning definitions and the parameters in the performance plans and acts to maximize the payoff from bonus schemes (B) and performance plans

(PP). The objective function of the manager can be expressed as follows:

$$\text{MAX} \sum_{i=1}^N \frac{B^i + P^i}{(1+r)^i}$$

where:

$$\begin{aligned} B^i &= 0 && \text{IF} && E^i \leq \text{MINB}^i \\ &= \alpha (E^i - \text{MINB}^i) && \text{IF} && \text{MAXB}^i > E^i > \text{MINB}^i \\ &= \alpha (\text{MAXB}^i - \text{MINB}^i) && \text{IF} && E^i \geq \text{MAXB}^i \\ P^i &= 0 && \text{IF} && \sum E^i < \text{MINP}^i \\ &= \gamma A && \text{IF} && \text{MAXP}^i > \sum E^i > \text{MINP}^i \\ &= A && \text{IF} && \sum E^i \geq \text{MAXP}^i \end{aligned}$$

P^i = the payoff to the manager from performance plans in year i

MINP^i = lower bound on earning defined in the performance plan

MAXP^i = upper bound on earning defined in the performance plan

A = maximum number of units or shares awarded to each executive at the beginning of the award period

γ = the proportion of units or shares earned out which depends on the level of achievement of the targets for the performance period

A manager confronts bonus schemes and a series of overlapping performance plans and his choices of accounting procedures and

discretionary accruals³ is influenced by the effect of his choices on reported earning and his compensation from bonus and performance plans. Thus, the manager considers the earning definitions and the parameters in the bonus schemes and performance plans.

Table 3.3 shows the possible cases which face the manager when he considers earning definitions and the parameters (lower and upper bound) of both bonus (B) and performance plans (P).

The manager observes earning before discretionary accruals and the targets and parameters of the bonus and performance plans, and selects discretionary accruals to maximize his payoff from bonus and performance plans. Accruals modify the timing of reported earnings. For example, the manager can accelerate or defer recognition of receivables, he can allocate fixed factory overhead between cost of goods sold and inventories. Thus, discretionary accruals enable the manager to transfer earnings between periods. Discretionary accruals is defined as a shift of income between periods, the choice of accruals in period one fixes his decision in the second period because discretionary accruals are constrained by definition to sum to zero over two periods.

³The "accruals" are used as a proxy for the manager's accounting choice decision. The examination of the association between publicly disclosed accounting procedures and the existence of a compensation plan may understate the impact of compensation awards on accounting choices. Public disclosure of the impact of changes in accounting on earnings lowers compensation plan administrator's cost of expost adjusting for the switch in computing incentive plans. If administrators adjust for these reported changes, rational managers will use other less visible accounting changes such as deferral or acceleration of sales recognition to increase the value of their remuneration.

TABLE 3.3
POSSIBLE CASES WHEN COMPENSATION
INCLUDES BONUS SCHEMES AND PERFORMANCE PLANS

		PERFORMANCE PLANS (P)		
		P_L	P_M	P_U
Bonus Schemes (B)	B_L	$B_L P_L$	$B_L P_M$	$B_L P_U$
	B_M	$B_M P_L$	$B_M P_M$	$B_M P_U$
	B_U	$B_U P_L$	$B_U P_M$	$B_U P_U$

where:

B_L = the case where the lower bound in bonus plan is binding, i.e., earning before discretionary accruals is lower than the lower bound defined in the bonus contract.

B_M = the case where neither the lower nor the upper bound is binding, i.e., earning before discretionary accruals is in the middle range between the lower and upper bound.

B_U = the case where the upper bound is binding, i.e., earnings before discretionary accruals is higher than the upper bound defined in the bonus contract.

P_L = the case where earning before discretionary accruals is lower than the lower bound defined in the performance plan.

P_M = the case where earning before discretionary accruals is in the middle range between the lower and upper bound in the performance plan.

P_U = the case where earning before discretionary accruals is higher than the upper bound defined in the performance plan.

[See Healy, (1985)]. For example, if the manager chooses negative accruals (income decreasing accruals) in the first year, the accruals

reverse in the second year to positive accruals (income increasing accruals). This can be expressed as follows:

$$\sum_{i=1}^2 A_i = 0$$

where:

A_i is the discretionary accruals at year i .

To derive the manager's decision rule for choosing discretionary accruals, the paper deals with the expected payoff from bonus and performance plans during a period of i years. Since performance plans differ in terms of the performance period and frequency of grants, the performance period is three, four, or five years and a new performance period is started annually, every two, three, four or five years. The analysis deals with all possible cases for performance plans.

Table A.1 (see Appendix A) shows the annual bonus and a series of overlapping performance plans during i years. The performance plans have three years performance period and a new performance period is started annually. In the first and second year, the manager's compensation is his salary and annual bonus because the first performance plan P_1 is paid at the end of year 3 based on the achievement of the targets specified in the performance plan P_1 .

Starting from year 3, the manager's compensation includes the annual bonus and a performance plan which is awarded at the beginning of the performance period. This has been shown in the table as follows: the first performance plan (P_1) is awarded at the beginning of year 1 and is paid at the end of year 3, the second performance plan (P_2) is awarded at the beginning of year 2 and is paid at the end of year 4,, the i^{th} performance plan (P_i) is awarded at the beginning of year $i-2$ and is paid at the end of year i . The manager's decision for choosing discretionary accruals at the end of each year has two effects on the manager's compensation:

1. Primary: represents the effect of discretionary accruals on the compensation for the current year. For example, the choice of accruals in year 1 affects B_1 , the choice of accruals in year 2 affects B_2 , the choice of accruals in year 3 affects B_3 and P_1 which is paid at the end of year 3,, the choice of accruals in year i affects B_i and P_{i-2} which is paid at the end of year i .
2. Secondary: represents the effect of discretionary accruals at the end of each year on future compensation. For example, the choice of accruals in the first year reverses in the second year and this affects the following: (1) the present value of the future bonus in year 2 (B_2) and (2) the present value of the future award from the performance plan P_2 which started at the beginning of year 2 and is affected by the choice of accruals in the first year. This secondary effect in terms of

the present value of future compensation exists each year as it is shown in the table.

The choice of accruals at the end of every year affects the current bonus for this year and the current performance plan which lapses at the end of this year. Also, it affects the present value of next year bonus and the present value of the performance plan which starts in the next year because the accruals reverse. However, other performance plans where this year falls in the middle of its performance period are not affected by the choice of discretionary accruals because the accruals this year reverse in the next year and the net effect of accruals on these plans is zero. Thus the choice of accruals at the end of every year affects the following (1) current bonus, (2) current performance plan, (3) present value of next year bonus, and (4) present value of performance plan which starts next year.

Table A.1 also shows the predicted sign of accruals when the manager is faced with the possible situations shown before in Table 3.3. The manager considers the earning definitions and the parameters of both bonus and performance plans. The following is a list of all possible cases and the prediction of accruals in each case.

Cases $B_L P_L, B_U P_U, B_L P_U, B_U P_L$: At B_L or P_L , the manager chooses income decreasing accruals (negative accruals) because even if he chooses positive accruals reported earning will not exceed the lower bound in B and P and the award from B and P is not earned. The negative accruals are reversed in the subsequent year when net income is in the middle range where the bonus and performance plans increase with increases in

income. Thus, by deferring income to period two the manager maximized his expected future award. At B_U or P_U the manager chooses negative accruals to bring net income down to the upper limit in B and P in the hope of being able to reverse the accrual in a subsequent year. By deferring income that exceeds the upper bound, the manager does not reduce his current award and increase his expected future award. Thus, in either $B_L P_L$, $B_U P_U$, $B_L P_U$, $B_U P_L$ the secondary effect of accruals in terms of increasing the present value of future award is the only effect.

Cases $B_M P_M$: is the case where earning before discretionary accruals exceed the lower bound in B and P but not the upper limit, the manager has incentive to select income increasing discretionary accruals (positive accruals) to increase income. The present value and certainty advantages of accelerating income and increasing compensation should outweigh foregone expected awards. Thus, the primary effect of accruals dominates the secondary effect because of the present value and certainty advantages.

Cases $B_M P_L$ and $B_M P_U$: in the cases $B_M P_L$ earning before discretionary accruals is in the range of lower and upper bound in B and it is below the lower bound in P. Discretionary accruals have no effect on this current compensation from performance plans because even if he chooses positive accruals, reported earning will not exceed the lower bound in P, also negative accruals have no effect on his current compensation from P. Since discretionary accruals (positive or negative) have no effect on his current compensation from P, the manager may select

negative accruals to increase his expected future award from B and P. However, these negative accruals decrease his current award from B. The present value and certainty advantages of increasing his bonus in the current year should outweigh the increase in expected future award. The primary effect of accruals dominates the secondary effect and the manager selects accruals to increase his current compensation (positive accruals). The same logic applies in the cases $B_M P_U$.

Cases $B_{L M} P_M$ and $B_{U M} P_M$: in the cases $B_{L M} P_M$ earning before discretionary accruals is below the lower bound in B and is in the range of the lower and upper bound in P. Discretionary accruals have no effect on his current compensation from bonus plans. If he selects positive accruals, reported earning will not exceed the lower bound in B. If he selects negative accruals, these negative accruals have no effect on his current bonus but he may increase his expected future award from B and P. However, these negative accruals decrease his current compensation from performance plan P. The present value and certainty advantages of increasing his compensation outweigh the increase in expected future award. The primary effect of accruals of increasing P dominates the secondary effect of increasing the present value of future awards. Thus, the manager selects accruals to increase his current compensation of P (positive accruals). The same logic applies in the cases $B_{U M} P_M$. With regard to these cases $B_{L M} P_M$ and $B_{U M} P_M$, the prediction of positive accruals does not hold in the first two years before the elapse of the first performance period. In the first two years, the current compensation does not include P and it includes only B. Since earning

is below the lower bound in B and even if he chooses positive accruals earnings will not exceed the lower bound and his award from B is not earned. Thus negative accruals have no effect on his current bonus, but it increases the present value of his bonus and performance plans because the negative accruals reverse in a subsequent period. Thus, the secondary effect of accruals is the only effect and the manager selects negative accruals to increase the present value of the future compensation.

Table A.2 through A.9 (See Appendix A) show the analysis and the prediction about the sign of accruals for performance plans with different performance periods and with differences in the frequency of grants. The results of Table A.1 through A.9 can be summarized as follows:

Cases $B_{L^*P_L}$, $B_{U^*P_U}$, $B_{L^*P_U}$, $B_{U^*P_L}$: Accruals have no effect on his current compensation and the manager is expected to select negative accruals to increase the present value of his expected future compensation from bonus and performance plans.

Cases $B_{M^*P_M}$: The manager is expected to select positive accruals to increase his current compensation from bonus and performance plans. The present value and certainty advantages of increasing his current compensation should outweigh the increase in expected future award.

Cases $B_{M^*P_L}$ and $B_{M^*P_U}$: Accruals have no effect on his current compensation from performance plans and the manager is expected to select positive accruals to increase his current compensation from bonus. If the manager selects negative accruals, he may increase his

expected future award from B and P. However, the present value and certainty advantages of increasing his current bonus outweigh the increase in expected future award from bonus and performance plans and the manager selects positive accruals.

Cases B_{LP_M} and B_{UP_M} : Accruals have no effect on his current compensation from bonus and the manager is expected to select positive accruals to increase his current compensation from performance plans. If the manager selects negative accruals, he may increase his expected future award from B and P. However, the present value and certainty advantages of increasing his current award from performance plans outweigh the increase in expected future award from bonus and performance plans and the manager selects positive accruals. This prediction of positive accruals only holds for the years where accruals affect his current compensation from performance plan, i.e., in the years where there is a performance plan due (at the end of every performance period). In these years the manager is predicted to choose positive accruals to increase his current compensation from performance plans. Years other than these years, the manager is expected to select negative accruals which have no effect on his bonus at B_L or B_U , but it increases his expected future award from B and P.

These cases and the prediction about the sign of accruals for each case is shown in Table 3.4.

Given this analysis about the predicted sign of discretionary accruals when the manager considers the earning definitions and parameters of both bonus and performance plans, it is hypothesized that

TABLE 3.4
 POSSIBLE CASES WHEN COMPENSATION
 INCLUDES BONUS SCHEMES AND PERFORMANCE PLANS
 AND THE PREDICTED SIGN OF DISCRETIONARY ACCRUALS IN EACH CASE
 PERFORMANCE PLANS (P)

		P_L	P_M	P_U
Bonus Schemes (B)	B_L	- [1]	*+ for certain years [2] - for other years	- [3]
	B_M	+ [4]	+ [5]	+ [6]
	B_U	- [7]	*+ for certain years [8] - for other years	- [9]

*Cases $B_L P_M$ and $B_U P_M$, the prediction is positive accruals for years where the manager is paid his award from performance plans, i.e., the end of each performance period. Years other than these years, the prediction is negative accruals.

the manager manipulates the discretionary accruals to maximize his award from bonus and performance plans. The manager's choice of discretionary accruals is a function of earning before discretionary accruals and the parameters of both bonus and performance plans. There are some cases where the manager selects income increasing accounting procedures (positive accruals), and other cases where the manager selects income decreasing accounting procedures (negative accruals). The possible cases which face the manager when he considers the parameters of both bonus and performance plans, and the prediction about the sign of discretionary accruals in each case can be stated as follows:

1. When earning before discretionary accruals is below the lower bound defined in both bonus contract and performance plans (B_{LP}), the manager selects income decreasing accruals (negative accruals). Accruals have no effect on his current compensation from bonus and performance plans and the manager is expected to select negative accruals to increase the present value of his expected future compensation from bonus and performance plans.
2. When earning before discretionary accruals is in the range of the lower and upper bound in bonus but it is lower than the lower bound in performance plans (B_{MP}), the managers select positive accruals. Accruals have no effect on his current compensation from performance plans and the manager is expected to select positive accruals to increase his current compensation from bonus. The present value and certainty

advantages of increasing his current bonus outweigh the increase in expected future awards from bonus and performance plans.

3. When earning before discretionary accruals is higher than the upper bound in bonus but lower than the lower bound in performance plans (B_{UPL}), the manager selects negative accruals. Accruals have no effect on his current compensation from bonus and performance plans and the manager is expected to select negative accruals to increase the present value of his expected future compensation from bonus and performance plans.
4. When earning before discretionary accruals is below the lower bound in bonus but in the range of the lower and upper bound in performance plans in the years where there is a performance plan elapsed (B_{LPE}), the manager selects positive accruals. Accruals have no effect on his current compensation from bonus and the manager is expected to select positive accruals to increase his current compensation from performance plans. The present value and certainty advantages of increasing his current award from performance plans outweigh the increase in expected future award from bonus and performance plans.
5. When earning before discretionary accruals is below the lower bound in bonus but it is in the range of the lower and upper bound in performance plans in the years where there is no performance plan elapsed (B_{LPMNE}), the manager selects negative accruals. Accruals have no effect on his current bonus, but it

increases his expected future award from bonus and performance plans.

6. When earning before discretionary accruals is in the range of the lower and upper bound in both bonus and performance plans (B_{MP_M}), the manager selects income increasing accruals (positive accruals). The present value and certainty advantages of increasing his current bonus and performance plan outweigh the increase in expected future award.
7. When earning before discretionary accruals is higher than the upper bound in bonus but in the range of the lower and upper bound in performance plan in the years where there is a performance plan elapsed ($B_{uP_M^E}$), the manager selects positive accruals. Accruals have no effect on his current compensation from bonus and the manager is expected to select positive accruals to increase his current compensation from performance plans. The present value and certainty advantages of increasing his current award from performance plans outweigh the increase in expected future award from bonus and performance plans.
8. When earning before discretionary accruals is higher than the upper bound in bonus but it is in the range of the lower and upper bound in performance plans in the years where there is no performance plan elapsed ($B_{uP_{MNE}}$), the manager selects negative accruals. Accruals have no effect on his current bonus, but it increases his expected future award from bonus and performance plans.

9. When earning before discretionary accruals is below the lower bound defined in bonus but higher than the upper bound defined in performance plans (B_{LP_U}), the manager selects negative accruals. Accruals have no effect on his current compensation from bonus and performance plans and the manager is expected to select negative accruals to increase the present value of his expected future compensation from bonus and performance plans.
10. When earning before discretionary accruals is in the range of the lower and upper bound in bonus but it is higher than the upper bound in performance plans (B_{MP_U}), the manager selects positive accruals. Accruals have no effect on his current compensation from performance plans and the manager is expected to select positive accruals to increase his current compensation from bonus. The present value and certainty advantages of increasing his current bonus outweigh the increase in expected future awards from bonus and performance plans.
11. When earning before discretionary accruals is higher than the upper bound defined in both bonus contract and performance plans (B_{UP_U}), the manager selects income decreasing accruals (negative accruals). Accruals have no effect on his current compensation from bonus and performance plans and the manager is expected to select negative accruals to increase the present value of his expected future compensation from bonus and performance plans.

Thus, with the existence of short and long term earning based compensation "bonus schemes and performance plans," the manager manipulates the discretionary accruals to maximize his award from bonus and performance plans. The model which considers the parameters of both bonus schemes and performance plans predicts the same sign of accruals as in the model which considers the parameters of bonus plans only (Healy, 1985) in all the cases except for the cases $B_{L^*P_M}$ and $B_{U^*P_M}$. For the cases $B_{L^*P_M}$ and $B_{U^*P_M}$, the model which includes both bonus and performance plans predicts positive accruals in certain years and negative accruals in certain years, contrary to the model which includes only bonus plans which predicts negative accruals for all these cases.

The prediction of the bonus model (Healy, 1985) and the prediction of the study's model which considers the parameters of both bonus schemes and performance plans are tested. The results of these tests are provided in Chapter 5.

CHAPTER 4

SAMPLE SELECTION & DATA COLLECTION

The following discussion presents sample selection and collection of financial data.

Sample Selection

The population selected for this study is composed of all companies in the Fortune 1000 list of industrial firms for the year 1984. Companies were included in the sample if the executives of those companies are compensated with both bonus and performance plans during the 1971-1984 period. The reason for the 1971 requirement is that performance plans were first adopted in 1971. The 1985 survey by Towers, Perrin, Forster, and Crosby (TPF&C) indicates that in 1970 none of the largest 100 firms used these plans, by 1984; 65 out of the 100 used them.

A comprehensive list of New York Stock Exchange firms voting on incentive plans was obtained from the Exchange⁵. The list contained the name of each firm, the shareholder meeting date and a brief description of the plans voted upon. Two hundred and three companies were initially identified to have both bonus and performance plans during the 1971-1984 period.

Once these firms had been identified, proxy statements were examined to obtain the details of bonus and performance plans. Each

⁵It was originally intended to include also the American Stock Exchange firms and firms "over the counter". However, only two firms in the American Stock Exchange firms have performance plans. As a result, the research deals only with the New York Stock Exchange Firms.

firm in the sample was required to satisfy both of two criteria: First, the firm publish the details of bonus plans or provide information which make it possible to infer whether earning objectives are met or not. Second, the firm publish the details of performance plans or provide information which make it possible to infer whether earning objectives are fully attained, partially attained, or not attained.

Table 4.1 summarizes the sample selection process. As can be seen, of the two hundred and three companies initially identified to have bonus schemes and performance plans (see Appendix B), one hundred and thirty-three companies are excluded from the sample because the details of bonus and/or performance plans for these companies are not publicly available. Also, the proxy statements of these rejected companies do not provide information which makes it possible to infer the degree of attainment of earning objectives. Thus, the final sample consisted of seventy companies (see Table 4.2). Of the seventy companies, twenty four companies disclose the parameters of both bonus schemes and performance plans. Thirty six companies disclose the parameters of bonus schemes only. Ten companies do not disclose the parameters of both bonus and performance plans. Table 4.3 lists the companies with full disclosure of bonus and performance plan parameters, companies with full disclosure of bonus plans only, and companies which do not disclose both bonus and performance plan parameters.

Since the purpose of having the details of bonus schemes and performance plans is to identify whether earning is below the lower bound, in the range of the lower and upper bound, or above the upper bound, the proxy statements of the companies which do not disclose the

TABLE 4.1

SUMMARY OF THE SAMPLE SELECTION PROCESS

	<u>Number of NYSE Companies</u>
Initial tentative sample (total companies with bonus schemes and performance plans)	203
Companies rejected (companies with no available information on bonus and/or performance plans)	133
Companies with no available information on bonus plans	20
Companies with no available information on performance plans	17
Companies with no available information on bonus and performance plans	96
	<u>133</u>
Companies in the final sample	70
Companies in the final sample with full disclosure of parameters of bonus schemes and performance plans	24
Companies in the final sample with full disclosure of parameters of bonus schemes only	36
Companies in the final sample with no disclosure of parameters of bonus schemes and performance plans	10
	<u>70</u>

TABLE 4.2

COMPANIES IN THE FINAL SAMPLE

Air Products and Chemicals	International Paper Co.
Akzona	Johnson Controls Inc.
Allegheny International	Koppers Co.
Allied Corp.	Macmillan Inc.
American Can Co.	Maryland Cup Corp.
American Cynamid Co.	Mobil Corp.
Ashland Oil	Monstanto Co.
Atlantic Richfield	Nalco Chemical Co.
Baxter Travenol Laboratories	Nashua Corp.
Bendix Corp.	Owens Corning Fiberglass Corp.
Borden	Owens-Illinois Inc.
Burroughs	Philips Petroleum Co.
Cabot Corp.	Pitney Bowes Inc.
Champion International Corp.	Polaroid Corp.
Coca-Cola Bottling Co.	PPG Industries
Colt Industries	Ralston Purina
Combustion Engineering	Revlon Inc.
Cummins Engine	Rexham Corp.
Data Point Corp.	Riegel Textile Corp.
Echlin Mfg. Co.	Rockwell International
Esterline Corp.	Scientific Atlanta Inc.
Exxon	Sealed Power
Fieldcrest Mills	Southwest Forest Industries
Freeport McMoran Inc.	SPS Technologies Inc.
General Dynamics	Squibb Corp.
General Electric Co.	Standard Brands Inc.
General Foods Co.	St. Regis Paper Co.
Harris Corp.	Sun Co.
Hershey Foods Corp.	Tektronix Inc.
Hillenbrand Industries	Texas Instruments
H.J. Heinz	Thiokol Corp.
Honeywell Inc.	Trane Co.
Houghton Mifflin Co.	Union Oil of California
Huffy Corp.	United Technology
International Harvester	Westinghouse Electric Corp.

TABLE 4.3

CLASSIFICATION OF COMPANIES IN THE FINAL SAMPLE

Companies with Full Disclosure of Parameters
of Bonus Schemes and Performance Plans

Air Product & Chemicals
Akzona
Baxter Travenol Laboratories
Bendix
Borden
Cabot Corp.
Colt Industries
Exxon
General Dynamics Corp.
H.J. Heinz
Honeywell Inc.
Huffy
International Paper Co.
Koppers
Macmillan Inc.
Monsanto
Polariod Corp.
Ralston Purina
Revlon
Scientific Atlanta Inc.
Sealed Power
Standard Brands Inc.
Sun Co.
Tektronix

TABLE 4.3

(Continued)

Companies with Full Disclosure of Parameters
Of Bonus Schemes Only

Allegheny International
Allied Corp.
American Can Co.
American Cyanamid
Ashland Oil
Atlantic Richfield
Burroughs
Champion International Corp.
Combustion Engineering
Cummins Engine
Data Point Corp.
Echlin Mfg. Co.
Freeport McMoran Inc.
General Electric Co.
General Foods Co.
Harris Corp.
Hershey Foods Co.
International Harvester
Johnson Controls Inc.
Mobil Corp.
Nashua Corp.
Owens Corning Fiberglass Corp.
Owens-Illinois Inc.
Philips Petroleum Co.
PPG Industries
Riegel Textile Corp.
Rockwell International
Southwest Forest Industries
Squibb Corp.
St. Regis Paper Co.
Texas Instruments
Thiokol Corp.
Trane Co.
Union Oil of California
United Technology
Westinghouse Electric Corp.

TABLE 4.3

(Continued)

Companies with No Disclosure of Parameters
of Bonus Schemes and Performance Plans

Coca-Cola Bottling Co.
Esterline Corp.
Fieldcrest Mills
Hillenbrand Industries
Houghton Mifflin Co.
Maryland Cup Corp.
Naico Chemical Co.
Pitney Bowes Inc.
Rexham Corp.
SPS Technologies Inc.

parameters of bonus and performance plans were examined to determine whether earning objectives were not attained, partially attained, or fully attained.

The proxy statements for the thirty six companies which disclose the parameters of bonus schemes only were examined for the years where the manager is paid his award from performance plans. The proxy statements usually provide information as to whether the earning objectives were not attained, partially attained, or fully attained. If the earning objectives were not attained, this company-year is considered to have earning below the lower bound in performance plans. An example is the 1985 proxy statement of Champion International Corp. "The Committee has determined that the earnings objective for the 1980-1983 performance period was not attained." If the earning objectives were partially attained, this company-year is considered to have earning in the range of the lower and upper bound. An example is the 1982 proxy statement of American Cyanamid Co: "The 1978 performance allotments were paid only to the extent of 30 percent since the company did not attain the maximum cumulative earnings objective during the performance period." If the earning objectives were fully attained, this company-year is considered to have earning higher than the upper bound in performance plans. An example is the 1982 proxy statement of Houghton Mifflin Co.: "The Committee has determined that average annual EPS growth compounded annually over four years through 1981 exceeded the maximum award period objective."

The same procedures which have been used for companies which disclose the parameters of bonus plans only have been followed for the

ten companies which do not disclose the parameters of both bonus and performance plans. If the proxy statement indicates that no annual awards were made for this year, this company year is considered to have earning below the lower bound in the bonus contract. If the proxy statement indicates that annual awards were made this year, this company year is considered to have earning in the range of the lower and upper bound. These companies which do not publish the parameters of bonus contracts limit the transfer to the bonus pool to a percentage of the employees' salaries. Since this information is not publicly disclosed, no upper limit can be estimated for these observations and are recorded as if no upper bound has been specified. An example is the 1981 incentive compensation plan for Houghton Mifflin Co.: "Awards cannot exceed 30% of an employee's base salary. No awards may be made under the plan unless the company achieves a minimum financial performance level established by the Compensation Committee."

Of the seventy companies in the final sample, fifty companies were among the 300 largest industrial firms in 1984 as ranked by sales. Thirty-six companies were among the 150 largest as ranked by sales. Twenty-four companies were among the 100 largest industrial firms. Fourteen companies were among the fifty largest industrial firms. All firms were listed on the New York Stock Exchange. Table 4.4 presents a classification of these firms by industry.

For the companies in the final sample, the useable definitions of earning, the lower and upper bound in bonus and performance plans are recorded. Table 4.5 provides useable bonus plan definitions of earning, the lower bound, and the upper bound. Table 4.6 presents a summary of

TABLE 4.4
INDUSTRY CLASSIFICATION OF SAMPLE FIRMS

Chemicals	9
Electronics, Appliances	6
Petroleum Refining	6
Food	6
Paper, Fiber, and Wood Products	7
Textiles	3
Metal Products	4
Pharmaceuticals	2
Motor Vehicles	4
Office Equipment	4
Metal Manufacturing	2
Beverages	1
Industrial Farm Equipment	3
Aerospace	3
Publishing, Printing	2
Musical Instruments, Toys, Sporting Goods	1
Measuring, Scientific, Photographic Equipment	3
Glass, Concrete, Abrasives, Gypsum	2
Soaps, Cosmetics	1
Furniture	1
	—
Total	<u>70</u>

TABLE 4.5
ANALYSIS OF BONUS SCHEMES

Company	Earning Definitions	Parameters of Lower Bound	Parameters of Upper Bound
Air Products & Chemicals	Net income before extraordinary items increased by taxes and bonus but after deduction of preferred dividends.	Stockholders' investment.	
Akzona	Net income.	Stockholders' equity and cash dividends.	
Allegheny Int'	Pretax profits.	Average pretax profits for 3 years.	
Allied Corp.	Consolidated earning.	Dividend per share.	Excess of consolidated earning over average stockholders' equity.
American Can Co.	Net income.	Average stockholders' equity.	Cash dividends.
American Cyanamid Co.	Net earning after dividends on preferred stocks.	Average common stockholders' equity.	
Ashland Oil Inc.	Income before taxes and bonus.	Total assets as of the end of the year.	
Atlantic Richfield	Net income after taxes before interest and bonus.	Employed capital.	
Baxter Travenol Labs	Earning per share.	5% EPS (earning per share).	15% EPS.
Bendix	Net earning.	Capital employed.	Aggregate dividends.

TABLE 4.5
(Continued)

Company	Earning Definitions	Parameters of Lower Bound	Parameters of Upper Bound
Borden	Net before tax profit.	Average capital investment.	Cash dividends.
Burroughs Corp.	Net earning before interest and bonus.	Average capital employed.	
Cabot Corp.	Return on equity.	7% return on equity.	
Champion Int'l Corp.	Operating income.	Net capital.	Dividends.
Colt Industries	Consolidated net income after preferred stock dividends.	Common stockholders' average equity.	
Combustion Engineering	Net earning before compensation.	Dividends per share.	
Cummins Engine Co.	ROE (return on equity).	ROE = 7.49%.	
Data Point Corp.	Pretax return on invested capital.	8% pretax return on invested capital.	
Echlin Inc.	Income before taxes on income.	Shareholders' equity.	
Exxon	Consolidated net income before interest and bonus.	Capital investment.	
Freeport McMoran	ROE.	6% ROE.	
General Dynamics	Consolidated profit before income taxes.	Stockholders' equity.	

TABLE 4.5

(Continued)

<u>Company</u>	<u>Earning Definitions</u>	<u>Parameters of Lower Bound</u>	<u>Parameters of Upper Bound</u>
General Electric Co.	Net consolidated earning before interest and bonus.	Average consolidated capital investment.	
General Foods Corp.	Consolidated earning before income taxes, interest, and bonus.	Net capital.	Dividends.
Harris Corp.	Net income.	Net worth.	
Hershey Foods Corp.	Income before taxes and interest.	Total invested capital.	
H.J. Heinz	Consolidated pretax net income.	Return on shareholders' equity.	
Honeywell Inc.	Consolidated income before taxes and bonus.	Dividends.	
Huffy	ROE.	20% ROE.	40% ROE.
Int'l Harvester	Net profit.	Net profit and year end assets.	Net profit and average assets.
Int'l Paper Co.	Net earning.	Shareowners' equity.	Cash dividends.
Johnson Controls Inc.	ROE.	15% ROE.	40% ROE.
Koppers	Income before interest, bonus, taxes, and extraordinary items.	Invested capital.	Cash dividends.
Macmillan Inc.	Primary earning per share from continuing operations and before extraordinary items.	EPS = \$1.10.	

TABLE 4.5

(Continued)

Company	Earning Definitions	Parameters of Lower Bound	Parameters of Upper Bound
Mobil Corp.	Net income before interest and bonus.	Capital investment and dividends.	
Monsanto Co.	Income after taxes before extraordinary items increased by interest charged on debt and bonus and provision for income taxes for the year.	Average shareholders' equity.	
Nashua Corp.	Consolidated net income.	Stockholders' equity.	Cash dividends.
Owens Corning Fiberglass	Income before taxes, interest, and bonus.	Capital invested.	
Owens-Illinois	After tax return on equity.	8% ROE.	
Phillips Petroleum	Net income before interest and bonus.	Borrowed and invested capital.	
Polaroid Corp.	Consolidated net profit before taxes.	Stockholders' equity.	
PFG Industries	Consolidated pre-tax earning increased by bonus.	Shareholders' equity.	Cash dividends.
Ralston Purina	Earning before taxes and bonus.	Capital invested.	
Revlon	Consolidated net profit before income taxes.	Minimum net profit of 100 million dollars.	

TABLE 4.5
(Continued)

<u>Company</u>	<u>Earning Definitions</u>	<u>Parameters of Lower Bound</u>	<u>Parameters of Upper Bound</u>
Riegel Textile Corp.	Consolidated net income before bonus and extraordinary items.	Stockholders' equity.	Income before taxes.
Rockwell Int'l	Net earning.	100 million dollars.	Dividends.
Scientific Atlanta Inc.	Profit before taxes.	Stockholders' equity.	
Sealed Power	Net profits.	Consolidated net worth.	Difference between net profits and net worth.
Southwest Forest Ind.	Pretax earning.	Stockholders' equity.	
Squibb	Net income before taxes and bonus.	Stockholders' equity.	
Standard Brands Inc.	Consolidated net income after income taxes.	Net worth and dividends on preferred stocks.	
St. Regis Paper Corp.	Earning before taxes.	Stockholders' equity.	
Sun Co.	Consolidated income before taxes.	Consolidated stockholders' equity.	
Tektronix	Operating income.	Adjusted pretax profit.	
Texas Instruments	Income before interest and bonus.	Net capital.	Cash dividends.
Thiokol Corp.	Net income before taxes.	Net worth.	

TABLE 4.5

(Continued)

<u>Company</u>	<u>Earning Definitions</u>	<u>Parameters of Lower Bound</u>	<u>Parameters of Upper Bound</u>
Trane Co.	Pre-tax return on stockholders' equity.	12% ROE.	35% ROE.
Union Oil Co. of Calif.	Net earning after taxes excluding extraordinary items.	Shareholders' equity.	
United Technology Corp.	Consolidated earning before extraordinary items and before bonus but after taxes.	\$1 dividend per share.	Earning
Westinghouse Electric	Net income before taxes and bonus.	\$.25 cash dividend to common stocks.	

TABLE 4.6

SUMMARY OF BONUS SCHEMES DEFINITIONS

Total Number of Sample Companies		70
Number of Companies with Full Disclosure of Bonus Plan Definition		60
Number of Companies Subject to an Upper Bound		20
	<u>Number of Observations</u>	<u>Percentage of Observations</u>
<u>Earning Definitions</u>		
Income Before Taxes, Bonus, Interest, and Extraordinary Items	34	57.0
Net Earning	12	20.0
Return on Equity	8	13.3
Earning Per Share	2	3.3
Operating Income	2	3.3
Income After Deductions for Preferred Dividends	2	3.3
Total	<u>60</u>	<u>100.2%</u>
<u>Lower Bound Definitions</u>		
Stockholders' Equity	20	33.3
Stockholders' Equity Plus Long Term Liabilities	12	20.0
Return on Equity	10	17.0
Dividends Per Share	5	8.0
Earning Per Share	3	5.0
Total Assets	2	3.0
Other	8	13.3
Total	<u>60</u>	<u>99.6%</u>
<u>Upper Bound Definitions</u>		
Cash Dividends	36	60.0
Other	24	40.0
Total	<u>60</u>	<u>100.0%</u>

useable bonus plan definitions of earning, the lower bound, and the upper bound. Of the seventy companies in the final sample, sixty companies fully disclose bonus plan definitions and twenty of these sixty companies have bonus schemes subject to both lower and upper bound on earnings. Earning is defined as earning before taxes, bonus, interest, and extraordinary items for 57 percent of the company-years. The lower bound is defined as a percentage of stockholders' equity for 33 percent of the observations and as a percentage of stockholders' equity plus long term liabilities for 20 percent of the observations. The upper bound is commonly related to cash dividend payments.

The performance measures used in performance plans, the lower bound and the upper bound are recorded. In addition, information about the type of performance plans, length of performance period, and frequency of grants are also recorded. Table 4.7 provides useable performance plan definitions of earning, lower bound, upper bound, type of performance plans, length of performance period, and frequency of grants. Table 4.8 presents a summary of useable performance plan definitions of earning, the type of performance plans, the length of performance period and frequency of grants. All the seventy companies in the final sample fully disclose the performance measures used, type of performance plans, length of performance period, and frequency of grants. Twenty-four companies fully disclose the lower and upper bound on earnings. Performance is measured as a function of earning per share for 51 percent of the observations. Performance units are used for 64 percent of the sample firms. The length of the performance period is three years for 50 percent of the sample firms. A new performance period is started annually for 70 percent of the sample firms.

TABLE 4.7

ANALYSIS OF PERFORMANCE PLANS

Company	Performance Measures	Lower Bound	Upper Bound	Length of Performance Period	Frequency of Grants	Type
Air Products & Chemicals	EPS (earning per share)	8% cumulative compound growth during the performance period	12% cumulative compound growth	4 years	Every 2 years	Units
Akzona	Fully diluted EPS	6% per year	10% per year	5 years	Every 2 years	Units
Allegheny Int'l	Multiple			2 years	Annually	Units
Allied Corp.	EPS			3 years	Annually	Units
Ashland Oil Co.	Multiple			3 and 4 years	Annually	Units
Atlantic Richfield	ROE			5 years	Annually	Units
American Can Co.	Cumulative EPS and average ROE (return on equity)			2, 3, 4 and 5 years	Annually	Units
American Cynamid Co.	EPS			4 years	Annually	Shares & Units

TABLE 4.7

(Continued)

Company	Performance Measures	Lower Bound	Upper Bound	Length of Performance Period	Frequency of Grants	Type
Baxter Travenol Labs	EPS and ROE	10% growth in EPS and ROE of 11% as of the last year	15% growth in EPS and ROE of 13.5% as of the last year	3 years	Every 2 years	Shares
Bendix Corp.	EPS before extraordinary items	6% growth		3 years	Annually	Units
Borden	EPS	7% growth	10% growth	3 years	Annually	Units
Burroughs Corp.	EPS and ROI (return on investment)			4 years	Annually	Units
Cabot Corp.	EPS	8% growth	16% growth	6 years	Every 2	Shares
Champion Int'l Corp.	Fully diluted EPS			4 years	Annually	Units
Coca-Cola Bottling Co. of N.Y.	EPS and return on assets employed			3 years	Annually	Units
Colt Industries	Earning after taxes	Minimum of \$50 each year	Maximum of \$100 million each year	5 years	Annually	Shares

TABLE 4.7
(Continued)

Company	Performance Measures	Lower Bound	Upper Bound	Length of Performance Period	Frequency of Grants	Type
Combustion Engineering	Multiple			3 years	Every 2 years	Units
Cummins Engine Co.	ROE			5 years	Annually	Units
Data Point Corp.	EPS and ROE			3 years	Annually	Units
Echlin Inc.	EPS			3 years	Every 2 years	Units
Esterlin Corp.	Multiple			3 years	Annually	Units
Exxon	EPS		Maximum cumulative net income per share of \$25 over 5 years	5 years	Annually	Units
Fieldcrest Mills	EPS			4 years	Annually	Shares
Freeport McMoran	Multiple			5 years	Annually	Units
General Dynamics	ROE	20% average ROE	30% average ROE	4 years	Annually	Shares
General Electric Co.	EPS			5 years	Every 2 years	Units
General Foods Corp.	Multiple			3 years	Every 2 years	Units

TABLE 4.7

(Continued)

Company	Performance Measures	Lower Bound	Upper Bound	Length of Performance Period	Frequency of Grants	Type
Harris Corp.	ROE			3 years	Annually	Units
Hershey Foods Corp.	Multiple			3 years	Annually	Units
Hillenbrand Ind.	ROE			5 years	Annually	Shares
H.J. Heinz	EPS	5% growth	10% growth	3 years	Annually	Units
Honeywell Inc.	EPS	9% growth	17% growth	4 years	Every 2 years	Shares
Houghton Mifflin Co.	EPS			4 years	Every 2 years	Shares
Huffy Corp.	EPS	4% growth	15% growth	3 years	Annually	Shares & Units
Int'l Harvester	Multiple			5 years	Annually	Shares
Int'l Paper Co.	EPS	10% growth	25% growth	3 years	Every 3 years	Shares
Johnson Control Inc.	ROE			3 years	Annually	Units
Koppers Co.	EPS	10% growth	15% growth	3 years	Every 3 years	Shares
Macmillan Inc.	EPS	6% growth		3 years	Annually	Units
Maryland Cup Corp.	EPS			5 years	Annually	Units
Mobil Corp.	Multiple			4 years	Annually	Units

TABLE 4.7

(Continued)

Company	Performance Measures	Lower Bound	Upper Bound	Length of Performance Period	Frequency of Grants	Type
Monstanto Co.	EPS	7% growth	10% growth	5 years	Annually	Units
Nalco Chemical Co.	EPS			3 years	Annually	Shares
Nashua Corp.	EPS			3 years	Annually	Shares
Owens Corning Fiberglass Corp.	Multiple			4 years	Annually	Units
Owens-Illinois Inc.	ROE			3 years	Annually	Shares
Phillips Petroleum	Multiple			5 years	Every 2 years	Units
Pitney Bowes Inc.	Multiple			5 years	Annually	Units
Polaroid Corp.	EPS	10% growth	15% growth	3 or 4 years	Annually	Shares
PPG Industries	EPS			4 years	Annually	Shares
Ralston Purina	Consolidated pre-tax earning	7% growth	10% growth	4 years	Every 3 years	Units
Revlon Inc.	EPS	12% growth	17% growth	3 years	Every 2 years	Units
Rexham Corp.	EPS			3 years	Annually	Shares
Riegel Textile Corp.	Multiple			5 years	Annually	Shares

TABLE 4.7
(Continued)

Company	Performance Measures	Lower Bound	Upper Bound	Length of Performance Period	Frequency of Grants	Type
Rockwell Int'l	EPS before extraordinary items and taxes.			3 years	Annually	Shares & Units
Scientific Atlanta Inc.	EPS after taxes	EPS=364% of EPS for base period	EPS=422% of EPS for base period	3 years	Annually	Shares
Sealed Power	EPS	8% growth	18% growth	4 years	Every 2 years	Units
Southwest Forest Industries	EPS			5 years	Annually	Units
SPS Technologies	ROE and earning			3 years	Annually	Units
Squibb Corp.	EPS			3 years	Annually	Units
Standard Brands Inc.	EPS	6% growth	14% growth	4 years	Every 2 years	Units
St. Regis Paper Co.	Multiple			3 years	Annually	Shares
Sun Co.	ROE and EPS	6% growth	10% growth	4 years	Every 2 years	Units & Shares
Tektronix Inc.	Return on operations	24% growth	32% growth	3 years	Every 2 years	Units
Texas Instruments	Multiple			3 years	Annually	Units
Thiokol Corp.	Multiple			4 years	Annually	Shares

TABLE 4.7
(Continued)

Company	Performance Measures	Lower Bound	Upper Bound	Length of Performance Period	Frequency of Grants	Type
Trane Co.	ROE			4 years	Annually	Units
Union Oil of Calif.	ROE			4 years	Every 2 years	Shares
United Technology	Multiple			3 years	Annually	Units
Westinghouse Electric Corp	EPS and			4 years	Every 2 years	Shares

TABLE 4.8

SUMMARY OF PERFORMANCE PLAN DEFINITIONS

Total Number of Sample Companies		70
Number of Companies with Full Disclosure of Performance Measures, Type of Performance Plans, Length of Performance Period, and Frequency of Grants		70
Number of Companies with Full Disclosure of Lower and Upper Bound		24
	<u>Number of Observations</u>	<u>Percentage of Observations</u>
<u>Performance Measures</u>		
Earning Per Share	36	51.4
Return on Equity	10	14.3
Earning Per Share and Return on Equity	2	2.8
Earning Per Share and Return on Investment	2	2.8
Earning Multiple	3	4.3
	17	24.3
Total	<u>70</u>	<u>99.9%</u>
<u>Type of Performance Plans</u>		
Units	45	64.0
Shares	21	30.0
Both	4	6.0
Total	<u>70</u>	<u>100.0%</u>
<u>Length of Performance Period</u>		
Three Years	35	50.0
Four Years	19	27.0
Five Years	15	21.0
Six Years	1	2.0
Total	<u>70</u>	<u>100.0%</u>
<u>Frequency of Grants</u>		
Annually	49	70.0
Every Two Years	18	26.0
Every Three Years	3	4.0
	<u>70</u>	<u>100.0%</u>

Data Collection

Earnings, and the upper and lower bounds for each company-year are estimated using actual bonus and performance plans definitions. The data required to compute these variables are collected from the Moody's Industrial Manual. Then each earning observation is classified into one of eleven portfolios (1) $B_L P_L$, (2) $B_M P_L$, (3) $B_U P_L$, (4) $B_L P_{M_E}$, (5) $B_L P_{M_{NE}}$, (6) $B_M P_M$, (7) $B_U P_{M_E}$, (8) $B_U P_{M_{NE}}$, (9) $B_L P_U$, (10) $B_M P_U$, and (11) $B_U P_U$.

In these portfolios, B_L or P_L comprises observations for which the bonus contract or performance plan lower bound is binding. Observations should be assigned to B_L or P_L when cash flow from operations plus nondiscretionary accruals are less than the lower bound. Since nondiscretionary accruals are unobservable, earnings will be used as a proxy. Thus, company years are assigned to B_L or P_L when earnings are less than the lower bound.

B_U or P_U comprises observations for which the bonus or performance plans upper limit is binding. Observations should be assigned to B_U or P_U when earning before discretionary accruals (cash flow from operations plus nondiscretionary accruals) exceed the upper bound defined in the bonus and performance plans. Since nondiscretionary accruals are unobservable, cash flows will be used as a proxy for the sum of cash flows and nondiscretionary accruals. Thus, company years are assigned to B_U or P_U when cash flows from operations exceed the upper bound defined in the bonus or performance plan.

B_M or P_M contains observations where neither the upper nor lower bounds are binding. Company years that are not assigned to B_L , or B_U , or P_L or P_U , are included in B_M , P_M .

Appendix C presents the description of bonus schemes and performance plans for each of the twenty-four companies which fully disclose the parameters of bonus schemes and performance plans, the estimation of earning, lower and upper bounds for each company-year, and the portfolio to which each company-year is assigned. For these companies, actual bonus and performance plan definitions and parameters are used to estimate earnings, lower and upper bounds.

Appendix D presents the description of bonus schemes and performance plans for each of the thirty-six companies which disclose the parameters of bonus schemes and do not disclose the parameters of performance plans, the estimation of earning, lower and upper bounds for each company-year based on bonus plan definitions, and information as to the degree of attainment of earning objectives in performance plans, and the portfolio to which each company-year is assigned. For these companies, the proxy statements were examined to see whether the earning objectives in performance plans were not attained, partially attained, or fully attained. If the earning objectives were not attained, this company-year is considered to have earning below the lower bound. If the earning objectives were partially attained, this company-year is considered to have earning in the range of the lower and upper bound. If the earning objectives were fully attained, this company-year is considered to have earning higher than the upper bound.

Appendix E provides the description of bonus schemes and performance plans for each of the ten companies with no disclosure of parameters of bonus schemes and performance plans, information as to the

degree of attainment of earning objectives in bonus and performance plans, and the portfolio to which each company-year is assigned.

Appendix F presents the seventy companies in the final sample and the type of portfolio for each company-year using the parameters of both bonus schemes and performance plans. Table 4.9 summarizes the number of observations (company-years) assigned to each of the portfolios. Table 4.9 indicates that the total number of company-years is 204. Earning is below the lower bound in bonus (B_L) for 25 percent of the total company-years. It is in the range of the lower and upper bound in bonus (B_M) for 65 percent of the company-years. While it is above the upper bound (B_U) for 10 percent of the company-years. Earning is below the lower bound in performance plans (P_L) for 62% of the total observations. It is in the range of the lower and upper bound in performance plans (P_M) for 27% of the total observations. While it is above the upper bound in performance plans (P_U) for 11% of the total company-years. The number of company-years assigned to portfolio $B_L P_L$, $B_M P_L$, $B_U P_L$, $B_L P_M$, $B_M P_M$, $B_U P_M$, $B_L P_U$, $B_M P_U$, and $B_U P_U$ are 42 (21% of the total company-years), 70 (34%), 14 (7%), 6 (3%), 43 (21%), 19 (9%), 14 (7%), 6 (3%), and 1 (.5%) respectively.

Table 4.10 summarizes the number of observations (company-years) assigned to each of the portfolios for companies subject to both lower and upper bound in bonus and performance plans. Twenty companies were identified to have plans with both lower and upper bound in bonus and performance plans. Table 4.10 indicates that the total number of company-years is 64. Earning is below the lower bound in bonus (B_L) for 34% of the total company-years. It is in the range of the lower and

TABLE 4.9

SUMMARY OF RESULTS OF ASSIGNING EARNING OBSERVATIONS
FOR EACH COMPANY-YEAR TO THE PORTFOLIOS
(TOTAL COMPANIES IN THE FINAL SAMPLES)

	P_L	P_M	P_U	Row Total	
Number of Observation Total %	42 21%	6 3%	3 1.5%	51 25%	B_L
Number of Observation Total %	70 34%	43 21%	19 9%	132 65%	B_M
Number of Observation Total %	14 7%	6 3%	1 .5%	21 10%	B_U
Column Total	126 62%	55 27%	23 11%	204 100%	

* The number of observations originally assigned to $B_{M^P_L}$ and $B_{M^P_M}$ is 74 and 52 observations respectively. For the purpose of statistical testing, a small number of observations has been excluded from these two portfolios because of the outliers. This procedure does not eliminate any companies from the sample but reduces the number of time series observations for some companies.

TABLE 4.10

SUMMARY OF RESULTS OF ASSIGNING EARNING OBSERVATIONS
 FOR EACH COMPANY-YEAR TO THE PORTFOLIOS
 (COMPANIES SUBJECT TO BOTH LOWER AND UPPER BOUND
 IN BONUS AND PERFORMANCE PLANS)

	P_L	P_M	P_U	Row Total	
Number of Observation Total %	18 28%	3 5%	1 1.5%	22 34%	B_L
Number of Observation Total %	10 16%	7 11%	4 6%	21 33%	B_M
Number of Observation Total %	14 22%	6 3%	1 1.5%	21 33%	B_U
Column Total	42 66%	16 25%	6 9%	64 100%	

upper bound in bonus (B_M) for 33% of the total company-years. While it is above the upper bound (B_U) for 33% of the total company-years. Earning is below the lower bound in performance plans (P_L) for 66% of the total company-years. It is in the range of the lower and upper bound in performance plans (P_M) for 25% of the total company-years. While it is above the upper bound in performance plans (P_U) for only 9% of the total company-years. The number of company-years assigned to portfolio B_{LP_L} , B_{MP_L} , B_{UP_L} , B_{LP_M} , B_{MP_M} , B_{UP_M} , B_{LP_U} , B_{MP_U} , and B_{UP_U} are 18 (28% of the total company-years), 10 (16%), 14 (22%), 3 (5%), 7 (11%), 6 (9%), 1 (1.5%), 4 (6%), 1 (1.5%) respectively.

Accruals are estimated by the difference between reported accounting earnings and cash flow from operations. Cash flows are working capital from operations (reported in the funds statement) less changes in inventory and receivables, plus changes in payable and income taxes payable. Thus, accruals are computed as⁶:

$$Acc_t = -DEP_t - XI_t \cdot D_1 + \Delta AR_t + \Delta INV_t - \Delta AP_t - \left\{ \Delta TP_t + DEF_t \right\} \cdot D_2$$

where:

DEP_t = depreciation in year t;

XI_t = extraordinary items in year t,

ΔAR_t = accounts receivable in year t less accounts receivable in year t-1,

ΔINV_t = inventory in year t less inventory in year t-1,

⁶This model for estimating accruals is used by Healy (1985).

- AP_t = accounts payable in year t less accounts payable in year $t-1$,
- TP_t = income taxes payable in year t less income taxes payable in year $t-1$,
- DEF_t = deferred income tax expense (credit) for year t
- D_1 = 1 if earnings are defined after extraordinary items
= 0 if earnings are defined before extraordinary items
- D_2 = 1 if earnings are defined after income taxes
= 0 if earnings are defined before income taxes

CHAPTER 5

EMPIRICAL TESTS AND RESULTS

Chapter 4 presented the sample selection and data collection. This chapter presents the empirical tests employed and discusses the results of the empirical tests.

The research hypothesis predicts that the manager manipulates the discretionary accruals to maximize his award from bonus and performance plans. Healy (1985) has focused on the impact of short term bonus plans on the choice of discretionary accruals, the sample was limited to firms whose form of remuneration related to accounting earnings is a bonus plan, and companies are excluded from the sample during years that bonus and performance plans are concurrently in operation. In this study, in hand, it is argued that performance plans provide the manager with additional compensation factor to consider when selecting accounting procedures. The model derived in Chapter 3 predicts that with the existence of long term performance plans, the manager acts to maximize the payoff from both bonus schemes and performance plans. The manager observes earning before discretionary accruals, the targets and parameters of bonus and performance plans, and selects discretionary accruals to maximize his award from both bonus and performance plans. To empirically test the study's model, a sample of companies which compensate their executives with both bonus schemes and performance plans is collected (see Chapter 4).

This chapter presents the following: (1) retest of Healy's model (which considers the impact of the parameters of bonus plans on the choice of discretionary accruals) on this sample of firms which

compensate their executives with both bonus schemes and performance plans, and (2) tests of the model derived in Chapter 3 (which considers the impact of the parameters of both bonus schemes and performance plans on the choice of discretionary accruals).

I. Retest of Healy's Model

Healy's model predicts the sign and magnitude of discretionary accruals as a function of the parameters of the bonus plan (see details in Chapter 3). The model predicts that the manager selects income decreasing accruals (negative accruals) in the following cases: (1) when earning before discretionary accruals is below the lower bound in bonus (B_L), (2) when earning before discretionary accruals is higher than the upper bound in bonus (B_U). The manager selects income increasing accruals (positive accruals) in the cases where earning before discretionary accruals is in the range of the lower and upper bound in bonus (B_M). Thus, the Healy's model predicts negative accruals in the cases B_L and B_U , while it predicts positive accruals in the cases of B_M . According to Healy, total accruals are used as a proxy for discretionary accruals. Total accruals are the depreciation accruals, changes in inventory, changes in accounts receivable, changes in accounts payable, changes in taxes payable, and extraordinary items.

Since the depreciation accruals are always negative and a large number, it is expected that the total accruals are strongly correlated with the depreciation accruals than other subcomponents of accruals (changes in inventory, changes in accounts receivable, changes in account payable, changes in taxes payable and extraordinary items). To

examine this possibility, correlation coefficients between total accruals and the subcomponents of accruals were computed. As expected, depreciation accruals are more highly correlated with total accruals ($r = .90$). The correlation between total accruals and changes in inventory, changes in accounts receivable, changes in accounts payable, changes in taxes payable and extraordinary items are .40, .20, .20, .20, and .06 respectively. The results are presented in Table 5.1.

Given this high correlation between total accruals and depreciation accruals, the Healy's model is retested with the depreciation accruals included in the total accruals and after excluding the depreciation accruals.

Retest of Healy's Model: With the Depreciation Accruals Included in the Total Accruals

Table 4.9 (see Chapter 4) provided a summary for the number of observations (company-years) assigned to each of the portfolios. The total number of company-years is 204. Earning is below the lower bound in bonus (B_L) for 25 percent of the total company-years. It is in the range of the lower and upper bound in bonus (B_M) for 65 percent of the company-years. While it is above the upper bound (B_U) for 10 percent of the company-years.

The incidence of positive and negative accruals for portfolios B_L , B_M , and B_U are determined. A chi-square test is employed to test the significance of the difference in the incidence of negative and positive accruals for the portfolios. Also, the t-statistics are employed to

TABLE 5.1
CORRELATION BETWEEN TOTAL ACCRUALS AND THE
SUBCOMPONENTS OF ACCRUALS

	<u>Total Accruals</u>
Depreciation (DEP)	.90
Changes in Inventory (Δ INV)	.40
Changes in Accounts Receivable (Δ AR)	.20
Changes in Accounts Payable (Δ AP)	.20
Changes in Taxes Payable (Δ TP + DEF)	.20
Extraordinary Items	.06

test the significance of the difference in the mean accruals between the portfolios.

Table 5.2 shows the results of employing the chi-square test for the difference in the incidence of positive and negative accruals between portfolios B_L , B_M , and B_U . The table also provides the results of employing the t-test for the mean accruals between the three portfolios. The data in Table 5.2 indicates that there is a higher proportion of negative accruals for portfolio B_L and B_U than for portfolio B_M . The chi-square test for the difference in the incidence of positive and negative accruals is not statistically significant. However, the results for the mean accruals provide stronger support for the theory. The mean accruals for portfolio B_M is greater than the mean accruals for portfolio B_L and B_U . Thus, managers are more likely to select income decreasing accruals when earning is below the lower bound in bonus (B_L) and when earning is above the upper bound in bonus (B_U), while they are more likely to select income increasing accruals when earning is in the range of the lower and upper bound in bonus (B_M). The t-statistic for the difference in the mean accruals between B_L and B_M is not significant. The t-statistic for the difference in the mean accruals between B_M and B_U is significant at the .03 level. This result for portfolio B_U provides strong evidence of managers' tendency to maximize their compensations. It is possible that without any opportunistic behavior of managers, firms with unusually low earnings in a year (B_L) could have a greater incidence of negative accruals and low mean accruals. However, the results of greater incidence of negative accruals and low mean accruals for portfolio B_U when earning is

TABLE 5.2

SUMMARY OF ACCRUAL RESULTS FOR PORTFOLIOS B_L , B_M , B_U
(WITH THE DEPRECIATION ACCRUALS INCLUDED IN THE TOTAL ACCRUALS)

CHI-SQUARE TEST

Portfolio	Proportion of Accruals with Given Sign		Number of Company-Years
	Positive	Negative	
B_L	.25	.75	51
B_M	.28	.72	132
B_U	.20	.80	21
χ^2 (d.f. = 2)		.6166	Significance Level .7347

T-TEST

Portfolio	Mean Standardized Accruals	Level of Significance for a One Tail T-Test	Number of Company-Years
B_L	-.0315	(.3393)	51
B_M	-.0263	(.0327)	132
B_U	-.0562		21

unusually high provides strong evidence on the opportunistic behavior of managers.

Thus, the results of retesting Healy's model on this sample of firms with both bonus schemes and performance plans are consistent with the results reported by Healy (1985) that managers are more likely to select negative accruals when the lower and upper bound of their bonus are binding than when it is not. In addition, the results provide support to the argument presented in this study that the existence of long term performance plans does not control the manager's incentives to manipulate accounting earnings and accruals to inflate their compensations.

Retest of Healy's Model: After Excluding the Depreciation Accruals

Given the high correlation between total accruals and depreciation accruals (see Table 5.1), the tests are replicated after excluding the depreciation accruals from total accruals to test the prediction of Healy's model with other subcomponents of accruals (changes in inventory, changes in accounts receivable, changes in accounts payable, changes in taxes payable and extraordinary items).

Table 5.3 provides the results for portfolios B_L , B_M , and B_U . There is a higher proportion of negative accruals for portfolio B_U (when earning is above the upper bound in bonus) than for portfolio B_M (when earning is in the range of the lower and upper bound). However, the proportion of negative accruals for portfolio B_L (when earning is below the lower bound in bonus) is less than the proportion of negative accruals for B_M . A result which is inconsistent with the prediction.

TABLE 5.3

SUMMARY OF ACCRUAL RESULTS FOR PORTFOLIOS B_L , B_M , B_U

(AFTER EXCLUDING THE DEPRECIATION ACCRUALS)

CHI-SQUARE TEST

Portfolio	Proportion of Accruals with Given Sign		Number of Company-Years
	Positive	Negative	
B_L	.59	.41	51
B_M	.52	.48	132
B_U	.45	.55	21
χ^2 (d.f. = 2)		1.2335	Significance Level .5397

T-TEST

Portfolio	Mean Standardized Accruals	Level of Significance for a One Tail T-Test	Number of Company-Years
B_L	.0127	(.3604)	51
B_M	.0167	(.1229)	132
B_U	-.0004		21

However, these results could be because of misclassifying some observations to B_M instead of B_U when there is an informal upper bound in bonus. The results of the mean accruals support the prediction of the bonus model. The mean accruals for portfolio B_M is greater than the mean accruals for portfolio B_L and B_U although the t-statistics are not statistically significant.

In summary, the results obtained after excluding the depreciation accruals are consistent with the results obtained when the depreciation accruals are included. However, the results obtained when the depreciation accruals are included are stronger.

II. Tests of the Study's Model

The study's model predicts the sign and magnitude of discretionary accruals as a function of the parameters of both the bonus schemes and performance plans. The model predicts that the manager manipulates the discretionary accruals to maximize his award from bonus and performance plans. The manager observes earning before discretionary accruals and the targets and parameters of bonus schemes and performance plans, and selects discretionary accruals to maximize his payoff from bonus and performance plans.

The research hypothesis, restated, predicts that the manager selects income decreasing accruals (negative accruals) in the following cases: (1) when earning before discretionary accruals is below the lower bound defined in both bonus contract and performance plans (B_{LP_L}), (2) when earning before discretionary accruals is higher than the upper bound in bonus but lower than the lower bound in performance plans

(B_{uP_L}) , (3) when earning before discretionary accruals is below the lower bound in bonus but in the range of the lower and upper bound in performance plans in the years where there is no performance plan elapsed $(B_{LP_{M_{NE}}})$, (4) when earning before discretionary accruals is higher than the upper bound in bonus but in the range of the lower and upper bound in performance plan in the years where there is no performance plan elapsed $(B_{uP_{M_{NE}}})$, (5) when earning before discretionary accruals is below the lower bound defined in bonus but higher than the upper bound defined in performance plans (B_{LP_u}) , and (6) when earning before discretionary accruals is higher than the upper bound defined in both bonus contract and performance plans (B_{uP_u}) . The manager is expected to select income increasing accruals (positive accruals) in the following cases: (1) when earning before discretionary accruals is in the range of the lower and upper bound in bonus but it is lower than the lower bound in performance plans (B_{MP_L}) , (2) when earning before discretionary accruals is below the lower bound in bonus but in the range of the lower and upper bound in performance plans in the years where there is a performance plan elapsed $(B_{LP_{M_E}})$, (3) when earning before discretionary accruals is in the range of the lower and upper bound in both bonus and performance plans (B_{MP_M}) , (4) when earning before discretionary accruals is higher than the upper bound in bonus but in the range of the lower and upper bound in performance plans in the years where there is a performance plan elapsed $(B_{uP_{M_E}})$, and (5) when earning before discretionary accruals is in the range of the lower and upper bound in bonus but it is higher than the upper bound in performance plans (B_{MP_u}) .

To test these predictions of the hypothesis, total accruals are used as a proxy for discretionary accruals. Earnings, lower bound, and upper bounds for each company-year are estimated using the definitions of bonus contracts and performance plans. Then, each company-year is assigned to one of the portfolios: (1) $B_{L^L}^P$, (2) $B_{M^L}^P$, (3) $B_{U^L}^P$, (4) $B_{L^M}^P$, (5) $B_{L^M}^P$, (6) $B_{M^M}^P$, (7) $B_{U^M}^P$, (8) $B_{U^M}^P$, (9) $B_{L^U}^P$, (10) $B_{M^U}^P$, and (11) $B_{U^U}^P$. (See Chapter 4).

The incidence of negative or positive accruals for the eleven portfolios are determined. A chi-square test is employed to test the significance of the difference in the incidence of negative and positive accruals for the portfolios. Mean accruals deflated by the book value of total assets are calculated for each portfolio. If managers select accruals to increase the value of their bonus and performance plans, there will be higher incidence of negative accruals and lower mean accruals for portfolio $B_{L^L}^P$, $B_{U^L}^P$, $B_{L^M}^P$, $B_{U^M}^P$, $B_{L^U}^P$, $B_{U^U}^P$, than for portfolio $B_{M^L}^P$, $B_{L^M}^P$, $B_{M^M}^P$, $B_{U^M}^P$, and $B_{M^U}^P$.

The empirical tests have been performed with the depreciation accruals included in the total accruals and after excluding the depreciation accruals.

Tests of the Study's Model: With the Depreciation Accruals Included in the Total Accruals

Table 4.9 (see Chapter 4) provided a summary for the number of observations (company-years) assigned to each of the portfolios. The total number of company-years is 204. The number of company-years assigned to portfolio $B_{L^L}^P$, $B_{M^L}^P$, $B_{U^L}^P$, $B_{L^M}^P$, $B_{M^M}^P$, $B_{U^M}^P$, $B_{L^U}^P$, $B_{M^U}^P$,

B_{UPU} are 42 (21% of the total company-years), 70 (34%), 14 (7%), 6 (3%), 43 (21%), 19 (9%), 14 (7%), 6 (3%), and 1 (.5%) respectively.

The incidence of positive and negative accruals is recorded. Table 5.4 shows the portfolios to which earning observations were assigned conditional on the bonus and performance plan parameters, the proportion of observations in each portfolio with positive accruals, and the proportion of observations with negative accruals. Mean accruals deflated by the book value of total assets are calculated for each portfolio. Table 5.5 shows the mean standardized accruals for the portfolios.

The theory is tested by comparing the incidence of positive and negative accruals and also the mean accruals between the portfolios for which negative accruals are expected and the portfolios for which positive accruals are expected. An overall chi-square test was employed to test the significance of the differences in the incidence of negative and positive accruals between the portfolios.

The theory predicts that the manager selects income decreasing accruals (negative accruals) when earning before discretionary accruals is below the lower bound defined in both bonus contract and performance plans (B_{LP_L}). In this case, accruals have no effect on his current compensation from bonus and performance plans and the manager is expected to select negative accruals to increase the present value of his expected future compensation from bonus and performance plans. It also predicts that the manager selects income increasing accruals (positive accruals) when earning before discretionary accruals is in the range of the lower and upper bound in bonus but it is below the lower

TABLE 5.4

CHI-SQUARE TEST FOR THE ASSOCIATION BETWEEN SIGN OF ACCRUALS
AND PARAMETERS OF BONUS SCHEMES & PERFORMANCE PLANS
(WITH DEPRECIATION ACCRUALS INCLUDED IN THE TOTAL ACCRUALS)

Portfolio*	Proportion of Accruals with Given Sign		Number of Company-Years
	Positive	Negative	
$B_{L^P L}$	.24	.76	42
$B_{M^P L}$	.30	.70	70
$B_{U^P L}$	.21	.79	14
$B_{M^P M}$	.21	.79	43
$B_{M^P U}$	.37	.63	19
χ^2 (d.f. = 4) 2.5028 Significance level .6441			

* Portfolios $B_{U^P M_E}$, $B_{U^P M_{NE}}$, $B_{U^P U}$, $B_{L^P M_E}$, $B_{L^P M_{NE}}$, and $B_{L^P U}$ are not included in a chi-square test because no observations were assigned to $B_{U^P M_{NE}}$, one observation was assigned to $B_{U^P U}$, and a small number of observations were assigned to the other portfolios.

TABLE 5.5

MEAN ACCRUALS FOR THE PORTFOLIOS

(WITH THE DEPRECIATION ACCRUALS INCLUDED IN THE TOTAL ACCRUALS)

Portfolio*	Mean Standardized Accruals	Number of Company-Years
$B_{L^P L}$	-.0347	42
$B_{M^P L}$	-.0308	70
$B_{U^P L}$	-.0520	14
$B_{L^P M_E}$	-.0315	4
$B_{L^P M_{NE}}$	-.0949	2
$B_{M^P M}$	-.0277	43
$B_{U^P M_E}$	-.0625	6
$B_{L^P u}$	-.0568	3
$B_{M^P u}$	-.0067	19

* Portfolio $B_{U^P u}$, and $B_{U^P M_{NE}}$ are not shown in this table because only one observation was assigned to $B_{U^P u}$ and no observations were assigned to

$B_{U^P M_{NE}}$.

bound in performance plans (B_{MPL}). In this case, accruals have no effect on his current compensation from performance plans and the manager is expected to select positive accruals to increase his current compensation from bonus. The present value and certainty advantages of increasing his current bonus outweigh the increase in expected future awards from bonus and performance plans. The data provided in Table 5.4 and Table 5.5 indicates that there is a greater incidence of negative accruals for portfolio B_{LL} than for portfolio B_{ML} . In addition, the mean accruals for portfolio B_{LL} is less than the mean accruals for portfolio B_{ML} . The result is consistent with the theory. Managers are more likely to select negative accruals when earning is below the lower bound in bonus and performance plans. While managers are more likely to select positive accruals when earning is in the range of the lower and upper bound in bonus and it is below the lower bound in performance plans.

The third prediction of the theory is that the manager selects income decreasing accruals (negative accruals) when earning before discretionary accruals is higher than the upper bound in bonus but lower than the lower bound in performance plans (B_{UL}). In this case, accruals have no effect on his current compensation from bonus and performance plans and the manager is expected to select negative accruals to increase the present value of his expected future compensation from bonus and performance plans. The data presented in Table 5.4 and 5.5 shows that there is a greater incidence of negative accruals and lower mean accruals for portfolio B_{UL} than for portfolio B_{ML} (where positive accruals are expected). The results are consistent

with the prediction that managers are more likely to select negative accruals when earning is above the upper bound in bonus and it is below the lower bound in performance plans. This result for portfolio B_{uP_L} provides strong evidence of manager's tendency to maximize their compensations. It is possible that without any opportunistic behavior of managers, firms with unusually low earnings in a year (B_{LP_L}) would have had a greater incidence of negative accruals. Also, firms with high earnings in a year (where earning is above the upper bound in bonus, B_{uP_L}) would have had a greater incidence of positive accruals. Thus, the results of greater incidence of negative accruals and low mean accruals for portfolio B_{LP_L} could be expected without any opportunistic behavior of managers. However, the results of negative accruals and low mean accruals for portfolio B_{uP_L} provides strong evidence on the opportunistic behavior of managers. Thus, the results of the tests for portfolios B_{LP_L} , B_{MP_L} , and B_{uP_L} are consistent with the theory.

It is predicted that when earning before discretionary accruals is below the lower bound in bonus but in the range of the lower and upper bound in performance plans (B_{LP_M}), the manager selects positive accruals in the years where there is a performance plan elapsed ($B_{LP_M^E}$) and selects negative accruals in the years where there is no performance plan elapsed ($B_{LP_M^{NE}}$). In the cases $B_{LP_M^E}$, accruals have no effect on his current compensation from bonus and the manager is expected to select positive accruals to increase his current compensation from performance plans. The present value and certainty advantages of increasing his current award from performance plans outweigh the increase in expected future award from bonus and performance plans. In

the cases $B_{L P_{M_{NE}}}$, accruals have no effect on his current bonus, but it increases his expected future award from bonus and performance plans. Only four earning observations were assigned to portfolio $B_{L P_{M_E}}$ and two earning observations were assigned to portfolio $B_{L P_{M_{NE}}}$. The data shows that the mean accruals for $B_{L P_M}$ before the end of the performance period ($B_{L P_{M_{NE}}}$) is less than the mean accruals for $B_{L P_M}$ at the end of the performance period ($B_{L P_{M_E}}$) - see Table 5.5. However, the small number of observations in these two portfolios does not allow a statistical test of the prediction of portfolios $B_{L P_{M_E}}$ and $B_{L P_{M_{NE}}}$. Nevertheless, it can be expected that replicating this study in the future with the availability of more companies with performance plans could increase the number of observations in this portfolio. The trend toward long term performance plans is growing rapidly in the level of compensation, rate of increases and prevalence of plans. Therefore, the number of companies with performance plans is expected to increase every year.

The theory predicts that when earning before discretionary accruals is in the range of the lower and upper bound in both bonus and performance plans ($B_{M P_M}$), the manager selects income increasing accruals (positive accruals). The present value and certainty advantages of increasing his current bonus and performance plans outweigh the increase in expected future award. The data shows that there is a higher proportion of negative accruals for portfolio $B_{M P_M}$ (where positive accruals are expected) than for portfolio $B_{L P_L}$ (where negative accruals are expected), also the proportion of negative accruals for $B_{M P_M}$ is the same as the proportion of negative accruals for $B_{U P_L}$ (where negative accruals are expected) - see Table 5.4. This result is inconsistent

with the theory. However, the results of mean accruals support the theory. Table 5.5 showed that the mean accruals for portfolio B_{MP_M} is greater than the mean accruals for portfolio B_{LP_L} and for portfolio B_{UP_L} . This is consistent with the prediction that managers are more likely to select positive accruals when the lower and upper bound of their bonus and performance plans are not binding.

One possible explanation for having the same proportion of negative accruals for portfolio B_{MP_M} and B_{UP_L} , also having a higher proportion of negative accruals for B_{MP_M} than B_{LP_L} is that the test includes all the plans collected. These plans include plans subject to a lower and upper bound in both bonus and performance plans and plans with lower and upper bound in performance plans but with no upper bound in bonus. It is possible that the compensation committee may enforce an upper bound in bonus when one is not specified in the contract. If this informal bound is binding, some of the observations included in B_{MP_M} could be misclassified and it should be assigned to portfolio B_{UP_M} . The results provided in Table 4.9 and Table 4.10 (see Chapter 4) support this argument. In the case of the total sample (which includes plans subject to a formal upper bound in bonus and also plans not subject to a formal upper bound in bonus) the number of company-years for portfolios B_M and B_U comprise 65% and 10% of the total company-years respectively. In the case of the subset of the sample (which includes only plans subject to a formal upper bound in bonus), portfolio B_M and B_U comprise 33% and 33% of the company-years respectively. Thus, the probability of misclassifying observations to B_M instead of B_U is reduced in the case

of the subset of the sample (which includes only plans subject to a formal upper bound in bonus).

The model predicts that when earning before discretionary accruals is higher than the upper bound in bonus but in the range of the lower and upper bound in performance plans (B_{uP_M}), the manager selects positive accruals in the years where there is a performance plan elapsed ($B_{uP_M}^E$), and selects negative accruals in the years where there is no performance plan elapsed ($B_{uP_M}^{NE}$). In the cases $B_{uP_M}^E$, accruals have no effect on his current compensations from bonus and the manager is expected to select positive accruals to increase his current compensation from performance plans. The present value and certainty advantages of increasing his current award from performance plans outweigh the increase in expected future award from bonus and performance plans. In the cases $B_{uP_M}^{NE}$, accruals have no effect on his current bonus, but it increases his expected future award from bonus and performance plans. Only 6 observations were assigned to portfolio ($B_{uP_M}^E$) and no observations were assigned to $B_{uP_M}^{NE}$. The mean accruals for $B_{uP_M}^E$ is shown in Table 5.5. Because of the number of observations in these two portfolios, the prediction of portfolios $B_{uP_M}^E$ and $B_{uP_M}^{NE}$ was not tested.

When earning before discretionary accruals is below the lower bound defined in bonus but higher than the upper bound defined in performance plans (B_{LP_U}), it is expected that the manager selects negative accruals. In these cases, accruals have no effect on his current compensation from bonus and performance plans and the manager is expected to select negative accruals to increase the present value of his expected future

compensation from bonus and performance plans. Only 3 observations were assigned to this portfolio. The mean accruals for this portfolio is shown in Table 5.5. Because of the small number of observations in this portfolio, the prediction of portfolio B_{LP_U} was not tested.

The model predicts that when earning before discretionary accruals is in the range of the lower and upper bound in bonus but it is higher than the upper bound in performance plans (B_{MP_U}), the manager selects positive accruals. In these cases, accruals have no effect on his current compensation from performance plans and the manager is expected to select positive accruals to increase his current compensation from bonus. The present value and certainty advantages of increasing his current bonus outweigh the increase in expected future awards from bonus and performance plans.

The data indicates that the proportion of negative accruals for this portfolio is less than the proportion of negative accruals for portfolios B_{LP_L} and B_{UP_L} (where negative accruals are expected) - see Table 5.4. Also, the mean accruals for B_{MP_U} is greater than the mean accruals for B_{LP_L} and B_{UP_L} - see Table 5.5. Thus, the result for portfolio B_{MP_U} is consistent with the hypothesis. Managers are more likely to select positive accruals when earning is in the range of the lower and upper bound in bonus and it is above the upper bound in performance plans. While they are more likely to select negative accruals when earning is below the lower bound in bonus and performance plans and also when earning is above the upper bound in bonus and it is below the lower bound in performance plans.

When earning before discretionary accruals is higher than the upper bound defined in both bonus and performance plans ($B_u P_u$), it is expected that the manager selects income decreasing accruals (negative accruals). In these cases, accruals have no effect on his current compensation from bonus and performance plans and the manager is expected to select negative accruals to increase the present value of his expected future compensations from bonus and performance plans. Only one observation was assigned to portfolio $B_u P_u$. As a result, the prediction of portfolio $B_u P_u$ was not tested.

Thus, of the eleven portfolios, portfolios $B_L P_L$, $B_M P_L$, $B_u P_L$, $B_M P_M$, and $B_M P_u$ were tested. While portfolios $B_L P_M$, $B_u P_M$, $B_L P_u$, and $B_u P_u$ were not tested because of the small number of observations for the cases.

An overall chi-square test was employed to test the significance of the difference in the incidence of negative and positive accruals between portfolios $B_L P_L$, $B_M P_L$, $B_u P_L$, $B_M P_M$, and $B_M P_u$. The overall chi-square statistic is not statistically significant - see Table 5.4.

In summary, the results indicate that there is a higher incidence of negative accruals and lower mean accruals for portfolios $B_L P_L$ and $B_u P_L$ than for portfolios $B_M P_L$, $B_M P_M$, and $B_M P_u$. Thus, the results for these portfolios are consistent with the theory. Managers are more likely to select income decreasing accruals in the cases $B_L P_L$ and $B_u P_L$, whereas managers are more likely to select income increasing accruals in the cases $B_M P_L$, $B_M P_M$, and $B_M P_u$. The results of the overall chi-square statistics are not statistically significant. This insignificant result could be a result of the time period being examined and the sample criteria which reduced the sample size. In addition, the total number

of company-years were assigned to eleven portfolios. It can therefore be expected that the number of observations in each portfolio is not large enough to detect significant results.

Tests of the Study's Model: After Excluding the Depreciation Accruals

Given the high correlation between total accruals and depreciation accruals, (see Table 5.1) the tests are replicated after excluding the depreciation accruals to test the prediction of the study's model with other subcomponents of accruals (changes in inventory, changes in accounts receivable, changes in accounts payable, changes in taxes payable, and extraordinary items).

The incidence of positive and negative accruals is recorded. Table 5.6 shows the proportion of observations in each portfolio with positive accruals and the proportion of observations with negative accruals. The data in Table 5.6 shows that there are more negative accruals for the cases B_{LP_L} and B_{UP_L} than for the cases B_{MP_U} . This result is consistent with the theory that the manager selects income decreasing accruals (negative accruals) in the following cases: (1) when earning before discretionary accruals is below the lower bound defined in both bonus contract and performance plans (B_{LP_L}), (2) when earning before discretionary accruals is higher than the upper bound in bonus but lower than the lower bound in performance plans (B_{UP_L}), while the manager selects income increasing accruals (positive accruals) when earning before discretionary accruals is in the range of the lower and upper bound in bonus but it is higher than the upper bound in performance plans (B_{MP_U}). Table 5.6 also shows that there is a higher proportion of

TABLE 5.6

CHI-SQUARE TEST FOR THE ASSOCIATION BETWEEN SIGN OF ACCRUALS
AND PARAMETERS OF BONUS SCHEMES & PERFORMANCE PLANS
(AFTER EXCLUDING THE DEPRECIATION ACCRUALS)

Portfolio	Proportion of Accruals with Given Sign		Number of Company-Years
	Positive	Negative	
B_{LP_L}	.57	.43	42
B_{MP_L}	.50	.50	70
B_{UP_L}	.50	.50	14
B_{MP_M}	.51	.49	43
B_{MP_U}	.63	.37	19
χ^2 (d.f. = 4)	1.4360	Significance level	.8379

negative accruals for portfolios $B_{M^P_L}$ than for $B_{L^P_L}$. In addition, there is no difference in the proportion of negative accruals between $B_{M^P_L}$ and $B_{U^P_L}$. A result which contradicts the prediction that the manager selects positive accruals when earning before discretionary accruals is in the range of the lower and upper bound in bonus but it is lower than the lower bound in performance plans ($B_{M^P_L}$). Furthermore, there is a higher proportion of negative accruals for portfolio $B_{M^P_M}$ (when earning before discretionary accruals is in the range of the lower and upper bound and positive accruals are expected) than for portfolio $B_{L^P_L}$, a result which is also obtained for the total companies in the sample before excluding the depreciation accruals. However, these results for portfolios $B_{M^P_L}$ and $B_{M^P_M}$ could be because the total companies in the sample include plans subject to both lower and upper bound in bonus and performance plans and plans with lower and upper bound in performance plans but with no upper bound in bonus. In these plans, if there is an informal upper bound in bonus, some of the observations included in $B_{M^P_M}$ could be misclassified and it should be assigned to portfolio $B_{U^P_M}$. Thus, the results are generally consistent with the theory. However, the overall chi-square test for the difference in the incidence of negative and positive accruals between portfolios is not statistically significant (see Table 5.6).

Table 5.7 shows the mean standardized accruals for the portfolios. The results in Table 5.7 are also consistent with the theory. The mean accruals for portfolio $B_{L^P_L}$ and $B_{U^P_L}$ are lower than the mean accruals for portfolio $B_{M^P_L}$, $B_{M^P_M}$, and $B_{M^P_U}$. Mean accruals for portfolios $B_{L^P_{M^E}}$, $B_{L^P_{M^NE}}$, $B_{U^P_{M^E}}$, and $B_{L^P_U}$ are also provided in Table 5.7.

TABLE 5.7

MEAN ACCRUALS FOR THE PORTFOLIOS
 (AFTER EXCLUDING THE DEPRECIATION ACCRUALS)

Portfolio	Mean Standardized Accruals	Number of Company-Years
B _L P _L	.0083	42
B _M P _L	.0129	70
B _U P _L	.0039	14
B _L P _M _E	.0062	4
B _L P _M _{NE}	.0006	2
B _M P _M	.0139	43
B _U P _M _E	-.0044	6
B _L P _U	.0906	3
B _M P _U	.0370	19

In summary, the results obtained after excluding the deprecation accruals are consistent with the theory and similar to the results obtained when the depreciation accruals are included.

CHAPTER 6

SUMMARY, CONCLUSION, & SUGGESTIONS FOR FUTURE RESEARCH

The question examined in this research is whether the adoption of long term earning based compensations or 'performance plans' controls the manager's incentives to manipulate earning to inflate their compensations. Earlier studies have focused on the impact of short term earning based compensations or 'bonus plans' on accounting choices (Healy, 1985). It was argued in this study that after the adoption of performance plans, the manager acts to maximize the payoff from bonus schemes and performance plans. The manager observes earning before discretionary accruals, the targets and parameters of bonus and performance plans and selects discretionary accruals to maximize his award from both bonus and performance plans. A model of the relationship between accruals and the parameters of bonus and performance plans was constructed. The model presented possible conditions which face the manager when he considers the parameters of both bonus and performance plans. Then, the model predicted conditions under which managers will select income increasing accruals and also conditions under which managers will select income decreasing accruals.

A chi-square test and a t-test were performed to retest Healy's model (1985) which considers the parameters of bonus plan only, for this sample of firms with both bonus schemes and performance plans. Then, the tests were performed to test the study's model which considers the parameters of both bonus schemes and performance plans. The tests are

performed with the depreciation accruals included in the total accruals and after excluding the depreciation accruals.

The results of retesting the bonus model (Healy, 1985) are consistent with the prediction of the model and with the results reported in Healy (1985). There is a higher incidence of negative accruals and lower mean accruals for portfolios where earning is below the lower bound in bonus plan (B_L), and where earning is above the upper bound in bonus plan (B_U), than for portfolio where earning is in the range of the lower and upper bound in bonus (B_M). Managers are more likely to select negative accruals when the lower and upper bound in bonus are binding than when it is not. The results obtained after excluding the depreciation accruals, are consistent with the bonus model. However, the results obtained when the depreciation accruals are included are stronger.

The results of testing the study's model which considers the parameters of both bonus schemes and performance plans are consistent with the prediction of the model. It was found that there is a higher incidence of negative accruals and lower mean accruals for portfolios where earning is below the lower bound in bonus and performance plans ($B_L P_L$), and where earning is above the upper bound in bonus and below the lower bound in performance plans ($B_U P_L$) than for portfolios where earning is in the range of the lower and upper bound in bonus and below the lower bound in performance plans ($B_M P_L$), where earning is in the range of the lower and upper bound in bonus and performance plans ($B_M P_M$), and where earning is in the range of the lower and upper bound

in bonus and it is above the upper bound in performance plans (B_{MP_u}). Similar results are obtained when the depreciation accruals are excluded.

These results are consistent with the theory. The results of the overall chi-square statistics are not statistically significant. It was pointed out that this result could be a result of the time period being examined and the sample criteria which reduced the sample size and the number of company-years available. In addition, the total number of company-years were assigned to eleven portfolios. It can be expected that the number of observations in each portfolio was not large enough to detect a significant result.

The implication of the results for the debate over the effect of performance plans on the choice of accounting techniques would seem to be that the existence of long term earning based compensations 'performance plans' does not control the manager's incentives to manipulate earning to inflate their compensations. This result is consistent with previous research on the impact of compensation plans on accounting choices. When manager's rewards are conditioned on reported income they have an incentive to select accounting procedures to increase the value of their awards. Evidence consistent with these incentive effects is provided by Hagerman and Zmijewski (1979) on the choice of depreciation method, the method of accounting for the investment tax credit, and the method of amortizing past service costs, by Dhaliwal, Salamon, and Smith (1982) on the choice of depreciation methods, and by Healy (1985) on the choice of discretionary accruals.

On the other hand, the Watts and Zimmerman (1978) analysis of price level adjustments, the Hagerman and Zmijewski (1979) analysis of inventory valuation, and the Bowen, Noreen and Lacey (1981) analysis of interest capitalization are not consistent with the predictions of the incentive effects of management contracts.

This research is a first step in the unexplored area of the effect of long-term earning based compensations 'performance plans' on accounting choices. Since performance plans are new and there is little empirical evidence concerning performance plans, further research is needed. The trend toward performance plans is growing rapidly in the level of compensation, rate of increases and prevalence of plans. It can therefore be expected that replicating this study in the future with the availability of more companies with performance plans could improve the significance level.

Future research could overcome some of the limitations of the sample with the availability of more companies with performance plans. It is also worthwhile to examine the characteristics of those firms with performance plans and those firms with no performance plans. Another area for future research is to investigate the following: What are the characteristics of firms that have attainable targets for performance plans and the characteristics of firms that have hardly attainable targets in performance plans?

APPENDIX A

ANALYSIS OF THE PREDICTED SIGN OF ACCRUALS IN THE CASE OF
ANNUAL BONUS AND PERFORMANCE PLANS WITH DIFFERENT PERFORMANCE
PERIOD AND DIFFERENCES IN FREQUENCY OF GRANTS

As discussed in Chapter 3, performance plans differ in terms of the performance period and frequency of grants. The performance period is three, four, or five years and a new performance period is started annually, every two, three, four, or five years. The tables in this Appendix present the analysis and the prediction about the sign of accruals in the case of annual bonus and performance plans with different performance periods (three, four, and five years) and with a new performance plan started annually, every two, three, four and five years.

TABLE A.2: ANNUAL BONUS AND FOUR-YEARS PERFORMANCE PLANS WITH A NEW PERFORMANCE PLAN STARTED ANNUALLY

Performance Plans	Years	1	2	3	4	5	6	7	i-3	i-2	i-1	i	
P_1		x	x	x	x								
P_2			x	x	x	x							
P_3				x	x	x	x						
P_4					x	x	x	x					
P_5						x	x	x	x				
P_{i-3}									x	x	x	x	
Primary I		B_1	B_2	B_3	B_4	B_5	B_6	B_7	B_{i-3}	B_{i-2}	B_{i-1}	B_i	=0 if B_L^U
II					P_1	P_2	P_3	P_4	P_{i-6}	P_{i-5}	P_{i-4}	P_{i-3}	=0 if P_L^U
Secondary III		$B_2/(1+R)$	$B_3/(1+R)$	$B_4/(1+R)$	$B_5/(1+R)$	$B_6/(1+R)$	$B_7/(1+R)$	$B_8/(1+R)$	$B_{i-2}/(1+R)$	$B_{i-1}/(1+R)$	$B_i/(1+R)$	$B_{i+1}/(1+R)$	
IV		$P_2/(1+R)^4$	$P_3/(1+R)^4$	$P_4/(1+R)^4$	$P_5/(1+R)^4$	$P_6/(1+R)^4$	$P_7/(1+R)^4$	$P_8/(1+R)^4$	$P_{i-2}/(1+R)^4$	$P_{i-1}/(1+R)^4$	$P_i/(1+R)^4$	$P_{i+1}/(1+R)^4$	
(1) B_L^U	Primary	0	0	0	0	0	0	0	0	0	0	0	
(2) B_M^P	Primary	I	I	I	I & II	I & II	I & II	I & II	I & II	I & II	I & II	I & II	
(3) B_M^U	Primary	I	I	I	I	I	I	I	I	I	I	I	
(4) B_M^P	Primary	0	0	0	II	II	II	II	II	II	II	II	

As the table shows, the prediction of the sign of accruals is the same as in Table A.1 except for cases B_M^U . Since this table shows plans with performance period of 4 years, the choice of accruals in the first 3 years in the case B_M^U is negative accruals (apply the same logic as in Table A.1 but for 3 years instead of only two).

TABLE A.3

TABLE A.3: ANNUAL BONUS AND FIVE-YEARS PERFORMANCE PLANS WITH A NEW PERFORMANCE PLAN STARTED ANNUALLY

Performance Plans	Year	1	2	3	4	5	6	7	8	9	10	i-4	i-3	i-2	i-1	i	
P ₁		x	x	x	x	x											
P ₂			x	x	x	x	x										
P ₃				x	x	x	x	x									
P ₄					x	x	x	x	x								
P ₅																	
P ₆								x	x	x	x						
P _{i-4}												x	x	x	x	x	
Primary I		B ₁	B ₂	B ₃	B ₄	B ₅	B ₆	B ₇	B ₈	B ₉	B ₁₀	B _{i-4}	B _{i-3}	B _{i-2}	B _{i-1}	B _i	=0 if E _L ^U
II					P ₁	P ₂	P ₃	P ₄	P ₅	P ₆		P _{i-8}	P _{i-7}	P _{i-6}	P _{i-5}	P _{i-4}	=0 if P _L ^U
Secondary III		PV(B) ₂	PV(B) ₃	PV(B) ₄	PV(B) ₅	PV(B) ₆	PV(B) ₇	PV(B) ₈	PV(B) ₉	PV(B) ₁₀	PV(B) ₁₁	PV(B) _{i-3}	PV(B) _{i-2}	PV(B) _{i-1}	PV(B) _i	PV(B) _{i+1}	
IV		PV(P) ₂	PV(P) ₃	PV(P) ₄	PV(P) ₅	PV(P) ₆	PV(P) ₇	PV(P) ₈	PV(P) ₉	PV(P) ₁₀	PV(P) ₁₁	PV(P) _{i-3}	PV(P) _{i-2}	PV(P) _{i-1}	PV(P) _i	PV(P) _{i+1}	
(1) B _L ^U P _L ^U Primary		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(2) B _M ^P Primary		I	I	I	I	I	I&II	I&II	I&II	I&II	I&II	I&II	I&II	I&II	I&II	I&II	I&II
(3) B _M ^P Primary		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
(4) B _M ^P Primary		0	0	0	0	II	II	II	II	II	II	II	II	II	II	II	II

The table shows the same prediction except for the case B_L^U. In the first 4 years where the first performance plans have not elapsed, the prediction is negative accruals instead of positive. (Apply the same logic as in Table A.1 but for 4 years instead of only two.)

TABLE A.4: ANNUAL BONUS AND THREE-YEARS PERFORMANCE PLANS WITH A NEW PERFORMANCE PLAN STARTED EVERY TWO YEARS

Performance Plans	1	2	3	4	5	6	7	8	9	$i-2+j$	$i-1+j$	$i+j$	
P_1	x	x	x										
P_2			x	x	x								
P_3					x	x	x						
P_4							x	x	x				
P_{i-2}										x	x	x	
Primary I	B_1	B_2	B_3	B_4	B_5	B_6	B_7	B_8	B_9			B_{i+j}	=0 if B_L
II			P_1		P_2		P_3		P_4			P_{i-2}	=0 if P_L
Secondary III													
IV	(B_2)	(B_3)	(B_4)	(B_5)	(B_6)	(B_7)	(B_8)	(B_9)	(B_{10})			(B_{i+j+1})	
PV		(P_2)		(P_3)		(P_4)		(P_5)					
(1) B_{LL}^{UL}													
Primary	0	0	0	0	0	0	0	0	0			0	
	-	-	-	-	-	-	-	-	-			-	
(2) B_{MM}^{PM}													
Primary	I	I	I&II	I	I&II	I	I&II	I	I&II			I&II	
	+	+	+	+	+	+	+	+	+			+	
(3) B_{ML}^{UL}													
Primary	I	I	I	I	I	I	I		I	I		I	
	+	+	+	+	+	+	+		+			+	
(4) B_{LM}^{UL*}													
Primary	0	0	II	0	II	0	II	0	II			II	
	-	-	+	-	+	-	+	-	+			+	

*The prediction of positive accruals for the cases B_{LM}^{UL} does not hold in the first two years. Also since a new performance plan is started every two years, the primary effect of accruals does not include performance plans every year. As a result in the years where there is no performance award due, the current compensation includes only P (see year 4, 6, and 8 as an example). Since earning before discretionary accruals is below the lower bound in B and even if the manager chose positive accruals reported earning will not exceed the lower bound, the manager selects negative accruals in these years to increase the present value of expected future award from B and P. Thus for these cases (B_{LM}^{UL}) positive accruals are expected in the years where there is a performance plan due (i.e., at the end of every performance period). Other than these years, the prediction is negative accruals.

TABLE A.5

TABLE A.5: ANNUAL BONUS AND FOUR-YEARS PERFORMANCE PLANS WITH A NEW PERFORMANCE PLAN STARTED EVERY TWO YEARS

Performance Plans	years	1	2	3	4	5	6	7	8	9	10	$i-3+j$	$i-2+j$	$i-1+j$	$i+j$	
P_1		x	x	x	x											
P_2				x	x	x	x									
P_3						x	x	x	x							
P_4								x	x	x	x					
P_{i-3}												x	x	x	x	
Primary I		B_1	B_2	B_3	B_4	B_5	B_6	B_7	B_8	B_9	B_{10}				B_{i+j}	=0 if B_L^U
II					P_1	P_2			P_3		P_4				P_{i-3}	=0 if P_L^U
Secondary III																
PV		(B_2)	(B_3)	(B_4)	(B_5)	(B_6)	(B_7)	(B_8)	(B_9)	(B_{10})	(B_{11})				(B_{i+j+1})	
IV			(P_2)		(P_3)		(P_4)		(P_5)		(P_6)				(P_{i-1})	
(1) $B_{P_L}^{UP}$ Primary		0	0	0	0	0	0	0	0	0	0				0	
(2) $B_{P_M}^{PM}$ Primary		I	I	I	I&II	I	I&II	I	I&II	I	I&II				I&II	
(3) $B_{P_L}^{UL}$ Primary		I	I	I	I	I	I	I	I	I	I				I	
(4) $B_{P_M}^{UM}$ Primary		0	0	0	II	0	II	0	II	0	II				II	

*The prediction of positive accruals only holds for the years where there is a performance plan due. Other years, the prediction is negative accruals. (The same logic explained in Table A.4).

TABLE A.6: ANNUAL BONUS AND FIVE-YEARS PERFORMANCE PLANS WITH A NEW PERFORMANCE PLAN STARTED EVERY TWO YEARS

Performance Plans	1	2	3	4	5	6	7	8	9	10	11	12	13	
P ₁	x	x	x	x	x									
P ₂			x	x	x	x	x							
P ₃					x	x	x	x	x					
P ₄							x	x	x	x	x			
P ₅									x	x	x	x	x	
Primary I	B ₁	B ₂	B ₃	B ₄	B ₅	B ₆	B ₇	B ₈	B ₉	B ₁₀	B ₁₁	B ₁₂	B ₁₃	=0 if B _L ^U
II					P ₁		P ₂		P ₃		P ₄		P ₅	=0 if P _L ^U
Secondary III														
PV	(B ₂)	(B ₃)	(B ₄)	(B ₅)	(B ₆)	(B ₇)	(B ₈)	(B ₉)	(B ₁₀)	(B ₁₁)	(B ₁₂)	(B ₁₃)	(B ₁₄)	
IV														
PV		(P ₂)		(P ₃)		(P ₄)		(P ₅)		(P ₆)		(P ₇)		
(1) B _L ^U Primary	0	0	0	0	0	0	0	0	0	0	0	0	0	
(2) B _M ^P Primary	I	I	I	I	I&II	I	I&II	I	I&II	I	I&II	I	I&II	
(3) B _L ^U Primary	I	I	I	I	I	I	I	I	I	I	I	I	I	
(4) B _L ^{U*} Primary	0	0	0	0	II	0	II	0	II	0	II	0	II	

*The prediction of positive accruals for these cases holds only for the years where there is a performance plan due. Other years, the prediction is negative accruals.

TABLE A.7: ANNUAL BONUS AND THREE-YEARS PERFORMANCE PLANS WITH A NEW PERFORMANCE PLAN STARTED EVERY THREE YEARS

Performance Plans	Year	1	2	3	4	5	6	7	8	9	10	11	12	13	
		P ₁	x	x	x										
P ₂					x	x	x								
P ₃								x	x	x					
P ₄											x	x	x		
Primary I		B ₁	B ₂	B ₃	B ₄	B ₅	B ₆	B ₇	B ₈	B ₉	B ₁₀	B ₁₁	B ₁₂	B ₁₃	-0 if B _L ^U
II				P ₁			P ₂			P ₃			P ₄		-0 if B _L ^U
Secondary III															
PV		(B ₂)	(B ₃)	(B ₄)	(B ₅)	(B ₆)	(B ₇)	(B ₈)	(B ₉)	(B ₁₀)	(B ₁₁)	(B ₁₂)	(B ₁₃)	(B ₁₄)	
IV				(P ₂)			(P ₃)			(P ₄)			(P ₅)		
(1) B _L ^U Primary		0	0	0	0	0	0	0	0	0	0	0	0	0	
(2) B _M ^P Primary		I	I	I&I	I	I	I&I	I	I	I&I	I	I	I&I	I	
(3) B _L ^U Primary		I	I	I	I	I	I	I	I	I	I	I	I	I	
(4) B _M ^{U*} Primary		0	0	0	0	II	0	II	0	II	0	II	0	II	

*The prediction of positive accruals for these cases only holds for the years where there is a performance plan due. The other years, the prediction is negative accruals.

TABLE A.8

TABLE A.8: ANNUAL BONUS AND FOUR-YEARS PERFORMANCE PLANS WITH A NEW PERFORMANCE PLAN STARTED EVERY FOUR YEARS

Performance Plans	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
P ₁	x	x	x	x													
P ₂					x	x	x	x									
P ₃									x	x	x	x					
P ₄													x	x	x	x	
Primary I	B ₁	B ₂	B ₃	B ₄	B ₅	B ₆	B ₇	B ₈	B ₉	B ₁₀	B ₁₁	B ₁₂	B ₁₃	B ₁₄	B ₁₅	B ₁₆	=0 if B _L ^U
II				P ₁				P ₂				P ₃				P ₄	=0 if P _L ^U
Secondary III																	
PV	(B ₂)	(B ₃)	(B ₄)	(B ₅)	(B ₆)	(B ₇)	(B ₈)	(B ₉)	(B ₁₀)	(B ₁₁)	(B ₁₂)	(B ₁₃)	(B ₁₄)	(B ₁₅)	(B ₁₆)	(B ₁₇)	
IV				(P ₂)				(P ₃)				(P ₄)				(P ₅)	
PV																	
(1) B _P ^U Primary	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(2) B _P ^M Primary	I	I	I	I&II	I	I	I	I&II	I	I	I	I&I	I	I	I	I	I&II
(3) B _P ^L Primary	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
(4) B _P ^U Primary	0	0	0	II	0	0	0	II	0	0	0	II	0	0	0	0	II

*The prediction of positive accruals for these cases only holds for the years where there is a performance plan due. The other years, the prediction is negative accruals.

TABLE A.9: ANNUAL BONUS AND FIVE-YEARS PERFORMANCE PLANS WITH A NEW PERFORMANCE PLAN STARTED EVERY FIVE YEARS

Performance Plans	years	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
P ₁		x	x	x	x	x											
P ₂							x	x	x	x	x						
P ₃												x	x	x	x	x	
Primary I		B ₁	B ₂	B ₃	B ₄	B ₅	B ₆	B ₇	B ₈	B ₉	B ₁₀	B ₁₁	B ₁₂	B ₁₃	B ₁₄	B ₁₅	=0 if B _L
II						P ₁					P ₂					P ₃	=0 if P _L
Secondary III																	
PV		(B ₂)	(B ₃)	(B ₄)	(B ₅)	(B ₆)	(B ₇)	(B ₈)	(B ₉)	(B ₁₀)	(B ₁₁)	(B ₁₂)	(B ₁₃)	(B ₁₄)	(B ₁₅)	(B ₁₆)	
IV																	
PV						(P ₂)					(P ₃)					(P ₄)	
(1) B _L ^{UJ} Primary		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
(2) B _L ^P Primary		I	I	I	I	I&II	I	I	I	I	I&II	I	I	I	I	I	I&II
(3) B _L ^P Primary		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
(4) B _L ^{P*} Primary		0	0	0	0	II	0	0	0	0	II	0	0	0	0	0	II

*The prediction of positive accruals for these cases only holds for the years where there is a performance plan due. The other years, the prediction is negative accruals.

APPENDIX B

INITIAL TENTATIVE SAMPLE

COMPANIES WITH BONUS SCHEMES & PERFORMANCE PLANS

Air Products and Chemicals	Coleco Industries Inc.
Akzona	Colt Industries
Alaska Interstate	Combustion Engineering
Albany International	ConAgra, Inc.
Allegheny International	Consolidated Foods Corp.
Allied Corp.	Continental Group
American Bakeries Co.	Control Data Corp.
American Can Co.	Cooper Industries Inc.
American Cynamid Co.	Cooper Laboratories
American Standard Inc.	Corning Glass Works
AMF Inc.	Cox Communications
Anchor Hocking Corp.	CPC International
Applied Magnetics Corp.	Crouse Hinds
Armco	Crown Zellerbach
Ashland Oil	Cummins Engine
Atlantic Richfield	Dart & Kraft Inc.
Avon	Data Point Corp.
Bandag Inc.	Dayco Corp.
Barker Oil	Dayton-Hudson Corp.
Baxter Travenol Laboratories	Dover Corp.
Beatrice Foods	Down Jones Co., Inc.
Belden	Dr. Pepper Co.
Bell & Howell Co.	Echlin MFG Co.
Bemis Co.	Emerson Electric Co.
Bendix Corp.	Esmark Inc.
Black & Decker Mfg. Co.	Esterline Corp.
Bliss & Laughlin Industries	Ex-Cell-O Corp.
Boise Cascades Corp.	Exxon
Borden	Federal Magul
Borg Warner	Federal Paper Board Co.
Brandy Corp.	Ferro Corp.
Bristol Myers Co.	Fieldcrest Mills
Brown Group Inc.	Firestone Tire & Rubber Co.
Burroughs	First Mississippi Corp.
Cabot Corp.	Fleetwood Enterprises
Campbell Soup	FMC Corp.
Carlisle Corp.	Foxboro Co.
CBS	Freeport McMoran Inc.
Celanese Corp.	Gannett Corp.
Champion International Corp.	General Dynamics
Chelsea Industries Corp.	General Electric Co.
Cincinnati Milacon Inc.	General Foods Co.
Coca-Cola Bottling Co.	General Motors Co.

APPENDIX B

(Continued)

General Portland Inc.	NL Industries
General Refractories	Northrop Corp.
Gulf Resources & Chemical Corp.	Norton Simon Inc.
Harris Corp.	Oak Industries
Harsco	Olin Corp.
Hershey Foods Corp.	Overhead Door Corp.
Heublein Inc.	Owens Corning Fiberglass Corp.
Hillenbrand Industries	Owens-Illinois Inc.
H.J. Heinz	Pepsico Inc.
Honeywell Inc.	Philips Industries Inc.
Houghton Mifflin Co.	Philips Petroleum Co.
Huffy Corp.	Phizer Inc.
Illinois Tool Works	Pillsbury Co.
International Harvester	Pitney Bowes Inc.
International Mineral & Chemicals	Polaroid Corp.
International Paper Co.	Potlatch Corp.
Johns-Manville Corp.	PPG Industries
Johnson Controls Inc.	Quaker Oats Co.
J.P. Stevens	Quaker State Oil Refining Co.
Kane Miller	Quester Corp.
Kellwood Co.	Ralston Purina
Kennecott Corp.	Ranco Inc.
Koppers Co.	Raybestos-Manhattan Inc.
Libbey-Owens Ford	Revere Copper & Brass Inc.
Lilly (Eli) & Co.	Revlon Inc.
Lone Star Industries Co.	Rexham Corp.
Ludlow Corp.	Rexnord Inc.
Macmillan Inc.	Reynolds (R.J.) Industries
Magic Chef	Riegel Textile Corp.
Maryland Cup Corp.	Rockwell International
Masonite Corp.	Rohm & Hass Co.
McDermott Inc.	Sanders Associates Inc.
McGraw Edison Co.	Schering Plough Corp.
McGraw Hill	Scientific Atlanta Inc.
Medtronic Inc.	SCM Corp.
Mobil	Scovill Inc.
Mohasco	Sealed Power
Monogram Industries	Shaklee Corp.
Monsanto Co.	Sheller-Globe Corp.
Munsingwear Inc.	Signal
Nabisco Corp.	Simmon Precision Products Inc.
Nalco Chemical Co.	Southwest Forest Industries
Nashua Corp.	SPS Technologies Inc.
National Standard Co.	Squibb Corp.
National Steel Corp.	St. Regis Paper Co.

APPENDIX B

(Continued)

Staley (A.G.) Continental
Standard Brands
Standard Oil (California)
Stanley Works
Sun Co.
Talley Industries Inc.
Tektronix
Texaco
Texas Instruments
Textron
The Armstrong Rubber Co.
Thiokol Corp.
Trane Co.
U.S. Gypsum Co.

U.S. Industries
Union Oil of California
United Technology
Upjohn Co.
Varian Associates Inc.
Vulcan Material Co.
Wallace Murray Corp.
Warnaco Inc.
Warner Communications
Westinghouse Electric Corp.
Westpoint Pepperall
Wolverine World Wide
Xerox Corp.

APPENDIX C

THE DESCRIPTION OF BONUS SCHEMES AND PERFORMANCE PLANS,
THE ESTIMATION OF EARNINGS, LOWER AND UPPER BOUNDS,
AND THE CLASSIFICATION OF EARNING OBSERVATIONS
TO PORTFOLIOS BASED ON BONUS AND PERFORMANCE PLAN DESCRIPTIONS
(COMPANIES WITH FULL DISCLOSURE OF PARAMETERS OF
BONUS SCHEMES AND PERFORMANCE PLANS)

Air Product and Chemicals defines its bonus plan as follows:

The company shall establish and maintain a Reserve to which shall be credited during each year such amount as may be required for the granting of awards which as of the close of such fiscal year shall not exceed 6% of Net Income after deducting 10% on Stockholders' Investment. The term "Net Income" shall mean for any fiscal year the amount of Net Income reported in the Statements of Consolidated Income for the Company and its subsidiaries as certified by the independent public accountants increased by the amounts deducted therefrom for provisions for current and deferred income taxes and for the Reserve, but after deduction of provision for dividends on any preferred stock. There shall be excluded from the computations of such Net Income in any year, the whole or any part of extraordinary gains, losses, charges or credits. The term "Stockholders' Investment" shall mean the amount reported as such as of the end of the Fiscal Year in the Consolidated Balance Sheets for the Company and its subsidiaries.

The performance measure, and the lower bound, for the bonus contract of Air Product and Chemicals is summarized as follows:

Performance Measure: Net Income before extraordinary items increased by taxes and bonus but after deductions of preferred dividends.

Lower Bound : 10% of Stockholders' Investment.

Air Product and Chemicals defines its performance plans as follows:

The Committee established four-year award period, beginning on 1 October 1978, with an earning base approximately the average earnings per share for fiscal years 1977 and 1978. During the four-year periods of the award period, the company's consolidated earnings per share must achieve a cumulative growth rate of at least 12% over the earning base for full payment of each performance unit and a minimum cumulative growth rate of more than 8%.

The lower bound and upper bound for the performance plan of Air Product and Chemicals is summarized as follows:

Lower Bound: 8% cumulative growth rate in EPS (earning per share) during the performance period. Total growth in EPS

of \$4.9 would be needed during performance period over the earning base.

Upper Bound: 12% cumulative growth rate in EPS. total growth in EPS of \$5.4 would be needed during the performance period over the earning base.

Table C.1 shows the calculations of the type of portfolio using the parameters of the bonus contract of Air Product and Chemicals. Table C.2 shows the calculation of the type of portfolio using the parameters of the performance plans of the company. Table C.3 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of Air Product and Chemicals.

Akzona defines its bonus plan as follows:

Under the plan, no award may be paid with respect to any year unless either (a) cash dividends of at least \$1.20 per share are declared on the company's common stock and the net income of the company is at least equal to the amount paid out in dividends, or (b) net income of the company amounts to at least 6% of stockholders' equity.

It defines its performance plan as follows:

In awarding the performance units the Committee established a five-year award period beginning on January 1, 1979, and an earnings base of \$1.69 per share, during that five year period the company's consolidated earning per share must achieve a cumulative growth rate of 10% per year for full payment on such performance units to be available and a minimum cumulative growth rate of 6% for any partial payment to be made.

The lower bound and upper bound for the performance plan of Akzona is summarized as follows:

Lower Bound: 6% cumulative growth rate in EPS. Total growth in EPS of \$5.9 would be needed during the performance period over the earning base.

TABLE C.1

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS CONTRACT OF AIR PRODUCT AND CHEMICALS

Year	Net Income	Lower Bound 10% of Stockholders' Investment	Portfolio*
1979	182,166	111,879	B_M
1980	187,857	104,979	B_M
1981	191,465	92,345	B_M
1982	159,551	78,108	B_M

* Net Income is greater than the lower bound. Thus the lower bound is not binding and the observations are classified as B_M

TABLE C.2

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
 OF THE PERFORMANCE PLANS OF AIR PRODUCT AND CHEMICALS
 PERFORMANCE PERIOD 1979 - 1982

Year	EPS	Average EPS For the Base Period	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1979	3.48	2.55	.93	.93	P _L
1980	3.98	2.55	1.43	2.36	P _L
1981	4.36	2.55	1.81	4.17	P _L
1982	5.70	2.55	3.15	7.32	P _u

* Cumulative growth in EPS in year 1979, 1980 and 1981 is below the lower bound of \$4.9 and these years are classified as P_L. In 1982, cumulative growth rate is greater than the upper bound of \$5.4 and this year is classified as P_u.

TABLE C.3

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS CONTRACTS
AND PERFORMANCE PLANS OF AIR PRODUCT AND CHEMICALS

<u>Year</u>	<u>Type of Portfolio</u>
1979	B _M P _L
1980	B _M P _L
1981	B _M P _L
1982	B _M P _U

Upper Bound: 10% cumulative growth rate in EPS. Total growth in EPS of \$6.7 over the earning base.

Table C.4 shows the calculation of the type of portfolio using the parameters of the bonus contract of Akzona. Table C.5 shows the calculation of the type of portfolio using the parameters of the performance plans of Akzona. Table C.6 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of Akzona.

Baxter Travenol Laboratories Inc. defines its bonus plan as follows:

Under the plan, the board has set target bonuses, the payment of which is dependent upon the Company's attaining an increase in primary earnings per share of 15% over the highest primary earnings per share attained by the company in any previous year. If earning per share increases by less than 15% but more than five percent, the percentage of the target bonuses is determined by dividing the actual percentage increase in primary earning per share by 15%. If the earning per share increase is five percent or less, no bonuses will be paid under the plan.

It defines its performance plan as follows:

In 1982 the board adopted a plan which established as growth targets the achievement of primary earnings per share growth of at least 15% compounded annually through 1984 and the attainment of a return on capital of at least 13.5% for 1984. If these targets are not achieved but primary earnings per share increase at a compound annual growth rate of at least 10% and if the return on capital is at least 11% for 1984, then a portion of the bonus may be paid.

The lower bound and upper bound for the performance plan of this company is summarized as follows:

Lower Bound: 10% compound annual growth rate in EPS during the performance period and return on capital of 11% for 1984. Total growth in EPS of \$3.64 would be needed and return on capital on 11% in 1984.

TABLE C.4

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS CONTRACT OF AKZONA

Year	Net Income	Lower Bound			Type of Portfolio*
		Cash Dividends	Cash Dividends Per Share	6% Stock-Holders Equity	
1979	25,647	9,766	.80	19,850	B _M
1980	4,877	9,783	.80	19,551	B _L
1981	11,598	9,792	.79	19,598	B _L

* In these years cash dividends per share is less than \$1.20 per share. In 1979, net income is greater than 6% of stockholders' equity. Thus, the lower bound is not binding and this observation is classified as B_M. In 1980 and 1981, net income is less than 6% of stockholders' equity and these observations are classified as B_L.

TABLE C.5

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
 OF THE PERFORMANCE PLANS OF AKZONA
 PERFORMANCE PERIOD 1979 - 1981

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1979	2.10	1.69	.41	.41	P _L
1980	.40	1.69	(1.29)	(.88)	P _L
1981	.95	1.69	(.74)	(1.65)	P _L

* Cumulative growth in EPS in years 1979, 1980, and 1981 is below the lower bound of \$5.9 and these observations are classified as P_L.

TABLE C.6

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS CONTRACTS AND PERFORMANCE PLANS OF AKZONA

<u>Year</u>	<u>Type of Portfolio</u>
1979	B _M P _L
1980	B _L P _L
1981	B _L P _L

Upper Bound: 15% compound annual growth rate in EPS during the performance period and return on capital of 13% for 1984. Total growth in EPS of \$4 would be needed and return on capital of 13% for 1984.

Table C.7 shows the calculation of the type of portfolio using the parameters of bonus plans of Baxter Travenol Laboratories Inc. Table C.8 shows the calculation of the type of portfolio using the parameters of performance plans of Baxter Travenol Laboratories Inc. Table C.9 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of Baxter Travenol Laboratories.

Bendix defines its bonus plan as follows:

The corporation shall maintain an Incentive Compensation amount, to be determined by the Executive Compensation Committee, not exceeding 12.5% of the Net Earnings of the Corporation after deducting from Net Earnings an amount equal to 5.5% of the Capital Employed in the Business, provided, however, that the amount so credited for any year shall not exceed the aggregate amount of dividends paid. "Net Earnings" shall mean (i) the amount by which the earned surplus of the corporation at the end of such year shall exceed such earned surplus at the end of the preceding fiscal year, less (ii) the amount of any dividends received from any non-participating subsidiary during such year which were included in earned surplus of the corporation, plus (iii) the amount of any dividends declared on the corporation's capital stock during such year, plus (iv) the amount of any credit to the Fund for such year. "Capital Employed in the Business" shall mean (i) the total capital stock and surplus of the corporation at the end of the fiscal year preceding that to which the Net Earnings relate, less (ii) the total investment in any subsidiary at such date, less (iii) the amount of any treasury stock.

The performance measure, the lower bound, and the upper bound for the bonus contract of Bendix is summarized as follows:

Performance Measure: Net Earnings

Lower Bound : 5.5% of the Capital Employed

TABLE C.7

THE CALCULATION OF THE TYPE OF PORTFOLIO USING
THE PARAMETERS OF THE BONUS CONTRACT OF BAXTER TRAVENOL LABORATORIES

Year	EPS	Earning Base	Percentage of Annual Growth in EPS	Lower Bound 5% Annual Growth in EPS	Upper Bound 15% Annual Growth in EPS	Type of Port- folio*
1982	1.32	1.07	23%	5%	15%	B _u
1983	1.54	1.07	43%	5%	15%	B _u
1984	.21	1.07	(80%)	5%	15%	B _L

* In year 1982 and 1983 the percentage of growth in EPS is greater than the upper bound of 15%. In 1984, earning per share has decreased and this observation is classified as B_L because the lower bound is binding.

TABLE C.8

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
 OF THE PERFORMANCE PLANS OF BAXTER TRAVENOL LABORATORIES
 PERFORMANCE PERIOD 1982 - 1984

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1982	1.32	1.07	.25	.25	P _L
1983	1.54	1.07	.47	.72	P _L
1984	.21	1.07	(.86)	(.14)	P _L

* Cumulative growth in EPS is below the lower bound of \$3.64 growth in EPS. Thus the lower bond is binding and these observations are classified as P_L.

TABLE C.9

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS CONTRACTS
AND PERFORMANCE PLANS OF BAXTER TRAVENOL LABORATORIES

<u>Year</u>	<u>Type of Portfolio</u>
1982	B _u P _L
1983	B _u P _L
1984	B _L P _L

Upper Bound : The amount credited to the fund for any year shall not exceed the aggregate amount of dividends paid. This can be expressed as follows:

12.5% (Net Earning - 5.5% of Capital Employed) Cash Dividends

Thus the upper limit on earning =

Cash Dividends/12.5% + 5.5% of Capital Employed

It defines its performance plan as follows:

The Committee may make Awards, consisting of a specified number of performance incentive units ("Performance Units"), to such key employees of the Corporation and of any Subsidiary as the Committee in its discretion shall determine. Each Award shall cover a period of not less than three fiscal years (the "Award Period"). Award periods shall begin on the first day of each subsequent fiscal year. In no event shall any value be assigned to a Performance Unit if the percentage increase in Earning Per Share for the Award Period is less than a 6% annual compound growth rate. "Earnings Per Share" with respect to any fiscal year shall mean the consolidated earnings per common and common equivalent share, before any gain or loss from the disposal of a segment of a business and before extraordinary items, as reported in the Corporation's Consolidated Statement of Income for such year.

The lower bound of the performance plan is 6% annual compound growth rate during the performance period. A total growth in EPS of \$3.4 would be needed over the earning base.

Table C.10 shows the calculation of the type of portfolio using the parameters of the bonus contract of Bendix. Table C.11 shows the calculation of the type of portfolio using the parameters of the performance plans of Bendix. Table C.12 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of Bendix.

TABLE C.10

THE CALCULATION OF THE TYPE OF PORTFOLIO USING
THE PARAMETERS OF THE BONUS CONTRACT OF BENDIX

Year	Net Earning	Lower Bound 5.5% of Capital Employed	Cash Dividends to Common Stock	Upper Bound On Earning = Cash Div/12.5% + 5.5% of Cap. Employed	Cash Flow From Operations	Type of Port- folio*
1977	118,100	46,134	44,000	398,134	93,470	B _M
1978	129,600	51,227	50,800	452,627	117,400	B _M
1979	162,600	56,958	57,900	520,158	76,500	B _M
1980	191,600	73,744	73,800	664,144	84,400	B _M
1981	432,800	79,925	77,700	701,525	439,200	B _M
1982	132,800	81,455	81,200	731,045	235,400	B _M

* Net earning is greater than the lower bound, also cash flow from operations is lower than the upper bound. Thus, neither the lower nor the upper bounds are binding, and these observations are classified as B_M.

* Cash flow from operations are working capital from operations less changes in inventory and receivables, plus changes in payables and income taxes payable.

* Cash flow from operations in 1980 indicates increase in positive accruals in this year. This was in the form of increase in accounts receivable and increase in inventory from 1979. These positive accruals have been reversed to negative accruals in 1981.

TABLE C.11

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE PERFORMANCE PLANS OF BENDIX

PERFORMANCE PERIOD 1977 - 1979

Year	EPS	Earning Base: Earning for Last Year	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1977	4.76	4.41	.35	.35	P _L
1978	4.96	4.41	.55	.90	P _L
1979	5.31	4.41	.90	1.80	P _L

* EPS in the years 1977, 1978 and 1979 is below the required growth rate of \$3.4. Thus the observations are classified to P_L.

PERFORMANCE PERIOD 1978 - 1980

Year	EPS	Earning Base: Earning for Last Year	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1978	4.96	4.76	.20	.20	P _L
1979	5.31	4.76	.55	.75	P _L
1980	5.46	4.76	.70	1.45	P _L

TABLE C.11

(Continued)

PERFORMANCE PERIOD 1979 - 1981

Year	EPS	Earning Base: Earning for Last Year	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1979	5.31	4.96	.35	.35	P _L
1980	5.46	4.96	.50	.85	P _L
1981	9.72	4.96	4.76	5.61	P _M

* In year 1981, cumulative growth in EPS = \$5.61 which is greater than the lower bound of \$3.4. Thus this observation is classified as P_M.

PERFORMANCE PERIOD 1980 - 1982

Year	EPS	Earning Base: Earning for Last Year	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1980	5.46	5.31	.15	.15	P _L
1981	9.72	5.31	4.41	4.56	P _M
1982	5.67	5.31	.36	4.92	P _M

TABLE C.12

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS CONTRACTS AND PERFORMANCE PLANS OF BENDIX

<u>Year</u>	<u>Type of Portfolio</u>
1977	B _M P _L
1978	B _M P _L
1979	B _M P _L
1980	B _M P _L
1981	B _M P _M
1982	B _M P _M

Borden Inc. defines its bonus plan as follows:

For each compensation year in which the Net Before-Tax Profits of the Company and its consolidated subsidiaries exceed a sum equal to ten percent (10%) of the Average Capital Investment of the Company and its consolidated subsidiaries for such compensation year, a percentage of such excess shall be designated the Incentive Compensation Amount. The percentage of such excess shall be two percent (2%) for each compensation year. In no event shall the Incentive Compensation amount for any Compensation year exceed the cash dividends paid during such compensation year upon the Common Stock of the Company.

Borden defines its performance plans as follows:

Under the long-term performance program of Borden, units are awarded annually for a performance period covering three years. The holder of an award, who must remain in the employ of the Company during the three-year performance period, will receive payment after such three years only if a performance objective is attained. The increase in primary earnings per share of the Company's Common Stock over the average for the preceeding three years. The units have no value and result in no payment if the three-year average annual compound growth rate in earning per share is below 8%, the relevant growth rates would be proportioned between \$25 if the growth rate is 8% and \$100 if the growth rate is 11%. The attainment of an EPS growth rate in excess of the established outstanding goal will not result in the payment to any participant of more than \$100 on each unit awarded. For the 1979-1981 performance period the performance objective is a 10% increase and units have no value if EPS growth rate is below 8%. For the 1980-1982, 1981-1983 and 1982-1984 the performance objective is an 11% increase and units have no value if EPS growth rate is below 7%.

The performance objectives for each performance plan and the degree of the attainment of the objectives is summarized as follows:

Performance Period:	1978-1980
Lower Bound:	8% increase. total growth of \$3.5 would be needed.
Upper Bound:	11% increase in primary earning per share over the average for the preceeding three years (1975, 76, 77). total growth in

EPS of \$3.7 would be needed over three years.

Performance Period:	1979-1981
Lower Bound:	8% increase. Total growth of \$3.5 would be needed.
Upper Bound:	10% increase in primary earning per share over the preceding three years. Total growth in EPS of \$3.6 would be needed over three years.
Performance Periods:	1980-1982, 1981-1983, and 1982-1984
Lower Bound:	7% increase. Total growth of \$3.4 would be needed.

Table C.13 shows the calculation of the type of portfolio using the parameters of bonus plan of Borden, Inc. Table C.14 shows the calculation of the type of portfolio using the parameters of performance plan of Borden, Inc. Table C.15 summarizes the results of the type of portfolio using the parameters of bonus and performance plans of Borden, Inc.

Cabot Corp defines its bonus plan as follows:

Bonuses are paid pursuant to a plan approved by the stockholders of the company on February, 1971. The plan provides that no award may be made for any year in which the company's return on stockholders' equity is less than a 7% threshold level and that the amount of awards made will normally reflect the extent to which such rate of return exceeds 7%. The committee increased the threshold level from 7% to 7.5% for the fiscal year 1978, to 8% for fiscal year 1979 and has increased the level, up to which no bonus is earned, to 10% for fiscal 1980, 1981, 1982.

TABLE C.13

THE CALCULATION OF THE TYPE OF PORTFOLIO USING
THE PARAMETERS OF THE BONUS PLAN OF BORDEN INC.

Year	Net Before-Tax Profits	Lower Bound 10% of Avg. Cap. Investment	Cash Dividends to Common Stock	Upper Bound On Earning = Cash Div/2% + 10% of Avg. Cap. Invest.	Cash Flow From Operations	Type of Portfolio*
1980	242,785	182,337	57,918	3,078,237	322,367	B _M
1981	239,439	183,849	59,060	3,136,849	306,794	B _M
1982	254,855	187,183	62,024	3,288,383	293,638	B _M
1983	333,069	191,695	68,649	3,624,145	360,127	B _M
1984	337,407	198,453	71,038	3,750,353	229,027	B _M

* Net before tax profits is greater than the lower bound, also cash flow from operations is lower than the upper bound. Thus, neither the lower nor the upper bounds are binding, and these observations are classified as B_M.

* Cash flow from operations indicates positive accruals in year 1984. This was in the form of increasing accounts receivable.

TABLE C.14

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE PERFORMANCE PLANS OF BORDEN INC.

PERFORMANCE PERIOD 1978 - 1980

Year	EPS	Earning Base: Average EPS for the Preceeding 3 Years	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1978	4.38	3.57	.81	.81	P _L
1979	4.30	3.57	.73	1.54	P _L
1980	4.77	3.57	1.20	2.74	P _L

* Lower bound is total growth of \$3.5. Since this target is not attained, observations are classified as P_L.

PERFORMANCE PERIOD 1979 - 1981

Year	EPS	Earning Base: Average EPS for the Preceeding 3 Years	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1979	4.30	4.03	.27	.27	P _L
1980	4.77	4.03	.74	1.01	P _L
1981	5.45	4.03	1.42	2.43	P _L

* Lower bound is total growth of \$3.5.

TABLE C.14

(Continued)

PERFORMANCE PERIOD 1980 - 1982

Year	EPS	Earning Base: Average EPS for the Preceding 3 Years	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1980	4.77	4.25	.52	.52	P _L
1981	5.45	4.25	1.20	1.72	P _L
1982	5.81	4.25	1.56	3.28	P _L

* Lower bound is 7% growth. Total growth of \$3.40. Since this target is not attained, these observations are classified as P_L.

PERFORMANCE PERIOD 1981 - 1983

Year	EPS	Earning Base: Average EPS for the Preceding 3 Years	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1981	5.45	4.6	.85	.85	P _L
1982	5.81	4.6	1.21	2.06	P _L
1983	5.99	4.6	1.39	3.45	P _M

TABLE C.14

(Continued)

PERFORMANCE PERIOD 1982 - 1984

Year	EPS	Earning Base: Average EPS for the Preceding 3 Years	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1982	5.81	4.10	1.71	1.71	P _L
1983	5.99	4.10	1.89	3.60	P _M
1984	7.13	4.10	3.03	6.63	P _u

TABLE C.15

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF BORDEN INC.

<u>Year</u>	<u>Type of Portfolio</u>
1978	B _M P _L
1979	B _M P _L
1980	B _M P _L
1981	B _M P _L
1982	B _M P _L
1983	B _M P _M
1984	B _M P _U

It defines its performance plans as follows:

Under the Performance Share Plan, awards are earned at the end of six years after the date granted, but only if the company has achieved a growth in earnings per share on a cumulative basis over the period. Taking as a starting point a base earnings number derived from the earning per share of the company for the two fiscal years preceding the beginning of the flight. The performance goals are shown in the following table.

Average Compound Annual Growth Rate
Per Share Over the Base Earnings

For 1977 1982 Performance Period

Threshold Level	8%
Target Level	11%
Maximum Level	16%

Table C.16 shows the calculation of the type of portfolio using the parameters of the bonus contract of Cabot Corp. Table C.17 shows the calculation of the type of portfolio using the parameters of performance plans of Cabot Corp. Table C.18 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of Cabot Corp.

Colt Industries defines its bonus plans as follows:

No awards shall be made under this Plan for any year unless Consolidated Net Income (computed as provided in Section 5 hereof), after deducting therefrom the amount of all dividends accruing during such year (whether or not paid) in respect of the Preferred Stock and any other stock having preference as to dividends over the Common Stock, exceeds an amount equal to six percent of Common Stockholders' Average Equity (computed as provided in Section 5 hereof) for such year. The term "Common Stockholders' Average Equity" as used herein shall mean, for each year, half of the sum of (i) the total amount of Common Stock, capital surplus and earned surplus invested in the business of the Corporation and its subsidiaries consolidated (less the cost of any Common Stock held in the treasury).

TABLE C.16

THE CALCULATION OF THE TYPE OF PORTFOLIO USING
THE PARAMETERS OF THE BONUS PLAN OF CABOT CORP.

Year	Performance Measure: Percentage Return on Equity (ROE)	Lower Bound	Type of Portfolio*
1977	11	7.0	B _M
1978	12	7.5	B _M
1979	16	8.0	B _M
1980	18	10.0	B _M
1981	18	10.0	B _M
1982	13	10.0	B _M

* ROE is greater than the lower bound. Thus the lower bound is not binding and these observations are classified as B_M.

TABLE C.17

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE PERFORMANCE PLANS OF CABOT CORP.

PERFORMANCE PERIOD 1977 - 1982

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1977	1.26	7.05	.555	.555	P _L
1978	1.53	7.05	.825	1.380	P _L
1979	2.28	7.05	1.575	2.955	P _L
1980	4.88	7.05	4.175	7.130	P _L
1981	3.50	7.05	2.795	9.925	P _M
1982	2.77	7.05	2.065	11.990	P _u

* The lower bound is average compound growth rate of 8% in EPS. A total growth of \$7.92 is needed over the performance period. The upper bound is 16%. A total growth of \$10.41 is needed. In the years 1977, 1978, 1979, and 1980, the cumulative growth is below the lower bound and these observations are classified as P_L. In the year 1981, the cumulative growth is greater than the lower bound and this observation is classified as P_M. In year 1982, the growth is greater than the upper bound and this observation is classified as P_u.

TABLE C.18

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS CONTRACTS AND PERFORMANCE PLANS OF CABOT CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1977	$B_{M^P L}$
1978	$B_{M^P L}$
1979	$B_{M^P L}$
1980	$B_{M^P L}$
1981	$B_{M^P M}$
1982	$B_{M^P u}$

It defines its performance plans as follows:

Under the Plan, performance shares may accrue value (payment thereof being contingent upon meeting the conditions of the Plan and the agreement granting the shares), depending on the Corporation's after-tax earnings, in each fiscal year which elapses from the time of their award to the earlier of termination of employment with the corporation, retirement or the expiration of 10 years. If the Corporation earns less than \$50,000,000 after taxes in any fiscal year, performance shares will not accrue any value for such year. If the Corporation earns \$50,000,000 or more after taxes in any fiscal year, the Plan provides that each performance share will accrue \$5.00 in value plus \$.15 for each full \$1,000,000 of after-tax earnings of the Corporation in excess of \$50,000,000 to a maximum of \$12.50. The Plan also provides that if the Corporation earns over \$100,000,000 in any fiscal year, then performance shares over the next year would accrue an additional \$.15 for each full \$1,000,000 of after-tax earnings in excess of \$100,000,000 in such preceding fiscal year unless, as a result of such carrying forward, the performance shares in such next year would accrue more than \$12.50 in value, in which case the additional amounts will be carried forward to the next year, also subject to the \$12.50 maximum limitation. No performance share may accrue more than \$12.50 in value in any one year.

Table C.19 shows the calculation of the type of portfolio using the parameters of the bonus contract of Colt Industries. Table C.20 shows the calculation of the type of portfolio using the parameters of performance plans. Table C.21 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of Colt Industries.

Exxon defines its bonus plan as follow:

In respect of each of the five years after 1977, the ceiling established by the Board Compensation Committee on the aggregate amount of bonuses that can be granted shall not exceed 3 percent of the amount by which the net income of the Consolidated Group for that year exceeds an amount equal to 6 percent of the capital investment of the Consolidated Group for that year. In this connection,

- (1) "Capital Investment" for any year means the amount, as reported in the consolidated financial statements included in the Corporation's annual report to shareholders as of the end of the previous year, of

TABLE C.19

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS CONTRACT OF COLT INDUSTRIES

<u>Year</u>	<u>Consolidated Net Income</u>	<u>Lower Bound 6% of Common Stockholders' Average Equity</u>	<u>Type of Portfolio</u>
1978	79,738	31,955	B _M
1979	109,120	35,513	B _M
1980	96,115	38,946	B _M

TABLE C.20

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF COLT INDUSTRIES

Year	Performance Measure: Earning After Taxes (in thousands)	Lower Bound (in thousands)	Upper Bound (in thousands)	Type of Portfolio*
1978	87,020	50,000	100,000	P _M
1979	111,375	50,000	100,000	P _M
1980	97,751	50,000	100,000	P _M

* In year 1979, although earning after taxes is greater than the upper bound. However, according to the plan this excess is carried forward to the following year. Thus, this observation is classified as P_M.

TABLE C.21

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS CONTRACT
AND PERFORMANCE PLANS OF COLT INDUSTRIES

<u>Year</u>	<u>Type of Portfolio</u>
1978	B _M P _M
1979	B _M P _M
1980	B _M P _M

- (a) the total capital (including capital stock and earnings reinvested and employed in the business) less the cost of shares reacquired, plus
 - (b) long-term debt having a maturity of more than one year, with an appropriate adjustment for any significant change subsequent to the end of such previous year in the amount of issued capital, or debt, as well as in the amount of earnings reinvested and employed in the business resulting from surplus adjustments, and
- (2) "Net income" for any year means the amount reported as net income in the consolidated statement of income for that year included in the Corporation's annual report to shareholders, plus
- (a) interest on long-term debt charged against income during that year, and
 - (b) amounts charged against income in connection with any bonus granted under this Program.

It defines its Performance Plans as follows:

The 1978 Bonus Plan introduced the concept of granting earnings bonus units keyed to cumulative earnings per share over the five years following grant, subject to a maximum ceiling. The 1979 grants in earning bonus units are to be settled on the fifth anniversary of the date of grant, or earlier upon the maximum settlement value of \$25 per unit being achieved. In respect of each unit, at the time of settlement an amount is payable in cash equivalent to the cumulative net income per share as announced quarterly commencing with the first full quarter following the date of grant up to a cumulative maximum of \$25 per unit.

Table C.22 provides the calculation of the type of portfolio using the parameters of bonus plans of Exxon. Table C.23 provides the calculation of the type of portfolio using the parameters of performance plans of Exxon. Table C.24 summarizes the results of the type of portfolio using the parameters of both bonus contracts and performance plans of Exxon.

General Dynamics Corp. defines its bonus plans as follows:

Each year, the Compensation Committee is authorized to credit to the Incentive Compensation Account a maximum of 3% of that portion of consolidated earnings before income taxes as shall not exceed 14% of shareholders' equity.

TABLE C.22

THE CALCULATION OF THE TYPE OF PORTFOLIO USING
THE PARAMETERS OF BONUS PLANS OF EXXON

Year	Consolidated Net Income	Lower Bound 6% Of Capital Investment	Type of Portfolio
1979	4,295,243	1,607,400	B _M
1980	5,350,070	1,788,540	B _M
1981	4,826,215	1,956,555	B _M
1982	4,185,932	2,011,643	B _M
1983	4,977,957	2,110,944	B _M
1984	5,528,000	1,770,060	B _M

TABLE C.23

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
 OF PERFORMANCE PLANS OF EXXON
 PERFORMANCE PERIOD 1979 - 1983

Year	EPS	Cumulative Growth in EPS	Upper Bound	Type of Portfolio
1979	9.74	9.74	25	P_M
1980	6.49	16.23	25	P_M
1981	6.44	22.67	25	P_M
1982	4.83	27.50	25	P_u
1983	5.78	33.28	25	P_u

TABLE C.24

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF THE
BONUS CONTRACT AND PERFORMANCE PLANS OF EXXON

<u>Year</u>	<u>Type of Portfolio</u>
1979	$B_{M^P M}$
1980	$B_{M^P M}$
1981	$B_{M^P M}$
1982	$B_{M^P u}$
1983	$B_{M^P u}$

It defines its performance plans as:

The performance period for 1984 awards is four years commencing January 1, 1984. Payment at the end of the period will be based on the Corporation's average annual pretax return on shareholders' equity ("ROE") over the period as determined by the independent auditors of the Corporation based on the financial statements of the Corporation distributed to the shareholders. In early 1988, if the ROE over the period averages 25% a year, the Corporation will pay out 100% of the shares of Common Stock represented by the Performance Shares or an equivalent amount in Cash, or a combination of both. If the ROE averages 35% or more, the payout will be a maximum of 200% of the number of Shares originally awarded. If the ROE averages 20%, or less, there will be no payout. The payout percentage will vary linearly between 0% and 100%. If the ROE for the period averages between 20% and 25% and linearly between 100% and 200% if the ROE for the period averages between 25% and 35%. If the employment of a recipient terminates prior to the end of a performance period, payment will be prorated subject to forfeiture.

Table C.25 provides the calculation of the type of portfolio using the parameters of bonus plans of General Dynamics Corp. Table C.26 provides the calculation of the type of portfolio using the parameters of performance plans of General Dynamics Corp. Table C.27 summarizes the results for the type of portfolio using the parameters of both bonus and performance plans of General Dynamics Corp.

Heinz Co. defines its bonus plans as follows:

The aggregate amount which may be awarded under the Plan for any one year is dependent upon the net income of the Company and its consolidated subsidiaries for such year, before taxes and before giving effect to extraordinary items, before taxes on income and before deductions for minority interest and the amount awarded under the Plan (Consolidated Pre-Tax Net Income). Although the Plan does not limit the amount of any individual award, the aggregate of all awards under the Plan may not exceed the sum of (a) 3% of Consolidated Pre-Tax Net Income plus (b) 5% of Consolidated Pre-Tax Net Income in excess of a 12% return on shareholders' equity in the Company. Shareholders' equity is the consolidated capital and surplus of the Company and its consolidated subsidiaries at the beginning of the fiscal year to which the award relates.

TABLE C.25

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLANS OF GENERAL DYNAMICS CORP.

<u>Year</u>	<u>Consolidated Earning Before Income Taxes</u>	<u>Lower Bound 14% of Shareholders' Equity</u>	<u>Type of Portfolio</u>
1984	683,600	148,694	B _M

TABLE C.26

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE PERFORMANCE PLANS OF GENERAL DYNAMICS CORP.

<u>Year</u>	<u>Return on Equity</u>	<u>Lower Bound</u>	<u>Upper Bound</u>	<u>Type of Portfolio</u>
1984	35.9	20	35	P _u

TABLE C.27

THE TYPE OF PORTFOLIO USING BOTH THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF GENERAL DYNAMICS CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1984	B _M P _u

It defines its performance plan as follows:

For the three-year award cycle beginning with fiscal year 1973 fourteen participants have been designated as eligible for long-term awards all of whom are either officers of the Company or Managing Directors of one of the company's subsidiaries.

The amounts of long-term awards will be determined by the degree of achievement of long-term performance goals established by the Committee and the importance of individual responsibilities of the participant. The Committee has established the goals shown in the following table expressed in terms of compound earnings per share (EPS) growth for the initial three-year cycle ending with fiscal year 1975 using as a base the EPS reported for fiscal year 1972. World Headquarters participants employed by affiliates will be measured against specific cumulative three-year earnings targets for their affiliate. Earnings per share for any year shall mean the consolidated fully diluted net earnings per share of the Company's Common Stock net of applicable income taxes (excluding extraordinary items) and after deduction for the cost of MIP as shown in the annual consolidated earnings statement for the Company and its consolidated subsidiaries included in its Annual Report to Shareholders.

<u>Goal</u> 3-Year Compound % Growth Rate in EPS	<u>Payment</u> % of Total Potential Award Interpolated for Intermediate Levels
1	0
2	0
3	0
4	0
5 - Minimum goal	50
6	60
7	70
8	80
9	90
10 - Outstanding goal	100

The attainment of an EPS growth rate in excess of the established outstanding goal will not result in the payment to any participant of more than 100% of his long-term award potential.

Table C.28 provides the calculation of the type of portfolio using the parameters of bonus contracts of Heinz Co. Table C.29 provides the calculation of the type of portfolio using the parameters of performance plans of Heinz Co. Table C.30 summarizes the results of the type of

TABLE C.28
 THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
 OF BONUS PLANS OF HEINZ CO.

Year	Consolidated Pre-Tax Net Income	Share- holders' Equity	Return On Share- holders' Equity	Lower Bound Return On Shareholders' Equity	Type of Portfolio
1973	21,388	393,543	5.43	12	B _L
1974	64,174	397,147	16.15	12	B _M
1975	66,567	444,980	14.19	12	B _M

TABLE C.29

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF HEINZ CO.

PERFORMANCE PERIOD 1973 - 1975

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1973	3.31	2.80	.51	.51	P _L
1974	3.67	2.80	.87	1.38	P _L
1975	4.40	2.80	1.60	2.98	P _L

* Minimum goals is 5% compounded growth rate in EPS over 3 years. A total growth of \$3.31 would be needed. Thus, these observations are classified as P_L since the growth is less than the lower bound.

TABLE C.30

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BONUS CONTRACT
AND PERFORMANCE PLANS OF HEINZ CO.

<u>Year</u>	<u>Type of Portfolio</u>
1973	B _L P _L
1974	B _M P _L
1975	B _M P _L

portfolio using the parameters of both bonus contract and performance plans of Heinz Co.

Honeywell Inc. defines its bonus plan as follows:

The total amount of incentive compensation under the Plan for any year is limited to 3% of the consolidated income for that year of the Company and its subsidiaries before federal or state taxes on income and before provision for incentive payments, provided that no payments may be made for any year in which a dividend of less than \$.50 per share is paid.

It defines its performance plans as follows:

The Plan is divided into Award Periods, the first two of which are four years each. The first began January 1, 1978 and the second will begin January 1, 1980. Subsequent Award Periods may vary in length (not less than two years) and may or may not overlap.

Selection of participants and determination of their tentative awards and of earnings per share goals and performance factors are made by those members of the Board of directors who do not participate in the Plan.

Tentative awards, stated in shares, will be multiplied by percentage performance factors determined by total earnings per share ("EPS") for an Award Period to determine actual awards. The performance factor will be 0% for any Award Period in which EPS does not equal the amount that would be produced by meeting a cumulative annual EPS growth goal of 9%. the highest performance factor that may be used is 130%. The performance factor of 130% will be achieved if total EPS for the four years at least equals the amount that would be produced by cumulative annual growth of 17% per year from 1977 EPS, and an EPS figure equating to 13% cumulative growth would produce a performance factor of 100%.

Table C.31 shows the calculation of the type of portfolio using the parameters of the bonus contract of Honeywell Inc. Table C.32 shows the calculation of the type of portfolio using the parameters of the performance plans of Honeywell Inc. Table C.33 summarizes the results of the type of portfolio using the parameters of bonus and performance plans of Honeywell Inc.

TABLE C.31

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLANS OF HONEYWELL INC.

<u>Year</u>	<u>Dividend Per Share</u>	<u>Lower Bound Dividend Per Share</u>	<u>Type of Portfolio</u>
1978	1.03	.50	B _M
1979	1.20	.50	B _M
1980	1.40	.50	B _M
1981	1.60	.50	B _M
1982	1.75	.50	B _M
1983	1.80	.50	B _M
1984	1.90	.50	B _M

TABLE C.32
THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF HONEYWELL INC.

PERFORMANCE PERIOD 1978 - 1981

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1978	4.24	6.39	(2.15)	(2.15)	P _L
1979	5.47	6.39	(.92)	(3.07)	P _L
1980	6.18	6.39	(.21)	(3.28)	P _L
1981	5.62	6.39	(.77)	(4.05)	P _L

* The minimum goal is a compounded growth rate of 9% over four years. A total growth of \$4.98 would be needed. Since this target is not attained, the observations are classified as P_L.

TABLE C.32

(Continued)

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF HONEYWELL INC.

PERFORMANCE PERIOD 1980 - 1983

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1980	6.18	5.47	1.20	1.20	P _L
1981	5.62	5.47	.64	1.84	P _L
1982	6.08	5.47	1.10	2.94	P _L
1983	5.03	5.47	.05	2.99	P _L

* The growth in EPS is less than the minimum goal of \$4.98 growth in EPS.

TABLE C.33

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF HONEYWELL INC.

<u>Year</u>	<u>Type of Portfolio</u>
1978	B _M P _L
1979	B _M P _L
1980	B _M P _L
1981	B _M P _L
1982	B _M P _L
1983	B _M P _L

Huffy specifies in its bonus plans the following schedule for the amount of bonus:

	Corporate Profits as % of Beginning Shareholders' Equity	Bonus % of Salary
	0 %	0
<u>Threshold</u>	20.0% - 20.9%	22.5%
	21.0 - 21.9	23.5
	22.0 - 22.9	24.5
	23.0 - 23.9	25.5
	24.0 - 24.9	26.5
<u>Target</u>	25.0 - 25.9	27.5
	26.0 - 26.9	28.5
	27.0 - 27.9	29.5
	28.0 - 28.9	30.5
	29.0 - 29.9	31.5
	30.0 - 30.9	32.5
	31.0 - 31.9	33.5
	32.0 - 32.9	34.5
	33.0 - 33.9	35.5
	34.0 - 34.9	37.5
	35.0 - 35.9	40.0
	36.0 - 36.9	42.5
	37.0 - 37.9	45.0
	38.0 - 38.9	47.5
	39.0 - 39.9	50.0
<u>Maximum</u>	40.0 & Over	55.0

It defines its sustained growth plan as follows:

For the Award Cycle commencing June 25, 1977 and for each Award Cycle thereafter, unless different performance measures are determined by the Committee prior to the end of the first three months of such Award Cycle, the Threshold Sustained Growth Performance, the Target Sustained Growth Performance and the Maximum Sustained Growth Performance shall be as follows:

Average Annual Rate of Compound
Growth in Earnings Per Common Share

Threshold	4%
Target	7%
Maximum	15%

Table C.34 provides the calculation of the type of portfolio using the parameters of the bonus contract of Hufffy. Table C.35 shows the calculation of the type of portfolio using the parameters of the performance plan of Hufffy. Table C.36 summarizes the results of the type of portfolio using the parameters of the bonus and performance plans of Hufffy.

International Paper Co. defines its bonus plans as follows:

The present terms of the Incentive Compensation Plan (ICP) provide that in each year incentive awards may be made by the Committee provided Net Earnings for such year exceed an amount equal to 6% of Share Owners' Equity. Share Owners' Equity for the for any year is defined as the amount reported as Share Owners' Equity (or the comparable item however designated) at the end of the preceding year as reported in the consolidated balance sheet included in the Company's Annual Report to Share Owners. For any year in which there is an excess, 8% of the excess is available for incentive awards, provided, however that in no event shall the amount available for awards in any year exceed an amount equal to 10% of the cash dividends declared on the outstanding common stock of the Company during such year.

It defines its performance plans as follows:

Each award under this plan shall be a contingent award with respect to a period of three consecutive calendar years (herein called an "Award Period"). The first Award Period shall be the years 1972, 1973 and 1974. The "Profit Base" for the respective years within the first Award Period shall be as follows:

<u>Year</u>	<u>Amount</u>
1972	\$1.70
1973	\$1.87
1974	\$2.06

TABLE C.34
THE CALCULATION OF THE TYPE OF PORTFOLIO USING
THE PARAMETERS OF BONUS PLANS OF HUFFY

Year	Return on Equity (ROE)	Lower Bound ROE	Upper Bound ROE	Type of Portfolio
1978	20.14	20	40	B _M
1979	17.70	20	40	B _L
1980	21.80	20	40	B _M
1981	14.12	20	40	B _L
1982	6.41	20	40	B _L

TABLE C.35

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE PERFORMANCE PLANS OF HUFFY

PERFORMANCE PERIOD 1978 - 1980

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1978	2.25	2.71	(.46)	(.46)	P _L
1979	2.37	2.71	(.34)	(.80)	P _L
1980	2.10	2.71	(.61)	(1.41)	P _L

* The threshold is 4% average annual rate of compound growth in EPS. A total growth of \$3.2 would be needed. Since this threshold is not attained, these observations are classified as P_L.

PERFORMANCE PERIOD 1979 - 1981

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1979	2.37	2.25	.12	.12	P _L
1980	2.10	2.25	(.15)	(.30)	P _L
1981	1.35	2.25	(.9)	(.12)	P _L

TABLE C.35
(Continued)

PERFORMANCE PERIOD 1980 - 1981

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1980	2.10	2.37	(.27)	(.27)	P _L
1981	1.35	2.37	(1.02)	(1.29)	P _L
1982	.61	2.37	(1.76)	(3.05)	P _L

TABLE C.36

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF HUFFY

<u>Year</u>	<u>Type of Portfolio</u>
1978	$B_{M^P L}$
1979	$B_{L^P L}$
1980	$B_{M^P L}$
1981	$B_{L^P L}$
1982	$B_{L^P L}$

Awards will be earned to the extent that the total Earnings Per Share for the entire Award Period exceed the total of the Profit Bases for the entire Award Period, as follows:

If the Total Earnings Per Share for a 3 Year Award Period Exceed Total Profit Bases for the 3 Year Award Period by this Percentage of <u>the Total Profit Bases</u>	<u>The Maximum Award Shall be the Following Percentage of the Contingent Award</u>
1	2.00
2	4.20
3	6.66
4	9.60
5	12.78
6	16.77
7	21.57
8	27.36
9	34.38
10	43.17
11	54.15
12	65.94
13	70.32
14	73.92
15	76.92
16	80.31
17	83.13
18	85.92
19	88.50
20	90.72
21	92.70
22	94.59
23	96.45
24	98.25
25	100.00

The term "Earnings per Share," as used herein, shall mean for any year net earnings per share of common stock (excluding any extraordinary items net of income tax) as reported in the consolidated earnings statement for that year included in the Company's annual report to shareholders. For this purpose an item in an earnings statement showing the cumulative effect on prior years of a change in an accounting principle shall be deemed to be an extraordinary item.

Profit Bases presently set for the 1978-1980 Award Period are \$5.18 for 1978, \$5.21 for 1979 and \$5.24 for 1980. The total profit bases for the 1978-1980 Award Period are \$15.63.

Profit Bases for the Award Period 1981-1983 are \$8.27 for 1981, \$5.67 for 1982, and \$5.90 for 1983. The total profit bases for the 1981-1983 Award Period are \$19.84.

Table C.37 shows the calculation of the type of portfolio using the parameters of bonus contract of International Paper Co. Table C.38 shows the calculation of the type of portfolio using the parameters of performance plans of International Paper Co. Table C.39 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of International Paper Co.

Koppers defines its bonus plan as follows:

There shall be credited to the incentive fund an amount not to exceed 2.5% of the Company's total income before any provision for incentive payments, interest, income taxes and extraordinary items, after deducting 12% of invested capital as defined in the Plan. This credit is not to reduce the net income to common stock below an amount equivalent to 125% of the amount needed to cover the regular common stock cash dividends. Invested capital is defined as the sum of earned surplus at the beginning of the year plus the average for the year of the stated value of the common, preference, and preferred stock, capital surplus and total debt (including commercial paper).

It defines its performance plan as follows:

The performance shares granted become earned, upon conclusion of three years performance period, only to the extent that Koppers growth in earning per share of common stock during such period reaches certain levels. the performance units will be earned, in part, only if growth in earning per share for the performance periods ending 1981 and 1984 are at least 10% per year (compounded annually) and will be earned, in full, if such growth is at least 15% per year (compounded annually).

Table C.40 presents the calculation of the type of portfolio using the parameters of bonus plans of Koppers. Table C.41 presents the calculation of the type of portfolio using the parameters of performance plans of Koppers. Table C.42 summarizes the results of the type of

TABLE C.37

THE CALCULATION OF THE TYPE OF PORTFOLIO USING
THE PARAMETERS OF THE BONUS CONTRACT OF INTERNATIONAL PAPER CO.

Year	Net Earning	Lower Bound 6% of Shareowners' Equity	Upper Bound 10% of Cash Div/ 8% + 6% of Share-owners' Equity	Cash Flow From Operations	Type of Portfolio*
1972	102,736	67,067	150,515	363,653	B _u
1973	159,800	70,788	167,663	331,414	B _u
1974	200,600	82,032	178,532	458,000	B _u
1978	234,000	129,534	248,284	525,200	B _u
1979	525,000	156,150	287,400	716,400	B _u
1980	314,000	169,740	317,240	244,600	B _M
1981	525,000	191,652	340,152	328,800	B _M
1982	171,800	192,312	340,687	931,900	B _L
1983	154,800	199,272	347,772	468,300	B _L

* In the years 1972, 1973, 1974, 1978, and 1979 net earning is greater than the lower bound and cash flow from operations is greater than the upper bound. Thus the upper bound is binding and these observations are classified as B_u. In the years 1980, 1981, neither the lower nor the upper bound is binding and these observations are classified as B_M. In 1982, and 1983, the lower bound is binding since earning is below the lower bound.

* Cash flow from operations indicates increase in negative accruals in 1979. This was mainly in the form of increase in taxes payable. In 1982, there is increase in negative accruals, this was mainly in the form of a decrease in accounts receivable compared to year 1981.

TABLE C.38

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF INTERNATIONAL PAPER CO.

PERFORMANCE PERIOD 1972 - 1974

Year	EPS	Profit Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1972	2.30	1.70	.60	.60	P _L
1973	3.60	1.87	1.73	2.33	P _L
1974	3.95	2.06	1.89	4.22	P _M

* The minimum target is 1% growth in EPS during three years. A total growth of \$3.06 would be needed. The maximum target is 25% growth. A total growth of \$4.76 would be needed. since the cumulative growth in EPS in 1974 exceeded the maximum target, this observation is classified as P_u.

PERFORMANCE PERIOD 1978 - 1980

Year	EPS	Profit Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1978	4.94	5.18	(.24)	(.24)	P _L
1979	10.96	5.21	5.75	5.51	P _u
1980	5.97	5.24	.73	5.24	P _u

TABLE C.38
(Continued)

PERFORMANCE PERIOD 1981 - 1983

Year	EPS	Profit Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1981	10.08	8.27	1.81	1.81	P _L
1982	2.72	5.67	(2.95)	(1.14)	P _L
1983	2.61	5.90	(3.29)	(4.43)	P _L

TABLE C.39

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF THE BONUS CONTRACT
AND PERFORMANCE PLANS OF INTERNATIONAL PAPER CO.

Year	Type of Portfolio
1972	B _U P _L
1973	B _U P _L
1974	B _U P _M _E
1978	B _U P _L
1979	B _U P _U
1980	B _M P _U
1981	B _M P _L
1982	B _L P _L
1983	B _L P _L

TABLE C.40

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS CONTRACT OF KOPPERS

Year	Income Before Interest, Bonus, Taxes, and Extra- Ordinary Items	Lower Bound 12% of Inv. Cap.	Upper Bound 125% of Cash Div.	Cash Flow From Operations	Type of Portfolio*
1979	127,346	106,785	40,717	194,439	B _u
1980	82,592	132,359	47,233	(45,762)	B _L
1981	86,507	131,038	48,460	202,404	B _L
1982	(39,493)	118,271	48,751	175,706	B _L
1983	48,343	113,331	28,081	171,682	B _L
1984	44,242	108,309	28,593	112,216	B _L

* In 1979, earning is above the lower bound and cash flow from operations is greater than the upper bound. Thus this observation is classified as B_u. In other years, earning is below the lower bound and these observations are classified as B_L.

* Cash flow from operations in 1980 indicates positive accruals. This was in the form of increase in accounts receivable and inventory and a decrease in accounts payable and taxes payable.

TABLE C.41

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE PERFORMANCE PLANS OF KOPPERS

PERFORMANCE PERIOD 1979 - 1981

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1979	3.16	3.01	.15	.15	P _L
1980	2.16	3.01	(.85)	(.70)	P _L
1981	1.59	3.01	(1.42)	(2.12)	P _L

* Minimum target is 10% compound growth in EPS during three years. A total growth of \$3.64 is needed. Since the cumulative growth is below that target, these observations are classified as P_L.

PERFORMANCE PERIOD 1982 - 1984

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1982	(1.13)	1.59	.46	.46	P _L
1983	.78	1.59	(.81)	(.35)	P _L
1984	.97	1.59	(.62)	(.97)	P _L

* EPS is below the minimum target.

TABLE C.42

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF KOPPERS.

<u>Year</u>	<u>Type of Portfolio</u>
1979	B _U P _L
1980	B _L P _L
1981	B _L P _L
1982	B _L P _L
1983	B _L P _L
1984	B _L P _L

portfolio using the parameters of both bonus and performance plans of Koppers.

Macmillan Inc. defines its bonus plan as follows:

Under the Company's Short Term Executive Compensation Plan, in no event shall any award be paid if the company's earning per share after accruing for all awards under the plan is less than \$1.10. the term "Earning Per Share" shall mean the Company's primary earnings per common and common equivalent share, from continuing operations and before the cumulative effect of accounting changes and extraordinary items.

It defines its performance plans as follows:

The performance objectives shall be based on cumulative annual growth in the Company's Earnings Per Share during the Award Period over a base Earnings Per Share fixed by the Committee. The base Earnings Per Share fixed for any Award Period will normally be the Earnings Per share of the Company for its fiscal year immediately preceding such Award Period. In no event will the minimum performance objective fixed by the Committee for any Award Period be less than 6% cumulative annual growth in Earnings Per Share.

Table C.43 shows the calculation of the type of portfolio using the parameters of bonus contract of Macmillan Inc. Table C.44 shows the calculation of the type of portfolio using the parameters of performance plans of Macmillan Inc. Table C.45 summarizes the results of the type of portfolio using the parameters of bonus and performance plans.

Monsanto Co. defines its bonus plans as follows:

- (a) The Company shall establish and maintain a bonus to which shall be credited each year such amount, if any, as shall be determined by the Committee. This annual amount shall not exceed 7% of the net income of the Company determined in accordance with the provisions of paragraph (b), Section 2 of this Article III (hereinafter called "Bonus Net Income"); provided that no such credit shall be made to the bonus reserve which shall result in reducing, below 7% of the average Shareowners' Equity of the Company and Consolidated Subsidiaries as of the beginning and the end of such year, the net income for such year of the Company and Consolidated Subsidiaries, after all charges including interest and taxes,

TABLE C.43

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF BONUS PLANS OF MACMILLAN INC.

Year	EPS	Lower Bound: EPS = \$1.10	Type of Portfolio
1978	2.07	1.10	B _M
1979	1.30	1.10	B _M
1980	.65	1.10	B _L
1981	1.15	1.10	B _M
1982	2.31	1.10	B _M
1983	3.60	1.10	B _M
1984	3.45	1.10	B _M

TABLE C.44

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF MACMILLAN INC.

PERFORMANCE PERIOD 1978 - 1980

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1978	2.07	1.71	.36	.36	P _L
1979	1.30	1.71	(.41)	(.05)	P _L
1980	.65	1.71	(1.06)	(1.11)	P _L

* Minimum target is 6% compound growth in EPS. A total growth of \$3.4 would be needed. Since the growth in EPS is less than the minimum target, these observations are classified P_L.

PERFORMANCE PERIOD 1979 - 1981

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1979	1.30	2.07	(.77)	(.77)	P _L
1980	.65	2.07	(1.42)	(2.19)	P _L
1981	1.15	2.07	(.92)	(3.11)	P _L

TABLE C.44

(Continued)

PERFORMANCE PERIOD 1980 - 1982

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1980	.65	1.30	(.65)	(.65)	P _L
1981	1.15	1.30	(.15)	(.80)	P _L
1982	2.31	1.30	1.01	.21	P _L

PERFORMANCE PERIOD 1981 - 1983

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1981	1.15	.65	.50	.50	P _L
1982	2.31	.65	1.65	2.15	P _L
1983	3.60	.65	2.95	5.10	P _M

* In 1983, the total growth is \$5.10 which is greater than the minimum target of \$3.40.

TABLE C.44

(Continued)

PERFORMANCE PERIOD 1982 - 1984

<u>Year</u>	<u>EPS</u>	<u>Earning Base</u>	<u>Growth in EPS</u>	<u>Cumulative Growth in EPS</u>	<u>Type of Portfolio</u>
1982	2.31	1.15	1.16	1.16	P _L
1983	3.60	1.15	2.45	3.61	P _M
1984	3.45	1.15	2.30	5.91	P _M

TABLE C.45

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS CONTRACT AND PERFORMANCE PLANS OF MACMILLAN INC.

<u>Year</u>	<u>Type of Portfolio</u>
1978	$B_{M^P L}$
1979	$B_{M^P L}$
1980	$B_{L^P L}$
1981	$B_{M^P L}$
1982	$B_{M^P M}$
1983	$B_{M^P M}$
1984	$B_{M^P M}$

on the same basis as set forth in that year's Annual report of the Company.

- (b) "Bonus Net Income" shall be the amount of income (after all taxes), before Extraordinary Items, for the Company and Consolidated Subsidiaries for any year as shown in the Statement of Consolidated Income set forth in the Annual Report of the Company for such year, adjusted, however, by:
- (i) adding:
 - (A) Any amounts of interest charged to consolidated income for the year on Debt, such interest to include charges or credits arising out of amortization of premium or discount paid or received with respect to such Debt, and
 - (B) The amount of bonus provision and any adjustment to the bonus reserve charged to consolidated income, and
 - (C) The Provision for Income Taxes (including deferred taxes) for the year as set forth in that year's Annual report of the Company, and
 - (ii) deducting:
 - (A) The amount of any dividends and interest or any equity in earnings included therein from unconsolidated Subsidiaries and Associated Company, and
 - (B) Any adjustment to the bonus reserve restored to net income, and
 - (C) An amount equal to 11% of the "Bonus Net Capital Employed," as defined in paragraph (c) of this Section 2.
- (c) The term "Bonus Net Capital Employed" for any year shall mean 1/12 of the sum of the amounts of Shareowners' Equity and Debt, as of the close of business on the last day of each calendar month of such year, on the same basis of consolidation, as that for the Company and Consolidated Subsidiaries set forth in the Statement of Consolidated Financial Position in that year's Annual Report of the Company after elimination from such month-end figures of (i) the investment in unconsolidated Subsidiaries and Associated Companies, and (ii) loans and advances to unconsolidated Subsidiaries and Associated Companies. For the foregoing purposes, in determining the amount of retained earnings as of the close of business on the last day of each calendar month of such year, net income for such year, as set forth in the Statement of Consolidated Income in the Annual Report of the Company for such year, shall be prorated on an equal basis to each such calendar month.

Monstanto defines its performance plans as follows:

Pursuant to the 1974 Plan, the Executive Compensation and Development Committee also established a Long-Term Incentive Plan to encourage sustained growth in the Company's earnings. Under this program, units are granted annually by the Committee to senior executives. These units entitle the participant (subject to the terms of his incentive commitment) to a payment after five years for each unit if specified performance objectives are attained. Performance objectives are based upon the increase in the average annual compounded increase in primary earnings per share of the Company's Common Stock during the five-year performance period over a base amount computed from the average primary earnings per share during the three years preceeding the year of grant. (An adjustment is made for years prior to 1974 to reflect the Company's change to the LIFO accounting practice). For the 1976-1980 and 1977-1981 performance periods the units have a value of \$100 if a performance objective of 7% average annual compounded increase in primary earnings per share is attained. The units have no value and result in no payment if the growth rate during these five-year performance periods is not above 3.8% per share and have a value of \$150 if the growth rate is 10% or more. Awards based on intermediate growth rates from the performance objective of 7% will be computed on a proportional basis. For the 1978-1982, 1979-1983, and 1980-1984 five-year performance periods, a growth rate of 7.5%, rather than 7.0%, is required for the units to have a value of \$100 and a growth rate of less than 5% per share, rather than 3.8%, will result in no payment. Units will continue to have a value of \$150 if the growth rate is 10% or more. Intermediate growth rates will result in awards computed proportionately from the 7.5% objective.

Table C.46 provides the calculation of the type of portfolio using the parameters of the bonus contract of Monsanto Co. Table C.47 provides the calculation of the type of portfolio using the parameters of performance plan of Monsanto. Table C.48 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of Monsanto Co.

Polaroid Corp. defines its bonus plan as follows:

The company's contribution to the incentive compensation plan each year is an amount equal to 10% of the excess of the consolidated net profit before taxes of the company and its subsidiaries for such year over 10% of the stockholders' equity on the last day of the preceding year.

TABLE C.46

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF BONUS PLANS OF MONSANTO CO.

Year	Bonus Net Income	Lower Bound: 7% of Avg. Shareholders' Equity	Type of Portfolio
1980	699,453	255,535	B _M
1981	548,741	250,495	B _M
1982	451,778	238,707	B _M
1983	726,274	214,844	B _M
1984	105,174	195,650	B _L

TABLE C.47

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF MONSTANTO CO.

PERFORMANCE PERIOD 1976 - 1980

Year	EPS	Earning Base: Avg. EPS During The Preceding 3 Years	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1976	5.03	4.13	.96	.90	P _L
1977	3.37	4.13	(.76)	.14	P _L
1978	4.15	4.13	.02	.16	P _L
1979	4.56	4.13	.43	.59	P _L
1980	4.05	4.13	(.08)	.51	P _L

* Minimum target is 3.8% compound growth in EPS. A total growth of \$5.6 would be needed during 5 years. Since this target is not attained, observations are classified as P_L.

TABLE C.47

(Continued)

PERFORMANCE PERIOD 1977 - 1981

Year	EPS	Earning Base: Avg. EPS During The Preceding 3 Years	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1977	3.37	4.65	(1.28)	(1.28)	P _L
1978	4.15	4.65	(.50)	(1.78)	P _L
1979	4.56	4.65	(.09)	(1.87)	P _L
1980	4.05	4.65	(.60)	(2.47)	P _L
1981	5.75	4.65	1.10	(1.37)	P _L

PERFORMANCE PERIOD 1978 - 1982

Year	EPS	Earning Base: Avg. EPS During The Preceding 3 Years	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1978	4.15	4.23	(.08)	(.08)	P _L
1979	4.56	4.23	.33	.25	P _L
1980	4.05	4.23	(.18)	.07	P _L
1981	5.75	4.23	1.52	1.59	P _L
1982	4.40	4.23	.17	1.76	P _L

* Minimum growth rate is 5%. A total growth of \$5.80 is needed.

TABLE C.47

(Continued)

PERFORMANCE PERIOD 1979 - 1983

Year	EPS	Earning Base: Avg. EPS During The Preceding 3 Years	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1979	4.56	4.18	.38	.38	P _L
1980	4.05	4.18	(.13)	.25	P _L
1981	5.75	4.18	1.57	1.82	P _L
1982	4.40	4.18	.22	2.04	P _L
1983	4.89	4.18	.71	2.75	P _L

PERFORMANCE PERIOD 1980 - 1984

Year	EPS	Earning Base: Avg. EPS During The Preceding 3 Years	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1980	4.05	4.02	.03	.03	P _L
1981	5.75	4.02	1.73	1.76	P _L
1982	4.40	4.02	.38	2.14	P _L
1983	4.89	4.02	.87	3.01	P _L
1984	4.42	4.02	.40	3.41	P _L

TABLE C.48

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF MONSANTO CO.

<u>Year</u>	<u>Type of Portfolio*</u>
1980	B _M P _L
1981	B _M P _L
1982	B _M P _L
1983	B _M P _L
1984	B _L P _L

It defines its performance plan as follows:

The Polaroid Performance Share Plan is established for the purpose of retaining the services of executives and other key employees of Polaroid Corporation. "Award Period" means any of the following periods:

- (i) First Award Period means a period of three consecutive Years commencing with 1973.
- (ii) Second Award Period means a period of four consecutive Years commencing with 1974.
- (iii) Third, Fourth and Fifth Award Periods mean, respectively, periods of five consecutive Years commencing with 1975, 1977 and 1979.

"Award Period Objective" means the objective in terms of cumulative annual earnings per share of the outstanding Common Stock of the Company during an Award Period, established by the Committee for the purposes of the Plan.

The Award Period Objective for the First Award Period shall be cumulative annual earnings per share of the Company's Common Stock during such Award Period equal to the result of applying an annual compound growth rate of fifteen percent to the earnings per share base for such Award Period determined in accordance with subsection (d) of this Section 4. Participation Awards shall become distributable after the end of the First Award Period only with respect to the percentage thereof determined in accordance with the following table:

<u>Cumulative Annual Earnings Per Share during the Award Period Corresponding to an Annual Compound Growth Rate of:</u>	<u>Distributable Percentage of Participation Award</u>
15% or more	100
14%	85
13%	70
12%	55
11%	40
10%	25
Less than 10%	0

If the annual compound growth rate during the First Award Period shall fall between percentages set forth in the first column of the table above, the distributable percentage of each Participation Award set forth in the second column shall be prorated as appropriate; for example, 13.2% in the first column would result in 73% in the second column.

The earnings per share of the Company's Common Stock for any Year shall be the amount thereof as shown in the statement of consolidated earnings in the Company's Annual Report to Stockholders for such Year; provided, however, that in the computation of such earnings per share for the purposes of the Plan, there shall be excluded, to the extent that the Committee in its judgment shall deem appropriate, the whole or

any part of extraordinary gains, losses, charges or credits. The annual compound growth rate shall be computed for the First Award Period upon an earnings per share base equal to the average of the consolidated earnings per share of the Company and its Subsidiaries for the four Years immediately preceding the commencement of that Award Period.

Table C.49 provides the calculation of the type of portfolio using the parameters of bonus plans of Polaroid. Table C.50 shows the calculation of the type of portfolio using the parameters of performance plans of Polaroid. Table C.51 summarizes the results for the type of portfolio using the parameters of both bonus and performance plans.

Ralston Purina defines its bonus plan as follows:

There shall be established an Incentive Compensation Reserve herein sometimes referred to as the "Reserve". There shall be credited to the Reserve for each fiscal year of the Company such an amount as may be authorized by the board of Directors of the Company provided that such amount shall not exceed 10% of the amount by which the Pre-Tax Earnings of the Consolidated Group for that year exceed 10% of the Capital Investment of the Consolidated Group for such year. The term "earnings before taxes of the Consolidated Group", as used in this Plan, means for any fiscal year (1) the consolidated earnings before provision for U.S. foreign income taxes as reported in the Annual Report to Shareholders of Ralston Purina Company, as certified by the Independent Public Accountants examining the accounts of the Consolidated Group for the applicable fiscal year plus (2) that part of the amount credited to the Pool for such fiscal year which was deducted as an expense of operations in determining such consolidated earnings.

The term "capital investment of the Consolidated Group", as used in this Plan, means for any fiscal year the book value of Ralston Purina Company's common stock plus the amount of long term indebtedness (maturity date of longer than one year) of the Consolidated Group as determined at the beginning of the applicable fiscal year. Book value of the Company's common stock consists of the sum of (1) the par value of all issued and outstanding common stock of Ralston Purina Company, and (2) the aggregate amount of the consolidated earned and capital surplus of the Consolidated Group.

It defines its performance plans as follows:

The Performance Award shall be paid only to the extent that the following conditions are satisfied:

TABLE C.49

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLANS OF POLAROID CORP.

Year	Consolidated Net Profit Before Taxes	Lower Bound: 10% of Share- holders' Equity	Type of Portfolio
1973	90,416	61,909	B _M
1974	75,118	63,694	B _M
1975	123,274	68,901	B _M

TABLE C.50

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE PERFORMANCE PLANS OF POLAROID CORP.

Year	EPS	Earning Base: Avg. of EPS During the Preceding 4 Years	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1973	1.58	1.75	(.17)	(.17)	P _L
1974	.86	1.75	(.89)	(1.06)	P _L
1975	1.91	1.75	(.15)	(1.21)	P _L

* Minimum target is 15% growth in EPS. A total growth of \$3.9 is needed during 3 years. Since this target is not attained, these observations are classified as P_L.

TABLE C.51

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF POLAROID

Year	Type of Portfolio*
1973	B _M P _L
1974	B _M P _L
1975	B _M P _L

The consolidated pre-tax earnings of the Company and its subsidiaries, as set forth in the Annual Report of the Company for the fiscal year ending September 30, 1981 and 1984 shall have achieved an average annual compound growth rate over the consolidated pre-tax earnings of the Company and its subsidiaries as set forth in the Annual Report of the Company for the fiscal year ended September 30, 1977, and 1980 respectively, as set forth in the following table:

Total Award Payment Table

<u>If Compounded Annual Growth in Consolidated Earnings Is</u>	<u>Percentage of Total Award Payable Will Be</u>
10% or more	100%
Less than 7%	Zero

Table C.52 provides the calculation of the type of portfolio using the parameters of bonus plans of Ralston Purina. Table C.53 provides the calculation of the type of portfolio using the parameters of performance plans of Ralston Purina. Table C.54 summarizes the results of the type of portfolio using the parameters of bonus and performance plans.

Revlon defines its bonus plan as follows:

Compensation Plans and Arrangements

In addition to its program of discretionary bonus awards made to a broad range of employees. Revlon has in effect a Management Bonus Fund established in 1954 designed to reward others who are directors based upon Revlon and individual performance during the preceding year. The Funds consist of an amount for each year equal to 5% of the excess of consolidated net profits, before income taxes over \$100,000,000.

It defines its performance plan as follows:

As set by the Plan, the first three year Performance Period was January 1, 1974 through December 31, 1976. As set by the Plan Committee, the second Performance Period was January 1, 1977 through December 31, 1979 and the minimum performance objective was cumulative growth in the earnings per share of the Common Stock (after all accruals

TABLE C.52

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLANS OF RALSTON PURINA

Year	Pre-Tax Earning	Lower Bound: 10% of Capital Investment'	Type of Portfolio
1978	287,100	105,920	B _M
1979	232,900	115,560	B _M
1980	296,100	121,670	B _M
1981	327,100	130,500	B _M
1982	155,000	138,090	B _M
1983	463,300	125,510	B _M
1984	437,800	119,300	B _M

TABLE C.53

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF RALSTON PURINA

PERFORMANCE PERIOD 1978 - 1981

Year	Consolidated Pre-Tax Earning	Earning Base	Growth	The Ratio of Growth	Cumulative Growth	Type of Port- folio*
1978	287,100	269,800	17,300	.06	.06	P _L
1979	232,900	269,800	(36,900)	(.16)	(.10)	P _L
1980	296,100	269,800	26,300	.08	(.02)	P _L
1981	327,100	269,800	57,300	.18	.16	P _L

* The minimum target is 7% growth in consolidated pre-tax earning. A total growth of \$3.7 is needed. Since this target is not attained, these observations are classified as P_L.

PERFORMANCE PERIOD 1981 - 1984

Year	Consolidated Pre-Tax Earning	Earning Base	Growth	The Ratio of Growth	Cumulative Growth	Type of Port- folio*
1981	327,100	296,100	31,000	.09	.09	P _L
1982	155,000	296,100	(141,100)	(.90)	(.81)	P _L
1983	463,300	296,100	167,200	.36	(.45)	P _L
1984	437,800	296,100	141,700	.32	(.13)	P _L

TABLE C.54

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF RALSTON PURINA

<u>Year</u>	<u>Type of Portfolio</u>
1978	B _M P _L
1979	B _M P _L
1980	B _M P _L
1981	B _M P _L
1982	B _M P _L
1983	B _M P _L
1984	B _M P _L

for the Plan) equal to at least 12% per year (compounded annually) over the 1976 earnings per share. As set by the Committee, the third Performance Period is January 1, 1980 through December 31, 1982 and for that period, if the incremental earnings per share of the Common Stock (after all accruals for the Plan) are equivalent to a cumulative growth rate of at least 12% per year (compounded annually) over the 1979 earnings per share, each Performance Unit granted for that period will be convertible into a Participant Account.

Table C.55 shows the calculation of the type of portfolio using the parameters of bonus contracts. Table C.56 shows the calculation of the type of portfolio using the parameters of performance plans. Table C.57 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of Revlon.

Scientific Atlanta Inc. defines its bonus plan as follows:

A bonus will be paid to eligible officers of the Corporation if the profit before taxes for the year equals 29% of the Stockholders' Equity (Initial Hurdle) and that the amount of the bonus pool will equal 2% of the Initial Hurdle plus 10% of the profit before taxes in excess of Initial Hurdle.

It defines its performance plans as follows:

The purpose of this plan is to provide incentive to key Executive Officers who contribute in a substantial degree to the long-term success of the Company, to provide a means for such officers to participate in such success and to assist in attracting and retaining the highest quality people in key executive positions.

A portion, or all, of each award of Share Units shall be forfeited and cancelled in all respects, and no Common Stock or cash shall be delivered or paid with respect to the portion of such award so forfeited and cancelled, in the event that the aggregate Earnings Per Share for the Measuring Period with respect to the Share Units which were the subject of such award is not at least equal to 422% of the Earnings per Share for the fiscal year (the "Base Year") immediately preceding such

TABLE C.55

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF BONUS PLANS OF REVLON

Year	Consolidated Net Profit Before Income Taxes	Lower Bound	Type of Portfolio
1974	89,948	100,000	B _L
1975	98,895	100,000	B _L
1976	120,895	100,000	B _M
1977	153,406	100,000	B _M
1978	184,697	100,000	B _M
1979	244,748	100,000	B _M
1980	283,934	100,000	B _M
1981	337,396	100,000	B _M
1982	302,038	100,000	B _M

TABLE C.56

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF PERFORMANCE PLANS OF REVLOM

PERFORMANCE PERIOD 1974 - 1976

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1974	3.82	3.30	.52	.52	P _L
1975	4.35	3.30	1.05	1.57	P _L
1976	2.68	3.30	(.62)	.95	P _L

* Minimum target is 12% compound growth in EPS. Total growth of \$3.8 would be needed during 3 years. Since this target is not attained, observations are classified as P_L.

TABLE C.56

(Continued)

PERFORMANCE PERIOD 1977 - 1979

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1977	3.20	2.68	.52	.52	P _L
1978	4.04	2.68	1.36	1.88	P _L
1979	4.60	2.68	1.92	3.80	P _M

PERFORMANCE PERIOD 1980 - 1982

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1980	4.87	4.60	.27	.27	P _L
1981	4.10	4.60	(.50)	(.23)	P _L
1982	2.45	4.60	(2.15)	(2.38)	P _L

TABLE C.57

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF REVLOX

Year	Type of Portfolio
1974	B _L P _L
1975	B _L P _L
1976	B _M P _L
1977	B _M P _L
1978	B _M P _L
1979	B _M P _M
1980	B _M P _L
1981	B _M P _L
1982	B _M P _L

Measuring Period. The portion of each such award to be forfeited shall be determined in accordance with the following table:

<u>If Aggregate Earnings Per Share for Measuring Period as a Percentage of Earnings Per Share for Base Year Is</u>		<u>Percentage of Share Units Forfeited</u>
<u>At Least</u>	<u>But Less Than</u>	
422%	- %	None
399%	422%	10%
378%	399%	25%
364%	378%	50%
- %	364%	100%

"Earnings Per Share" shall mean, with respect to any fiscal year of the Company, the Company's primary earnings per share after taxes for such fiscal year, as determined in accordance with generally accepted accounting principles consistently applied, all as shown on the financial statement of the Company for such fiscal year certified by its independent certified public accountants.

"Measuring Period" shall mean the three fiscal years of the Company commencing with the fiscal year following that in which the award of a particular Share Unit is made.

Table C.58 provides the calculation of the type of portfolio using the parameters of the bonus plan of Scientific Atlanta Inc. Table C.59 provides the calculation of the type of portfolio using the parameters of performance plans of Scientific Atlanta Inc. Table C.60 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of Scientific Atlanta Inc.

Sealed Power Corporation defines its bonus plan as follows:

Prior to the end of each Fiscal Year, the Board of Directors shall establish by appropriate resolution the Fund for such year subject to the overall limitation that the amount so established of any Fiscal Year shall not be less than 3% nor more than 5% of the difference between Net Profits for the Fiscal Year, and an amount equal to 10% of the consolidated net worth of the Company and its Subsidiaries determined as of the beginning of such Fiscal Year.

TABLE C.58

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLANS OF SCIENTIFIC ATLANTA INC.

Year	Profit After Taxes	Lower Bound 29% of Stock- holders' Equity	Type of Portfolio
1979	7,590	8,761	B _L
1980	12,721	13,818	B _L
1981	19,005	25,039	B _L
1982	14,152	31,832	B _L

TABLE C.59

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF SCIENTIFIC ATLANTA INC.

PERFORMANCE PERIOD 1979 - 1981

Year	EPS	Aggregate EPS	EPS for the Base Year	% of Agg. EPS to EPS of the Base Year	Lower Bound %	Upper Bound %	Type of Port- folio*
1979	.45	.45	.35	128	364	422	P _L
1980	.75	1.20	.35	342	364	422	P _L
1981	.90	2.10	.35	600	364	422	P _u

* Minimum target is an aggregate earning per share for measuring period as a percentage of EPS for base year equal 364%. Maximum target = 422%. In years 1979, and 1980, the minimum target is not attained and these observations are classified as P_L. In year 1981, the maximum target is exceeded and this observation is classified as P_u.

TABLE C.59

(Continued)

PERFORMANCE PERIOD 1980 - 1982

Year	EPS	Aggregate EPS	EPS for the Base Year	% of Agg. EPS to EPS of the Base Year	Lower Bound %	Upper Bound %	Type of Port- folio*
1980	.65	.65	.45	144	364	422	P _L
1981	.90	1.55	.45	344	364	422	P _L
1982	.63	2.18	.45	484	364	422	P _u

TABLE C.60

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
CONTRACT AND PERFORMANCE PLAN OF SCIENTIFIC ATLANTA INC.

<u>Year</u>	<u>Type of Portfolio</u>
1979	B _L P _L
1980	B _L P _L
1981	B _L P _u
1982	B _L P _u

It defines its performance plan as follows:

The Board of Directors adopted the Sealed Power Corporation Executive Performance Unit Plan effective January 1, 1978 in order to promote the long-term profitability and growth of SPC by offering an incentive to those key executives of SPC who are primarily responsible for and able to affect such objectives. The Plan provides for the granting of performance units having a specified value at the beginning of a four-year performance period. If SPC's net earnings per share of Common Stock in either the final year of the period or averaged over the entire four year period, have increased at specified annual compound growth rates, a percentage of the value of each unit will be earned and payable in cash or (at the discretion of the Board of Directors) in shares of Common Stock.

The Plan provides that performance periods will be established every other year and that performance units will be awarded for each performance period.

For the 1978 performance period (January 1, 1978 through December 31, 1981) SPC must achieve at least an 8% compound growth rate in net earnings per share in order for any payment to be made with respect to units granted for the period. The following table shows the payment that will be made for each unit depending upon the level of compound earnings growth achieved for the 1978 performance period:

<u>Compound Growth Rate in Net Income Per Share</u>	<u>Level of 1981 Net Income Per Share</u>	<u>Value of Each Performance Unit Earned For the Period</u>
Less than 8%	Less than \$3.31	Zero
8%	3.31	\$400
10%	3.56	500
12%	3.82	600
15%	4.25	900
18% or more	4.71 or more	

In 1980 the Board of Directors established the goals and awarded performance units for the 1980 performance period (January 1, 1980 through December 31, 1983). SPC must achieve at least a 10% annual growth rate in net earnings per share either in the final year of the period or averaged over the entire four year period in order for any payment to be made with respect to units granted for the 1980 performance period. Payment will be made for each unit depending on the level of compound earnings growth achieved in either 1983 or averaged

over 1980 through 1983, whichever is greater, as shown in the following table:

Compound Growth Rate in Net Income Per Share	Level of 1983 Net Income Per Share	Average Net Income Per Share 1980 - 1983	Value of Each Performance Unit Earned For the Period
Less than 10%	Less than \$6.36	Less than \$5.54	Zero
10%	6.37	5.55	\$400
12%	6.84	5.82	500
15%	7.61	6.25	650
18%	8.43	6.69	800
20% or more	9.02 or more	7.01 or more	900

"Earnings Base" shall mean the consolidated net income per share on the Common Stock of the Company for the fiscal year ending immediately prior to a Performance Period as certified to by the independent certified public accountants for the Company and as contained in the Company's annual report to stockholders for such year and shall be the earnings used in determining the earnings growth during a Performance Period.

Table C.61 provides the calculation of the type of portfolio using the parameters of bonus plans of Sealed Power Corp. Table C.62 provides the calculation of the type of portfolio using the parameters of performance plans of Sealed Power Corp. Table C.63 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of Sealed Power Corp.

Standard Brands Inc. defines its bonus plan as follows:

No incentive compensation awards shall be made with respect to a year unless a minimum of consolidated net income after taxes (hereinafter called the "exempt base") is realized for that year. The exempt base shall be an amount equal to the dividend requirements on the outstanding preferred stock for such year plus 10% of the net worth of the Corporation's common stock as of the beginning of such year. The aggregate incentive compensation awards for any year shall not be more than 10% of the portion of consolidated net income after income taxes in excess of the exempt base.

TABLE C.61

THE CALCULATION OF THE TYPE OF PORTFOLIO USING
THE PARAMETERS OF BONUS PLANS OF SEALED POWER

Year	Net Profits	Lower Bound 10% of Consolidated Net Worth	Upper Bound Bonus 5% + 10% of Consolidated Net Worth	Cash Flow From Operations	Type of Port- folio*
1978	14,904	8,040	12,140	15,848	B _u
1979	20,899	10,306	16,646	18,268	B _u
1980	11,773	11,836	11,836	24,702	B _L
1981	26,597	12,396	20,916	34,724	B _u
1982	22,844	14,437	19,477	16,968	B _M
1983	29,050	19,568	25,248	29,214	B _u

* In the years 1978, 1979, 1981, and 1983 earning is greater than the lower bound and cash flow from operations is greater than the upper bound. Thus these observations are classified as B_u. In 1980, earning is below the lower bound and this observation is classified as B_L. In year 1982, earning is greater than the lower bound and cash flow from operation is less than the upper bound. Thus neither the lower bound nor the upper bound is binding and this observation is classified B_M.

* Cash flow from operations indicate positive accruals in year 1979, this was mainly in the form of increase in inventory. Also in year 1980 there is positive accruals, this was mainly in the form of increase in accounts receivable.

TABLE C.62

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF SEALED POWER
PERFORMANCE PERIOD 1978 - 1981

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1978	3.35	2.43	.92	.92	P _L
1979	4.35	2.43	1.92	2.84	P _L
1980	2.45	2.43	.02	2.86	P _L
1981	2.75	2.43	.32	3.18	P _L

* Minimum target is 8% compound growth. A total growth of \$4.9 would be needed. Since the total growth is less than the minimum target, these observations are classified as P_L.

PERFORMANCE PERIOD 1980 - 1983

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio
1980	2.45	4.35	(1.9)	(1.90)	P _L
1981	2.75	4.35	(1.6)	(3.50)	P _L
1982	1.88	4.35	(2.47)	(5.97)	P _L
1983	2.38	4.35	(1.97)	(7.94)	P _L

TABLE C.63

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF SEALED POWER

<u>Year</u>	<u>Type of Portfolio</u>
1978	B _u P _L
1979	B _u P _L
1980	B _L P _L
1981	B _u P _L
1982	B _M P _L
1983	B _u P _L

It defines its performance plan as follows:

Performance Periods and Grants: The first Performance Period shall have a duration of four calendar years beginning January 1, 1978. The Maximum Growth Rate for the first Performance Period shall be 14% and the Minimum Growth Rate for the first Performance Period shall be 6%. It is contemplated that Grants will be awarded every two years. The Committee may establish subsequent Performance Periods, for each of which it shall establish (not later than 6 months after the beginning of a Performance Period) a Maximum Growth Rate, a Minimum Growth.

Base Period: The two calendar years immediately preceding a Performance Period.

Primary Earnings Per Share: The earnings per share of Common Stock calculated on the average number of shares outstanding as reported in the Company's Annual Report based on consolidated net income (before extraordinary items and income taxes related thereto) of the Corporation, as determined and reported to the Committee by the independent public accountants who audit the Corporation's accounts. Such determination and report shall be made as of the end of each Performance Period with respect to such Period and the applicable Base Period in conformity with generally accepted accounting principles consistently applied.

Table C.64 provides the calculation of the type of portfolio using the parameters of bonus plans. Table C.65 provides the calculation of the type of portfolio using the parameters of performance plans. Table C.66 summarizes the results of the type of portfolio using both the parameters of bonus and performance plans of Standard Brands Inc.

Sun Co. defines its bonus plan as follows:

The Executive Compensation Plan provides that in each year the directors may set aside a sum not in excess of five percent (5%) of the Company's consolidated income before Federal income taxes in excess of (7%) of the consolidated shareholders' equity as bonuses for employees who have principally contributed to the profitability of the Company.

It defines its performance plan as follows:

Since 1979 and every two years thereafter, awards were or will be made in the form of any one or more of the following:

- (i) stock options, as described in Article II of the Plan;
- (ii) alternate appreciation rights as described in Article III of the Plan;

TABLE C.64

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLANS OF STANDARD BRANDS INC.

Year	Net Income After Taxes	Lower Bound: Dividends on Preferred Stocks Plus 10% of Net Worth	Type of Portfolio
1978	75,801	50,323	B _M
1979	86,355	54,433	B _M
1980	104,384	59,355	B _M
1981	266,300	134,810	B _M

TABLE C.65

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF STANDARD BRANDS INC.

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1978	2.68	2.43	.25	.25	P _L
1979	3.04	2.43	.61	.86	P _L
1980	3.65	2.43	1.22	2.08	P _L
1981	4.21	2.43	1.78	3.86	P _L

* Minimum target is compound growth rate of 6%. A total growth in EPS of \$4.6 would be needed. Since this target is not attained, these observations are classified as P_L.

TABLE C.66

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF STANDARD BRANDS INC.

<u>Year</u>	<u>Type of Portfolio</u>
1978	$B_{M^P L}$
1979	$B_{M^P L}$
1980	$B_{M^P L}$
1981	$B_{M^P L}$

- (iii) performance units, as described in Article IV of the Plan; and/or
- (iv) stock incentive rights, as described in Article V of the Plan.

It is currently anticipated that there will be four performance unit award periods, each having a term of four years, and commencing respectively the first business day following January 1, 1979, 1981, 1983 and 1985. At the time each grant of performance units is made, the Committee will establish primary and minimum performance targets to be attained within the award period as a condition of such performance units being earned out. The performance targets will be expressed as a cumulative compound growth rate in the Company's earnings per share (EPS) over a base fixed by the Committee. Attainment of the primary performance target (which will be not less than ten percent compound annual growth in EPS over the award period) in respect of an award period will result in 100 percent of the initial value of the performance units being earned out. No part of the value of performance units will be earned out if the minimum performance target (which will be not less than six percent cumulative compound average annual growth in EPS) is not achieved. A company performance achievement between the primary and minimum performance targets will result in a pro rata percentage of the value of the performance units being earned out.

Table C.67 shows the calculation of the type of portfolio using the parameters of the bonus plan of Sun Co. Table C.68 shows the calculation of the type of portfolio using the parameters of the performance plan of Sun Co. Table C.69 shows the type of portfolio using the parameters of both bonus and performance plans of Sun Co.

Tektronix Inc. defines its bonus plan as follows:

Under this plan, 20 percent of available profits, which are determined by subtracting an operating income quota from adjusted pre-tax profits, is distributed to eligible employees semi-annually, in cash in proportion to their base pay.

It defines its performance plan as follows:

The value of each performance unit is based on the return on operations of Tektronix and its consolidated subsidiaries during the three-year incentive period.

The return on operations for an incentive period is the weighted average of return on operations for each fiscal year in the incentive period determined as follows:

TABLE C.67

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF BONUS PLAN OF SUN CO.

Year	Consolidated Before Taxes	Lower Bound: 7% of Consolidated Stockholders' Equity	Type of Portfolio
1979	1,194,000	265,440	B _M
1980	1,237,000	304,780	B _M
1981	1,857,000	362,670	B _M
1982	944,000	381,360	B _M

TABLE C.68

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF PERFORMANCE PLANS OF SUN CO.

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1979	5.89	3.65	2.24	2.24	P _L
1980	5.92	3.65	2.27	4.51	P _L
1981	8.85	3.65	5.20	9.71	P _u
1982	4.49	3.65	.84	10.55	P _u

* Minimum target is 6% compound growth. A total growth of \$4.6 during 4 years. Since this target is not attained in 1979, and 1980, these observations are classified as P_L. Maximum target is 10% growth. A total growth of \$5.1 is needed. Since this target is exceeded in 1981, and 1982, these observations are classified as P_u.

TABLE C.69

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF SUN CO.

<u>Year</u>	<u>Type of Portfolio</u>
1979	$B_{M^P_L}$
1980	$B_{M^P_L}$
1981	$B_{M^P_u}$
1982	$B_{M^P_u}$

- (a) The return on operations for a fiscal year is the consolidated operating income as a percentage of the average operating assets for the year. The average operating assets shall be the amount on the first day of the year plus the amount on the last day of the year divided by 2.
- (b) The weighted average return on operations for the incentive period is one sixth of the sum of the returns for the first, second and third years of the period multiplied by one, two and three, respectively as follows:

$$\frac{\text{Year 1} \times 1 + \text{Year 2} \times 2 + \text{Year 3} \times 3}{6}$$

- (c) The percentage return shall be rounded to the nearest 1/10 of 1 percent.
The unit value shall be an amount between \$20 and \$180 based upon return on operations from 24 percent to 32 percent as follows:

<u>Return on Operations</u>	<u>Unit Value</u>
Less than 24.0%	-0-
24.0% - 24.9%	\$20 - \$38
25.0% - 25.9%	\$40 - \$58
26.0% - 26.9%	\$60 - \$78
27.0% - 27.9%	\$80 - \$98
28.0% - 28.9%	\$100 - \$118
29.0% - 29.9%	\$120 - \$138
30.0% - 30.9%	\$140 - \$158
31.0% - 31.9%	\$160 - \$178
32.0% or more	\$180

Table C.70 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table C.71 provides the calculation of the type of portfolio using the parameters of the performance plan. Table C.72 provides the type of portfolio using the parameters of both bonus and performance plans.

TABLE C.70

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF BONUS PLANS OF TEKTRONIX

<u>Year</u>	<u>Operating Income</u>	<u>Adjusted Pre-Tax Profits</u>	<u>Type of Portfolio</u>
1984	136,688	117,970	B _M

TABLE C.71

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF PERFORMANCE PLANS OF TEKTRONIX

Year	Operating Income	Average Operating Assets	Return on Operations	Lower Bound	Upper Bound	Type of Portfolio
1984	136,688	1,217,618	11.22%	24%	32%	P _L

TABLE C.72

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH
BONUS AND PERFORMANCE PLANS OF TEKTRONIX

Year	Type of Portfolio
1984	B _M ^P _L

APPENDIX D

THE DESCRIPTION OF BONUS SCHEMES AND PERFORMANCE PLANS,
THE ESTIMATION OF EARNINGS, LOWER AND UPPER BOUNDS,
AND THE CLASSIFICATION OF EARNING OBSERVATIONS TO PORTFOLIOS
BASED ON BONUS AND PERFORMANCE PLAN DESCRIPTIONS
(COMPANIES WITH FULL DISCLOSURE OF PARAMETERS OF BONUS SCHEMES ONLY)

Allegheny International Inc. defines its bonus plan as follows:

Under the Key Executive Bonus Plan, the Bonus Committee may allocate among designated key executives, 5% of the amount by which consolidated pre-tax profits for a particular year exceed the average for the prior three years.

Since this company discloses the parameters of bonus plan only, the proxy statements were examined to determine whether the earning objectives were attained or not. The 1983 proxy statement of Allegheny International describes the performance plan as follows:

The Board of Directors has established a certain rate of after tax return on investment, after tax return on sales and cumulative primary earnings per share of Common Stock as the objectives for the 1979-1980 period and separately for the 1980-1981 period under the Unit Award Plan. Under the formula established by the Board of Directors for each period, these factors are given certain weights in determining whether the objectives are completely or partially met. If they are 100% met for a period, the grantees of awards for the period will be entitled to receive the total number of shares (or cash equivalent) covered by their awards following the period, subject to the terms of the Unit Award Plan, including continued employment as discussed above. To the extent the objectives are less than 100% but at least 70% met, the number of shares (or cash equivalent) to which a grantee of an award shall be entitled will be incrementally reduced to 50% of the total number of shares granted. Otherwise, no shares (or cash equivalent) will be issued under the awards. The objectives for the 1979-1980 and 1980-1981 periods have been met fully.

Table D.1 provides the calculation of the type of portfolio using the parameters of bonus plan for the years 1980, 1981. Table D.2 provides the type of portfolio based on the attainment of the performance plan objectives for the years 1980,1981. Table D.3 summarizes the results for the type of portfolio using the parameters of bonus and performance plan of Allegheny International Inc.

Allied Corp. defines its bonus plan as follows:

Under the current Plan, all awards are charged against the Reserve, to which the Board may credit for any fiscal year an amount not in excess of the lesser of (a) 5% of Consolidated Earnings or (b) 10%

TABLE D.1

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF ALLEGHENY INTERNATIONAL INC.

<u>Year</u>	<u>Consolidated Pretax Profits</u>	<u>Average Consolidated Pretax Profits for Three Years</u>	<u>Type of Portfolio</u>
1980	36,595	35,212	B _M
1981	66,409	33,034	B _M

TABLE D.2 .

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE

PLAN OBJECTIVES OF ALLEGHENY INTERNATIONAL INC.

PERFORMANCE PERIOD 1979-80 AND 1980-81

Year	Degree of Attainment of Objectives	Type of Portfolio
1980	Fully Attained	P u
1981	Fully Attained	P u

TABLE D.3

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS AND
PERFORMANCE PLAN OF ALLEGHENY INTERNATIONAL INC.

Year	Type of Portfolio
1980	$B_{M^P_u}$
1981	$B_{M^P_u}$

of the amount by which Consolidated Earnings for such year exceeds 6% of Average Shareholder's Equity, as those terms are defined in the Plan. In addition, no amount may be credited to the Reserve for a year unless dividends paid on each share of Common stock for the year are at least \$2.00.

It defines its performance plans as follows:

Performance Improvement Awards will be based on achievement of long-term growth as measured by attainment of objectives established by the Board of Directors for this purpose at the beginning of each long-term performance period.

Long-term performance periods will cover at least three consecutive fiscal years. Long-term objectives will be established in terms of growth in earnings per share over the performance period, or some other measurable standard, as shall be determined by the Board of Directors at the beginning of each period.

The 1983 proxy statement indicated that: "no Performance Improvement Awards were paid for the period January 1, 1980 through December 31, 1982."

Table D.4 provides the calculation of the type of portfolios using the parameters of bonus plan. Table D.5 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.6 summarizes the results for the type of portfolio using the parameters of both bonus and performance plans of Allied Corp.

American Can Co. defines its bonus plan as follows:

Total awards under the Plan for any year may not exceed the smallest of 5% of the Company's net income for the year, the amount by which the Company's net income for the year exceeds 8% of the stockholders' equity in the Company for the year, or 10% of the total amount of cash dividends paid by the Company to its stockholders during the year. The Plan does not limit the amount an individual participant may receive for a year. Aggregate awards to all participants for any year may not exceed the aggregate salaries of all participants for such year while they were participants.

TABLE D.4

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF ALLIED CORP

Year	Dividends Per Share (DPS)	Lower Bound DPS = \$2	Upper Bound (10% Consol. Earning-6% Avg Stockholders. Equity)	Cash Flow From Operations	Type of Portfolio
1982	2.35	2	24,108	530,000	B _u

TABLE D.5

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF ALLIED CORP.

PERFORMANCE PERIOD 1980-82

Year	Degree of Attainment Of Objectives	Type of Portfolio
1982	Not Attained	P L

TABLE D.6

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF ALLIED CORP

Year	Type of Portfolio
1982	$B_u^P L$

It defines its performance plan as follows:

The Committee will grant contingent performance awards to designated participants and specify with respect to each such award (i) the award cycle during which the participant may earn payment, (ii) performance goals for the specified award cycle, and (iii) its target value. At the conclusion of an award cycle, the amount of actual payment to be made, if any, may be less than or more than the target value depending on the degree to which performance goals are not attained or exceeded.

The 1985 proxy statement indicates that half of the amounts awarded for the 1983-1984 performance cycle under the Long Term Incentive Plan were paid.

Table D.7 shows the calculation of the type of portfolio using the parameters of bonus plan. Table D.8 shows the type of portfolio based on the degree of attainment of objectives of performance plans. Table D.9 summarizes the results of the type of portfolio using both bonus and performance plans of American Can Co.

American Cynamid Co. defines its bonus plan as follows:

The Incentive Compensation Plan of the Company provides for incentive compensation for officers and other eligible employees not to exceed the incentive compensation amount which, in general, is equal to 11% of consolidated net earnings after deduction of dividends payable on any outstanding preferred stock (no shares of preferred stock are presently outstanding) and an amount equal to 6% of the average common stock equity.

It defines its performance plans as follows:

Performance allotments, payable in cash or as contingent allotments of shares of common stock after the applicable performance period, to the extent that cumulative earnings per share in such performance period meet or exceed previously established objectives.

The 1981 proxy statement indicates that such performance allotments for 1977 were not paid because of the failure by the company to meet the

TABLE D.7

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF AMERICAN CAN CO.

Year	Net Income	Lower Bound 8% of Stock- holders' Equity	Upper Bound: 10% of Cash Div/5%	Cash Flow From Operations	Type of Portfolio
1984	136,000	83,768	124,000	141,700	B _u

TABLE D.8

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF AMERICAN CAN CO.
PERFORMANCE PERIOD 1983 - 1984

Year	Degree of Attainment of Objectives	Type of Portfolio
1984	Partially Attained	P M

TABLE D.9

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF AMERICAN CAN CO.

Year	Type of Portfolio
1984	B _u P _M E

cumulative earnings objective during the performance period. The 1982 proxy statement indicates that the 1978 performance allotments are paid only to the extent of 30 percent since the company did not attain the maximum cumulative earnings objectives during the performance period. The 1983 proxy statement indicates that the 1979 performance allotments were not paid since the company did not attain the cumulative earnings objective during the performance period.

Table D.10 shows the calculation of the type of portfolio using the parameters of bonus plans. Table D.11 shows the type of portfolio based on the degree of attainment of objectives of performance plans. Table D.12 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of American Cynamid Co.

Ashland Oil Inc. defines its bonus plan as follows:

The Incentive Compensation Plan, established in 1973, created an incentive compensation fund. Such fund may be credited with such amount as the Personnel and Compensation Committee of the Board of Directors (none of whom is eligible to participate in the Plan) shall determine, not exceeding 6% of that part of consolidated income (before income taxes and provisions for incentive compensation) which is in excess of 8% of consolidated total assets as of the fiscal year end.

It defines its performance plan as follows:

Under the Performance Unit Plan established in 1978 (the "Unit Plan"), employees selected by the Personnel and Compensation Committee of the Board of Directors (the "Committee") may be awarded prior to October 1, 1986, performance units contingent upon future performance of Ashland.

Awards granted in fiscal 1979 and 1980 for the period ended September 30, 1982 were contingent upon Ashland achieving a specified average return on net assets and a compound growth in net income from operations applicable to its common Stock on a fully diluted basis over the performance period. Since the performance goals were not achieved, no payout was made for the fiscal 1979 and 1980 awards.

TABLE D.10

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLANS OF AMERICAN CYNAMID CO.

Year	Consolidated Net Earning	Lower Bound 6% of Aug. Common Stockholders' Equity	Type of Portfolio
1980	159,000	86,121	B _M
1981	197,000	91,714	B _M
1982	132,000	92,327	B _M

TABLE D.11

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF
THE PERFORMANCE PLAN OBJECTIVES OF AMERICAN CYNAMID CO.
PERFORMANCE PERIOD 1977 - 1980, 1978 -1981 AND 1979 - 1982

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1980	Not Attained	P _L
1981	Partially Attained	P _M
1982	Not Attained	P _L

TABLE D.12

THE TYPE OF PORTFOLIO BASED ON THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLAN OF AMERICAN CYNAMID CO.

Year	Type of Portfolio
1980	$B_{M^P L}$
1981	$B_{M^P M}$
1982	$B_{M^P L}$

Table D.13 shows the calculation of the type of portfolio using the parameters of bonus plans. Table D.14 shows the type of portfolio based on the attainment of performance plan objectives. Table D.15 summarizes the results of the type of portfolio based on bonus and performance plans of Ashland Oil Inc.

Atlantic Richfield defines its bonus plan as follows:

The Committee shall determine the amount to be credited to the Reserve at the end of each Plan Year. However, the amount so credited for any Plan Year may not exceed 4% of the portion of adjusted net income for that year which exceeds 6% of employed capital.

Adjusted net income means Net Income after federal, state and foreign taxes on income as reported in the consolidated statement of income included in the Company's annual report for the year coinciding with the Plan Year, plus interest or Long-term Debt, including interest on the current portion of such debt plus amounts credited to the Reserve for the Plan Year.

Employed capital means the sum of Stockholders' Equity and Long-term Debt including the current portion of such debt as the end of the year immediately preceding the Plan Year with adjustment deemed appropriate by the Committee for material changes during the Plan Year in such Long-term Debt or Stockholders' Equity except that no adjustment will be made for changes resulting from earnings and dividend payments during the Plan Year.

It defines its performance plan as follows:

Performance units were not payable until after five years (the "award cycle") have elapsed from the beginning of the year in which they are awarded. The right to receive payments of performance units becomes earned to the extent specified earnings targets are achieved, and the company's average return on shareholder's equity and cash dividend payments meet certain conditions during the applicable award cycle.

The 1982 proxy statement indicates that the compensation committee exercised its authority to authorize payment of portion of 1976 and 1977 performance units which becomes earned under the provisions of the plan.

Table D.16 shows the calculation of the type of portfolio using the parameters of bonus plan. Table D.17 shows the type of portfolio based

TABLE D.13

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF ASHLAND OIL

Year	Income Before Taxes & Bonus	Lower Bound: 8% of Total Assets	Type of Portfolio
1982	292,154	336,838	B _L

TABLE D.14

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF PERFORMANCE

PLAN OBJECTIVES OF ASHLAND OIL

PERFORMANCE PERIOD 1979 - 1982 AND 1980 - 1982

Year	Degree of Attainment of Objectives	Type of Portfolio
1982	Not Attained	P L

TABLE D.15

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF ASHLAND OIL

Year	Type of Portfolio
1982	B _L P _L

TABLE D.16

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF BONUS PLAN OF ATLANTIC RICHFIELD

<u>Year</u>	<u>Adjusted Net Income</u>	<u>Lower Bound: 6% of Employed Capital</u>	<u>Type of Portfolio</u>
1980	1,651,423	635,389	B _M
1981	1,671,290	742,034	B _M

TABLE D.17

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE
PERFORMANCE PLAN OBJECTIVES OF ATLANTIC RICHFIELD

PERFORMANCE PERIOD 1976 - 1980 AND 1977 - 1981

Year	Degree of Attainment of Objectives	Type of Portfolio
1980	Partially Earned	P M
1981	Partially Earned	P M

on the attainment of the performance plan objectives. Table D.18 summarizes the results of the type of portfolio using the parameters of both bonus and performance plans of Atlantic Richfield.

Burroughs defines its bonus plan as:

The Corporation shall maintain a Bonus Reserve to which may be credited for each year, as the Board of Directors in its discretion may direct, an amount not to exceed 6% of the balance of the net earnings of the corporation after deducting 6% on the average capital employed.

Awards under the Plan shall be charged against the Bonus Reserve and the total awards as to any year shall not exceed the Bonus Reserve.

Any unawarded balance in the Bonus Reserve each year shall be carried forward and be available for awards in a future year or years, during the term of the Plan.

For purposes of this Section the following definitions shall apply:

- (a) "Average Capital Employed" means for any year the average of the sums of the amounts shown on the Consolidated Balance Sheet of Burroughs Corporation and Subsidiary Companies as audited by the Corporation's independent public accountants, in its annual report to the shareholders for (1) Shareholder's Equity prior to subtracting treasury stock, and (2) Long-Term Liabilities, including current maturity of long-term liabilities, at the close of that year and of the preceding year.
- (b) "Net Earnings" means for any year the Net Income for that year shown on the Consolidated Statement of Income and Retained Earnings for Burroughs Corporation and Subsidiary Companies, as audited by the Corporation's independent public accountants, in its annual report to shareholders plus the amounts of the credits to the Bonus Reserve for that year for the purposes of this Plan and interest for that year paid or accrued on Long-Term Liabilities (including current maturities of long-term liabilities) included in "Average Capital Employed" as defined in sub-paragraph (a) of this Section.

It defines its performance plan as follows:

The Committee may grant performance awards to participants in the form of cash long-term incentive amounts contingently awarded and earned over award periods, which shall be of four-years duration unless otherwise determined by the Committee. Performance awards and award periods will normally commence each year. For each award period, the Committee shall establish objective financial performance targets against which performance shall be measured.

TABLE D.18

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF ATLANTIC RICHFIELD

<u>Year</u>	<u>Type of Portfolio</u>
1980	B_{M^2M}
1981	B_{M^2M}

The 1984 proxy statement indicates that the determination of amounts payable under the first performance award cycle 1982 -85 will not be made until after 1985. However, partial phase-in payments have been made on Feb. 1983 and Feb. 1984.

Table D.19 provides the calculation of the type of portfolio using parameters of bonus plan. Table D.20 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.21 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Burroughs.

Champion International Corp defines its bonus plan as follows:

The amount to be credited to the Contingent Compensation Account for each Compensation Year shall be the amounts resulting from the calculations of ten percent (10%) of Net Operating Income after deducting eight (8%) of Net Capital, but not to exceed the amount paid as dividends on the Common Stock of the Company during such year.

It defines its performance plan as follows:

The performance measure for Sustained Performance Incentive Awards (SPI) Awards, which will be established and periodically reviewed by the Compensation and Stock Option Committee, is four-year cumulative fully diluted earnings-per-share compared to competitor forest products companies. A new four-year performance measurement period will begin every fiscal year. The first performance measurement period is fiscal years 1978- 1981.

An SPI Award is earned at the end of each four-year performance period in which, compared to the base period, the cumulative fully diluted earnings-per-share of the Company increased by a greater percentage than the weighted average of competitors' cumulative fully diluted earnings-per-share.

The base period is the four fiscal years immediately preceding the four-year performance period.

The 1983 proxy statement indicates that during the 1978 - 1981 performance period, the earnings objective was fully attained but the committee deferred any action regarding awards for that period in view

TABLE D.19

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF BURROUGHS

Year	Net Earning	Lower Bound: 6% of Avg. Capital Employed	Type of Portfolio
1982	117,600	198,078	B _L
1983	196,900	272,493	B _L

TABLE D.20

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE

PLAN OBJECTIVES OF BURROUGHS

PERFORMANCE PERIOD 1982 - 1985

Year	Degree of Attainment of Objectives	Type of Portfolio
1982	Partially Attained	P _M NE
1983	Partially Attained	P _M NE

TABLE D.21

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLAN FOR BURROUGHS

<u>Year</u>	<u>Type of Portfolio</u>
1982	B _L P _M NE
1983	B _L P _M NE

of unfavorable business conditions. The 1984 proxy statement indicates that earnings objective for the 1979 - 1982 performance period was not attained. The 1985 proxy statement indicates that the earnings objective for the 1980 - 1983 performance period was not attained.

Table D.22 provides the calculation of the type of portfolio using the parameters of bonus plan. Table D.23 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.24 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Champion International Corp.

Combustion Engineering defines its bonus plan as follows:

Allocation to the Incentive Account in any Plan Year may not

- (a) exceed 10% of the consolidated net earnings of the Company and its United States subsidiaries for the Plan Year, after deductions for all interest and taxes (except federal income, surtax and excess profits taxes), but before allocation to the Incentive account.
- (b) effect a decrease in consolidated net earnings of the Company and its subsidiaries available for dividends in any year below an amount equivalent to 22 1/3 cents per share on the outstanding shares of Common Stock.

It defines its performance plan as follows:

The Contingent Performance Rights provide for awards based upon the achievement of certain performance objectives over a determinational period of time. Payments will be made only at the end of the period to the extent, the performance objectives are achieved over the entire performance period. These rights cover a three year performance period ending December 31, 1980 and a five year performance period ending December 31, 1982.

The 1981 and 1983 proxy statements indicate that the remuneration table includes amounts accrued during 1980 and 1982 pursuant to the Contingent Performance Rights granted for the three and five year performance periods ended Dec. 31, 1980 and Dec. 31, 1982.

TABLE D.22

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS OF
BONUS PLAN OF CHAMPION INTERNATIONAL CORP.

Year	Net Operating Income	Lower Bound: 8% of Net Capital	Type of Portfolio
1981	119,646	140,276	B _L
1982	39,650	138,968	B _L
1983	82,160	142,575	B _L

TABLE D.23

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF CHAMPION INTERNATIONAL CORP.

PERFORMANCE PERIOD 1978 - 1981, 1979 - 1982, 1980 - 1983

Year	Degree of Attainment of Objectives	Type of Portfolio
1981	Fully Attained	P _U
1982	Not Attained	P _L
1983	Not Attained	P _L

TABLE D.24

THE TYPE OF PORTFOLIO USING THE PARAMETER OF BOTH BONUS
AND PERFORMANCE PLAN OF CHAMPION INTERNATIONAL CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1981	B _L P _U
1982	B _L P _L
1983	B _L P _L

Table D.25 provides the calculation of the type of portfolio using the parameters of bonus plan. Table D.26 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.27 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Combustion Engineering.

Cummins Engine defines its bonus plan as follows:

Corporate performance in excess of the Target ROE or corporate performance less than the Target ROE will result in an increased or diminished bonus, respectively, from the Target Bonus communicated to the Participant. Earned Bonus will be calculated by multiplying the Target Bonus times the Bonus Factor associated with the actual Return on Equity as specified in Exhibit A or subsequently revised by the Compensation Committee. No bonus shall be paid when actual Return on Equity is less than 7.5%. Return on Equity - Profit After Tax divided by Average Net Worth.

It defines its performance plan as follows:

In January 1980 the Corporation instituted a long term performance plan designed to reward those officers and other key employees of the Corporation having an impact upon the Corporation's return on equity beginning with the year 1975. Payments under the plan are to be made in cash and based on the level of the Corporation's return on equity relative to industry competitors over a five year period. A new five year period is started each year.

The 1981 and 1982 proxy statements indicate that the amounts of salaries in the table of remuneration include amounts paid in 1980 and 1981 under the five year performance plan for the performance periods 1976 - 1980 and 1977 - 1981.

Table D.28 provides the calculation of the type of portfolio using the parameters of bonus plan. Table D.29 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.30 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Cummins Engine.

TABLE D.25

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF COMBUSTION ENGINEERING

Year	Dividends Per Share (DPS)	Lower Bound: DPS = .22 Cents	Type of Portfolio
1980	1.3	.22	B _M
1982	1.6	.22	B _M

TABLE D.26

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF COMBUSTION ENGINEERING
PERFORMANCE PERIOD 1978 - 1980, 1978 - 1982

Year	Degree of Attainment of Objectives	Type of Portfolio
1980	Partially Attained	P _M
1982	Partially Attained	P _M

TABLE D.27

THE TYPE OF PORTFOLIO USING THE PARAMETER OF BOTH BONUS AND
PERFORMANCE PLAN OF COMBUSTION ENGINEERING

<u>Year</u>	<u>Type of Portfolio</u>
1980	B_{M^2P}
1982	B_{M^2P}

TABLE D.28

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF CUMMINS ENGINE

Year	Return on Equity (R E)	Lower Bound: RCE = 7.5%	Type of Portfolio
1980	(2.37)	7.5	B _L
1981	20.02	7.5	B _M

TABLE D.29

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF CUMMINS ENGINE

PERFORMANCE PERIOD 1976 - 1980, 1977 - 1981

Year	Degree of Attainment of Objectives	Type of Portfolio
1980	Partially Attained	P _M
1981	Partially Attained	P _M

TABLE D.30

THE TYPE OF PORTFOLIO USING THE PARAMETER OF BOTH BONUS
AND PERFORMANCE PLAN OF CUMMINS ENGINE

Year	Type of Portfolio
1980	B_{LPM}^E
1981	B_{MPM}^E

Data Point Corp. defines its bonus plan as follows:

In 1973, the Board of Directors adopted the Management Incentive Compensation Plan ("MIC") which, can provide officers with annual cash bonus awards in addition to regular salaries. In 1978, the Board of Directors stipulated that in no event would an appropriation to the Fund be made which would reduce pre-tax return on invested capital below 8%.

It defines its performance plan as follows:

In 1978 the Board of Directors approved and the shareholders ratified the Executive Performance Award Plan (the "Performance Plan") for key executives of the Company and its subsidiaries. The Performance Plan is administered by the Management Compensation Committee (the "Committee") of the Board of Directors. No member of the Committee is eligible for any awards under the Performance Plan. Awards may be made to certain key executives of the Company. Such contingent Awards will be in the form of Performance Units. Each Performance Unit will have a cash value equal to the closing price of the Company's Common Stock on the first day of August of the year in which the Award is made. Payment of the Awards will be contingent upon the Company's achieving certain goals relating to earnings per share and return on capital as established by the Committee over a Performance Period of at least three years.

The 1981 proxy statement indicate that the remuneration accrued pursuant to the performance plan for the period from its adoption until July 31, 1981, shows the pro rata share for the named individuals. The 1982 proxy statement indicates that no awards were paid for the fiscal year ended July 31, 1982. Certain amounts previously accrued were reversed during the fiscal year ended July 1982. The 1984 proxy statement indicates that no payments were made under the Performance Plan for the Performance Period ended July 1983 and July 1984. It also indicates that cash payments under the performance plan have been made only one, for the performance period of fiscal years 1979 through 1981.

Table D.31 provides the calculation of the type of portfolio using the parameters of bonus plan. Table D.32 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.33

TABLE D.31

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETER
OF BONUS PLAN OF DATA POINT CORP.

Year	Pretax Return on Invested Capital	Lower Bound: Pretax Return on Invested Capital=8%	Type of Portfolio
1981	19.05	8	B _M
1982	.87	8	B _L
1983	1.22	8	B _L
1984	10.13	8	B _M

TABLE D.32

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF DATA POINT CORP.

PERFORMANCE PERIODS 1979 - 1981, 1980 - 1982, 1981 - 1983, 1982 - 1984

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1981	Partially Attained	P _M
1982	Not Attained	P _L
1983	Not Attained	P _L
1984	Not Attained	P _L

TABLE D.33

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLAN OF DATA POINT CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1981	B _M P _M
1982	B _L P _L
1983	B _L P _L
1984	B _M P _L

summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Data Point Corp.

Echlin defines its bonus plan as follows:

Echlin's principal executives may receive bonuses based upon Echlin's performance during the preceding fiscal year. The bonus fund begins to accrue only when Echlin's income before taxes on income for a fiscal year exceeds 30% of Echlin's shareholders' equity at the beginning of such year.

It defines its performance plan as follows:

The value of a Performance Unit shall be equal to (i) the earnings per share of the Common Stock of the Company for the three full fiscal years beginning with the fiscal year in which an award of a Performance Unit is made to a person, multiplied by (ii) a performance factor based on the annual growth rate in earnings per share by comparing, upon a compounded basis, the earnings per share for the final year of the period with the earnings per share of the Company during the fiscal year immediately preceding the award of a Performance Unit.

The 1982 proxy statement indicates that there were no payments under the Performance Unit Plan during fiscal 1982 for the performance period 1979 - 1981. The 1983 proxy statement indicates the remunerations include the full amount of the award of performance units under the performance unit plan which were awarded in 1980 and which vested on September 1983.

Table D.34 provides the calculation of the type of portfolio using the parameters of bonus plan. Table D.35 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.36 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Echlin Inc.

TABLE D.34

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF ECHLIN INC.

Year	Income Before Taxes	Lower Bound: 30% of Shareholders Equity	Type of Portfolio
1979	38,399	30,399	B _M
1980	14,659	42,721	B _L
1981	24,925	43,249	B _L
1983	49,972	63,574	B _M

TABLE D.35

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF ECHLIN INC.
PERFORMANCE PERIOD 1979 - 1981, 1980 - 1983

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1979	Not Attained	P _L
1980	Not Attained	P _L
1981	Not Attained	P _L
1983	Fully Attained	P _u

TABLE D. 36

THE TYPE OF PORTFOLIO USING THE PARAMETER OF BOTH BONUS
AND PERFORMANCE PLAN OF ECHLIN INC.

<u>Year</u>	<u>Type of Portfolio</u>
1979	B _M P _L
1980	B _L P _L
1981	B _L P _L
1983	B _M P _u

Freeport McMoran defines its variable compensation incentive program as follows:

Variable Compensation Incentive Program includes current awards and performance unit awards. No current Awards shall be made to any current award participant and no amount shall be credited to any unit participant's Unit Award Account with respect to any year, if the return on equity is less than six percent.

Table D.37 shows the calculation of the type of portfolio using the parameters of the variable incentive program.

General Electric Co. defines its bonus plan as follows:

There shall be maintained an Incentive Compensation Reserve (hereinafter called the "Reserve"). To this Reserve there shall be credited for each year such amount as may be appropriated by the Board of Directors of General Electric Company for that purpose not exceeding an amount equivalent to 10% of the excess, if any, of the net earnings of the Consolidated Group for such year, over an amount equivalent to 5% of the average capital investment of the Consolidated Group for such year.

It defines its performance plan as follows:

Performance units will be granted for award periods not exceeding five years commencing at the beginning of the year following the year of grant. On the grant date, the committee will set minimum targets to be achieved within the award period.

The 1985 proxy statement indicates that the award period for units granted under the 1978 plan terminated on December 31, 1982, and on December 31, 1984. Based on performance target levels achieved, the committee determined to make these units payable.

Table D.38 provides the calculation for the type of portfolio using the parameters of bonus plan. Table D.39 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.40 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of General Electric Co.

TABLE D.37

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE VARIABLE INCENTIVE PROGRAM OF FREEPORT MCMORAN

Year	Return on Equity	Lower Bound: ROE = 6%	Type of Portfolio
1982	9.32	6	$B_{M^P M}$
1983	12.7	6	$B_{M^P M}$
1984	12.8	6	$B_{M^P M}$

TABLE D. 38

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF GENERAL ELECTRIC CO.

Year	Net Earning	Lower Bound: 5% of Avg. Capital Investment	Type of Portfolio
1982	1,817	545	B _M
1984	2,280	652.6	B _M

TABLE D. 39

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF GENERAL ELECTRIC CO.

Year	Degree of Attainment of Objectives	Type of Portfolio
1982	Partially Attained	P _M
1984	Partially Attained	P _M

TABLE D. 40

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLAN OF GENERAL ELECTRIC CO.

<u>Year</u>	<u>Type of Portfolio</u>
1982	B _M P _M
1984	B _M P _M

General Foods Corp. defines its bonus plan as follows:

The Corporation shall continue and maintain a Reserve to which shall be credited for each fiscal year ending after April 3, 1978 and on or before March 29, 1986 (except years for which such credit is prohibited by the Plan, the Regulations, or specific order of the Board of Directors) an incentive provision the amount of which shall be five per cent of consolidated earnings before income taxes in excess of 14 per cent of net capital for each, or such lesser amount as may be determined by the Committee in accordance with the Regulation. No such provision shall be made for any year in which no dividends are paid on the common stock of the Corporation, and the amount of such provision made for any year shall in no event exceed the amount or value of dividends paid thereon during such year.

It defines its performance plan as follows:

Growth performance awards may be made every second year based upon performance for the three year period then ended against objectives and against competition.

The 1983 and 1984 proxy statements indicate that the amounts shown in the table of remuneration include growth performance awards for performance in the fiscal 1980 through fiscal 1982 period and for fiscal 1981 - 1983.

Table D.41 provides the calculation of the type of portfolio using the parameters of bonus plan. Table D.42 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.43 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of General Foods Corp.

Harris Corp. defines its incentive compensation plan as follows:

The total amount of incentive compensation under this plan and under any other management incentive or bonus plans shall not be payable unless the three-year average consolidated net income of the corporation (for the plan year and the two preceding years) is 6% of the average consolidated net worth of the corporation at the beginning of those years.

TABLE D.41

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF GENERAL FOODS CORP.

Year	Earning Before Income Taxes	Lower Bound: 14% of Net Capital	Type of Portfolio
1982	534,725	387,876	B _M
1983	573,305	417,977	B _M

TABLE D.42

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE
PERFORMANCE PLAN OBJECTIVES OF GENERAL FOODS CORP.

PERFORMANCE PERIOD 1980 - 1982 AND 1981- 1983

Year	Degree of Attainment of Objectives	Type of Portfolio
1982	Partially Attained	P M
1983	Partially Attained	P M

TABLE D.43

THE TYPE OF PORTFOLIO USING THE PARAMETER OF BOTH BONUS
AND PERFORMANCE PLAN OF GENERAL FOODS CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1982	B _M P _M
1983	B _M P _M

Table D.44 provides the calculation of the type of portfolio using the parameters of the incentive compensation plan of Harris Corp.

Hershey Foods Corp. defines its bonus and performance plan as follows:

The annual cost of the Annual Incentive Program, (AIP), shall not exceed four (4%) percent of the excess of Before-Tax Income (defined for these purposes as Net Income plus provision for federal, state and local taxes and interest on long term debt, but after consideration of the cost of the Plan) over sixteen (16%) percent of Total Invested Capital (defined for these purposes as Stockholders Equity plus Long-Term Debt plus Deferred Income Taxes. The cost of the LTIP shall not exceed the 500,000 shares of common stock of the Corporation which have been reserved for use under the Plan. Payments of LTIP awards, which will be made in shares of such stock or partly in cash, shall be charged against the 500,000 reserved shares by subtracting from the remaining balance of reserved shares the actual numbers of shares that are issued, and also that number of shares which is equivalent in value to the cash amounts that are distributed to LTIP participants. For purposes of determining the charge to be made against the reserved shares, the value of a share of common stock shall be determined at 100% of its market value on the date when actual payment of the LTIP award is made.

The proxy statement indicate payment of portion of the 1979 - 1980, 1980 - 1982, 1981 - 1983 and 1982 - 1984 awards under long term incentive program.

Table D.45 provides the calculation of the type of portfolio using the parameters of bonus plan. Table D.46 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.47 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Hershey Foods Corp.

International Harvester defines its compensation and incentive program as follows:

The compensation and incentive program consists of: the Management Performance Assurance Award Plan (to stimulate and reward the performance of individuals in the achievement of corporate goals),

TABLE D.44

THE TYPE OF PORTFOLIO USING THE PARAMETER OF
 INCENTIVE COMPENSATION PLAN OF HARRIS CORP.

Year	Avg. N.I. For 3 Years/Avg. Net Worth for 3 Years	Lower Bound: Avg. N.I./ Avg. Net Worth	Type of Portfolio
1981	21.9	6%	B _M P _M
1982	13.59	6%	B _M P _M
1983	13.26	6%	B _M P _M
1984	12.54	6%	B _M P _M

TABLE D.45

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF HERSHEY FOODS CORP.

<u>Year</u>	<u>Before Tax Income</u>	<u>Lower Bound: 16% of Total Investment Capital</u>	<u>Type of Portfolio</u>
1981	154,942	66,497	B _M
1982	171,543	80,173	B _M
1983	189,351	90,455	B _M
1984	209,571	101,311	B _M

TABLE D.46

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF HERSHEY FOODS CORP.

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1981	Partially Attained	P _M
1982	Partially Attained	P _M
1983	Partially Attained	P _M
1984	Partially Attained	P _M

TABLE D.47

THE TYPE OF PORTFOLIO USING THE PARAMETER OF BOTH BONUS
AND PERFORMANCE PLAN OF HERSHEY FOODS CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1981	B _M P _M
1982	B _M P _M
1983	B _M P _M
1984	B _M P _M

and the Sustained Achievement Award Plan (to retain and reward services of key executive managers who attain sustained achievement of pre-determined cumulative corporate goals over a cycle of five years. Under Management Performance Assurance Award Plan, the Committee has established goals at four performance levels for each factor as follows:

Fiscal 1975 Total Corporate Goals

(\$ = Millions)

	Net Profit	Year End Assets
Threshold	\$115	\$3,600
Commendable	150	3,500
Outstanding	175	3,465
Distinguished	200	3,430

Under the Sustained Achievement Award Plan, each fiscal year beginning with November 1, 1974, an award cycle of five (5) years will be established. The Company will establish categories of cumulative performance targets for corporate achievement over each award cycle. The amount of the awards for the cycle will be based on the level of performance toward the attainment of such targets.

The proxy statement indicates that for five year cycles of the Sustained Performance Achievement Award Plan ending on October 31, 1979 amounts which were expensed during year 1975 have been included as contingent remuneration.

Table D.48 provides the calculation of the type of portfolio using the parameters of bonus plan. Table D.49 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.50 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of International Harvester.

Johnson Control Inc. defines its bonus plan as follows:

3% - 13% of Compensation @ 15% Return on Shareholders' Equity plus
1.0000% - 4.1200% of Compensation for each 1% Return on

TABLE D.48

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF BONUS PLAN OF INTERNATIONAL HARVESTER

(000's)

Year	Net Profit	Year End Assets	Lower Bound:		Upper Bound:		Type of Port- folio
			Net Profit	Year End Assets	Net Profit	Year End Assets	
1975	79,354	3,326,962	115,000	3,500,000	200,000	3,430,000	B _L

TABLE D.49

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF INTERNATIONAL HARVESTOR

PERFORMANCE PERIOD 1975 - 1979

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1975	Not Attained	P _L

TABLE D.50

THE TYPE OF PORTFOLIO USING THE PARAMETER OF BOTH BONUS
AND PERFORMANCE PLAN OF INTERNATIONAL HARVESTER

<u>Year</u>	<u>Type of Portfolio</u>
1975	B _L P _L

Shareholders' Equity thereafter up to a maximum of 40% Return on Shareholders' Equity.

It defines its performance plan as follows:

The criterion to be used to measure the financial performance of the Company shall be the average Return on Equity (ROE) for the fiscal years comprising the Performance Period (three successive fiscal years). The Committee shall approve the ROE performance goals for each Performance Period.

The proxy statements indicate that payment was made for the performance period 1978 - 1980 and 1979 - 1981.

Table D.51 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.52 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.53 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Johnson Control Inc.

Mobil Corp. defines its bonus plan as follows:

For each fiscal year of the Corporation in which the Plan is in effect, the Board may at any time and from time to time authorize sums for incentive awards which shall not exceed the greater of (1) 2 1/2 percent of "Net Income" of the Corporation, as defined below, excluding the six percent of the amount by which the "Net Income" of the Corporation exceeds an amount equal to six percent of the "Capital Investment" of the Corporation, provided that no sum shall be authorized for any year in which no dividend is paid to shareholders of the Corporation.

It defines its performance plan as follows:

The long-term-term incentive program consists of a cyclical program based on company performance. Under this cyclical program the Committee considers and, in its discretion, may make awards to certain members of senior management, including directors who are employees of the Corporation or any subsidiary, with respect to certain periods of years. Payment of the awards is contingent upon attainment of standards of minimum growth in the consolidated net earnings per share of the Corporation during the designated performance periods in an amount to be fixed by the Committee.

TABLE D. 51

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF JOHNSON CONTROL INC.

<u>Year</u>	<u>Return on Share- holders' Equity</u>	<u>Lower Bound ROE</u>	<u>Upper Bound ROE</u>	<u>Type of Portfolio</u>
1980	10.27	15	40	B _L
1981	13.44	15	40	B _L

TABLE D. 52

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
 PLAN OBJECTIVES OF JOHNSON CONTROL INC.

Year	Degree of Attainment of Objectives	Type of Portfolio
1980	Partially Attained	P M E
1981	Partially Attained	P M E

TABLE D. 53

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF JOHNSON CONTROL INC.

<u>Year</u>	<u>Type of Portfolio</u>
1980	B _L P _M E
1981	B _L P _M E

The proxy statements indicate that payment was made for the performance period 1981 - 1984.

Table D.54 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.55 provides the type of portfolio used on the attainment of the performance plan objectives. Table D.56 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Mobil Corp.

Nashua Corp. defines its bonus plan as:

Under the plan, the Bonus Committee may allocate among key executives, the lesser of 12% of the amount by which consolidated net income exceeds 6% of stockholders' equity or cash dividends on common stocks.

It defines its performance plan as follows:

Awards are payable after three years from the beginning of the year in which they are awarded. The right to receive payments becomes earned to the extent earning per share meet specific targets.

The proxy statements indicate that no payment was made under performance plans for the performance period 1980 - 1982 and 1981 - 1983.

Table D.57 provides the calculation of the type of portfolio using parameters of the bonus plan. Table D.58 provides the type of portfolio used on the attainment of the performance plan objectives. Table D.59 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Nashua Corp.

Owens-Corning Fiberglass Corp. defines its bonus plan as follows:

The compensation provided for herein shall be payable only out of Additional Profits, which shall be computed as follows:

(a) Additional profits for any year shall be equal to the Income in excess of twelve and one-half (12.5) percent of Capital

TABLE D.54

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS PLAN OF MOBIL CORP.

<u>Year</u>	<u>Net Income</u>	<u>Lower Bound 6% of Capital Investment</u>	<u>Type of Portfolio</u>
1984	1,568	1,481	B _M

TABLE D.55

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF MOBIL CORP.

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1984	Attained*	P _M

* No maximum target is specified. Thus payment is classified as P_M.

TABLE D. 56

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF MOBIL CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1984	B _p M ^p M

TABLE D.57

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS PLAN OF NASHUA CORP.

Year	Net Income	Lower Bound: 6% of Stock- holders' Equity	Upper Bound: Cash Div./12% + 6% of Stock- holders' Equity	Cash Flow From Operations	Type of Port- folio*
1980	21,455	9,277	9,277	20,992	B _u
1981	9,352	9,413	68,822	33,516	B _L
1982	(40,500)	6,674	49,542	17,870	B _L
1983	16,355	7,656	7,656	48,597	B _u

*The negative accruals in years 1981, 1982, and 1983 was mainly due in the form of decrease in inventory.

TABLE D.58

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE
PERFORMANCE PLAN OBJECTIVES OF NASHUA CORP.

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1980	4.6	5.3	(.725)	(.725)	P _L
1981	2.0	5.3	(3.325)	(4.05)	P _L
1982	(8.66)	5.3	(3.980)	(18.03)	P _L

* The plan does not disclose the minimum target for the EPS growth. However, it is clear in the years 1980, 1981 and 1983 that there is a decrease in EPS compared to the earning base which is the average EPS for the two preceding years. Thus, these years are classified as P_L. In addition, the proxy statement indicates that no payment was made for this performance period.

TABLE D. 58

(Continued)

PERFORMANCE PERIOD 1981 - 1983

Year	EPS	Earning Base	Growth in EPS	Cumulative Growth in EPS	Type of Portfolio*
1981	2.00	5.17	(3.17)	(3.17)	P _L
1982	(8.66)	5.17	(13.83)	(17.00)	P _L
1983	3.48	5.17	(1.69)	(18.69)	P _L

* It is clear that there is a decrease in EPS compared to the earning base. Also, the proxy statements indicate that no payment was made for the performance period 1981 - 1983.

TABLE D. 59

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF NASHUA CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1980	B _U P _L
1981	B _L P _L
1982	B _L P _L
1983	B _U P _L

Invested. The Income for any year shall be the net income for such year as shown by the statement of income of the Corporation as certified by the Corporation's independent public accountants, adjusted by adding thereto the sum of the amounts charged to income for such year in respect of: (i) the provision for the additional compensation provided herein, (ii) the provision for interest on Debt, and (iii) the provision for Federal taxes on income for the year, including excess profits taxes for the year. Interest on Debt shall include charges or credits arising out of premium or discount paid or received with respect to such Debt.

- (b) Capital Invested for any year shall be the sum total of the par or stated value of outstanding capital stock (after deducting the cost of treasury stock, if any) and of all surplus accounts and of Debt, all as shown on or included in the balance sheet of the Corporation as of December 31st of the preceding year, as certified by the Corporation's independent public accountants. Debt shall be the unpaid principal amount of all indebtedness of the Corporation, as principal and not as surety or guarantor, having a maturity at the time of its creation or more than one year, independent of acceleration, and evidenced by a bond, debenture, or promissory note.

It defines its performance plan as follows:

The Committee will grant each participant a Target Award, the amount of which the Committee will determine. A Target Award is the opportunity to earn a specified award based on achievement of predetermined levels of Company performance. Each Performance Period will begin on a January 1.

The proxy statements indicate that no amounts were paid under the long-term incentive plan in 1983 and 1984.

Table D.60 provides the calculation of the type of portfolio using parameters of the bonus plan. Table D.61 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.62 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Owens-Corning Fiberglass Corp.

Owens-Illinois Inc. defines its bonus plan as follows:

The "Total Incentive Pool" shall be the sum of the Calculated Incentive Amounts for each Participant; provided, however, that no

TABLE D.60

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS PLAN OF OWENS CORNING FIBERGLASS CORP.

<u>Year</u>	<u>Income</u>	<u>Lower Bound 12.5% of Capital Investment</u>	<u>Type of Portfolio</u>
1983	135,850	123,991	B _M
1984	190,944	133,207	B _M

TABLE D.61

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE

PLAN OBJECTIVES OF OWENS CORNING FIBERGLASS CORP.

PERFORMANCE PERIOD 1980 - 1983 AND 1981 - 1984

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1983	Not Attained	P _L
1984	Not Attained	P _L

TABLE D.62

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF OWENS CORNING FIBERGLASS CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1983	B _M P _L
1984	B _M P _L

such Pool shall be established for any Incentive Year in which the after-tax return on shareholders' equity shall be less than eight per cent (8%) nor in which the Unit Profit Performance of the Company shall be less than seventy percent (70%).

It defines its performance plan as follows:

The Company's Performance Award Plan provides for the grant of performance award units to officers and key management employees of the Company and its subsidiaries, including the four directors who are also officers of the Company. Such performance award units consist of a performance allotment expressed in dollars. The amount of a performance allotment is fixed in dollars at the time of grant of the award and may be paid, to the extent earned, either in Common Shares or cash, or a combination of both, at the discretion of the Compensation Committee. Performance awards normally are paid only to the extent earned throughout the entire period for which granted ("award period"). The extent to which performance allotments are earned depends upon the extent to which the after-tax rate of return on shareholders' equity meets the goal established by the Compensation Committee for the applicable award period.

The proxy statements indicate that amounts reported in the Remuneration Table include awards actually paid in 1980 for the award period 1976 - 1979.

Table D.63 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.64 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.65 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Owens-Illinois.

Philips Petroleum Inc. defines its bonus plan as follows:

For each year, the Board of Directors may credit the Incentive Compensation Reserve with up to 3 percent of the amount by which net income plus interest on long-term debt and amounts credited to the Incentive Compensation Reserve exceeds 6 percent of borrowed and invested capital as of the end of the previous year.

TABLE D. 63

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS PLAN OF OWENS ILLINOIS

<u>Year</u>	<u>After Tax Return on Shareholders' Equity</u>	<u>Lower Bound: ROE = 8%</u>	<u>Type of Portfolio</u>
1979	11%	8%	B _M

TABLE D.64

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF OWENS ILLINOIS INC.

Year	Degree of Attainment of Objectives	Type of Portfolio
1979	Partially Attained	P _M

TABLE D.65

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF OWENS ILLINOIS INC.

<u>Year</u>	<u>Type of Portfolio</u>
1979	B _M P _M

It defines its performance plan as follows:

Two Performance Periods have been established; the first is for the period January 1, 1978, through December 31, 1982, and the second, January 1, 1980, through December 31, 1984. Awards may be paid at the conclusion of these Performance Periods depending upon performance of the company as measured by a comparison of (a) the average return on assets ("profitability") and the growth of earnings per share ("growth of earnings") of the Company during the period, with (b) the profitability and growth of earnings during the same period of ten designated oil companies. The company must rank ahead of at least four of the other companies in either profitability or growth of earnings for minimum awards to be paid. Higher awards will be payable on a graduated basis for better rankings, with 100% of the contingent awards being paid if the Company's profitability and growth of earnings exceed that of all of the other companies. Because award payments depend on future performance, it is impossible to presently establish with certainty the amounts, if any, which will actually be paid at the end of these Performance Periods.

The proxy statements indicate that the portion of awards earned for the performance period 1978 - 1982 and 1980 - 1984 were made in 1983 and 1985.

Table D.66 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.67 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.68 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Philips Petroleum Inc.

PPG Industries defines its bonus plan as follows:

The Reserve is the total of the amounts available for the making of Awards. Each year is set aside in the Reserve. Such amount is to be determined by subtracting 12% of shareholders' equity from consolidated Pre-tax Earnings and then multiplying the remainder by 5%. The amount set aside may in no event, however, exceed 20% of the cash dividends paid by the Company for the year.

It defines its performance plan as follows:

The Committee, none of whose members is eligible to participate in the Earnings Growth Plan, may establish challenging sets of goals

TABLE D.66

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS PLAN OF PHILIPS PETROLEUM INC.

<u>Year</u>	<u>Net Income</u>	<u>Lower Bound: 6% of Borrowed and Invested Capital</u>	<u>Type of Portfolio</u>
1982	646,000	331,320	B _M
1984	810,000	370,800	B _M

TABLE D.67

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES FOR PHILIPS PETROLEUM INC.

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1982	Partially Attained	P _M
1984	Partially Attained	P _M

TABLE D-68

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF PHILIPS PETROLEUM INC.

<u>Year</u>	<u>Type of Portfolio</u>
1982	B_{MPM}
1984	B_{MPM}

for three, four or five-year periods and grant to such Officers and other key employees contingent awards of Earnings Growth Shares which are equivalent to shares of the Common Stock of the Company. If none of the goals is achieved, no award will be paid for the period to which such goals relate. If and to the extent any of the goals is achieved, the award relating to such goal will be paid in the year following the last year of the period to which such goal relates. since the inception of the Earnings Growth Plan in 1974, the goals have been established in terms of the company's cumulative earnings per share over four-year periods.

The proxy statements indicate that the awards of the earning growth plan were partly realized for the performance periods 1977 - 1980, 1978 - 1981 and 1979 - 1982.

Table D. 69 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D. 70 provides the type of portfolio based on the attainment of the performance plan objectives. Table D. 71 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of PPG Industries.

Riegel Textile Corp. defines its bonus plans as follows:

No awards under the Plan shall be made with respect to any Fiscal Year of the company: (i) if the Consolidated Net Income of the Company and its Subsidiaries for such Fiscal Year does not exceed four per cent (4%) of the Stockholders' Equity as of the end of the immediately preceding Fiscal Year or (ii) if no contribution is made to the Retirement Plan with respect to such Fiscal Year. Awards under the Plan with respect to any Fiscal Year of the Company shall not exceed ten percent (10%) of the Consolidated Income of the company and its Subsidiaries Before Provision for Taxes on Income and Before Extraordinary Items for such Fiscal Year.

It defines its performance plan as follows:

Under the Company's Incentive Shares Plan, "Contingent Awards" payable in shares of the Company's common stock and amounts of cash equal to varying percentages of the market value of such shares are granted to employees who make exceptional contributions to the growth and operations of the Company. All regular full time employees of the Company and its subsidiaries are eligible to receive awards under the plan, and there is no limitation on the

TABLE D. 69

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF PPG INDUSTRIES

Year	Pre-Tax Earning	Lower Bound: 12% of Share- holders' Equity	Upper Bound: 20% of Cash Div/ 5% + 12% of Stock- holders' Equity	Cash Flow From Operations	Type of Port- folio
1980	370,500	183,864	463,864	348,100	B _M
1981	352,500	199,092	510,692	367,700	B _M
1982	203,600	208,716	533,516	394,900	B _M

TABLE D.70

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF PPG INDUSTRIES

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1980	Partially Attained	P _M
1981	Partially Attained	P _M
1982	Partially Attained	P _M

TABLE D.71

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF PPG INDUSTRIES

<u>Year</u>	<u>Type of Portfolio</u>
1980	$B_{M^P M}$
1981	$B_{M^P M}$
1982	$B_{M^P M}$

amount of awards to be received by any one employee. A contingent Award is paid to the employee only if it is earned by the employee in accordance with the conditions in effect at the time the award is granted and if, at the time for payment of such award, the employee continues to be employed by the Company or one of its subsidiaries. If, in the judgement of the board of Directors, the performance of any or all of the employees who have received Contingent Awards have been deemed not adequate in the execution of his or their total responsibilities, the Board has the right to reduce or eliminate the awards otherwise earned as to any or all such employees.

The 1982 proxy statement indicates that the amounts shown in the table of remuneration are the Company's estimates as to the amounts of the awards, for performance period 1978 - 1982, based on the market value of shares at October, 1982. If the awards had been fully earned, the values of the awards would have been - Mr. Coleman: \$918,500, Mr. Lewis: \$584,500, Mr. Maddrey: \$417,500. Amounts expensed in prior years with respect to the awards have exceeded the estimated amounts of the awards and that amount has been credited to compensation expense for fiscal 1983. The 1983 proxy statement also indicates that awards for performance period 1979 - 1983 were partially earned.

Table D.72 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.73 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.74 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Riegel Textile Corp.

Rockwell International defines its bonus plan as follows:

a Fund maintained to which there shall be credited for each fiscal year an amount, as determined by the Committee, which shall not exceed either the aggregate amount declared in such year as dividends upon its common and preferred stock or the aggregate amount calculated by adding 2% of the first \$100 million of the applicable net earnings for such fiscal year, 3% of the next \$50

TABLE D.72

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS PLAN OF RIEGEL TEXTILE CORP.

Year	Consol. Net Earning	Lower Bound: 4% of Stock- holders' Equity	Upper Bound: 4% of Stock- holders' Equity	Cash Flow From Operations	Type of Port folio
1982	12,690	5,818	6,464	36,066	B _u
1983	10,472	5,871	6,523	29,252	B _u

TABLE D.73

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
 PLAN OBJECTIVES OF RIEGEL TEXTILE CORP.

Year	Degree of Attainment of Objectives	Type of Portfolio
1982	Partially Attained	P M E
1983	Partially Attained	P M E

TABLE D. 74

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF RIEGEL TEXTILE CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1982	B _u P _M E
1983	B _u P _M E

million of such earning, 4% of the next \$25 million of such earnings, and 5% of the balance of such earnings.

It defines its performance plan as follows:

The Company's Performance Award Plan provides for the granting of performance units to certain key executive employees and is administered by the Performance Award Plan Committee consisting of three or more members of the Board of Directors who are not eligible to participate in the Plan. Under the Plan the Committee may award up to 800,000 performance units. The units granted will become earned, subject to certain conditions, at the end of a performance period only to the extent that the Company's rate of growth in primary earnings per share of common stock during the performance period reaches certain established levels. A performance period consist of three or more consecutive fiscal years.

The 1982 proxy statement indicates that since the Performance Award Plan was approved by the stockholders at the 1977 Annual Meeting, performance period for the three years ended 1979 and four years ended 1981 have been concluded and performance units granted for such periods earned upon full attainment of the established growth rate objectives. The 1985 proxy statement indicates that with respect to a four-year performance period ended 1983, cash payments were made.

Table D.75 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.76 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.77 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Rockwell International Corp.

Southwest Forest Industries defines its bonus plan as follows:

Under the Corporate Incentive Plan, as revised effective January 1, 1979, the Company reserves from net earnings an amount equal to 10% of stockholders' equity at the beginning of the fiscal year. After allowance for such reservation, 3% of the pre-tax earnings becomes

TABLE D. 75

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF ROCKWELL INTERNATIONAL CORP.

Year	Net Earning (\$000,000)	Lower Bound: Div to Common and Preferred Stocks (\$000,000)	Upper Bound: (\$000,000)	Cash Flow From Operations (\$000,000)	Type of Port- folio
1979	261	92	4,615	291	B _M
1981	292	111	5,535	487	B _M
1983	389	129	6,455	276	B _M

TABLE D.76

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
 PLAN OBJECTIVES OF ROCKWELL INTERNATIONAL CORP.

Year	Degree of Attainment of Objectives	Type of Portfolio
1979	Fully Attained	P _u
1981	Fully Attained	P _u
1983	Partially Attained	P _M

TABLE D.77

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF ROCKWELL INTERNATIONAL CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1979	B_{MP_u}
1981	B_{MP_u}
1983	B_{MP_M}

available for the awarding of bonuses under the Corporate Incentive Plan.

It defines its performance plan as follows:

Within a reasonable period of time after the beginning of each Performance Period, a performance objective for such Performance Period shall be approved by the Board, in its absolute discretion. Each performance objective shall be stated in terms of cumulative annual growth in Earnings Per Share for all of the full fiscal years in the Performance Period.

The proxy statements indicate that no payment was made for the first performance period 1980 - 1983.

Table D. 78 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D. 79 provides the type of portfolio based on the attainment of the performance plan objectives. Table D. 80 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Southwest Forest Industries.

Squibb defines its bonus plan as follows:

Such amount may not exceed any unused amount carried forward from prior years plus 6% of that part of consolidated net income for that year (before deducting income taxes and before any provision for incentive compensation) which is in excess of 7% of stockholders' equity in the Corporation at the end of that year.

It defines its performance plans as follows:

Performance units awarded under the 1978 Plan have a value, expressed in dollars, equal to the average of the high and low sales prices of the Company's Common Stock on the New York Stock Exchange on the day on which the award is granted; this value is the "unit base value". The actual amount paid to the employee by the Company when the award matures, at the end of the Award Cycle, will depend on the achievement of cumulative performance measures. These measures are determined by the Committee at the time the award is made and currently consist of cumulative earnings per share of the Company.

TABLE D.78

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF SOUTHWEST FOREST INDUSTRIES

<u>Year</u>	<u>Pre-Tax Earning</u>	<u>Lower Bound 10% Of Stock- holders' Equity</u>	<u>Type of Portfolio</u>
1983	(11,813)	31,546	B _L

TABLE D. 79

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF SOUTHWEST FOREST INDUSTRIES

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1983	Not Attained	P _L

TABLE D.80

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF SOUTHWEST FOREST INDUSTRIES

Year	Type of Portfolio
1983	R_{LPL}

The 1983 and 1984 proxy statements indicate that no payment was made for unit awards covering the Awards cycles which matures on December 31, 1982 and December 31, 1983 since the performance measures were not met.

Table D.81 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.82 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.83 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Squibb.

St. Regis Paper Co. defines its bonus plan as follows:

The total amount of compensation under this plan is 10% of the amount by which earning before taxes exceeds 6.5% of shareholders' equity.

The proxy statements indicate that with regard to performance awards, no amount has been expensed in 1982 for the award period 1982 - 1984 because management determined that achievement of targets is not probable. In addition, reversals were made in 1982 for the amount accrued before the performance period 1980 - 1982 and 1981 - 1983.

Table D.84 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.85 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.86 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of St. Regis Paper Co.

Texas Instrument defines its bonus plan as follows:

For the calendar year 1965 and each of the calendar years thereafter, the Board of Directors shall cause to be credited to an

TABLE D. 81

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF BONUS PLAN OF SQUIBB

<u>Year</u>	<u>Consolidated Net Income</u>	<u>Lower Bound 10% Of Stock- holders' Equity</u>	<u>Type of Portfolio</u>
1982	219,485	76,707	B _M
1983	261,740	86,196	B _M

TABLE D. 82

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE
* PERFORMANCE PLAN OBJECTIVES OF SQUIBB

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1982	Not Attained	P _L
1983	Not Attained	P _L

TABLE D.83

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF SQUIBB

<u>Year</u>	<u>Type of Portfolio</u>
1982	$B_{M^P L}$
1983	$B_{M^P L}$

TABLE D.84

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF BONUS PLAN OF ST. REGIS PAPER CO.

<u>Year</u>	<u>Equity Before Taxes</u>	<u>Lower Bound 6.5% of Share- holders' Equity</u>	<u>Type of Portfolio</u>
1982	76,759	93,603	B _L
1983	87,286	102,373	B _L

TABLE D. 85

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE
PERFORMANCE PLAN OBJECTIVES OF ST REGIS PAPER CO.

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1982	Not Attained	P _L
1982	Not Attained	P _L

TABLE D. 86

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF ST REGIS PAPER CO.

<u>Year</u>	<u>Type of Portfolio</u>
1982	B _L P _L
1983	B _L P _L

Incentive Compensation Reserve (hereinafter called the "Reserve") an amount determined as follows:

10% of the amount by which the Company's net income for such year exceeds 6% of net capital but not in excess of the amount paid out as dividends on the common stock of the Company during each year, except that the Board may in its discretion direct that a lesser amount be credited.

As used in this Plan

1. "Net income" shall mean the amount reported as net income in the annual statement of income for the year as shown by the annual report to shareholders plus interest on long-term debt and amounts credited to the Reserve for such year less any amounts restored to net income during the year as a result of forfeiture of unearned installments.

2. "Net capital" shall mean the total of shareholders' equity plus long-term debt (less current portion) as shown on the balance sheet as of the end of the year preceding the year for which net income, as above, is determined plus treasury stock held for the purposes of this Plan.

It defines its performance plan as follows:

The Committee shall prescribe for each performance unit a performance goal or goals which shall be set forth in the performance unit. Payments under each performance unit shall be contingent upon achievement of the performance goal or goals and such other terms and conditions.

The 1983 and 1984 proxy statements indicate that because the performance goals for awarded performance units were not met in 1982 and 1983, the previously reported accruals for those performance units were reversed.

Table D. 87 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D. 88 provides the type of portfolio based on the attainment of the performance plan objectives. Table D. 89 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Texas Instrument.

TABLE D. 87

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF TEXAS INSTRUMENT

Year	Net Income	Lower Bound: 6% of Net Equity	Upper Bound: Cash Div./10% + 6% of Net Capital	Cash Flow From Operations	Type of Port- folio
1982	144,000	89,214	94,004	820,600	B _u
1983	(145,400)	94,488	99,268	324,600	B _L

* The negative accruals in year 1982 and 1983 were mainly because of the increase in accounts payable.

TABLE D.88

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF TEXAS INSTRUMENT

PERFORMANCE PERIOD 1980 - 1982 AND 1981 -1983

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1982	Not Attained	P _L
1983	Not Attained	P _L

TABLE D.89

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF TEXAS INSTRUMENT

<u>Year</u>	<u>Type of Portfolio</u>
1982	B _u P _L
1983	B _L P _L

Thiokol Corp. defines its bonus plan as follows:

There shall be set aside out of net income before federal income taxes, but after all other proper deductions, reserves and expenses and after a further deduction equal to 10% of the net worth of the company.

It defines its performance plans as follows:

Awards made under the Company's Performance Share Plan (1973), are paid at the end of the applicable award period, which is normally the four year period following the beginning of the fiscal year in which an award is made. Payments are based upon attainment of certain performance goals specified for the Company and the recipient of the award. The goals are related to corporate growth and based on the Company's performance.

The proxy statements indicate that awards of performance shares granted during 1973 and 1975, were paid on February 1977 and 1979, based on the number of performance shares earned. No performance units were paid during 1981 for the past fiscal year.

Table D.90 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.91 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.92 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Thiokol Corp.

Trane Co. defines its bonus plan as follows:

The actual incentive compensation fund available for awards with respect to a year shall be computed by multiplying the amount determined as set forth above by a percentage factor based on the Company's pre-tax return on shareholders' equity for the year. The following table shall determine the percentage which shall apply. Such percentage is sometimes referred to herein as the "Company performance factor".

TABLE D.90

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS PLAN OF THIOKOL CORP.

<u>Year</u>	<u>Net Income Before Taxes</u>	<u>Lower Bound 10% of Net Worth</u>	<u>Type of Portfolio</u>
1976	21,336	13,656	B _M
1978	44,775	17,166	B _M
1980	58,258	22,649	B _M

TABLE D.91

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF THIOKOL CORP.

PERFORMANCE PERIOD 1973 - 1976, 1975 - 1978 AND 1977 - 1980

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1976	Partially Earned	P _M
1978	Partially Earned	P _M
1980	Not Earned	P _L

TABLE D.92

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF THIOKOL CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1976	B_{MPM}
1978	B_{MPM}
1980	B_{MPL}

% Return on Beginning Shareholders' Equity (Pre-Tax)	% of Target Incentive Compensation Fund
35% and above	160%
34	151
33	142
32	134
31	126
30	119
29	112
28	106
27	100
26	95
25	90
24	85
23	80
22	75
21	70
20	65
19	60
18	55
17	50
16	45
15	40
14	35
13	30
12	25
below 12	0

It defines its performance plan as follows:

The company's Performance Share Unit Plan ("Plan") was adopted by shareholders at the company's Annual Meeting of Shareholders held April 27, 1978. The Plan is administered by the Compensation Committee of the board. Share units are earned under the Plan during a four-year performance period based upon pre-tax return on shareholders' equity during that period.

The proxy statements indicate that payment was made under the performance plan for performance periods ending in 1981 and 1982.

Table D.93 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.94 provides the type of

TABLE D.93

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE
PARAMETERS OF BONUS PLAN OF TRANE CO.

Year	Return on Equity (ROE)	Lower Bound ROE = 12%	Upper Bound ROE = 35%	Type of Portfolio
1981	26.20	12	35	B _M
1982	11.70	12	35	B _L

TABLE D.94

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE
PERFORMANCE PLAN OBJECTIVES OF TRANE CO.

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1981	Partially Attained	P _M
1982	Partially Attained	P _M

portfolio based on the attainment of the performance plan objectives. Table D.95 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Trane Co.

Union Oil of California defines its bonus plans as follows:

The company has an Incentive Compensation Plan which provides that there may be established for each fiscal year an Incentive Compensation Fund. The fund for each fiscal year is based on the Company's consolidated net earnings after taxes for the year adjusted to exclude (a) the net effect of any incentive compensation awards granted (b) any extraordinary charges and credits (c) an amount equivalent to 6% of average shareowners' equity for the year. The maximum annual fund consists of not more than 3% of the balance of consolidated net earnings after such exclusions. Any annual fund may be allocated in whole or in part.

It defines its performance plan as follows:

The company has a Performance Share Plan under which officers and key employees may be awarded a maximum of 260,000 Performance Share Units, each equivalent to one share of the Company's stock, during the ten-year period commencing January 1, 1975. The percentage of awards earned and payable for each award period is contingent upon the Company achieving a specified average return on shareowners' equity during each award period.

The proxy statements indicate payment of a percentage of the awards for the performance periods 1975 - 1978 and 1977 - 1980.

Table D. 96 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.97 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.98 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Union Oil of California.

United Technology defines its bonus plan as follows:

For any fiscal year in which the dividends actually paid by the Corporation on each share of its Common Stock outstanding during the whole of such year aggregate not less than One Dollar (\$1.00)

TABLE D. 95

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF TRANE CO.

<u>Year</u>	<u>Type of Portfolio</u>
1981	B _M P _M
1982	B _L P _M E

TABLE D. 96

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS PLAN OF UNION OIL OF CALIFORNIA

<u>Year</u>	<u>Net Earning After Taxes</u>	<u>Lower Bound: 6% of Stock- holders' Equity</u>	<u>Type of Portfolio</u>
1978	382,282	156,520	B _M
1980	647,000	208,608	B _M

TABLE D. 97

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES FOR UNION OIL OF CALIFORNIA

PERFORMANCE PERIOD 1975 - 1978 AND 1977 - 1980

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1978	Partially Attained	P M
1980	Partially Attained	P M

TABLE D.: 98

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF UNION OIL OF CALIFORNIA

<u>Year</u>	<u>Type of Portfolio</u>
1978	$B_{M^P M}$
1980	$B_{M^P M}$

the Board of Directors may set aside a fund (the "Incentive Compensation Fund") not exceeding the less of

- (a) five percent (5%) of the consolidated earnings of the Corporation for such fiscal year, before extraordinary items and before setting aside such Fund but after all other charges and taxes except federal, foreign, and state income taxes; or
- (b) the amount by which the consolidated earnings of the Corporation applicable to its Common Stock for such fiscal year, after all charges, including the amount set aside in such Fund, and after all taxes, including income taxes, exceeds an amount equal to Fifty Cents (\$.50) multiplied by the average number of shares of Common Stock of the Corporation outstanding during such fiscal year.

It defines its performance plan as follows:

Performance Units ("Units") may have award periods of not more than five calendar years. A dollar value for each Unit will be established by the Board as well as performance targets to be achieved within an established period of time. The grantee will receive 100% of the value of the Unit if the Corporation achieves the principal target but will receive nothing if a pre-set minimum target is not achieved. A portion of the value of the Unit will be awarded for performance which meets or exceeds the minimum but does not meet the principal target.

Table D. 99 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D. 100 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.101 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of United Technology.

Westinghouse Electric Corp. defines its bonus plan as follows:

A special committee of the Board of Directors is empowered to authorize the payment of additional compensation to executive and supervisory officers and employees of the Corporation and its subsidiaries for any year in which cash dividends of at least \$.25 per share on the Corporation's Common Stock, par value \$3.125 per share, are paid, in amounts which in the aggregate do not exceed 5% of the consolidated net income for that year before deducting taxes on income and before any provision for incentive payments under the By-law plus any unused amounts that may be carried forward from

TABLE D..99

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF THE BONUS PLAN OF UNITED TECHNOLOGY

Year	Consol- idated Earning	Lower Bound .5 (# of Common Stocks During- the Year)	Upper Bound	Cash Flow From Operations	Type of Port- folio
1982	508,700	26,552	30,000	528,800	B _u

TABLE D. 100

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF UNITED TECHNOLOGY

PERFORMANCE PERIOD 1980 - 1982

Year	Degree of Attainment of Objectives	Type of Portfolio
1982	Partially Attained	P M

TABLE D. 101

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF UNITED TECHNOLOGY

Year	Type of Portfolio
1982	B _u P _M _E

previous years for which the full amount of payments permitted by the By-law shall not have been made.

It defines its performance plan as follows:

The performance period for each grant of performance shares shall be four calendar years commencing at the beginning of the calendar year in which the performance share is granted. At the time a performance share is granted the Committee shall establish superior and satisfactory performance targets to be achieved within the performance period. The superior and satisfactory performance targets shall be determined by the Committee using such measures of the performance of the Corporation and its subsidiaries over the performance period as it shall select.

The proxy statements indicate that the value of performance shares paid for the performance period ended December 31, 1982 is based upon the price of Westinghouse common stock on January 25, 1983, and the unrealized value of performance held at December 31, 1982 is based upon the price of Westinghouse common stock on December 31, 1982. The 1985 proxy statement indicates the same for performance shares realized and unrealized in 1984.

Table D.102 provides the calculation of the type of portfolio using the parameters of the bonus plan. Table D.103 provides the type of portfolio based on the attainment of the performance plan objectives. Table D.104 summarizes the results for the type of portfolio using the parameters of bonus and performance plans of Westinghouse Electric Corp.

TABLE D.102

THE CALCULATION OF THE TYPE OF PORTFOLIO USING THE PARAMETERS
OF BONUS PLAN OF WESTINGHOUSE ELECTRIC CORP.

<u>Year</u>	<u>Dividends Per Share (DPS)</u>	<u>Lower Bound DPS = \$.25</u>	<u>Type of Portfolio</u>
1982	1.82	.25	B _M
1984	1.45	.25	B _M

TABLE D.103

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE PERFORMANCE
PLAN OBJECTIVES OF WESTINGHOUSE ELECTRIC CORP.

<u>Year</u>	<u>Degree of Attainment of Objectives</u>	<u>Type of Portfolio</u>
1982	Partially Attained	P _M
1984	Partially Attained	P _M

TABLE D.104

THE TYPE OF PORTFOLIO USING THE PARAMETERS OF BOTH BONUS
AND PERFORMANCE PLANS OF WESTINGHOUSE ELECTRIC CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1982	$B_{M^P M}$
1984	$B_{M^P M}$

APPENDIX E

THE DESCRIPTION OF BONUS SCHEMES AND PERFORMANCE PLANS,
THE ESTIMATION OF EARNINGS, LOWER AND UPPER BOUNDS,
AND THE CLASSIFICATION OF EARNING OBSERVATIONS TO PORTFOLIOS
BASED ON BONUS AND PERFORMANCE PLAN DESCRIPTIONS
(COMPANIES WITH NO DISCLOSURE OF PARAMETERS OF
BONUS SCHEMES AND PERFORMANCE PLANS)

Coca-Cola Bottling Co. of New York defines its bonus plan as follows:

The Annual Performance Plan provides cash bonuses, based on corporate and individual performances, to certain officers and employees at the discretion of the Board of Directors based on performances for the preceding year with respect to factors such as sales, earnings and market position.

It defines its performance plan as follows:

The incentive unit awards are conditional and the participants will be entitled to receive these awards in cash at the end of the awards cycle only if the Corporation achieves targeted compound growth rates in earnings per share over the award cycle in excess of a base earnings per share and targeted average rates of return on average assets employed during the award cycle as established by the Compensation and Stock Option Committee of the Board of Directors.

The 1980 proxy statement indicate that no incentive payments will be made as of the close of the Second Cycle (1977-1979) under the Long Term Management Incentive Plan because the minimum target was not achieved. No payments were made during or with respect to 1979 under the Annual Performance Plan. The 1981 proxy statement indicate that amounts included in the table of remuneration includes annual incentive compensation under the Annual Performance Plan. It also indicates that no incentive payments were made as of the close to the third cycle (1978-1980) under the long term Management Incentive Plan because the minimum targets were not achieved.

Table E.1 provides the type of portfolio based on the attainment of the bonus and performance plan objectives.

Esterline Corp. defines its incentive compensation plan as follows:

Under the Company's 1978 Incentive Compensation Plan, which was approved by stockholders at the 1978 Annual Meeting, key employees of the Company and its subsidiaries may be granted annual awards contingent upon performance for a fiscal year and long-term awards

TABLE E.1

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE
BONUS AND PERFORMANCE PLAN OBJECTIVES OF
COCA-COLA BOTTLING CO. OF NEW YORK

<u>Year</u>	<u>Type of Portfolio</u>
1979	B _L P _L
1980	B _M P _L

contingent upon performance over a cycle of at least three years. The participants and their awards are determined, and the Plan is administered, by the Compensation Committee of the Board of Directors.

The aggregate provision in any fiscal year for annual awards, long-term awards for cycles in progress and awards under similar management incentive plans of subsidiaries may not exceed 10% of consolidated net income of the Company and its subsidiaries for such year before provision for Federal income taxes, significant non-recurring items which in the judgment of the Committee are appropriately excluded as outside of the control of most participants and the aggregate provision for awards under the Plan and similar plans of subsidiaries.

The payment and amount of annual awards is determined pursuant to a program established each year by the Committee, and in certain respects by the Board, incorporating measures of performance such as profit attainment and individual performance. Long-term awards are based upon earnings performance over the cycle in relation to targets fixed by the Committee and the Board.

The 1981 and 1982 proxy statements indicate that the table of remuneration include the amount of annual awards and long term awards payable for the fiscal 1978-1980 cycle and 1979-1981 cycle. The 1983 and 1984 proxy statements indicate that there were no annual awards and no provisions for long-term awards for fiscal 1980-1982 cycle and 1981-1983 cycle.

Table E.2 provides the type of portfolio based on the attainment of the bonus and performance plan objectives for Esterline Corp.

Fieldcrest Mills defines its bonus plan as follows:

The amount awarded annually under this Plan are based on the Company's achieving certain levels of earnings and rates of return on working capital (inventory and receivables). Earnings levels and rates of return on working capital are fixed prospectively each year by the Board of Directors.

It defines its performance plan as follows:

Performance Shares awarded under the Plan are accounting units having a potential value to the participant equal to the Average Market Value, as defined, on one share of Capital Stock on the last day of the four-year Award Period 1983 and 1985.

TABLE E.2

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE BONUS AND
PERFORMANCE PLAN OBJECTIVES OF ESTERLINE CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1980	B _M P _M
1981	B _M P _M
1982	B _L P _L
1983	B _L P _L

The 1982 proxy statements indicate that the amounts shown in the remuneration table represent incentive compensations for service rendered in 1981, 1982, and 1984 under the company short-term incentive compensation plan. The 1982 proxy statement indicates that performance shares awarded in respect to the first award period 1978-1981 were fully earned. The 1985 proxy statement indicates that the cumulative earning per share for the years 1979-1982 and 1981-1984 did not attain the requirements of the performance share grants for compensation purposes.

Table E.3 provides the type of portfolio based on the attainment of the bonus and performance plan objectives for Fieldcrest Mills.

Hillenbrand Industries Inc. defines its bonus plan as follows:

Under the short-term incentive plan a target goal shall be established for each fiscal year of the Corporation and mutually committed with each Participant as soon after the beginning thereof as possible. Such Goals shall be directly related to the return on shareholder equity of the Corporation.

It defines its performance plans as follows:

A Performance Share Period shall begin each December 1 and shall include the subsequent five (5) fiscal years. During each Performance Share Period the Average Return on Shareholder's Equity shall be determined by averaging the return on shareholder's equity for each of the five (5) fiscal years in such Period. At the end of each Performance Share Period a Performance Share Award shall be calculated for each Participant in the following manner. The Tentative Performance Share shall be multiplied by a multiplier to be determined annually by the Board, based on the degree of achievement of the minimum and maximum targets.

The 1981 proxy statement indicates that no short term incentive compensation has been paid for performance in 1980. In addition, no cash or common stock was paid as long term performance share compensation during 1980. The 1982 proxy statement indicate that payments of 1981 short term incentive compensation were paid in January

TABLE E. 3

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE BONUS
AND PERFORMANCE PLAN OBJECTIVES OF FIEDLCREST MILLS

<u>Year</u>	<u>Type of Portfolio</u>
1981	B _M ^P _U
1982	B _M ^P _L
1984	B _M ^P _L

1982. It also indicates that no cash or common stock was paid as long term performance share compensation during 1981.

Table E.4 provides the type of portfolio based on the attainment of the bonus and performance plan objectives for Hillenbrand Industries Inc.

Houghton Mifflin Co. defines its bonus plan as follows:

The Incentive Compensation Plan provides for annual incentive compensation payments to all employees above a certain salary range. The Compensation Committee, consisting of four outside directors, establishes corporate and divisional incentive award schedules which are related to objectives under the company's Management By Objectives Program, taking into account such factors as return on invested capital and earnings per share. Assuming the objectives are met, within the ranges permitted by the schedules, a percentage of pre-tax profits is set aside as incentive pools. Awards under the Plan cannot exceed 30% of an employee's base salary. No awards may be made under the Plan unless the Company achieves a minimum financial performance level.

It defines its performance plan as follows:

On February 22, 1978, the Board of Directors of the Company adopted, and on April 26, 1978, the Company's stockholders approved, the Houghton Mifflin 1978 Performance Share Plan (the "Share Plan").

In general, the Share Plan provides for awards not exceeding an aggregate of 100,000 shares of Common Stock and cash to top management employees based on attainment of specified corporate objectives. Each year that awards are made under the Share Plan, the Committee establishes a schedule of Award Period Objectives for all awards to be granted in that year. Award Period Objectives are stated in terms of maximum and minimum percentage rates of growth in EPS compounded annually for all of the fiscal years of the performance period. By applying such maximum and minimum Award Period Objectives to the so-called "Based Year Earnings Per Share," the Committee determines the average actual EPS that must be attained by the Company to entitle the participant to (a) the maximum number of shares of Common Stock and (b) the minimum number of shares of Common Stock awarded to him or her.

The 1982 proxy statement indicates that amounts shown in the remuneration table include incentive compensation under the company's

TABLE E.4

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE BONUS AND
PERFORMANCE PLAN OBJECTIVES OF HILLENBRAND INDUSTRIES INC.

<u>Year</u>	<u>Type of Portfolio</u>
1980	B _L P _L
1981	B _M P _L

incentive compensation plan. It also indicates that the average annual EPS growth compounded annually over four years through 1981 exceeded the maximum award period objective.

Table E.5 provides the type of portfolio based on the attainment of the bonus and performance plan objectives for Houghton Mifflin Co.

Maryland Cup Corp. defines its bonus and performance plan as follows:

Key Employee Incentive Compensation Plan provides for incentive awards annually, if certain objectives of income and standards adopted by an Incentive compensation Committee are achieved. A Performance Stock Unit Plan establishes a predetermined compound earnings per share growth objective for each five year period which, if realized, results in a bonus being paid at the close of the award period based on the book value of a share of Common Stock times the number of Units awarded.

The 1982 proxy statement indicates that no bonus was paid this year for the 1981 performance under the key Employee Incentive Compensation Plan. Under the Performance Stock Unit Plan, participating officers are credited with \$30,000 during the current fiscal year.

Table E.6 provides the type of portfolio based on the attainment of the bonus and performance plan objectives for Maryland Cup Corp.

Nalco Chemical defines its bonus plan as follows:

The Management Incentive Plan, adopted in 1980 is intended to provide incentive compensation to key managers of the Company based upon annual achievement of goals for increased earnings. No awards may be earned for any year in which consolidated earnings fail to exceed a threshold rate of return on consolidated shareholder's equity, as established by the Committee. Awards are expressed as a percentage of each participant's base salary for the year. Depending on the level of management responsibility, target awards can range from 10% to 50% of base salary. Earned awards can range from 0% to 120% of target awards.

TABLE E.5

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE BONUS
AND PERFORMANCE PLAN OBJECTIVES OF HOUGHTON MIFFLIN CO.
PERFORMANCE PERIOD 1978 -1981

<u>Year</u>	<u>Type of Portfolio</u>
1981	B _M PU

TABLE E.6

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE BONUS
AND PERFORMANCE PLAN OBJECTIVES OF MARYLAND CUP CORP.
PERFORMANCE PERIOD 1977 - 1981

<u>Year</u>	<u>Type of Portfolio</u>
1981	B L P M E

It defines its performance plan as follows:

The Performance Share Plan, approved by the stockholders at the 1977 Annual Meeting, provides for the annual assignment of performance shares to designated officers and other key executives of the Company by the Executive Compensation Committee. The performance shares awarded will become earned, subject to certain condition, upon the conclusion of the applicable three-year performance period and the attainment of goals for growth in earnings for each performance period which are established by the Committee.

The 1982 proxy statement indicates that no payment was made for fiscal year 1981 under the management incentive plan and the performance share plan (performance period 1979-1981).

Table E.7 provides the type of portfolio based on the attainment of the bonus and performance plan objectives for Nalco Chemical.

Pitney Bowes Inc. defines its bonus plan as follows:

Performance Based Compensation ("PBC"), is a yearly cash payment based on the individual employee's performance as well as the year's performance of Pitney Bowes and of his or her respective division.

It defines its performance plan as follows:

Awards are in the form of cash incentive units (CIU) which entitle the recipient to future cash payments depending upon whether certain long-term earnings and returns goals established at the times of the award of the units are met.

All CIUs granted to date will mature five years after the beginning of the five year period in respect of which they are granted.

The 1980-1984 proxy statements indicate that the amounts shown in the remuneration table include cash amounts earned under the Performance Based Compensation. The 1980 and 1981 proxy statements indicate with respect to the cash incentive units that the full amounts under the cycle commencing in 1975 and 1976 have been paid because earning goals were satisfied. The 1983 proxy statement indicate with respect to the

TABLE E.7

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE BONUS AND
PERFORMANCE PLAN OBJECTIVES OF NALCO CHEMICAL
PERFORMANCE PERIOD 1979 - 1981

<u>Year</u>	<u>Type of Portfolio</u>
1981	B _L P _L

cash incentive units that only 93% was paid on the basis of the achievement of the earning goals established for such cycle. The 1984 and 1985 proxy statements indicate that targets established for the five year cycle in 1980, 1981 maturing at the end of 1984, 1985 were not met and there were no payments for this cycle.

Table E.8 provides the type of portfolio based on the attainment of the bonus and performance plan objectives for Pitney Bowes Inc.

Rexham defines its bonus plan as follows:

The Corporation's Officer's incentive Compensation Plan ("OICP") provides for awards to be made based upon earnings performance and individual accomplishments in the preceding fiscal year. Earnings performance is measured by audited corporate income.

It defines its performance plan as follows:

Performance Units shall consist of monetary units initially awarded to participants in the Plan and are derived from a formula reflective of relative base salaries. Such Units may later vest according to a Vesting Schedule (as defined in the Plan) fixed by the Committee, that measures the degree of achievement of predetermined performance objectives. The Vesting Schedule will provide that the initial value of the Performance Units awarded be increased to a maximum of 200% of the initial award for performance exceeding the objectives and decreased for performance failing to meet the objectives. The performance measures, which will be determined by the Committee at the time a Performance Unit award is made, may include cumulative growth in earnings per share, return on shareholders' equity, return on capital employed or any combination thereof.

The 1981 proxy statement indicate amounts shown in the table of remuneration include awards made for the year 1980 pursuant to the Incentive Compensation Plan and Performance Share Compensation Plan paid during the year.

Table E.9 provides the type of portfolio based on the attainment of the bonus and performance plan objectives for Rexham Corp.

TABLE E.8

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE BONUS AND
PERFORMANCE PLAN OBJECTIVES OF PITNEY BOWES INC.

<u>Year</u>	<u>Type of Portfolio</u>
1980	B _M ^P U
1981	B _M ^P U
1982	B _M ^P M
1983	B _M ^P L
1984	B _M ^P L

TABLE E.9

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE BONUS AND
PERFORMANCE PLAN OBJECTIVES OF REXHAM CORP.

<u>Year</u>	<u>Type of Portfolio</u>
1980	B _M ^P _M

SPS Technologies Inc. defines its bonus plan as follows:

Under the Company's Management Incentive Plan no awards are paid unless certain earnings goals and certain individual performance objectives are achieved. Each award is a percentage of the recipient's base salary. The percentage is determined by the extent to which Company earnings exceed certain pre-stated goals and the extent to which certain pre-established management objectives have been achieved during the award year. Participants may elect to defer awards under the Plan.

It defines its performance plan as follows:

Under the Company's Executive Incentive Plan instituted in 1978, participation is limited to those key officers and employees selected by the Executive Compensation Committee of the Board of Directors on the basis of their positions held, their projected impact on the Company's long-term business results and their compensation levels. Under the plan, no awards are paid unless the Company achieves certain goals for earnings and the return on employed capital over continuing three year periods.

The 1983 proxy statement indicates that no awards are paid in 1982 under the Company's Management Incentive Plan and under the Company's Executive Incentive Plan

Table E.10 provides the type of portfolio based on the attainment of the bonus and performance plan objectives for SPS Technologies Inc.

TABLE E.10

THE TYPE OF PORTFOLIO BASED ON THE ATTAINMENT OF THE BONUS AND
PERFORMANCE PLAN OBJECTIVES OF SPS TECHNOLOGIES INC.

<u>Year</u>	<u>Type of Portfolio</u>
1982	B _L PL

APPENDIX F

TYPE OF PORTFOLIO FOR EACH COMPANY-YEAR USING THE
PARAMETERS OF BOTH BONUS SCHEMES AND PERFORMANCE PLANS

TABLE F.1

TYPE OF PORTFOLIO FOR EACH COMPANY-YEAR USING THE

PARAMETERS OF BOTH BONUS SCHEMES & PERFORMANCE PLANS

(COMPANIES WITH FULL DISCLOSURE OF PARAMETERS
OF BONUS SCHEMES & PERFORMANCE PLANS)

Years

Name of Co.	72	73	74	75	76	77	78	79	80	81	82	83	84
Air Product & Chemicals								B.P. M L	B.P. M L	B.P. M L	B.P. M u		
Akzona								B.P. M L	B.P. L L	B.P. L L			
Baxter Travenol Laboratories											B.P. u L	B.P. u L	B.P. L L
Bendix						B.P. M L	B.P. M L	B.P. M L	B.P. M L	B.P. M M	B.P. M M		
Borden							B.P. M L	B.P. M L	B.P. M L	B.P. M L	B.P. M L	B.P. M M	B.P. M u
Cabot Corp.						B.P. M L	B.P. M L	B.P. M L	B.P. M L	B.P. M M	B.P. M u	B.P. M u	
Colt Ind.							B.P. M M	B.P. M M	B.P. M M				
Exxon								B.P. M M	B.P. M M	B.P. M M	B.P. M u	B.P. M u	
General Dynamics Corp.													B.P. M u
H.J. Heinz		B.P. L L	B.P. M L	B.P. M L									
Honeywell Inc.							B.P. M L	B.P. M L	B.P. M L	B.P. M L	B.P. M L	B.P. M L	
Huffy							B.P. M L	B.P. L L	B.P. M L	B.P. L L	B.P. L L		
International Paper Co.	B.P. u L	B.P. u L	B.P. u M E				B.P. u L	B.P. u u	B.P. M u	B.P. M L	B.P. L L	B.P. L L	
Koppers								B.P. u L	B.P. L L	B.P. L L	B.P. L L	B.P. L L	B.P. L L

TABLE F.2

TYPE OF PORTFOLIO FOR EACH COMPANY-YEAR USING THE PARAMETERS
OF BOTH BONUS SCHEMES & PERFORMANCE PLANS (COMPANIES WITH FULL
DISCLOSURE OF PARAMETERS OF BONUS SCHEMES ONLY)

Y e a r s

Name of Co.	72	73	74	75	76	77	78	79	80	81	82	83	84
Allegheny International									B _M P _u	B _M P _u			
Allied Corp.											B _u P _L		
American Can Co.													B _u P _M _E
American Cynamid									B _M P _L	B _M P _M	B _M P _L		
Ashland Oil											B _L P _L		
Atlantic Richfield									B _M P _M	B _M P _M			
Burroughs											B _L P _M	B _L P _M	
Champion Int'l Corp.										B _L P _u	B _L P _L	B _L P _L	
Combustion Engineering									B _M P _M		B _M P _M		
Cummins Engine									B _L P _M _E	B _M P _M			
Data Point Corp.										B _M P _M	B _L P _L	B _L P _L	B _M P _L
Echlin Mfg Co								B _M P _L	B _L P _L	B _L P _L	B _L P _L	B _M P _u	
Freeport McMoran											B _M P _M	B _M P _M	B _M P _M
General Electric Co.											B _M P _M		B _M P _M
General Foods Co.											B _M P _M	B _M P _M	

TABLE F.2

(Continued)

Years

Name of Co.	72	73	74	75	76	77	78	79	80	81	82	83	84
Harris Corp.										B _M P _M	B _M P _M	B _M P _M	B _M P _M
Hershey Foods Corp.										B _M P _M	B _M P _M	B _M P _M	B _M P _M
International Harvester				B _L P _L									
Johnson Controls Inc.									B _L P _M	B _L P _M			
Mobil Corp.													B _M P _M
Nashua Corp.									B _u P _L	B _L P _L	B _L P _L	B _u P _L	
Owens Corning Fiberglass												B _M P _L	B _M P _L
Owens-Illinois Inc.								B _M P _M					
Philips Petroleum Co.											B _M P _M		B _M P _M
PPG Industries									B _M P _M	B _M P _M	B _M P _M		
Riegel Textile Corp.											B _u P _M	B _u P _M	
Rockwell International								B _M P _u		B _M P _u		B _M P _M	
Southwest Forest Ind.												B _L P _L	
Squibb Corp.											B _M P _L	B _M P _L	
St. Regis Paper Co.											B _L P _L	B _L P _L	

TABLE F.2
(Continued)

Y e a r s

Name of Co.	72	73	74	75	76	77	78	79	80	81	82	83	84
Texas Instruments											B _U P _L	B _L P _L	
Thiokol Corp.					B _M P _M		B _M P _M		B _M P _L				
Trane Co.										B _M P _M	B _L P _M _E		
Union Oil of California							B _M P _M		B _M P _M				
United Technology											B _U P _M _E		
Westinghouse Electric Corp											B _M P _M		B _M P _M

TABLE F.3
 TYPE OF PORTFOLIO FOR EACH COMPANY-YEAR USING THE PARAMETERS
 OF BOTH BONUS SCHEMES & PERFORMANCE PLANS

(COMPANIES WITH NO DISCLOSURE OF PARAMETERS OF
 BONUS SCHEMES & PERFORMANCE PLANS)

Years

Name of Co.	72	73	74	75	76	77	78	79	80	81	82	83	84
Coca-Cola Bottling Co.								B.P. L L	B.P. M L				
Esterline Corp.									B.P. M M	B.P. M M	B.P. L L	B.P. L L	
Fieldcrest Mills										B.P. M u	B.P. M L		B.P. M L
Hillenbrand Industries									B.P. L L	B.P. M L			
Houghton Mifflin Co.										B.P. M u			
Maryland Cup Corp.										B.P. L M E			
Nalco Chemical Co.										B.P. L L			
Pitney Bowes Inc.									B.P. M u	B.P. M u	B.P. M M	B.P. M L	B.P. M L
Rexham Corp.									B.P. M M				
SPS Technologies											B.P. L L		

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