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INTRODUCTION

In recent years, economists and public officials have become increasingly interested in the nature and causes of economic growth. As a reflection of this concern, scholarly attention has been directed toward those individuals in our society who occupy positions such that their activities and decisions are felt to be closely related to the generation of an expansion in the output of goods and services. Among such individuals, corporate executives have been recognized as a group whose behavior is particularly important. Not only do they, in their capacity as stewards of shareholder interests, determine the uses to which large aggregations of scarce resources are put, but their remuneration for that stewardship enables them to acquire substantial personal wealth whose form and disposition are of concern as well. Any attempt to understand the mechanisms by which economic growth is generated—or, more broadly, to appraise the character of the process of resource allocation within the community—should, therefore, include an investigation of the contributions made and the rewards enjoyed by this strategic group of decision makers.

If, for example, one assumes that the several markets in which factors of production are offered for sale are operating reasonably efficiently, it will be the case that the prices of these factors will be approximately equal to their respective marginal revenue products. Under such circumstances, an accurate and comprehensive measure of the compensation received by executives permits us to determine directly the magnitude of their contributions to output. On the other hand, if—as seems more likely—there are reasons to suspect that certain imperfections may exist in the relevant factor markets, the amounts of executives' remuneration are still of interest, since both the extent and the cause of the differences between those amounts and the actual value of the services

rendered are important matters for public consideration in the context of a general concern with effective resource allocation.

Similarly, questions as to the appropriate degree of progression in the personal income tax structure and the logic of the prevailing pattern of income distribution in the community are often raised in connection with executives' earnings. Because top executives are highly paid individuals, much of their remuneration has been subject to the upper end of the steeply graduated marginal tax rate schedules which have been in effect in this country during the last quarter century. At the same time, however, a number of compensation arrangements have become available which generate income that not only is taxed on more favorable terms but also is almost invisible to those of us outside the corporations which provide it. Since there has thus far been only limited empirical evidence as to the net impact of these two phenomena, it has not really been possible where the professional manager is concerned to examine meaningfully either the question of "equity" in the tax structure or the problem of the possible disincentive effects of high marginal rates.

A further issue involves the mobility of the labor force. It has been asserted that labor mobility is impeded by the increasing importance of items of remuneration such as pension plans which stipulate that the individual who stands to receive benefits thereunder relinquishes his right to do so if he changes employers prior to retirement. Persons in executive positions, of course, are likely to be precisely those who have been with their present firms for a considerable period of time and who consequently could lose substantial amounts of accumulated benefits should they resign to accept positions elsewhere. The relative importance, in the scheme of executive rewards, of compensation arrangements which incorporate such penalties is therefore of particular interest in appraising the job mobility of this key segment of the working population.

Finally, comparisons of the performance and attributes of our economy with those of other countries are being made with increasing frequency. The patterns of growth in national product, price levels, wage rates, personal income, and other economic indicators have become criteria around which discussions of efficiency of resource use are centered. In that context, the size and form of the remuneration of executives in different countries has begun to receive attention. While some casual observations—and a good many opinions—have been offered, there is

little that can confidently be said about international compensation relationships until more is known of the American experience. Accordingly, the present study seeks not only to provide a thorough treatment of what seems an important topic in its own right, but also to generate a body of data which can be used as raw material by subsequent investigators.

Orientation

As the preceding paragraphs suggest, the often-used term "compensation package" is especially appropriate for executives. In response to a growing concern on their part with such goals as economic security in retirement, comprehensive life and health insurance protection for their families, and more extensive participation in the ownership of the firms which employ them, executives have come to be the beneficiaries of a wide variety of indirect, deferred, and contingent compensation arrangements over the years. This trend has been accelerated by the advent of high progressive personal income tax rates on salary and bonus receipts and the concomitant enactment of legislation which quite specifically accorded much less severe treatment to other forms of reward. Descriptions of the legislation itself, surveys of the relative popularity of particular instruments of remuneration, and judgments as to the evils inherent in the "tax loopholes" thus created continue to abound, but it remains true that the surface has only begun to be scratched with respect to the most elementary—as well as most important—piece of evidence in the area of managerial rewards. We do not yet have, very simply, sufficient information as to how much in total those rewards are worth to their recipients. Until we do, it clearly is not very fruitful to undertake to assess either the impact or the efficacy of the pay package. It is the task of the exposition that follows to first develop a rigorous conceptual framework in which the monetary value of all the various supplements to individuals' salaries and bonuses can be measured and compared and then to apply that framework empirically to the experience of a large and diverse sample of corporate executives. The goal is to determine how business firms in this country have, in fact, reshaped their compensation practices in response to changes over time in the tax laws and in the economic environment.

Conceptual Framework

The approach which is taken here in attempting to achieve these objectives utilizes the executive's traditional rewards—salary and bonus—as both standards of value and bases of comparison. Since salary and bonus are the most familiar and least complicated arrangements currently in use, the analysis which results is not only clearest if organized around them but the mechanics of translating the various disparate components of the compensation package into a common denominator are also most easily developed.

The magnitude of the remuneration accruing to executives from their salary and bonus payments is readily determined merely by applying to the observed pretax figures the relevant personal income tax schedules and an estimate of the probable amount of deductions and exemptions claimed. The compensation embodied in instruments which have more complex timing, taxation, and contingency features is rather less obvious, but can be ascertained by the following procedure: for each deferred and contingent form of reward, there can be constructed a "current income equivalent," defined as the amount of additional current income—additional salary and bonus—which is as valuable to the executive in question as the particular reward being examined. In effect, the proposition is that the most appropriate way to measure on a common basis the worth of the numerous supplements to direct current remuneration is simply to calculate the size of the salary increments which, if substituted for those supplements, would leave the individuals involved as well off.

In the case of a pension plan, for example, the question is asked: "How much of an increase in annual after-tax salary would the prospective pension recipient require in order to be able to purchase therewith an individual retirement annuity from an insurance company similar in form and equal in value to the pension promised him under his company's retirement plan?" In the view here, the indicated series of annual premium payments comprise the "after-tax current income equivalent" of that pension. Corresponding indexes can be developed for other compensation arrangements and, once established, provide a vehicle for convenient and accurate statements as to the absolute value and relative importance in the pay package of originally quite dissimilar rewards.

In developing the appropriate indexes (the particulars of which are

presented in Part I of the study) two principles are followed throughout and are worth noting at the outset. First, equivalence between a series of increments to salary on the one hand and the benefits anticipated from a given supplement thereto on the other is defined in every instance in terms of the after-tax *present values* of the two sets of payments. Second, all "current income equivalents" so created are intended not only to measure the compensation inherent in particular instruments but are also designed to represent feasible alternatives to those instruments in an actual scheme of executive rewards. In short, the concept of discounted cash flows and a persistent effort to be practical will both play an important role in the analysis.

Focus

Within the analysis, answers are sought to questions of the following sort:

1. How much, after taxes, is the corporate executive's total compensation package worth to him?
2. How rapidly has the value of that package grown over time?
3. How does this pattern compare with the rate of growth of the company he works for, with the earnings of other occupational groups, and with increases in the price level?
4. Which components of the pay package are the most important currently?
5. Has that emphasis changed since the appearance of high progressive personal tax rates?
6. Have there been changes over the years in the compensation differentials between particular executive positions within the same corporation?
7. Do deferred and contingent rewards become more or less important at successively higher levels in the corporate hierarchy?
8. How significantly do stock market conditions affect the amount and form of executives' compensation?
9. Do salary and bonus levels provide a reliable indication of the relative size of individuals' *total* remuneration?

In each case an attempt is made to develop an explanation for, as well as a description of, the relevant phenomena, special attention being paid to the influence of taxes on the patterns observed. In the process, infor-

mation will be obtained and techniques devised which are useful in connection with some related issues that are examined only in passing here. One of these is the tax revenue consequences of various compensation arrangements from the standpoint of the federal government. Since the tax treatment of particular instruments is often an important factor in their adoption by the employer corporation, the Internal Revenue Service is likely also to have an interest in those decisions. A second area is the nature of the career profile of the corporate executive. The data required for the empirical portion of the study include executives' ages and a substantial amount of evidence concerning their employment histories. Brief digressions are made to discuss these topics as they arise. More generally, the analysis necessarily provides a format by which the individual employee can assess the value to him of the reward structure in effect at his company and it will sketch some guidelines for the firm which seeks better measures of the relative costs and desirability of a wide range of compensation devices.

The Sample

The proxy statements issued by corporations in conjunction with their annual shareholders' meetings are the one consistent and systematic source of information about the remuneration received by executives. Because the Securities and Exchange Commission requires that these documents contain tabulations of the rewards enjoyed by only the most senior officers of the firm, the sample on which an empirical investigation of compensation may be based must be restricted to such individuals. The analysis here is directed in particular to the experience of those men who, in the 1940-63 period, occupied the five highest-paid positions in each of a group of fifty of the nation's largest manufacturing corporations—a sample which turns out to include data on some 550 different executives and encompass approximately 8,000 man-years' worth of compensation history.

This sample should afford a basis not only for examining the compensation of the individuals covered thereby but also for drawing some general conclusions about the size and structure of managerial rewards. For one thing, the remuneration of the senior officers of a firm is likely to set the pattern for payments to individuals at lower levels in the organization as well. Top executives are therefore an appropriate group on

which to concentrate if the objective is to observe the formulation of policy in this area. Similarly, the corporations included in the sample are among the most important and most influential in the economy. The compensation norms they establish can be expected to be emulated by a number of other firms. Finally, because these are large companies, the amounts of remuneration associated with their top positions are sufficiently great that if tax considerations play any role at all in the design of executives' pay packages, the effects should show up in their experience.

Scope of the Study

Since proxy statements provide the basic data for the study, their characteristics and availability necessarily define its boundaries. In practice, this means that 1940 is just about as far back in time as an historical record can be constructed. Formal proxy information was required of all firms listed on an organized stock exchange by the then newly created Securities and Exchange Commission in the late 1930's, but the initial rules for reporting compensation figures were not rigorous enough to bring about uniform and comprehensive disclosure of the necessary data until several years thereafter. From 1940 on, however, a very good record can be assembled for most listed companies. Fortunately, that year is a sensible starting point for a study of executive rewards because it just precedes the era of high progressive personal tax rates and thus allows meaningful historical comparisons to be made.

The particular set of compensation arrangements which may be included in the analysis is similarly limited by the proxy statements. Salaries and bonuses, pensions, stock options, deferred-pay agreements, and profit-sharing plans are the instruments whose features are reported on in sufficient detail to permit proper application of the valuation techniques which will be developed. Since these are by far the most important components of the pay package and together almost certainly account for all but a small percentage of executives' total remuneration, they should provide a solid foundation on which to base conclusions about the various patterns of reward. A methodology for measuring the compensation implicit in such items as employee life and health insurance programs, expense account privileges, and savings plans is presented even though those arrangements cannot be treated empirically.

For simplicity and computational convenience, only federal income

and estate tax liabilities are considered in the analysis. The amounts involved in connection with social security tax assessments and state or local income taxes have been small enough in relation to top executives' aggregate remuneration during the period studied that little in the way of accuracy is sacrificed by ignoring them entirely. Estate taxes are relevant in the case of instruments such as pension plans which incorporate provisions for certain payments upon the death of the executive as part of the benefit package.

Organization

Part I of the study, Chapters 2 through 6, is concerned with the development of techniques by which to measure on a common scale the compensation provided by each of the individual executive's deferred and contingent rewards. It describes in detail the construction of what are termed here the "current income equivalents" of those rewards. Part II, Chapters 7 through 13, presents and evaluates the results obtained by applying the conceptual framework to the compensation experience of the indicated sample of senior corporate officers.

The Findings

Among the more significant conclusions which emerge from the empirical analysis are the following:

1. The annual before-tax salaries and bonuses received by senior corporate executives increased by approximately 80 per cent between 1940 and 1963.
2. After taxes, on the other hand, the increase amounted to only 33 per cent of the 1940 figure.
3. Executives' total after-tax compensation, including the value of the various supplements to salary and bonus, just about doubled during the same interval.
4. All this growth occurred in the ten years immediately following World War II. From 1940 to 1945 top executives' aggregate remuneration declined steadily and has not increased appreciably since 1955.
5. Deferred and contingent rewards now comprise approximately half the value of the total pay package and have therefore accounted for

the major portion of the observed growth in compensation over the last quarter century.

6. Stock options in particular have become an important item. Nearly one-third of the after-tax remuneration received by senior executives in recent years has been attributable to options.

7. Because many of the now popular supplements to salary and bonus utilize shares of the employer corporation's common stock as the compensation medium—stock options being perhaps the best example—the volatility of the value of the pay package has increased substantially over time.

8. The rate of growth in executives' total after-tax compensation since 1940 has been less, by a wide margin, than that of the after-tax earnings of physicians, lawyers, dentists, or manufacturing production workers.

9. The companies the executives worked for grew more rapidly than their compensation in every important respect.

10. In terms of *real* after-tax income, executives are no better off nowadays than they were before World War II.

11. The salary differentials between the top five executive positions in the fifty corporations studied have narrowed since 1940, but the total compensation differentials have remained quite stable.

12. Deferred and contingent rewards comprise a larger percentage of the individual's pay package the higher the position in his firm he holds. For the same reason, his aggregate remuneration also becomes more volatile as he is promoted.

13. The executives who are the five highest-paid in their companies currently are, on average, approximately five years older than were their counterparts in 1940.

14. Top executive compensation policies vary much less widely among firms than do any of the measurable attributes of the firms themselves.

Each of these findings will be analyzed and their implications appraised in the chapters that follow. Those readers whose main concern is with the results of the study rather than with the methodology employed may find it most efficient to begin with Chapter 7, referring to the earlier chapters primarily for clarification of questions as they arise.