12-1981

# A Study of the Nature of Pension Obligations

Anthony Berdahl

A STUDY OF THE NATURE OF

PENSION OBLIGATIONS



by

Anthony C. Berdahl

Bachelor of Arts, University of North Dakota 1975

An Independent Study

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Master of Accountancy

Grand Forks, North Dakota

December
1981

## TABLE OF CONTENTS

CHAPTER

## CHAPTER I

## INTRODUCTION

In recent years, one of the hottest areas of controversy in the accounting and financial communities has involved pension plans - their accounting and reporting. Whether or not the financial statements of private pension plan sponsors accurately reflect the true financial impact of future payments of pension benefits has been the central issue debated.

A private pension plan could be defined as "an arrangement whereby a company undertakes to provide its retired employees with benefits that can be determined or estimated in advance . . ."[1] These plans may be of either a formal, written nature or may be merely inferred from a well-defined company policy. These private pension plans can be categorized as being either funded or unfunded. A funded pension plan is one in which funds are set aside for future pension benefits by making payments to a funding agency or trustee. This agency is then responsible for accumulating and investing the fund assets to achieve an adequate rate of growth and for making payments to retirees or other recipients as the benefits become due. The term "funding" refers to the process of making the cash payments to the funding agency. When a plan is unfunded the assets essential to the meeting of future benefit payments are not

[1] American Institute of Certified Public Accountants, Accounting Principles Board, APB Opinion No. 8, Accounting for the Cost of Pension Plans (New York: AICPA, November 1966), paragraph 8.

kept by an independent funding agency but are accumulated by and kept under control of the employer. Pension plans may be of a defined-benefit or defined-contribution variety or a hybrid thereof. The defined-benefit plan specifies the benefits to be received upon retirement and the sponsor is responsible for contributing amounts sufficient to support these benefits. In a defined-contribution plan the sponsor is required to make specified amounts of periodic contributions to the pension fund. The future benefits paid will be dependent upon the eventual amount accumulated.

Pension plans can be further categorized as being either contributory or noncontributory, depending upon whether or not the employee makes any contributions to the plan. They can also be classified as qualified or unqualified depending upon whether or not they meet federal income tax requirements that permit deductibility of the employer's contributions and tax free earnings of the pension fund assets.

By combining these differences with varying eligibility requirements, levels of benefits, retirement ages, and further options, the results are an almost infinite variety of plans.

The significance of private pension plans in the American economy becomes greater every year as more and more plans are initiated, more and more people are covered, and more and more assets are held by independent funding agencies. In 1979 almost one half of all the people employed in U.S. private industry were covered by some form of private retirement plan.[2]

---

[2]American Council of Life Insurance, Pension Facts 1978-1979 (Washington, D.C.: American Council of Life Insurance), as cited by Donald J. Kirk, "Pension Accounting: Where the FASB Stands," Journal of Accounting 150 (June 1980):82.

The combined assets of the largest 1,000 public and private pension plans exceeded $420 billion in 1979.[3] This represented nearly a 20% increase over the preceding year. When you add to this the fact that the average age of our population has been steadily increasing, it is understandable that interest in the probable effect of the benefits to be paid in the future upon future earnings of the sponsoring companies has also grown correspondingly. The employees covered by these plans are equally concerned about the security of the assets set aside to fund future benefits earned and the adequacy of these funds to pay benefits when due.

Questions to be resolved in the area of pension accounting are broad and complex. Consideration of these questions has been marked by considerable confusion. This is due to the fact that pension terminology is not widely understood, there are two reporting entities involved, and there are several acceptable methods for determining costs.

Of all the questions to be resolved, those regarding the so-called "pension liabilities" may just be the most controversial and the most heatedly discussed. "Unfunded pension obligations" have been the subject of many surveys and articles.[4] Business Week magazine publishes an annual survey of unfunded pension obligations. The study is prepared by Denver-based Standard and Poor's Compustat Services, Inc. and covers the latest reported unfunded pension liabilities of the largest U.S.

---

[3] Michael Clowers, "Assets of Top 1,000 Exceed $422 Billion," Pension & Investments, 21 January 1980, as cited by Donald J. Kirk "Pension Accounting: Where the FASB Stands," p. 82.

[4] Unfunded pension obligations (or liabilities as they are often times called) are the excess of the present value of future pension benefits

companies, ranked by sales, for which such pension data are available. The latest survey published in the August 25, 1980, issue of Business Week (page 94) reveals that unfunded prior service costs for 1979 increased 21.4% over the previous year and unfunded vested benefits increased by 14%.[5] This can be compared with an 8% and a 5% increase respectively for each type of unfunded cost as observed in the previous year's survey.

It shall be the purpose of this paper to focus upon the accounting treatment of pension plan obligations for future benefits earned and related disclosures in the financial statements of the employer-sponsor. As stated by the Financial Analysts Federation, in its Corporate Information Committee Report published in December of 1978: "Accounting for pension fund liabilities may be the last substantial area of corporate reporting that is conspicuously deficient. Information is piecemeal and imprecise; the data are not comparable from company to company, and not always from year to year in the case of the same company."[6]

---

earned by current employees over the related assets funded by the employer to cover these future benefits.

[5]Prior service cost and vested benefits are two different measures of benefits earned by employee services to date. Prior service cost refers to the pension cost assigned via the actuarial cost method used to the years prior to the date of a particular actuarial valuation. Vested benefits are those which have been earned and which are no longer contingent upon the employee's continued employment with the plan sponsor. Both of these accruals are expressed as present values of future benefits to be paid.

[6]Financial Analysts Federation, Corporate Information Committee Report: Including Evaluation of 1977 Reporting in Selected Industries (New York: Financial Analysts Federation), quoted in Financial Accounting Standards Board, FASB Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits (Stamford, Connecticut: FASB, February 19, 1981), p. 2.

In order to sharpen the focus of this paper, the discussion will be limited to single-employer, noninsured, defined-benefit, private pension plans in the United States. The following chapters will consider the topic of these obligations beginning with Chapter II, which will be a brief history of the development of pension plan accounting along with some complaints aimed at current practice. Chapter III will be a discussion of the nature of the pension obligation and its measurement. Chapter IV presents a theoretical consideration of whether or not the pension obligation should be recorded as a balance sheet liability. Chapter V will be an examination of alternatives which have been suggested for the accounting treatment of the obligation along with an examination of what financial statement users have requested in the area of disclosure. Chapter VI will be composed of summaries and conclusions. Finally a glossary of terms used in this paper is included in an appendix to this paper. While there are many terms peculiar to pension accounting, the glossary is limited to those which will provide the reader with a basic understanding of the topic. For those interested in a more extensive list, Accounting Principles Board (APB) Opinion No. 8 contains an excellent one.

As the roots of many problems originate in the past, discussion will begin with a history of the development of pension accounting.

# CHAPTER II

## PAST TO PRESENT

### Some History

Efforts to provide for the retirement of employees of business organizations date from at least the end of the last century. However, these early pensions were seldom provided on a formal basis. Post-retirement payments were generally provided on a gratuitous basis and could theoretically be stopped at the will of the employer.

After World War I an awareness began to develop that a pension was being granted and certain plan sponsors began to realize the prudence of providing for the recognition of periodic pension costs on an actuarial basis. This marked the beginning of a shift from a view of pensions as a gratuity toward one of pensions as deferred compensation. This also sparked a controversy centering around whether pension costs should be recognized as a current business expense or as a gratuity properly chargeable to stockholders equity. The controversy was not resolved until the issuance of Accounting Research Bulletin (ARB) 36 in 1948.[1]

ARB 36 was the first authoritative pronouncement on accounting by employers for pensions and was entitled "Pension Plans: Accounting

---

[1]American Institute of Accountants, Committee on Accounting Procedure, ARB No. 36, Pension Plans: Accounting for Annuity Costs Based on Past Services (New York: AIA, November 1948).

for Annuity Costs Based on Past Services." As the title suggests, the pronouncement did, indeed, focus on past service cost. Past service costs could be defined as "pension cost assigned, under the actuarial cost method in use, to years prior to the inception of a pension plan."[2] As used in ARB 36 past service cost was intended to include what is sometimes called prior service costs which technically refers to costs assigned to periods before the amendment of a plan already in existance. The pronouncement concluded that pension plan costs should be allocated to current and future periods, not charged to "surplus."

During the decade following issuance of ARB No. 36 there occurred continued growth in private pension plans accompanied by a corresponding increase in the significance of pension costs to most businesses. The belief became more and more widespread that a company adopting a pension plan incurs a substantive ongoing obligation even if the plan did not give rise to a continuing liability that was legally enforceable. Nevertheless a great number of companies utilized a cash basis accounting method with respect to their pension plans. This amounted to a "pay-as-you-go" procedure. Pension expense was equal to amounts paid out, either to employees or to the pension fund.

The growing concern over this method led to the issuance of Accounting Research Bulletin (ARB) 47, "Accounting for Costs of Pension Plans."[3] This pronouncement was much broader in scope than ARB 36 dealing as it

---

[2]FASB Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits, pp. 107-108.

[3]American Institute of Accountants, Committee on Accounting Procedure, ARB No. 47, Accounting for Costs of Pension Plans (New York: AIA, August 1959).

did, with the entire subject of accounting for pension costs. ARB 47 reiterated the fact that pension cost, one component of which is past service cost, should be charged to operations during current and future periods, not to "earned surplus" at the inception of a plan. For a plan already in existance, however, it was stated that it may be appropriate, under certain circumstances, to charge "surplus" with amounts "that should have been accumulated by charges to income since inception of the plan."[4] It was also stated that pension cost "should be systematically accrued . . . generally upon the basis of acturial calculations."[5] The committee also specified footnote disclosure of the fact of adoption or amendment of a pension plan, stating the important features, method of funding, and basis on which the annual charge was to be determined. Disclosure was also to have been made in the event of a change in a significant accounting procedure or inadequate provision for cost based on past or current service.

Due to the wide latitude permitted under ARB No. 47, wide variation continued to exist among companies in their accounting for the cost of pension plans. In response to this and to the continued growth in the importance of pension plans, the Accounting Principles Board (APB) authorized Accounting Research Study No. 8, "Accounting for the Cost of Pension Plans," by Ernest L. Hicks.[6] The study was published in May 1965 by the AICPA. The release of ARS No. 8 was followed a little more

---

[4]Ibid., paragraph 3.

[5]Ibid., paragraph 5.

[6]Ernest L. Hicks, Accounting for the Cost of Pension Plans, Accounting Research Study No. 8 (New York: AICPA, May 1965).

than a year later by the issuance of APB Opinion No. 8, "Accounting for the Cost of Pension Plans," in November of 1966.

## Current Practice

APB Opinion No. 8 agreed, for the most part, with the findings of ARS No. 8 and most of Mr. Hicks' findings were incorporated into the opinion. Opinion No. 8 continues to form the basis of current generally accepted accounting principles relating to pension reporting by employers (except with regards to disclosure requirements, which are covered by the newly issued FASB No. 36). Its broad purpose was to narrow the acceptable alternatives then currently available to businesses in accounting for pension costs. Its primary objective was to eliminate the perceived inappropriate fluctuations in pension provisions then in existance.

The APB concluded that pension plans generally continue indefinitely as long as the sponsoring company remains in business. Therefore, the Board held that pension costs should be recognized annually on an accrual basis, not indiscriminately as the plan was funded.

The Opinion also specified that the entire cost of benefits estimated ultimately to be paid by the employer should be charged against income subsequent to the adoption or amendment of a pension plan. The annual accrual is to be based upon an accounting method that uses one of the several acceptable acturial cost methods.[7] Both the accounting

---

[7]These acceptable actuarial cost methods include an accrued benefit cost method (the unit credit method) and four projected benefit cost methods (entry-age normal method, individual-level premium method, aggregate method, and attained-age normal method. For a brief description of these methods see Appendix A of APB Opinion No. 8. Pay-as-you-go and terminal methods are not acceptable under the provisions of APB Opinion No. 8.

and actuarial cost methods are to be applied on a consistent basis.

The amount of the annual accrual is required only to be between a specified minimum and maximum:

> Minimum . . . total of (1) normal cost, (2) an amount equivalent to interest on any unfunded prior service cost and (3) if applicable, a provision for vested benefits. A provision for vested benefits determined in accordance with the Opinion should be made if there is an excess of the actuarially computed value of vested benefits (as defined) over the total of (1) the pension fund and (2) any balance sheet pension accruals, less (3) any balance sheet pension prepayments or deferred charges existing at the end of the year, provided that such excess is not at least 5 percent less than the comparable excess at the beginning of the year.
>
> Maximum . . . total of (1) normal cost, (2) 10 percent of the past service cost, (3) 10 percent of the amounts of any increases or decreases in prior service cost arising on amendments of the plan and (4) interest equivalents of the difference between provisions and amounts funded.[8]

It should be kept in mind that these minimums and maximums do not exist separately per se; rather they relate to the particular policies adopted by the employer and the actuarial cost method used.

Another major conclusion of APB Opinion No. 8 was the provision that all actuarial gains and losses are to be spread over the current year and future years or recognized on the basis of an average.[9] However, any actuarial gains and losses that arise from a single occurance not directly related to the operation of the pension plan and not in the ordinary course of the employer's business are to be recognized immediately.

---

[8]APB Opinion No. 8, paragraph 17.

[9]Actuarial gains or losses result from deviations between actual prior experience and the actuarial assumptions used or any changes in actuarial assumptions as to future events.

The Board further concluded that:

> (t)he difference between the amount that has been charged against income and the amount that has been paid should be shown in the balance sheet as accrued or prepaid pension cost. If the company has a legal obligation for pension cost in excess of amounts paid or accrued, the excess should be shown in the balance sheet as both a liability and a deferred charge. Except to the extent indicated in the preceding sentences of this paragraph, unfunded prior service cost is not a liability which should be shown in the balance sheet.[10]

The Opinion also called for the following disclosures:

1. A statement that such plans exist, identifying or describing the employee groups covered.
2. A statement of the company's accounting and funding policies.
3. The provision for pension cost for the period.
4. The excess, if any, of the actuarially computed value of vested benefits over the total of the pension fund and any balance sheet pension accruals, less any pension prepayments or deferred charges.
5. Nature and effect of significant matters affecting comparability for all periods presented, such as changes in accounting methods (actuarial cost method, amortization of past and prior service cost, treatment of actuarial gains and losses, etc.), changes in circumstances (actuarial assumptions, etc.), or adoption or amendment of a plan.[11]

As indicated before, however, FASB Statement No. 36, "Disclosure of Pension Information," (issued in May of 1980)[12] has amended the disclosure requirements of APB Opinion No. 8. The change however is limited to just disclosure No. 4 listed in the previous paragraph. The disclosure of the net amount of unfunded vested benefits, if any, has been replaced with information about accumulated benefits and assets available to pay those benefits:

---

[10] APB Opinion No. 8, paragraph 18.

[11] Ibid., paragraph 46.

[12] Financial Accounting Standards Board, Statement of Accounting

a. The actuarial present value of vested accumulated plan benefits,
b. The actuarial present value of nonvested accumulated plan benefits,
c. The plans' net assets available for benefits,
d. The assumed rates of return used in determining the actuarial present values of vested and nonvested accumulated plan benefits,
e. The date as of which the benefit information was determined.[13]

## ERISA

The passage of the Employee Retirement Income Security Act of 1974 (ERISA) has had a major impact upon pension accounting.[14] This is in spite of the fact that ERISA was not designed to directly affect financial reporting. The legislation was written and enacted in response to an increased concern over the ability of business enterprises to provide pension benefits to employees as promised. The act specified minimum funding, participation, and vesting requirements which can influence an employer's costs considerably.

As a result of ERISA annual funding is no longer discretionary. The private employer must fund the plan in accordance with an actuarial cost method which over time will be sufficient to pay for all pension obligations. If funding requirements are not met, fines may be imposed and tax deductions denied. Detailed annual reports accompanied by extensive additional information are required to be published by plan administrators and to be audited by qualified independent public accountants.

---

Standards No. 36, Disclosure of Pension Information (Stamford Connecticut: FASB, May 1980).

[13] Ibid., paragraph 8.

[14] U.S., Congress, House, Education and Labor Committee and Ways and Means Committee, Employee Retirement Income Security Act of 1974 (ERISA), H. Rept. 93-1280, 93d Congress, 2d session, August 12, 1974.

The Act also established the Pension Benefit Guaranty Corporation (PBGC). The purpose of the PBGC is to administer terminated plans and to impose liens on the employer's assets for certain unfunded pension liabilities. If a plan is terminated the PBGC can impose a lien on the employer's assets for the excess of the present value of guaranteed vested benefits over the pension fund assets up to an upper limit of 30% of the employer's net worth.

ERISA is a very complex and voluminous piece of legislation but these are the provisions most pertinent to this discussion.

## Continuing Controversy and the Response of the FASB

After APB Opinion No. 8 was issued there still remained a great deal of dissatisfaction over pension accounting. The passage of ERISA (with its stringent funding requirements, its creation of a new contingent employer liability for plan termination, and its requirements that a great deal of new and often confusing information be distributed to plan participants along with new audit requirements) served to magnify discontent.

In a monograph commissioned by the Pension Research Council of the Wharton School (a study which is both thought-provoking and timely), Hall and Landsittel enumerated what they felt to be the principal deficiencies with respect to pension cost accounting:

1. Equally acceptable actuarial cost methods result in widely differing patterns of cost recognition allowable as a means of accounting for similar economic circumstances. Differing methods available for the amortization of unfunded past service costs compound this problem.
2. The unfunded obligation for accrued pension benefits is not recognized as a liability.

3. Varying spreading and amortization techniques result in the artificial leveling of pension expense even in cases where the economic facts are to the contrary.
4. There is too great a latitude in the application of actuarial assumptions.[15]

Other writers have raised many more objections, but these are the objections most frequently expressed in the literature.

The passage of ERISA prompted the Financial Accounting Standards Board (FASB), newly formed in 1973, to review the whole subject of pension accounting. The FASB appointed two task forces in 1974 to grapple with the problem. One was to concentrate on accounting by pension plans, as a separate entity, and the other was to focus upon the employer's accounting for pensions.

The FASB tackled the plans project first. Statement No. 35, "Accounting and reporting for Defined Benefit Pension Plans," was issued in March of 1980. Until this time no authoritative accounting standards were specifically applicable to pension plans. The Statement established unified accounting and reporting principles in this area mandating plan financial statements to provide information about plan assets, accumulated benefits and changes in those items.[16]

The other leg of the problem, accounting by the employer is expected to take much longer to decide. As a result of this delay the FASB decided to issue FASB Statement No. 36 (May, 1980) as an interim measure to amend APB Opinion No. 8, pending completion of the longer range

---

[15] William D. Hall and David L. Landsittel, A New Look at Accounting for Pension Costs (Homewood, Ill.: Richard D. Irwin, Inc., 1977), p. 2.

[16] Financial Accounting Standards Board, Statement of Accounting Standards No. 35, Accounting and Reporting for Defined Benefit Pension Plans Stamford, Connecticut: FASB, March 1980).

project. Statement 36 is aimed at what was perceived to be inadequate pension disclosure by employers and has been previously discussed in this paper.

The FASB took a significant step toward resolving present concerns about employers' pension accounting in February, 1981, when it issued a discussion memorandum entitled "Employers' Accounting for Pensions and other Postemployment Benefits." Eight basic issues are discussed in the document. These are the issues which must be dealt with in determining any changes which need to be made in accounting for pension obligations and expenses. The issues discussed include what part of the obligation (if any) should be recognized as a balance sheet liability, what amount should be recognized as pension expense, attribution of the cost of pensions to periods of service, accounting for changes in a plan, accounting for actuarial gains and losses, and required disclosures.[17]

Up until now, this paper has examined pension accounting in general. Examination of the pension obligation begins in the next chapter, which focuses on the nature of the obligation and its measurement.

---

[17] FASB Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits, pp. 10-11.

## CHAPTER III

## THE OBLIGATION

Before the issue of proper treatment and measurement of pension obligations can be properly examined, it is necessary to first establish that the employer has actually obligated himself in some way.

Funk and Wagnalls New Standard Dictionary of the English Language defines obligate as "to bind in a legal or moral sense . . . as by contract, promise, or treaty; hold by conscience or a sense of duty . . . "[1] It is evident from this definition that in order for an obligation to arise all that is required is for some sort of promise to be made giving rise to a perceived moral duty. The promise need not be contractual or legally enforceable in nature, but need only be morally expected.

It is not within the purpose or scope of this paper to ponder the philosophical nature of moral imperatives. It is necessary only to determine that the employer has promised something. Clearly a promise has to have been made, for a promise is the very essence of what is known as a pension plan. The employer promises that payments will be made in the future to qualifying retirees.

### The Nature of the Pension Obligation

Once it has been established that a promise has bee made, thus

[1]Funk & Wagnalls New Standard Dictionary of the English Language, 1961 ed., s.v. "obligate."

obligating the employer, another fundamental question logically follows: To whom is the employer obligated? Some observers hold that the employer has made a binding pact directly with each individual employee.[2] Others hold that the employer is not at all obligated to individual employees, but has instead obligated himself to the employees as a continuing group or to the plan as an entity.[3]

Another question fundamental to an understanding of the nature of the obligation is just what exactly has been promised. Again there is a difference of opinion. One group sees the pension obligation as a promise to make contributions to the plan in amounts expected to be large enough to eventually provide the future benefits contemplated.[4] Others view the obligation as a promise to provide for all benefits defined by the plan.

Whichever of these views of the nature of the pension obligation are adopted by the reader, they will naturally color his/her perceptions with regard to the proper accounting treatments required.

While the differences of opinion described in the previous paragraphs still exist; there also exists a general consensus of opinion that the obligation incurred is a form of deferred compensation rather than a gratuity granted by the employer.[5] The employee exchanges his services

---

[2]Hicks, ARS No. 8 pp. 31-55.

[3]Ibid.

[4]Discussion in this paper is limited to the type of pension plan called defined-benefit. Defined-contribution plans are excluded from consideration as problems here are few.

[5]FASB Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits, paragraph 61.

for the promise of the employer to provide pension benefits. This view is evidenced by the fact that it is quite common in labor contract bargaining for a union to accept increased pension benefits in lieu of increased wages.

Since it is conceded that an exchange takes place, accounting theory implies that this exchange should be accounted for. As phrased in APB Statement No. 4: "Exchanges between the enterprise and other entities are generally recorded in financial accounting when the transfer of resources or obligations takes place or services are provided."[6] Accounting for the exchange means recording the expense arising from the exchange as it is incurred and recording any corresponding liability as it accrues. Expense and liability recognition can be two sides of the same coin. As defined in APB Statement No. 4, expenses are "gross decreases in assets or gross increases in liabilities recognized and measured in conformity with generally accepted accounting principles . . ."[7] Expenses go on the income statement and liabilities go on the balance sheet. Therefore, accounting for the costs of pension plans and accounting for the obligations arising from pension plans are inextricably tied together.

The measurement of the periodic pension expense as future benefits are earned by the employee and a corresponding measurement of an increase in the employer's obligation for the benefits earned is no easy task. The exact amount of the pension obligation cannot be known until the last

---

[6]American Institute of Certified Public Accountants, Accounting Principles Board, APB Statement No. 4, Chapter 7, <u>Generally Accepted Accounting Principles - Broad Operating Principles</u> (New York: AICPA, October 1970) paragraph 7.

[7]Ibid., Chapter 5, paragraph 21.

beneficiary dies. Before that time the amount of the obligation must be estimated. The estimate must take into consideration further estimates of turnover, life expectancy, and other variables. This estimation process requires the services of an actuary.

## The Role of the Actuary

An actuary has been defined as: "A member of the actuarial profession, skilled in the science of applying the probabilities of future events to financial, insurance, or other types of calculations."[8]

The actuary's role in the workings of defined-benefit pension plans is to compare the assets accumulated to date in the pension fund with the expected present value of the future pension payments.[9] This process is called an actuarial valuation. The actuary then proceeds to work out a schedule of contributions the employer should make to the pension fund which he believes will accumulate to an amount adequate to meet the actuary's forecasted total pension payments.

It is evident that the actuary's technique is highly subjective or judgemental in character. But this is the only way his job can be done, for it is impossible to know what the eventual payments to pension recipients will be until the last participant has died.

The subjective nature of actuarial valuations does not preclude

---

[8] FASB Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits, p. 100.

[9] The concept of the time value of money is crucial to an actuarial valuation just as it is central to the theoretical accounting treatment of long-term liabilities. As is stated in APB Statement No. 4, Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises: "Conceptually, a liability is measured at the amount of cash to be paid discounted to the time the liability is incurred."

their use in financial statements. Much of what is reported in financial statements is informed judgment and approximation. "The complexity and uncertainty of economic activity seldom permit exact measurement. Estimates and informal judgment must often be used to assign dollar amounts to the effects of transactions and other events that affect a business enterprise."[10]

It is important that accountants not lose sight of the fact that an actuary's concern and the aim of the actuarial valuation is for the funding of the pension plan. Generally, the actuary tries to devise a long term schedule of cash contributions to the pension plan. The actuary prefers to recommend fairly level rates of contributions in order to assist the plan sponsor in planning future budgets. In contrast the accountant is concerned mainly with the pace at which the benefits accrue, or are earned. The accountant wants to measure the amount of the exchange of pension benefits for services of employees that has occurred during the current accounting period and the complementary obligation of the employer for pension benefits earned to date.

Actuarial cost methods are the systematic methods used by the actuary in figuring out a budget to pay for the present value of unfunded prospective benefits (this is the total present value of prospective benefits less the present value of past contributions - the value of the plan's assets). "They determine the incidence of future contributions not the total value of what is to be financed. The size of (the present value of unfunded prospective benefits) is the same regardless of the

---

[10] APB Statement No. 4, Chapter 2, Summary of the Statement, paragraph 27.

budgeting method."[11] These methods were devised in order "to provide alternative pension fund deposit patterns and not to determine the proper matching of pension expense with revenues."[12]

Selection by the actuary of an actuarial cost method has been likened to the accountant's selection of a depreciation method for fixed assets. They both involve allocations of cost to time periods on a systematic and rational basis.

The differences among the various actuarial cost methods hinge upon how they treat the portion of the present value of prospective benefits yet to be financed. Most of the methods apportion what remains to be financed into two elements. These elements can be called the present value of future normal costs and a residual amount called the unfunded actuarial liability.[13] The cost methods differ in the relative portions assigned to each element. Here again the analogy has been made with depreciation. Choosing an actuarial cost method has been likened to choosing between accelerated and straight line depreciation.

Perhaps no other term has created more confusion and misunderstanding than "unfunded actuarial liability." Actuarial liabilities have frequently been misunderstood to be liabilities of an accounting nature. While the term "liability" is used both by actuaries and accountants they do not refer to the same thing.

---

[11] FASB Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits, p. 158.

[12] Ibid., paragraph 83.

[13] Normal cost is the cost assigned to periods after a particular valuation date under a particular actuarial cost method. Unfunded actuarial liability corresponds to what is called prior service cost in APB Opinion No. 8. ERISA uses the terms unfunded past service liability or unfunded accrued liability to refer to the same thing.

> An actuarial liability is determined as a result of assigning cost by the actuarial cost method in use to years prior to a particular valuation date . . . . the assignment of cost by the actuarial cost method is merely an allocation of total cost between what will in the future be considered the normal cost and other current period pension plan cost.[14]

It does not represent what has been earned by the employees up to that point and is due to them in the future. As D. Don Ezra, a prominent actuary and pension specialist, has suggested, perhaps a better name for this amount would be "anticipated shortfall in future normal contributions."[15]

The mistake has frequently been made that the amount of the unfunded actuarial liability can be a relative measure of the funding status between pension plans. As stated before the unfunded actuarial liability is simply a by-product of the particular budgeting method employed.[16]

## Measuring an Accounting Obligation

Now that the role of an actuary and an actuarial valuation has been explored, the question arises of whether actuarial cost methods can properly be used to determine the accrual of periodic pension cost and the corresponding obligation of the employer for pension benefits earned

---

[14]Keith P. Gibson, "Accounting for the Cost of Defined Benefit Pension Plans," Financial Executive 49 (march, 1981):39-40.

[15]D. Don Ezra, "How Actuaries Determine the Unfunded Pension Liability," Financial Analysts Journal 36 (July-August 1980):48.

[16]An excellent explanation of the nature of unfunded actuarial liabilities is contained in the August, 1978, issue of Financial Executive. It is written by Paul A. Gerwitz and Robert C. Phillips and entitled "Unfunded Pension Liabilities . . . The New Myth." The graphics contained therein are most helpful in understanding the basic concepts of pension plan funding.

to date. While it is clear that these methods were designed for funding purposes, APB Opinion No. 8 requires that one of five acceptable actuarial cost methods be used to determine periodic pension cost. The method chosen for accrual purposes need not be the same as the one chosen for funding purposes.

The calculations involved in funding a pension plan and accruing the periodic pension cost are quite similar for both. However, different objectives guide each of them. "The funding objective is to determine an acceptable budget for financing the estimated ultimate cost of a pension plan."[17] Whereas the objective of the accountant "is to provide users with information useful in making rational economic decisions, including information about resources and claims to those resources and information about financial performance."[18]

In view of these differing objectives, it should be possible to derive from actuarial cost methods one or more methods of attributing the ultimate pension obligation to service in a particular year or prior to a particular date. In fact, in its Discussion Memorandum of February 19, 1981, the FASB presents five such attribution approaches for discussion.[19]

The approaches discussed are of two basic types - benefit approaches and cost approaches.[19] The benefit approaches assign an amount of pension

---

[17]FASB Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits, paragraph 265.

[18]Ibid., paragraph 266.

[19]The three benefit approaches are called accumulated benefits, benefit/years-of-service, and benefit/compensation. The two cost approaches are entitled cost/years-of-service and cost/compensation. For a detailed discussion of these methods and an illustration of how they work, please

benefit to each period of service and then compute the cost of that assigned benefit. The cost approaches "calculate the total estimated pension benefits (the total ultimate liability) and then attribute a portion of the cost of that total to each year."[20]

To choose one cost attribution approach over another would require that it be perceived to best represent the economic substance of a liability or of an expense. There exist advocates of the benefit approaches and advocates of the cost approaches.

"Some who prefer the benefit attribution approaches believe that one or more of those approaches is a direct measurement of the pension liability. In this view, the benefit approaches compute the present value of pension benefits earned by employees at the balance sheet date."[21] Those who hold this view contend "the liability produced by the cost approaches does not represent a measure of any real amount; it can be described only as a result of the allocation that produced it."[22]

Advocates of cost approaches "don't believe that it is possible to directly measure the amount of pension benefit earned by an employee in a single year. They believe the pension is earned over an entire career."[23] To their way of thinking it is more logical to assign the

---

see the Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits, paragraphs 211-243.

[20]Ibid., paragraph 212.

[21]Ibid., paragraph 251.

[22]Ibid., paragraph 251.

[23]Ibid., paragraph 255.

same amount of cost to each period rather than use an approach that results in increasing cost in later years, as the benefit approaches do.

Having explored the measurement of the pension obligation the next chapter will look at the issue of whether all or any part of this obligation belongs on the balance sheet.

## CHAPTER IV

## ON THE BALANCE SHEET?

One of the most basic of all controversies spawned by the need to account for the cost of pension plans is whether or not a defined-benefit pension plan gives rise to employer obligations have the nature of balance sheet liabilities. As C. L. Trowbridge, a prominent member of the actuarial profession, put it: "It is not really a question as whether such obligations exist, for of course they do. There are many kinds of obligations in the business world, only a few of which give rise to balance sheet liabilities."[1]

Current generally accepted accounting principles allow for recognition of a balance sheet liability by the employer only for the excess of current pension cost accruals, determined in accordance with an acceptable actuarial cost method, over cash contributions to the pension fund for the same period. According to APB Opinion No. 8, unfunded prior service cost is not to be recorded as a liability on the balance sheet. The only time any additional liability can be recorded is "if the company has a legal obligation for pension cost in excess of amounts paid or accrued, the excess should be shown in the balance sheet as

---

[1]C. L. Trowbridge, Supplement to A New Look at Accounting for Pension Costs, by Hall and Landsittel, p. 120.

both a liability and a deferred charge.[2] Some examples of these legal obligations are given in FASB Interpretation No. 3.[3] The Interpretation lists two instances when ERISA creates a recognizable liability. First, when a waiver of the minimum amount required to be funded is not obtained from the Secretary of the Treasury, the amount currently required to be funded should be recognized as a liability. The other instance is when there is convincing evidence that a pension plan will be terminated and the liability upon termination of the plan will exceed fund assets and related prior accruals. In this case the excess liability should also be accrued.

The purpose of this chapter is to examine the question of whether or not any part of the employer's pension obligation should be recorded as a balance sheet liability and, if so, which part would be appropriate.

## FASB Conceptual Framework

Any rational attempt to develop accounting standards for pension costs would be doomed to failure without having a clearly perceived and broadly accepted theoretical framework of financial statement objectives and underlying fundamental accounting concepts to give direction to any discussion or decision. In the past, generally accepted accounting principles have been derived basically by interpolation or extension of principles previously developed for similar transactions or situations.

---

[2] APB Opinion No. 8, paragraph 18.

[3] Financial Accounting Standards Board, FASB Interpretation No. 3, Accounting for the Cost of Pension Plans Subject to the Employee Retirement Income Security Act of 1974: An Interpretation of Section 4063 (Stamford, Connecticut: FASB, December 1974), paragraph 5.

As a result, the body of generally accepted accounting principles is marked by frequent contradictions and controversy.

The FASB has perceived this problem and has embarked upon a project of building a conceptual framework. Its purpose is to provide "a coherent system of interrelated objectives and fundamentals that is expected to lead to consistent standards."[4] Communication of these objectives and fundamentals is via a series of Statements of Financial Accounting Concepts. Four Concepts Statements have been published: Concepts Statement No. 1, Objectives of Financial Reporting by Business Enterprises; Concepts Statement No. 2, Qualitative Characteristics of Accounting Information; Concepts Statement No. 3, Elements of Financial Statements of Business Enterprises; Concepts Statement No. 4, Objectives of Financial Reporting by Non-business Organizations.

The conceptual framework has not yet been completed. Elements of Financial Statements of Business Enterprises does not answer recognition, measurement, and display questions. As a result revenues, expenses, gains, or losses are not defined as precisely as are assets, liabilities, equity, and comprehensive income. However, the FASB, in its Discussion Memorandum on Employers' Accounting for Pensions and Other Postemployment Benefits specifies that any proposal to recognize a liability "must be considered in the context of (its) definition."[5]

## What is a Liability?

Statement of Financial Accounting Concepts No. 3, Elements of

[4] FASB Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits, paragraph 27.

[5] Ibid., paragraph 28.

<u>Financial Statements of Business Enterprises</u>, defines a liability as "probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events."[6]

The probable future sacrifice can be less than certain and it need not be based upon legal obligation. The Statement suggests that it may be based merely upon an equitable or constructive obligation. According to the Statement a liability has three essential characteristics: (1) It must embody a present duty or responsibility requiring settlement by future transfer or use of assets at a specified or determinable date, on occurrence of a specified event, or on demand; (2) the duty or responsibility obligates the enterprise, leaving little discretion to avoid the future sacrifice; (3) the event giving rise to the obligation must have already occurred.

The second characteristic essential to a liability (the obligation should be relatively unavoidable) provides fertile ground for argument. Since pension plans commonly include provisions allowing the employer to terminate the plan, it is possible for the employer to avoid any sacrifice except the amount payable upon plan termination. Because of this, it could be argued that there is no justification for recognizing any more than this terminal liability.

On the other hand, the "going concern" assumption could be used to counter the foregoing argument. It could be argued that avoidance by the

---

[6] Ibid., paragraph D-28.

employer of his future pension obligations would create such enormous difficulties in attracting and retaining qualified personnel as to be tantamount to going out of business.

The third essential characteristic of a liability implies that only present obligations may be considered liabilities. If the event obligating the employer occurs in the future, no liability can be deemed to exist.

## When to Recognize

The FASB Discussion Memorandum of February 19, 1981, lists possibilities for specification as being the event which results in the employer's obligation. The possibilities occur in succession and are as follows:

a. The employee renders service, thereby "earning" the benefit.
b. The employer contributes to the plan money that will be used (with accumulated interest) to pay the benefits.
c. The employer becomes legally bound to provide for the benefit even if the plan terminates.
d. The benefit vests.
e. The employee retires.
f. The benefit is paid (or becomes due and payable) to the retiree.[7]

"Each successive event seems to make the employer's obligation clearer and more definite."[8] The view one holds of the nature of the pension obligation will have a significant influence upon which event he considers most crucial to recognition of a liability.

Statement of Financial Concepts No. 3, Elements of Financial State-

---

[7] Ibid., paragraph 118.

[8] Ibid., paragraph 119.

ments of Business Enterprises states that uncertainty as to measurement or estimation of a liability may be so great as to preclude its being recorded as a liability in the balance sheet.[9] Therefore, the degree to which the pension obligation lends itself to estimation or measurement is a factor crucial to the decision of whether to record it in the balance sheet as a liability.

## Candidates for Treatment as Liabilities

If it were to be decided that the pension obligation of the employer was indeed a liability worthy of inclusion on the balance sheet (a conclusion that is by no means assured), another complementary and equally thorny issue would have to be resolved: "What part of the liability . . . is sufficiently certain (or probable) and sufficiently measurable to be recorded as a liability in the employer's balance sheet?"[10]

The FASB in its Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits, discusses five possibilities:

A. The amount attributed to employee service to the balance sheet date.
B. The amount of contributions to the plan for periods before the balance sheet date as determined by an actuarial cost method.
C. The amount that would be owed to employees if the plan were terminated at the balance sheet date.
D. The amount of vested benefits at the balance sheet date.
E. The amount currently due and payable to retirees at the balance sheet date.[11]

---

[9] Financial Accounting Standards Board, Statement of Financial Concepts No. 3, Elements of Financial Statements of Business Enterprises (Stamford, Connecticut: FASB, March 1981) paragraph 40.

[10] FASB Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits, paragraph 119.

[11] Ibid., paragraph 106.

Possibility A, the amount attributed to employee service to date, is derived from the fundamental view of the pension transaction as an exchange. If the nature of the pension arrangement is one of an exchange, then a liability is accrued as the employees render the services demanded in return for promises of future benefits. Adoption of this possibility, however, raises fundamental measurement problems: How can the amount of a pension obligation attributed to employee service as of a balance sheet date be measured and can a measurement of sufficient reliability be made to justify inclusion in the balance sheet?

Possibility B, contributions based on an actuarial cost method, is derived from the thesis that the obligation of the employer is to make contributions to the plan rather than being obligated directly to the employees as individuals. Acceptance of this approach would require an evaluation of just how desirable improved comparability of financial statements between different business entities is as a goal. If it is decided that financial statement comparability is of a very high priority, use of a single actuarial cost method could be mandated. It could be argued, however, that a choice of accounting methods for pensions is appropriate in order to allow for differences in facts and circumstances. In this view specification of a single, universal method would obscure the real differences that do exist.

Possibility C, termination liability, is derived from the contention that the ability to terminate the pension plan at the discretion of the employer enables him to avoid all liability greater than the amount payable upon plan termination. This would indicate to some that no recognizable liability exists beyond the termination liability.

Possibility D, the amount of vested benefits, is derived from a view of the pension arrangement as a contractual one between employer and employee. Benefits are vested in an employee when his right to receive present or future benefit is no longer contingent on remaining in the service of the employer. Determination of when benefits are vested is made from the terms of the pension plan and are governed by ERISA guidelines.

Possibility E, the amount payable to retirees, would entail the fewest measurement problems. However, opponents of this approach argue strongly that it would "ignore significant liabilities and fail to provide relevant information."[12]

## Unfunded Prior Service Cost

APB Opinion No. 8 does not permit treatment of unfunded prior service cost as a liability. The Opinion defines prior service cost as "pension cost assigned, under the actuarial cost method in use, to years prior to the date of a particular actuarial valuation."[13] Prior service cost, so defined, would include past service cost which is defined as "pension cost assigned, under the actuarial cost method in use, to years prior to the inception of a pension plan."[14]

Unfunded prior service cost refers to the excess of assigned prior service cost over the assets accumulated in the pension fund.

These amounts are often times referred to as "unfunded pension liabilities." "Unfunded pension liabilities" have been the subject of

---

[12]Ibid., paragraph 139.

[13]APB Opinion No. 8, paragraph B-34.

[14]Ibid., paragraph B-30.

intense scrutiny in the financial press lately. Many analysts contend that the magnitude of "unfunded pension liabilities" is a very significant item, because it will be charged against future operations and eventually become funded.[15] This means that "unfunded pension liabilities" constitute a "potential future drain on cash flows and may severely reduce reported income."[16]

Prior to 1980 the amount of "unfunded pension liabilities" was not revealed in many companies' financial statements and was one of the greatest sources of dissatisfaction with pension accounting. FASB Statement No. 36 was an interim measure intended to remedy this complaint, while the Board ponders the larger issue of revamping pension accounting by employers. With the new information required to be disclosed the amount of "unfunded pension liabilities" can easily be determined.

There are those, however, who contend that simple disclosure is not enough. Their contention is that unfunded prior service costs should properly be reported as balance sheet liabilities. Hall and Landsittel, in their monograph on the subject of improved pension accounting, took this view. In their words: "To the extent that employee service that enters into the determination of pension benefits estimated ultimately to be payable has already been rendered at the time a plan is adopted

---

[15] ERISA requires that past and prior service cost must be funded over a period of no more than 40 years after their determination by an actuary.

[16] James W. Dietrick and C. Wayne Alderman, "Pension Plans: What Companies Do - and Do Not - Disclose," Management Accounting 61 (April, 1980):29.

(or amended to increase benefits), an obligation exists and should be immediately recorded."[17]

Those opposed to the recording of unfunded prior service cost as a liability base their opposition on the view that plans are amended or begun in anticipation of future services of the employees. The employees have not yet earned the benefits assigned to years prior to the actuarial valuation. The amount of the benefit is merely computed with reference to past service and there is no justification for assuming that the benefit was earned or the obligation incurred in the past.[18]

Whether or not pension plan obligations have the character of accounting liabilities has been the subject of the chapter just finished. The next chapter will examine alternative accounting treatments that have been suggested - What to do with the debit and what to do with the credit. The recommendations which have been made regarding non-balance sheet disclosures of pension obligations will also be examined. Finally, the results of a most interesting research study, done by the accounting firm of Coopers and Lybrand, will be examined in order to shed some light upon what financial statement users want to see.

---

[17] Hall and Landsittel, A New Look at Accounting for Pension Costs, p. 35.

[18] FASB Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits, paragraphs 278-279.

## CHAPTER V

## WHERE TO GO FROM HERE

### The Embarrassing Debit

Deciding to recognize a liability for some portion of the employer's pension plan obligation raises but another tricky question. If a liability is credited, what is to be debited?

Hall and Lansittel believe that this is the primary reason the accounting community has declined to recognize unfunded prior service cost as a liability. As they put it:

> We are convinced that this avoidance of acknowledging as a liability what actuaries and many others refer to as a liability or an obligation stems from a recognition that putting a liability for unfunded past service costs on the employer's balance sheet creates an offsetting debit that must be accounted for. If this debit would always be small, no one would probably have been concerned about writing it off or carrying it as a deferred charge. Since it might frequently amount to millions - even hundreds of millions - of dollars, however, accountants have historically ignored the embarrassing debit by decreeing that there is no liability.[1]

The FASB in it's February 19, 1981, Discussion Memorandum on Employer's Accounting for Pensions and other Postemployment Benefits suggests three ways in which the debit could be treated. The three possibilities listed by the FASB deal specifically with changes in plan benefits which give rise to unfunded prior service cost. However, the

---

[1] Hall and Landsittel, A New Look at Accounting for Pension Costs, p. 71.

possible accounting treatments listed are equally applicable to any other part of an employer's pension obligation selected to be recognized as a liability. If it is decided a liability should be recognized, then there are three options:

1. Pension expense should be recognized in the period of the change,
2. Pension expense should be recognized as a prior period adjustment,
3. An intangible asset should be recognized and amortized over a number of future periods.[2]

The first possibility, recognizing a current expense, has its outspoken advocates and its equally outspoken opponents. Those advocating this approach usually cite the contention that "the amendment or initiation of a plan that grants benefits for past service is a significant economic event."[3] The cost of that event should then properly be recognized in the same period. Opponents liken a plan change to a change in estimate akin to changing the estimated useful life of depreciable assets in which the effects of the change are accounted for prospectively. Another reason given for opposition is that it would result in large periodic income fluctuations which opponents feel would be misleading.[4]

Advocates of the second possibility, recording a prior period adjustment, argue that "financial statements should be based on the best, most current, knowledge about the results of all periods, past as well as current."[5] In their view any prior service cost should be properly

---

[2] FASB Discussion Memorandum, <u>Employers' Accounting for Pensions and Other Postemployment Benefits</u>, paragraph 275.

[3] Ibid., paragraph 286.

[4] Ibid., paragraph 288.

[5] Ibid., paragraph 291.

matched to the service periods upon which the benefits will be calculated. The charge is not related to current or future operations but to past operations. Use of this method, however, would necessitate an amendment to FASB Statement No. 16, Prior Period Adjustments. A change in plan benefits giving rise to prior service cost does not meet the criteria for prior period adjustments as specified therein.

The third possibility, recognizing an intangible asset, appears to be the treatment favored by most advocates of recognition of a balance sheet liability. As stated by the FASB in its Discussion Memorandum of February 19, 1981:

> Supporters of this possibility believe that an employer's decision to improve a pension plan is forward looking and rational. They believe that the improvement cannot enhance the value of past employee services and, therefore, the employer would only take on an increased obligation if future benefits of at least equal magnitude were expected to result. In this view, the future economic benefits (an asset) should be recognized along with the liability.[6]

The asset to be recognized has been compared to purchased goodwill. If such an asset exists it must be an expectation of improved future earnings perhaps reflecting such things as improved morale, less liklihood of strikes, and greater employee productivity.

## Non-Balance Sheet Disclosure

Not all people want the employer's pension fund obligations - in particular the so-called "unfunded pension liabilities" also known as unfunded prior service cost - recorded as balance sheet liabilities. However, it would seem that most financial statement users desire dis-

---

[6] Ibid., paragraph 292.

closure, in the footnotes or elsewhere in the financial report, of some information about these obligations. The FASB issued Statement No. 36, Disclosure of Pension Information, to require that just such disclosures be made.[7]

Many other disclosure requirements have been proposed in the accounting and financial literature. Suggestions have been made that current as well as the previous year's normal cost be presented for comparative purposes. Calls have been made for more information on unfunded prior service cost. These include disclosure of the date on which each separate prior service cost was established, its original amount, the period over which it is being amortized, and annual payments on it required by ERISA. Other suggestions include the amounts of any actuarial gains and losses, as well as disclosure of the actuarial cost method used to develop the figures along with the principal actuarial assumptions.[8]

Most of these proposed disclosures are intended to assist in the goal of improved financial statement comparability and to otherwise provide meaningful data to financial statement users. However, the objective of providing meaningful data should be balanced against the concern that confusion may result if too much information is provided on pension costs and obligations.

## The Coopers and Lybrand Study

The Trustees of the Financial Executives Research Foundation

---

[7] FASB Statement No. 36 is discussed in greater detail in Chapter II.

[8] The only actuarial assumption presently required to be disclosed is the assumed interest rate. This is required by FASB Statement No. 36.

engaged the accounting firm of Coopers and Lybrand, in December of 1979, to undertake a research study on accounting for pension costs and other postretirement benefits. The objective of the study was to provide substantial authoritative data on the major issues through basic research, personal interviews, an extensive mail survey, and modeling analyses.

Although the entire report has not yet been published, parts of the soon-to-be-released study have been excerpted and summarized in an article in the April, 1981, Financial Executive magazine. The article is entitled "Employer Accounting for Pension Costs and Other Post-Retirement Benefits." Principals in the study were Harold Dankner and John H. Grady.

Results of this research study are most illuminating as far as what financial statement users and preparers really want to see reported and how.

The Coopers and Lybrand study was divided into three separate phases:

Phase I: Research to identify the issues and accounting alternatives.

Phase II: Interviews and a mail survey to obtain the views of plan sponsors (issuers of financial statements), users of financial statements, consulting actuaries, independent public accountants, and other interested parties on the issues and alternatives identified in Phase I.

Phase III: Computer modeling to present quantitative analyses of alternate actuarial and accounting methods.[9]

The research team developed a comprehensive questionnaire making use of the research data gathered in Phase I. The questionnaire was

---

[9] Harold Dankner and John H. Grady, "Employer Accounting for Pension Costs and Other Post-Retirement Benefits," <u>Financial Executive</u> 49 (April 1981):12-13.

tested and a total of 2,511 copies were mailed to selected respondents. Thirty-seven additional respondents were invited to participate in interviews using the same questionnaire.

From the mailings, a total of 37 usable responses were received and 30 interviews were given. This accounted for an overall response rate of 17%. The responding group was composed proportionately of 85% plan sponsors, 6% actuaries, 3% accountants, and 6% users of financial statements.

The results of the mail survey and the interviews showed that an overall majority of some 61% were opposed to the statement that some measure of a pension obligation should be recorded as an accounting liability. Breaking down the responding group into the plan sponsor, user, actuary, and accountant subgroups yields some interesting results. The plan sponsor and user groups match approximately the overall results of 61% unfavorable. But when the responses of actuaries and accountants are examined, the pattern changes considerably. Actuaries are more strongly opposed to recognition of an accounting liability than any other group, 69% opposed. Accountants, on the other hand, were strongly in favor of treatment as a liability, 73% agreed. The reasons for this sharp divergence of opinion were not readily apparent to the research team and they recommended that the issue of liability recognition receive more in-depth study by the FASB.

Most people favoring accounting recognition of a liability specified using either vested benefits or accumulated benefits as a measure of the obligation.

Other responses to the survey showed that over 73% of the responding groups were against mandating a single actuarial cost method and 76%

opposed specifying a single set of actuarial assumptions.

With regards to disclosure considerations 70% of the respondents agreed with disclosure of actuarial present value of vested benefits, 68% were in favor of disclosure of the fair market value of pension plan assets, 57% favored a description of significant actuarial assumptions, 55% wanted the assumed rate of return disclosed, and 52% would like to know the actuarial present value of accumulated benefits.

The computer modeling analysis which comprised Phase III of the study was an attempt to provide some quantitative evidence of the impact of various actuarial, experience, and plan factors upon the pension obligation and expense. But of more interest to the purpose of this paper, the modeling analysis also "examined the impact of alternative accounting treatments (for example, recording an unfunded obligation as a liability) on a company's financial statement."[10]

The computer model created by the Coopers & Lybrand research team consisted of:

> Three model pension plans with benefit formulas based on final pay, career average pay, and a unit benefit (fixed amount) per year of service.
>
> Three model plan populations exhibiting different characteristics and experience over a 50 year period.
>
> A set of actuarial assumptions for valuing obligation and expense for the model plans.[11]

The three alternative accounting treatments used by the Coopers & Lybrand team were:

> Continue current accounting treatment under APB Opinion No. 8 (No pension obligation recorded; pension expense determined by an actuarial cost method).

---

[10]Ibid., p. 16.

[11]Ibid.

Implement a new accounting standard that records the unfunded pension obligation with an immediate charge to income. Pension expense is determined each year based on the change in pension obligation.

Implement a new accounting standard that records the unfunded obligation with an offsetting deferred charge to be amortized over a period of years. Annual pension expense is generally determined based on the change in pension obligation. However, changes in obligation due to certain occurrences (for example, plan amendments, actuarial gains or losses) are not charged immediately to income but are offset by deferred charges to be amortized over future years.[12]

Results of the modeling analysis showed that recording the unfunded obligation with an immediate charge to income results in significantly lower net income in the year of a plan change or implementation of the new standard than either of the other two treatments. But in later years it would produce lower pension expense and higher net income than the other two treatments.

The analysis also showed that recording the unfunded pension obligations with a charge to current income results in the widest fluctuation in reported income in such situations as implementation of a new plan, amendment of an existing plan, or a change in actuarial assumptions. The other two treatments, current GAAP and offsetting a recorded obligation with a deferred charge, result in a leveling of expense, avoiding fluctuations in reported income.

The Coopers & Lybrand research team concluded that there is "a definite need for improved accounting principles for pension costs." According to the research team pension information currently being disclosed under APB Opinion No. 8 and FASB Statement No. 36 does not, in most cases, permit appropriate analysis of pension expense and obligation.

---

[12]Ibid., p. 17.

In developing accounting principles for pension cost they "recommend that the FASB work closely with the financial community."[13] They also see a need for closer cooperation of the FASB with the actuarial profession, "because the actuarial process is central to the major issues on accounting for pension costs."[14]

---

[13] Ibid., p. 18.

[14] Ibid.

# CHAPTER VI

## SUMMARY AND CONCLUSIONS

The impact of private pension plans upon the American economy is large and growing larger every year. As a result, the question of whether present accounting practice meaningfully presents the financial effect of an employer's pension plan responsibilities has received significant attention in the financial press during the past few years.

Issues to be resolved in this area are broad and complex. It has been the purpose of this study to focus upon the controversy raised by the accounting treatment, or lack of treatment, of the so-called "pension plan liabilities" of sponsors of private pension plans. Discussion was limited to single-employer, noninsured, defined-benefit, private pension plans in the United States.

The evolution of pension accounting has been marked by repeated attempts to impose some consistency in accounting for pension costs. Present generally accepted accounting principles for accounting for pension costs by employers are based upon APB Opinion No. 8, Accounting for the Cost of Pension Plans issued in 1966. Passage of the Employee Retirement Income Security Act (ERISA) in 1974 prompted the FASB to undertake a reexamination of the whole area of pension accounting. The FASB's involvement in the pension area has consisted of three steps. The first step was FASB Statement No. 35, Accounting and Reporting by

Defined Benefit Pension Plans, specifying the requirements for issuance of financial statements by the pension plan as a separate entity.

The second step was FASB Statement No. 36, Disclosure of Pension Information, which was an interim measure to improve disclosure by the employer until the FASB completes its overall project. This overall project is step three - a reconsideration of employer cost and liability measurement and has yet to be completed.

It is evident that the employer has some sort of pension obligation. Uncertainty exists as to whether the obligation is to each individual employee, the employee group, or the pension fund. Also debated is whether the pension obligation is a promise to provide for all the benefits stipulated or merely a promise to make contributions to the plan in amounts expected to be large enough to provide the contemplated benefits. These are fundamental questions which will affect ones viewpoint regarding whether an accounting liability exists, how such a liability would be measured, and how the liability would be accounted for.

The actuary is a professional whose concern is for the funding of a pension plan, or as has been described - devising a budget to pay for the benefits promised. The tools he uses to accomplish this purpose are the assumptions he makes, actuarial cost methods, his experience, and his professional judgment.

Confusion has resulted from similar terminology used by both accountants and actuaries whose meaning is often inconsistent and confusing.

Current generally accepted accounting principles do not permit recognition of so-called "unfunded prior service cost" as a balance sheet liability. However, the FASB in its deliberations on new accounting standards is considering reversing this requirement.

Opinions on balance sheet recognition of a liability are divided, but it would appear from a survey done by Coopers and Lybrand that most plan sponsors and financial statement users are opposed to this practice. The accountants surveyed in this study, however, were strongly in favor of this approach.

Whichever tack is taken it is apparent, from the results of the Coopers & Lybrand research study, that a great many people believe that present generally accepted accounting principles are deficient in the area of employer pension cost reporting.

The Coopers & Lybrand research team revealed that financial analysts, creditors, and other users of financial statements responding to the survey indicated "that pension cost data appearing in sponsoring employers' financial statements are not likely to substantially alter or reverse credit or investment conclusions."[1] The general reason given was that the information reported is not very useful.

As stated in FASB Concepts Statement No. 1, Objectives of Financial Reporting by Business Enterprises: "Financial reporting is not an end in itself but is intended to provide, information that is useful in making business and economic decisions - for making reasoned choices among alternative uses of scarce resources in the conduct of business

---

[1]Dankner and Grady, "Employer Accounting for Pension Costs," p. 13.

and economic activities."[2] To the extent that financial reporting is not providing information useful to users of financial statements, then financial reporting must be revised. Whether or not this revision will involve recognition of a balance sheet liability or mandating the use of a single actuarial cost method or set of actuarial assumptions, the FASB must pay heed to the wishes of the financial community and other users of financial statements.

---

[2] FASB Statement of Financial Concepts No. 1, paragraph 9.

APPENDIX

GLOSSARY

Accumulated benefits approach: One of three approaches. Under this approach, benefits earned to date are based on the plan formula and employees' history of pay, service, and other factors. The actuarial present value of the benefits is derived after the benefits are allocated.

Accumulated plan benefits: Benefits that are attributable under the accumulated benefits approach to employees' service rendered to the benefit information date.

Actuarial assumptions: Estimates that actuaries use in tentatively resolving uncertainties concerning future events affecting pension cost.

Actuarial cost method: A recognized actuarial technique used for establishing the amount and incidence of employer contributions or accounting charges for pension cost under a pension plan.

Actuarial gains (losses): The effects on actuarially calculated pension cost of (a) deviations between actual prior experience and the actuarial assumptions used or (b) changes in actuarial assumptions as to future events.

Actuarial liability: The actuarial present value of future benefits less the actuarial present value of future normal cost accruals.

Actuarial present value: The value, as of a specified date, of an amount or series of amounts payable or receivable thereafter, where each amount is: (a) adjusted for the probable effect of intervening events (such as changing compensation levels, changing marital status, etc.), (b) multiplied by the probability of the occurrence of the event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and (c) discounted at an assumed interest rate.

Actuarial valuation: The process by which an actuary estimates the present value of benefits to be paid under a pension plan and calculates the amounts of employer contributions or accounting charges for pension cost.

Actuary: A member of the actuarial profession, skilled in the science of applying the probabilities of future events to financial, insurance, or other types of calculations.

Attribution: Atrribution is the process of assigning pension cost to periods of employee service.

Benefit approach: One of the two groups of basic approaches to allocating or attributing benefits or cost of benefits to service. Approaches in this group assign a distinct unit of retirement benefit to each year of credited service. The actuarial present value of that unit of benefit is computed separately and determines the cost assigned to that year. The accumulated benefits approach, benefit/years-of-service approach, and benefit/compensation approach are benefit approaches.

Benefit/compensation approach: One of the three benefit approaches. This approach attributes a percentage of the total estimated benefit to each period based on the percentage of estimated total career compensation earned in the period. The actuarial present value of the benefits is derived after the benefits are attributed to the periods.

Benefit/years-of-service approach: One of the three benefit approaches. Under this approach, an equal portion of the total estimated benefit is attributed to each year of service. The actuarial present value of the benefits is derived after the benefits are attributed to the periods.

Benefits: Payments to which participants may be entitled under a pension plan, including pension benefits, disability benefits, death benefits, and benefits due on termination of employment.

Career-average pay formula: A benefit formula that bases benefits on the employee's compensation over the entire period of service with the employer.

Conceptual framework: A coherent system of interrelated objectives and concepts that is expected to lead to consistent financial accounting and reporting. It prescribes the nature, function, and limits of financial accounting and reporting.

Contributory plan: A pension plan under which employees contribute part of the cost. In some contributory plans, employees wishing to be covered must contribute; in other contributory plans, employee contributions are voluntary and result in increased benefits.

Cost approach: One of the two groups of basic approaches to allocating or attributing benefits or cost of benefits to service. Approaches in this group assign pension cost to periods so that the same amount of cost or the same percentage of compensation is allocated to each period. The cost/compensation approach and the cost/years-of-service approach are cost approaches.

Cost/compensation approach: One of the two cost approaches. The pension benefits under this approach are attributed to periods so that the percentage of pension cost to compensation is the same for each period.

Cost/years-of-service approach: One of the two cost approaches. This approach attributes an equal amount of the estimated total cost of the pension benefit to each year of service.

Defined benefit pension plan: A pension plan that specifies a determinable service, and salary.

Defined contribution pension plan: A pension plan in which the employer's contributions are determined for and allocated with respect to specific individuals, usually as a percentage of compensation. The benefits stated in the plan are those that can be provided by the contributions expected to be made by the employer.

Discount rate: The interest rate used to adjust for the time value of money. In actuarial terms, sometimes adjustments for decrements also are included in the discount rate.

ERISA: The Employee Retirement Income Security Act of 1974.

Final-pay formula: A benefit formula that bases benefits on the employee's compensation over a specified number of years near the end of an employee's service period with the employer.

Fully funded: The amount of the cost attributed to prior periods has been paid in full to a funding agency. A pension plan is said by some to be fully funded if regular payments are being made under the plan to a funding agency to cover the normal cost and prescheduled amortization of the past service cost.

Fund: Used as a verb, to pay over to a funding agency (as, to fund future pension benefits, or to fund pension cost). Used as a noun, assets accumulated in the hands of a funding agency for the purpose of meeting retirement benefits when they become due.

Funded: The portion of pension cost that has been paid to a funding agency.

Funding agency: An organization or individual, such as specific corporate or individual trustee or an insurance company, that provides facilities for the accumulation of assets to be used for the payment of benefits under a pension plan; an organization, such as a specific life insurance company, that provides facilities for the purchase of such benefits.

Insured plan: A pension plan for which the funding agency is an insurance company.

Interest: The return earned or to be earned on funds invested or to be invested to provide for future pension benefits. In calling the return interest, it is recognized that in addition to interest on debt securities, the earnings of the pension fund may include dividends on equity securities, rentals on real estate, and gains or (as offsets) losses on fund investments.

Noncontributory plan: A pension plan under which participants (i.e., employees) do not make contributions.

Normal cost: The annual cost assigned, under the actuarial cost method in use, to individual periods subsequent to the inception of a pension plan, exclusive of any element representing a portion of the past service cost or interest thereon. Normal cost is also sometimes referred to as normal contribution or current service contribution.

Past service cost: Pension cost assigned, under the actuarial cost method in use, to years prior to the inception of a pension plan. The term past service cost is sometimes used interchangeably with prior service cost; however, prior service cost includes the additions to the accrued actuarial liability resulting from retroactive benefit increases after the plan has been in operation. Past service cost is sometimes called initial actuarial liability.

Pay-as-you-go: Paying pension benefits as they become due without advance funding. Pension benefits are treated as an expense of the period in which payments are made. This method is not considered acceptable for either accounting or funding purposes.

PBGC: The Pension Benefit Guaranty Corporation.

Pension benefits: Periodic (usually monthly) payments made pursuant to the terms of the pension plan to a person who has retired from employment or to that person's beneficiary.

Pension liabilities: (See actuarial liability).

Pension plan (retirement plan): Any of several types of arrangements whereby an employer provides income benefits for employees after they retire. The term pension plan includes both formal, written plans and plans whose existence may be implied from the existence of a well-defined, although perhaps unwritten, policy on the part of the employer regarding payment of retirement benefits to employees.

Present value: The dollar value of an amount or series of amounts payable or receivable in the future. Present value is determined by discounting the future amount or amounts at a predetermined rate of interest. In pension plan valuations, actuaries often combine arithmetic factors representing probability (examples include factors for mortality or withdrawal) with arithmetic factors representing discount (interest). Consequently, to actuaries, determining the present value of future pension benefits may mean applying factors of both types.

Prior service cost: Pension cost assigned, under the actuarial cost method in use, to years prior to the date of a particular actuarial valuation. Prior service cost includes any past service cost, unamortized actuarial gains or losses, and unamortized cost of retroactive benefit increases.

Projected benefit cost method: A family of actuarial cost methods using the cost approaches.

Qualified plan: A plan that meets the requirements for tax-exempt status under the Internal Revenue Code.

Service: Employment taken into consideration under a pension plan. Years of employment before the inception of a plan constitute an employee's past service; years thereafter are classified in relation to the particular actuarial valuation being made or discussed. Years of employment (including past service) prior to the date of a particular valuation constitute prior service; years of employment following the date of the valuation constitute future service; a year of employment adjacent to the date of valuation, or in which such date falls, constitutes current service.

Terminal funding: The cost of purchasing the pension benefits is calculated at the time the employee retires, and a sum sufficient to provide those benefits is paid into the pension plan. This funding method is not acceptable for accounting or funding under pension legislative requirements.

Unfunded: That portion of the pension cost that has not been paid to a funding agency is unfunded.

Unfunded actuarial liability: The amount by which the present value of pension benefits to be paid in the future exceeds the amount in the pension fund and the present value of future normal contributions. This quantity includes the value of all prior service obligations - (a) arising at the inception or through subsequent amendments, (b) resulting from experience gains or losses, and (c) resulting from normal service - less the amount in the pension fund. Unfunded actuarial liability also is called unfunded supplemental actuarial value.

Unfunded pension obligation: (see unfunded actuarial liability).

Unfunded prior service cost: (See prior service cost and unfunded actuarial liability).

Unfunded vested benefits: The amount by which the present value of the vested benefits exceeds the plan assets available for benefits.

Vest (vested) (vesting): An employee's right to receive a present or future pension benefit vests when that right eventually to receive the benefit is no longer contingent on remaining in the service of the employer. (Other conditions, such as inadequacy of the pension fund, may prevent the employee from receiving the vested benefit.) Under graded vesting, the initial vested right may be to receive in the future a stated percentage of a pension based on the number of years of acculumlated credited service; thereafter, the percentage may increase with the number of years of service or age until the right to receive the entire benefit has vested.

# SELECTED BIBLIOGRAPHY

## Accounting Pronouncements

American Institute of Accountants, Committee on Accounting Procedure. ARB No. 36, Pension Plans: Accounting for Annuity Costs Based on Past Services. New York: AIA, November 1948.

———. ARB No. 47, Accounting for Costs of Pension Plans. New York: AIA, September 1956.

American Institute of Certified Public Accountants, Accounting Principles Board. APB Opinion No. 8, Accounting for the Cost of Pension Plans. New York: AICPA, November 1966.

———. APB Statement No. 4, Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises. New York: AICPA, October 1970.

Financial Accounting Standards Board. FASB Interpretation No. 3, Accounting for the Cost of Pension Plans Subject to the Employee Retirement Income Security Act of 1974. Stamford, Connecticut: FASB, December 1974.

———. Statement of Accounting Standards No. 35, Accounting and Reporting by Defined Benefit Pension Plans. Stamford, Connecticut: FASB, March 1980.

———. Statement of Accounting Standards No. 36, Disclosure of Pension Information. Stamford, Connecticut: FASB, May 1980.

———. FASB Discussion Memorandum, Employers' Accounting for Pensions and Other Postemployment Benefits. Stamford, Connecticut: FASB, February 19, 1981.

———. FASB Statement of Financial Accounting Concepts No. 1, Objectives of Financial Reporting by Business Enterprises. Stamford, Connecticut: FASB, November 1978.

———. FASB Statement of Financial Accounting Concepts No. 2, Qualitative Characteristics of Accounting Information. Stamford, Connecticut: FASB, May 1980.

———. FASB Statement of Financial Accounting Concepts No. 3, Elements of Financial Statements of Business Enterprises. Stamford, Connecticut: FASB, June 1980.

## Periodical Articles

Burianek, Frank G. "An Actuary's Views on Pension Plan Accounting and Reporting." Management Accounting 60 (January 1979):46-49.

________. "Using Financial Ratios to Analyze Pension Liabilities." Financial Executive 49 (January 1981):29-36.

Charles, Dane W., and Miller, R. Scott. "Pension Accounting - Some Unanswered Questions." CPA Journal 50 (February 1980):19-22.

Dietrick, James W., and Alderman, C. Wayne. "Pension Plans: What Companies Do - and Do Not - Disclose." Management Accounting 61 (April 1980):24-29.

Ezra, D. Don. "How Actuaries Determine the Unfunded Pension Liability." Financial Analysts Journal 36 (July-August 1980):43-50.

Gerwitz, Paul A. "Unfunded Pension Liabilities . . . The New Myth." Financial Executive 46 (August 1978):18-24.

Gibson, Keath P. "Accounting for the Cost of Defined Benefit Pension Plans." Financial Executive 49 (March 1981):36-43.

Grady, John H., and Dankner, Harold. "Employer Accounting for Pension Costs and Other Post-Retirement Benefits." Financial Executive 49 (April 1981):12-18.

Green, Richard. "Can You Measure the Unknowable?" Forbes, March 17, 1980, p. 160.

Gulotta, Michael J. "Pension Insurance: Controlling Tomorrow's Premiums Today." Financial Executive 49 (May 1981):27-32.

Kirk, Donald J. "Pension Accounting: Where the FASB Stands." Journal of Accountancy 148 (June 1980):82-88.

Lurie, Alvin D. "The Once and Future Pension Reform." Business Week, April 21, 1980, pp. 25-28.

"Pension Survey: Unfunded Liabilities Continue to Grow." Business Week, August 25, 1980, pp. 94-97.

Philips, G. Edward. "Pension Liabilities and Assets." The Accounting Review 43 (January 1968):10-17.

Postek, Thomas S. "Understanding the New Pension Disclosures." Financial Analysts Journal 37 (May-June 1981):15-16.

Regan, Patrick J. "Pension Survey Shows Some Signs of Improvement." Financial Analysts Journal 36 (September-October 1980):16-17.

________. "The Relation Between Unfunded Pension Liabilities and Share Prices." Financial Analysts Journal 37 (March-April 1981):18.

________. "Why the Sudden Concern Over Pension Costs and Unfunded Liabilities?" Financial Analysts Journal 34 (January-February 1978):12-13.

Smith, Jack L. "Needed: Improved Pension Accounting and Reporting." Management Accounting 59 (May 1978):43-46.

## Publications

Hall, William D., and Landsittel, David L. A New Look at Accounting for Pension Costs. Homewood, Ill.: Richard D. Irwin, Inc., 1974.

Hicks, Ernest L. Accounting for the Cost of Pension Plans. Accounting Research Study No. 8. New York: AICPA, May 1965.

U.S., Congress, House, Education and Labor Committee and Ways and Means Committee. Employee Retirement Income Security Act of 1974 (ERISA). H. Rept. 93-1280. 93d Cong., 2d sess., August 12, 1974.