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Ingalls Kimble

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Accruing Pensions as a Part of Current Operating Cost

BY INGALLS KIMBALL

During the last twelve months recognition of the principle of accruing pension costs during the working life of the employee has been formalized by two important government actions. The federal revenue act of 1928 specifically included provision allowing as a deduction reasonable amounts paid to a pension trust in accordance with the actuarial value of the accruing liability, and the interstate commerce commission on November 23, 1928, issued an order permitting current charges for the purpose of providing for future pension payments.

The internal-revenue department has for some time recognized payments to pension trusts as proper deductions from current income.

In the year 1927 there were paid to some thirty-one thousand pensioners under formal pension plans of United States railways something more than eighteen millions of dollars, to which should be added about a million and a half paid to some twenty-seven hundred pensioners under informal railway plans.

These huge amounts were disbursed as a supplementary payroll and charged as a current operating cost. Yet the railroads concerned received no value in services performed. Is this item justifiable as charged, under any reasonable theory of cost accounting? The figures in industries other than railways are probably larger, but the railway figures are quoted because of the regularity of the reported payments under the uniform system of accounting prescribed by the interstate commerce commission.

In one case a railroad has set up out of surplus a fund out of which pensions are being paid. In that instance the reserve covers only pensions which have already been granted.

There exist in industry several hundred formal pension plans and an indeterminate number of informal plans covering many thousands of employees, under which annual payments running well into the millions are carried as an expense of operation and are, therefore, charged to current production, although no service whatever is customarily rendered by the persons to whom these sums are paid. In a few cases industrial enterprises carry on their balance-sheets an item variously designated, but apparently intended as a pension reserve. These balance-sheet items are as a rule not looked upon by the corporations as of particularly sacred character, and in the past year at least one such item, running well over a million dollars, has, because of financial expediency, been extinguished as a reserve and carried into general surplus account.

In an increasing number of instances trust funds are being created; but in many cases these trust funds have been set up mainly with the idea of protecting employees. Some funds, large in gross amount, are operated on the principle of an imprest fund, payments of pensions being made out of income. In these cases, when pension payments exceed the income of the fund, the deficit is made up by an appropriation from the employer corporation as a current expense. Such funds, while decreasing by the amount of their interest earnings the apparent costs of the employer, have no real effect beyond being to the extent of their interest earnings a source of income.

In a few cases funds have been set up under actuarial guidance, and trusteed either with an insurance company or a private trustee, into which are paid sums calculated to represent the present value of the future pension liability accruing because of service rendered during the current year. In these cases, and in these cases only, is the future pension liability being recognized as a proper charge against current production.

It would appear from this very meagre outline of the situation that there exists in this country great confusion of thought on this subject; and without regard to the precise practice which should be adopted there can be no question that the whole situation wants clarifying.

As a step in this direction it is proposed to examine the following questions:

1. Are pension payments necessary to the maintenance of efficiency in a permanently operating organization?
2. Should pension costs be charged as they accrue or as they are paid?

3. Is the establishment and segregation of a pension fund necessary or desirable?
4. What effect, if any, has the establishment of a pension fund on the allocation of pension costs?

ARE PENSION PAYMENTS NECESSARY TO THE MAINTENANCE OF EFFICIENCY IN A PERMANENTLY OPERATING ORGANIZATION?

For the purposes of this paper it is proposed to assume an affirmative answer to this question; nor is there lack of justification for this assumption.

Undoubtedly cases occur in which employees of long service are dropped, without consideration, on account of old age, but these are very rare indeed. In many instances employees are retained on the payroll for years after they have ceased, because of inefficiency arising from age, to produce a value equivalent to their pay.

An examination of this situation by the Bethlehem Steel Company disclosed the fact that out of 300 men retired on pension only 111 required actual replacement. Similar figures have been disclosed by other investigations. One railway reports that, out of 48,000 employees, about 3 per cent. are over 70 years of age. The pay of these 1,400 employees is more than a million and a half dollars a year, and it seems not unreasonable that the actual work performed by them might be done for less than half of this amount.

Not only is the dismissal of old employees long in the service extremely rare, but progressive industrialists almost without exception are advocating the adoption of definite retirement plans; the number of concerns adopting pension plans or pension practice is constantly increasing; only in exceptional instances have plans, once adopted, been abandoned, and then only because of drastic financial necessity.

It is, perhaps, sufficient that in the preparation of balance-sheets and operating statements the employer's own statement as to the existence of pension plans or of pension practice be accepted; but it must be borne in mind that industries newly established, and sometimes those already of a certain age, fail to recognize the pension liability that may arise in the future. In these cases the accountant may well consider whether it is not a part of his duty to draw to the attention of management the future pension payments which the efficient conduct of his business may make necessary.

SHOULD PENSION COSTS BE CHARGED AS THEY ACCRUE, OR AS THEY ARE PAID?

Whatever the cause or amount of a pension paid in industry, one invariable fact precedent to its granting is length of service. A prize or bonus may be given to an individual or group of individuals at the end of any year, but the payment of an annuity for a series of years or for life is never undertaken in the ordinary course of business, except after many years of employment. If this condition be accepted as a fact, it follows inevitably that with the lapse of each year of service the liability for the eventual pension payment increases. If the granting of a pension follows years of service in a manufacturing enterprise, and if after the pension payments begin no service is rendered, it would appear to follow that the product of the active years of the employee was properly chargeable with the accruing value of the future pension.

Taking as an example, for the sake of illustration, a pension of say $400 a year, payments under which begin at age 65, it would appear that the employer of the operative who is to receive this pension should charge his production cost annually by a series of annual amounts which, at the expiration of the term of service, might be expected to equal the then value of an annuity of $400 a year payable for life. Thus, a wage-earner employed at 25 years of age, and having therefore 40 years of employment before him, would represent a pension cost to the employer during each year of service of about $38.45—that being the amount which, accumulated at 4 per cent. over a period of 40 years, would produce $3,800, which is the approximate present value of a life annuity of $400.

Assuming the wage of the employee to be $1,000 a year, this amount would represent 3.845 per cent. of the wage. In other words, assuming a force of employees all starting to work at 25, and for each of whom a pension of $400 a year was to be provided, the accruing annual liability would be 3.845 per cent. and this would represent an added charge against production cost.

Unfortunately, the problem is not quite so simple as it would from this example appear, for the liability is a contingent one. Of a group of one thousand men now aged 25, many will die before reaching 65, so the figure can be discounted by the death element. In this particular instance death alone will bring about a reduction of about 25 per cent. and we find, by reference to the tables, that, instead of 3.845 per cent. the annual setting aside of 2.865 per cent. would produce the same result. Many men now 25 will leave the service, and were it possible with accuracy to predict the number of withdrawals, it would be possible to set another discount figure to cover this contingency.

On the other hand, contingencies of other sorts must be considered. Perhaps the age at entry into the service will not be as low as 25, in which case, of course, the annual reserve would have to be larger. Perhaps a pension of two fifths of average pay after as long a period of service as 40 years would be inadequate (indeed, it probably would). In almost every case wages and salaries will advance as length of service increases, so other balancing contingencies are to be considered.

These matters are the affairs of actuaries rather than accountants, and it is not the purpose of this discussion to determine the approximate amount of the reserve that should be set aside, but rather to stimulate the thought of the accounting profession on the subject, and to bring about an expression of opinion as to the propriety of charging currently accruing pension costs against current production.

Let us look at the question for a moment from another angle. Let us assume that a manufacturer of wire goods has installed an accurate system of cost accounting. Each section of his business is treated separately. Among other things he makes hairpins, window screens and radio equipment. As the years go on the window-screen business, to which he charges raw material, rents, power, labor and other costs going into the production of window screens, continues normal. He knows exactly how much each ounce of window screening costs—when his sales represent a profit and when they represent a loss.

Until 1922 his hairpin department was large and profitable, and here again he knew every item of cost. Beginning in 1922 the use of hairpins, because of a change of fashions, fell off to the point that the further manufacture of this article was entirely discontinued. At the same time the radio industry came along, requiring equipment which could profitably be made in the same space that had been occupied by the hairpin department. His hairpin machinery had been scrapped, but because he had been setting up a depreciation charge against production costs, the scrapping of this machinery did not represent an accounting loss.

Most of the employees who had been employed in the hairpin department easily adapted themselves to the making of radio equipment; but a few of them who had been long in the service were unable, because of their age, to take on new methods and had to be dropped. To have discharged these old and faithful employees, without financial consideration, would not only have been unpleasant and unethical, but from an entirely hard-headed business viewpoint it would have been impractical and costly. The whole spirit of the organization would have broken down under it. The criticism of the community would have been hard to bear and would have adversely affected the hiring of new people. And so these old men were pensioned.

Query: What would be the competitive situation of this manufacturer in the radio industry should the pensions paid to the former employees of the hairpin department be charged against radio equipment? Yet surely these men could not be charged against window screens.

At this point the so-called "supplementary payroll," as a device for taking care of pension costs, shows its fallacy. In practice these pensions would probably go into general overhead account, and with the increase of the pension roll there would be an increasing drain on general profits that would be difficult to account for and impossible to correct. True, the profits of the hairpin department had been substantial, but since they had in all likelihood been disbursed as dividends year by year to former stockholders, it would be manifestly impracticable to recover the costs from this source.

It is not clear that this charge, which really came about because of the hairpin department, ought to have been set up while the hairpin department was profitable; or, if the charge of 2 per cent. or 3 per cent. of the labor bill to pension reserve was in itself sufficient to throw the hairpin department in the "red," would it not have been better to know this than to have continued, with a mistaken idea of profit, to pile up a liability for other departments of the business to bear?

Knowing nothing of the technical science of accounting I hesitate to announce general principles; but it seems to me logically inescapable that production cost is properly chargeable at the time the goods or services entering into production are used, and not at the time they are paid for. So far as I know, every item, whether it be material, labor, rent or depreciation, is chargeable to production on this basis, pensions alone being charged at the time of payment.

IS THE ESTABLISHMENT AND SEGREGATION OF A PENSION FUND NECESSARY OR DESIRABLE?

Sound pension accounting and sound pension practice do not require the segregation of the money out of which pensions will eventually be paid, any more than the meeting of any other obligation requires the segregation of money for its liquidation. Referring again to the similarity between the setting up of pension reserves and the setting up of depreciation reserves, it is clear that the charging of depreciation and the crediting of reserve account do not involve the payment of money.

When machinery is replaced its purchase is financed out of funds currently available, and so pensions may be paid out of funds currently available, though charged when paid to the reserve and not to current production. A pension falling due under a properly organized and announced plan has a status precisely similar to that of any other obligation. It becomes, in fact, a series of notes payable monthly or otherwise, beginning at a certain date.

If in setting up the reserve the value of these notes has been taken at their present worth on a definite interest basis, it is obviously essential either that the money be segregated in securities that would realize the accepted interest rate or that interest be annually credited on the reserve itself. In this latter case the interest charge is not a pension charge but is chargeable against the same account as that on which all the other interest charges of the business appear; it is, in effect, a payment by the corporation for the use of money which might otherwise have been invested.

A good many executives, feeling a keen sense of moral obligation to employees who have served the business under their direction, have brought about the setting up of substantial pension funds segregated from other assets, mainly with the idea that the future pensions of present employees should be safeguarded. In most instances there has been no effort to relate the amount initially put into the fund, or the amount added to it year by year, to the existing pension obligation. The funds have been arbitrarily set up and amounts paid into them have been considered merely as a segregation of a part of surplus.

The amounts actually paid to present pensioners, even though paid out of the fund, have under these plans been charged to operation as supplementary payroll. Obviously, such funds, ethically desirable though they may be, have no bearing whatever on the accounting problem. On the other hand, when it is suggested to an employer that he set up a pension-reserve account, these funds, of which he has perhaps some knowledge, come to his mind, and he considers the problem to be one of the disbursement of cash rather than of proper accounting.

In almost every announced pension plan will be found a paragraph permitting the employer to "alter, amend or altogether to withdraw the plan," and even in some instances to decrease or discontinue pensions, payment of which has already begun. Without definite knowledge as to the probable eventual cost, wise business men have sensed the possibility of a heavy increase of pension disbursements, and have hesitated or declined to commit a future management to the payment of large and indeterminate sums.

For the very reason that most pension plans are non-contractual, the accountant has in this country given them less attention than might otherwise have been the case. Many executives of important businesses, which have for years made regular disbursements, have told me that since the pension was a voluntary matter, determined in amount and terms at the date of grant, future pension payments did not constitute an obligation that could properly be considered a balance-sheet item. Technically there seems no doubt that this position is well taken. When tested in the courts it has, so far as I know, been consistently supported by the decisions handed down. On the other hand, there is, of course, no legal obligation upon any business to set up a depreciation reserve. Its property may legally be carried at cost. The only obligation lying on the accountant in this case would be to state the facts.

The whole tendency of good business, however, would appear to be in the direction of over-depreciation rather than under-depreciation, and the balance-sheets of most soundly conducted businesses show a depreciated value on plant items that is lower instead of higher than the actual value.

In view of all the facts it would seem that conservative financing requires the carrying of future pension payments as a contingent liability.

If currently accruing pension costs are to be charged to current operation and if a pension reserve item should show as a liability in the balance-sheet, it is obviously essential that these matters be translated into dollars and cents.

A pension is a payment beginning at a certain period and continuing for life. It is, in fact, an annuity, and is now beginning to be so termed by many employers. The value of an annuity depends upon the length of life of the annuitant. It is, therefore, an insurance question.

True, the life expectancy for a man who at the beginning of the year is 65 years of age is indicated in various tables, and these tables and an assumed interest rate are the bases on which insurance companies calculate annuity values; but there is no assurance whatever that the life of any individual, or indeed any limited number of individuals, will conform to the tables. Insurance companies, whose business concerns itself with life expectancy, give small weight to any experience comprising less than 100,000 life years. Thus, a business with 100 or 1,000, or even 10,000 employees, only a small proportion of whom would come to pension status in any year, might easily find itself seriously embarrassed were it to assume a definite annuity value equal to that used by the life-insurance companies. With this warning in mind, it is proper to consider the amount of the annuity reserve to be set up as that which would equal the purchase price of an annuity from a life-insurance company.

On the subject of obligating future managements the pension committee of the board of governors of the New York stock exchange said:

> "A pension promise made today should be covered by financial provision made today, rather than left as a responsibility for a future board. In other words, the system should be set up on a reserve basis in such fashion that its assets may always equal its liabilities, and if change or abandonment become necessary or desirable in future years, such change or abandonment may take place without the breach of any promise or the deposit of any additional funds."

The principles here suggested fall in well with the amount of allowances chosen by many businesses on a basis giving effect to length of service and salary. Let us assume that a pension, payable normally beginning from the age of 65, is to consist of 2 per cent. of the average salary of the employee during his whole period of service. An employee whose salary is $100 a month would be entitled for each year of service to 2 per cent. of $100, or $2.00 a month. If he continue at this same salary for say 35 years, his eventual pension will be 35 times $2.00 a month, or $70 a month. In point of fact, it is probable that by the time he reached retirement status his earnings might be $150 or even $200 a month. His annuity would have automatically advanced for each year of service as his salary advanced until, at the end of 35 years, the accumulated annuity might equal $90, or perhaps $100 as compared with a final salary of say $175 or $200. In a large number of cases an annuity of 2 per cent. of the average salary over the whole period of service would not vary greatly from half of final pay when, after 35 years of service, retirement status is reached.

Now an annuity of $2.00 a month, payable from age 65, has to an insurance company a perfectly definite value. For an employee now 20 years of age a single payment of $24.34 would secure an annuity of $2.00 a month, payable from age 65; at 30 this cost will have risen to $37.60; at 40 to $58.40; at 50 to $93.60.

It is to be borne in mind that such annuities as are here discussed do not involve a series of payments, the amounts quoted being the entire reserve necessary to produce the annuity. Thus, when an employee 30 years of age is promised an annuity of 2 per cent. of this year's salary, and the salary is $100 a month, the setting up of a single amount of $37.60 would, without any further payment but merely by its own accretion from interest and from deaths occurring before age 65, provide a sufficient fund to pay the annuity for life. This is a very important point.

A board of directors, offering a pension of 2 per cent. of each year's salary, has fulfilled its whole obligation when the reserve set up is sufficient to produce, by its own accretions, an annuity equal to 2 per cent. of this year's salary for each employee currently on the rolls. The reserve set up this year provides nothing in the way of pension for the service rendered in any subsequent year, nor in any past year. It does, however, completely take care of all the obligation that may ever possibly exist because of this year's service. Under a plan thus carried forward from the beginning of any enterprise, the reserve is always complete and any change which may subsequently develop as desirable may be made without in any degree affecting the stability of the pension that accrued prior to the change.

The system here outlined is an annuity system operating as a complete and finished thing year by year. Obviously, when employees leave the service prior to pension status, the reserve that has been set up with respect of their annuities is free for credit to operating account, or for use in the reserve for other employees. On the other hand, if a plan such as this be established after an industry is already well along in years, it may be made retroactive only by establishing a reserve covering the past service of present employees. These are details of practice that have no proper place in this discussion. The suggested scheme has been thus very roughly outlined mainly as an example of one way in which pension costs may be assessed as they accrue.

The status of pension schemes in mergers and receiverships is much simplified by a plan of this type, and in these days of corporate mobility such questions are by no means unimportant.

There are great advantages ethically, practically and financially in such schemes supported by joint contributions of employer and employee; that such schemes have in the past been undertaken with some diffidence is largely accounted for by the fact that employers have been loath to undertake schemes which were necessarily contractual, and which might bind future boards of management to indeterminate obligations. This situation is now clearing rapidly, and the great majority of schemes now being adopted by enlightened industries are on a contributory basis.

WHAT EFFECT, IF ANY, HAS THE ESTABLISHMENT OF A PENSION FUND ON THE ALLOCATION OF PENSION COSTS?

This heading is carried mainly for the purpose of emphasizing the facts already outlined, namely, that the real pension cost is the present worth of the future pension liability arising in any year out of that year's service. From an accounting viewpoint it makes no difference whatever whether the amount of this cost be paid over to a trustee, segregated among the assets of the corporation, carried as a book reserve, or used in the purchase of deferred annuities from a life-insurance company.

Many companies have arbitrarily set up large funds which, as hitherto pointed out, have been invested, the interest on which has been used in whole or part payment of current pension disbursements. Others have from time to time arbitrarily thrown into the pension-reserve account sums greater or less in accordance with the profits of the year. The amounts thus paid into funds, if such exist, do not constitute true pension cost any more than the amounts paid out in pensions constitute true pension cost.

It is essential that the accountant carry in his mind the difference between the financing of future pension payments and the proper charging of present pension costs. The two problems may be related, but they are totally separate.

If this discussion has served to stimulate the thought of the accounting profession on the whole subject it will have fully accomplished its purpose.