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PENSION PLANS IN DIFFICULT ECONOMIC TIMES

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1. 1975 USA developments: Brief economic and business survey and the relationship to non-insured pension plans.
2. 1975 Canadian developments: Trudeau, the economy, and the effect on pension plans.
3. 1975 insurance company developments: IRA's, individual policy pension plans, investment annuity contracts, etc.
4. Brief comments on situation in England.

MR. BARNET N. BERIN: Discussion Note--

PENSION PLANS IN DIFFICULT ECONOMIC TIMES

INTRODUCTION--There is much attention directed toward private pension plans today. With the passage of ERISA and the subsequent flow of regulations, it was not unexpected to find that pension plans have attracted, once again, the interest of government (Treasury, Labor, and Securities Exchange Commission) and other professions (the accountants with, eventually, a new version of APB-8, and security analysts). At the same time, the salaries on which pension benefits are generally based have moved swiftly upward; the market values of common stocks have dropped, eliminating considerable capital appreciation; prices of such fundamental commodities as oil have increased enormously and remain volatile; currencies fluctuate; and inflation and unemployment are world-wide problems. In this environment, any large, continuing company expense will be subject to close inspection and the attention of many parties.

Before discussing the impact of difficult economic times, it does seem worth stating that, in spite of the factors listed, in most cases pension plans can safely take a considerable period to deal with additional liabilities caused by temporary economic adversity. However, if losses are sustained for an extended period, both the private and public pension systems would be in jeopardy.

THE PROBLEM - There may be a tendency to exaggerate the problems of pension plans in difficult economic times. Historically, it has been accepted that, because of the long-term nature of the obligations involved, if a pension plan were sensibly designed and conservatively funded, current setbacks could be disregarded. What has caused the considerable concern we are now observing? Three principal factors have affected our attitudes:

- (1) Pension plans have increased in importance as they have increased in size. Pensions are larger, generally payable at earlier retirement ages, and ancillary benefits are more generous.

- (2) The aspects of the unfavorable economic environment that influence pension plans have been dramatically adverse because of:
 - (a) rapid inflation, with sharply increasing salaries which, of course, tend to increase pension plan obligations,
 - (b) the failure of investment vehicles to provide the facility for preserving capital and to return a reasonable yield on investment funds,
- (3) Regulatory authorities and stock market analysts have shown interest in companies' pension plan obligations, some misdirected, thus focusing attention on short-term variations in unfunded liabilities.

The problem with describing how pension plans may be affected is that we are understandably influenced by the economic difficulties we are currently experiencing. Pension cost calculations represent projections far into the future, thirty or forty years ahead, so that we must look ahead based upon the known (past and present) as well as the unknown future. Clearly, the future pattern of events is difficult to predict.

If we concentrate on major cost factors only, the pattern of future salary increases and the pattern of future investment yields must be of prime concern. Either of these could increase or decrease, making at least four possible forecasts if the resulting trend line was unbroken. Actually, there might well be reversals in either, and level periods in either, creating other possible forecasts.

For our purposes, it is sufficient to point out that both salary losses and investment losses are possible so that actual experience may be unfavorable when compared with expected experience as defined by the actuarial assumptions. It is not likely that either the private or the public system could tolerate indefinite cost increases. At the least, nonessential ancillary benefits would have to be decreased or eliminated. Funding policies would have to be relaxed.

The degree of vulnerability of a plan will depend upon the type of benefit formula, the extent of ancillary benefits, and how the funding method and actuarial assumptions operate.

BENEFIT DESIGN - A flat dollar pension formula, such as \$8 per month for each credited year of service would, on the surface, be impervious to inflation from a funding standpoint. However, with rising prices and rising salaries, it may not be possible to maintain this kind of benefit formula. These formulas have moved from \$1.50 to about \$8.00 or more over the years 1960 to 1974. The level of benefits would probably be subject to collective bargaining.

A career average pension formula, basing benefits on an employee's earnings over his entire working career, would be affected as salaries increase, producing progressively larger future service costs. Also, there may be a recurring need to increase benefits for past service which have become too low in relation to present pay levels. Here, the timing and the extent of the benefit increases may be subject to company direction. Employee appreciation of benefit improvement should be immediate, depending, of course, on the type of improvement.

A final-pay pension formula is immediately vulnerable in times of rising salaries. The use of final average earnings in these formulas constantly updates and improves the benefit so that costs increase sharply. Unlike other benefit formulas, the company gets little credit for improving the benefit level, since the final pay approach automatically corrects for increasing pay levels. The nature of the formula has to be stressed or it will not be appreciated by employees.

It is interesting to note that in England there is interest in changing final-pay pension plans to career average pension plans with a commitment to improve accrued benefits periodically, provided cost increases are possible. The situation in England has been critical. With worsening inflation, with salaries and wages, until recently, increasing at least as rapidly as prices, and with falling asset values, final-pay pension plan costs have accelerated upwards. The recently updated, career average pension plan functions as a final-pay pension for new retirees over the next several years, with pension costs presumably acceptable to management.

Plans that are coordinated with Social Security benefits, particularly those that deduct a percentage of the Social Security benefit, may be reasonably protected from the effects of inflation, assuming that Social Security benefits continue to increase. Invariably, the combination of the plan benefit plus the Social Security benefit increases even though the larger Social Security offset decreases the plan benefit. This is an important part of the plan design that requires regular communication to employees.

Pension plans that provide retirement benefits which vary with the cost of living may be especially vulnerable to inflation, if, as is often the case, there are no special costs developed or assets set aside to help provide these increases. Barring consistent gains from other sources, unless the assets set aside for retirees can generate the valuation interest rate plus the cost-of-living increase, additional contributions will be required. Under current tax law, it appears unlikely that contingency reserves can be established for such plans, so that we must look to the plan design for some control.

A one-year maximum percentage increase is a possibility - equal, for example, to one half of the actual cost-of-living increase but no more than a certain specified percentage, say, 6%. (Yearly increases of 6% will approximately double benefits over the average retired employee's lifetime.) In developing costs for a plan with a maximum yearly cost-of-living increase of 6%, it would be well to assume a constant future rate of retired benefit increase, say, 3%, and value to retirement at the valuation interest rate and after retirement at the valuation interest rate less 3%. But how many plans of this type could accept the associated immediate increase in costs? Other methods, such as conservatism in the valuation interest rate may be the only answer. It is necessary to balance social desirability with plan integrity. Whichever approach is used, note the importance of the assets as a store of value to be tapped at retirement.

There is an interesting development whereby a "CAP" is inserted into the pension plan formula. The CAP is a maximum benefit such that the pension plan benefit at retirement plus Primary Social Security benefit will not exceed a specified percentage of final-average salary. This could have a

profound effect on plan design in bringing salaried and union plans closer together and in solving, once and for all, the IRS integration problems in the plan design. In time, this could be the most sensible plan design of all, from both the employees' and employers' points of view.

There may be large increases in the number of applicants for ancillary benefits, such as disability benefits and subsidized early retirements, if business conditions deteriorate. The incidence of disability benefits may present particular problems because of their subjective nature. Disability income benefits in life insurance policies cost the life insurance industry dearly in the 1930's. Most companies stopped writing disability income coverages. Generally, modern pension plan disability eligibility and disability benefit design act as reasonable first defenses against disability runs. Whether they could stand up against persistently bad experience without further restrictions, by plan amendment, is, of course, not known.

ACTUARIAL DESIGN AND ERISA - Various actuarial techniques can be used as a means of recognizing and smoothing the cost impact of adverse economic events. There is some safety in the use of a spread-gain funding method, instead of an immediate-gain funding method, and some safety in the use of an adjusted asset valuation system, reasonably related to market values, since both act to smooth emerging actuarial experience. In Social Security offset plans, the assumption of modest future increases may be both reasonable and appropriate. There is also provision for amortizing actuarial losses in the present tax law, in Accounting Opinion 8 and in ERISA.

ERISA is important in many of these areas. It lists the acceptable funding methods, requires approval of a change in funding method (which presumably means a change in economic forecast for the company), and specifies a 15-year amortization of immediate actuarial gains and losses and no more than a 40-year amortization of unfunded liabilities (30 years for new plans or amendments). Assets are to be valued taking account of market value implying some sort of a smoothing technique.

Consider the actuarial cost effect of an investment loss at the valuation date: the market value of assets are smoothed by an adjusted asset valuation system reducing the loss; the resulting loss is further smoothed either by the funding method (spread gain) or by ERISA's required 15-year amortization period (immediate gain). The primary danger may be one of allowing the smoothed assets to increase and to exceed market value for extended periods. A maximum excess percentage may be a reasonable requirement of such systems, e.g., the actuary's assets not to exceed market value at the valuation date by over 5% or 10% of market value.

ERISA requires the actuarial assumptions be reasonable, in the aggregate, based upon the experience of the past, and that they represent best estimates for the future. The actuarial gain-and-loss analysis, performed as a by-product of the regulation annual pension plan valuation clearly provides a basis for supporting actuarial assumptions and for periodically changing actuarial assumptions based upon the actual emerging experience.

ERISA helps the assets' store of value by emphasizing fiduciary responsibility, asset diversification, and types of acceptable investments.

The pension law is sensible in establishing these criteria for pension plans. Most of them will be helpful under adverse circumstances. Nevertheless, if economic conditions worsen and remain that way for an extended period of time, exceptions will surely have to be made.

ACTUARIAL RESPONSIBILITIES - In the light of difficult economic times, there is no substitute for modest conservatism on the part of the pension actuary and for a continuing dialogue between all interested parties as to the effects on costs of the choice of funding method, actuarial assumptions, amortization period, and plan design. Regular meetings on investment performance are essential.

Beyond the mathematical determination of investment returns and investment gains and losses, actuaries can be of considerable assistance in an investment review by emphasizing what always has been true for individual investors with large sums of capital: conservation of principal is not an idle strategy. For pension funds, the store of value developed over active working years must be available to generate pension payments for years to come. If we recognize the variable, but generally increasing, nature of pension benefit formulas, as well as the contingent liability of the Pension Benefit Guaranty Corporation, the store of value becomes essential.

Each year, it is most important that actuarial gains and losses be determined so that the actuary can compare actual experience with expected experience and make periodic changes where necessary, gradually correcting towards a retrospective kind of "realism."

The actuary is no soothsayer. He steps hesitatingly into the future, one year at a time, using the gain-and-loss analysis as a guide to measure how he departs from the unknown trend line of actual long-range costs which are known only after the fact. The client is vital in the process of choosing actuarial assumptions and in changing actuarial assumptions, using the experience of his own plan as the basis for change where appropriate.

Consideration of the effects of actuarial experience and short-term cash-flow projections may prove helpful as part of advance company financial planning in adverse times, for it is within this framework that the various assets and liability forecasts can be tested.

CONCLUSION - Generally, private pension plans are reasonably well funded; perhaps well enough for many to ride out adverse economic conditions provided the companies offering these plans are able to survive. This is not an unreasonable assumption for actuaries to make. It is a basic tenet of accounting, and a basic tenet of pension funding itself.

Throughout this paper, we have made reference to assets as a store of value. The actuary can be helpful in this respect by emphasizing the importance of the delivery of future payments, by analysis of each year's experience, by review of historical experience, and by periodic asset and liability cash-flow studies.

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MR. RICHARD A. WATTS: My question concerns two characteristics of a CAP plan. Your note said these plans have two characteristics which I'm not sure are there. You stated that these plans were "bringing salaried and union plans closer together" and "solving, once and for all, the IRS integration problems in the plan design." Why do you think these characteristics are there?

MR. BERIN: The CAP is a very interesting development. It does not comply with revenue ruling 71-446. It clearly does not integrate and yet it exists in a number of plans. We see clients very interested in the CAP for both salary and hourly pension plans. How do you answer a client who asks philosophically, why should I have eight, nine, ten dollars per month per year of service for the union plan and have an elaborate formula which is a function of salary for the non-union plan? In the past the union groups had very narrow salary ranges but the frequency distributions of salaries are not like that anymore. Some companies are concerned. Why are they funding at different rates to these two plans? Why is the plan design so different? How can they handle people moving back and forth? If you put the CAP in both plans you bring them philosophically closer together for the first time. Until the IRS rules definitively on the nature of the CAP, it simply cannot meet the integration requirements per se but it is present in several plans.

THE 1975 ECONOMIC AND BUSINESS ENVIRONMENT AND ITS EFFECT ON NON-INSURED PENSION PLANS

MR. JOHN N. FELDTMOSE: Bob touched on a number of significant points primarily related to benefit design. I'll take the next few minutes to summarize recent economic developments and to discuss the financial effects of these developments on non-insured pension plans.

As a preface, I might say that many problems associated with ERISA have far overshadowed any adverse effects of the economy in the minds of most benefit managers and administrators (and even consulting actuaries). Because of the preoccupation with the new law, reactions to economy-related problems have undoubtedly been understated.

The key word to describe economic developments in the last few years is VOLATILITY. It seems that in all areas of business and economy, upswings and downswings have been of a larger order of magnitude, both absolutely and relatively, than in previous years. In order to put the discussions in perspective, I've assembled some charts which will graphically illustrate recent events.*

Remember in all of these charts that the effects of any of these items on a pension plan are usually delayed a year - at least as far as public disclosures in annual reports, etc., is concerned. This means, for instance, that pension expense and unfunded liability figures now appearing in annual reports are based on employee data and fund values at the end of 1974. Similarly, the effects of the 1975 economy will not be known until 12/31/75 valuations are completed over the next few months, and corporations will not consider the effects until the end of 1976 when they are putting together their 1976 P&L figures.

*Charts appear at the end of this session.

I've divided the areas of impact into three general categories:

1. INFLATION which after years of playing dead rose up to double-digit level in 1974 and has recently retreated to the 6-7% level.
2. DEPRESSED SECURITIES MARKET which hit its low point at the end of 1974 and has been rebounding since.
3. DEPRESSED CORPORATE ACTIVITY which also hit bottom during 1974 and early 1975 but has started to pick up again.

The first area is inflation.

(Chart #1 - % Change in Prices 1969-1975)

The first chart shows several measures of the percent change in prices in the past 7 years

- the Consumer Price Index, the most common measure of inflation, increased 11% in 1974 and about 9% in 1975. It is now down to the 6-7% level. This contrasts with rates of 1-2% in the 1950's and 1960's. Of the common indexes, the CPI is the one that most closely reflects the effects of inflation on pension plans.

Bob discussed one of the most visible and talked about effects of inflation, namely, the erosion of the value of fixed-dollar pension benefits. Inflation not only eats away at the fixed income of retired employees but it also erodes career average and flat union-type benefits for active employees causing pressure for benefit improvement in these types of plans.

But what about the financial aspects?

- The obvious effect on pension plan financing is a fairly dramatic increase in the dollar value of annual pension costs - as well as increases in unfunded liabilities. This is caused by:
 - flat benefits being negotiated upward,
 - career average plans being updated for past service, in addition to higher current benefit accruals,
 - and, most significantly, final-pay plans taking severe salary scale losses.

As if increases in dollar amounts of costs were not problem enough, pension costs have even increased as a percentage of payroll. This is due to:

- the leverage of integrated benefit formulas,
- the need to make up past service credits for all past years - either in the update of the career average or flat benefit plan or in the salary scale loss of final pay plan,
- asset losses due to the declining stock market, which brings us to the second area of impact.

The second area is the unsettled investment picture in the last couple of years.

(Chart #2 - Dow Jones Industrial, 1957-1975)

Here we see the stock market going up 17% in 1972, down 19% in 1973, down 28% in 1974 and back up about 35% in 1975. As you know, it has gone up more than 15% just in the first 3 months of 1976.

(Chart #3 - Standard & Poor's 500 Composite Stock Index, 1957-1975)

A very similar pattern is shown for the S&P 500.

(Chart #4 - Short-term Interest Rates, 1971-1975)

But it's not only the stock market which has moved erratically. This chart shows several indexes of short-term interest - all exhibiting similar trends. As portrayed by the Prime Lending Rate, for example, short-term rates ranged from 6% to 10% in 1973, 9% to 12% (mostly on the high end) in 1974, and from 10 1/2% gradually declining to 7 1/2% in 1975. As of mid-March 1976, the rate was down to 6 3/4%.

(Chart #5 - Long Term Interest Rates, 1971-1975)

Four different measures of long-term interest are shown here.

- Mortgage Rates
- AA Corporate Bond Yields
- 20-Year U.S. Government Bond Rates
- AA Municipal Bond Yields

The Moody's AA Corporate Bond Yield Average moved from about 7 1/2% at the beginning of 1973 up to over 7 3/4% at the end. In 1974 it went from about 8% to over 9 1/4%, and in 1975 it stayed right at about the 9% range. Since most non-insured pension plans have been heavily invested in common stocks, the large swings in the market have caused severe repercussions on the funding of plans. Remembering again that most plans would have a year lag in recognizing gains and losses, pension plan funding during 1975 has recognized the extremely depressed values at the end of 1974.

The effects we saw were:

- 1st. Increased pension costs due to recognition of "interest" losses - both realized and unrealized.
- 2nd. Increased unfunded liabilities. As with the cost, increases in unfunded liability may be dampened by use of a write-up method. Or, in the case of the Aggregate or Frozen Initial Cost Methods, there might be no effect on the unfunded liability.
- 3rd. Increased unfunded vested liabilities.

Perhaps this figure is the most drastically affected - and also, unfortunately, the most visible. It is commonly calculated using the market value of assets and it always appears in a footnote in a company's annual report.

- 4th. Shift of investment mix away from common stocks into fixed income investments.

(Chart #6 - Corporate Non-Insured Pension Funds)

Unfortunately, statistics are only available through the end of 1974. Back in 1964 the proportion of stocks and bonds was about equal - at 41%. The proportion of stocks increased gradually to 65% in 1973 versus 24% bonds. In 1974 the stock percentage dipped to 60%. This decrease is due in large part to depressed fund values but undoubtedly also reflects some conscious movement from stocks to bonds. Based on our observations, there was continued movement toward bonds in 1975.

The third area that bears directly on the financial side of pension plans is the depression or recession in general corporate activity, manifesting itself in lower corporate profits and high unemployment.

(Chart #7 - Corporate Profits, 1957-1975)

Profits before taxes are shown here as being up 22% in 1973, up 13% in 1974 but down 15% in 1975. If these are adjusted for inflation using the GNP deflator, the pattern is +15%, +3% and -22%. A similar pattern is shown by the after-tax figures.

The overall downward pattern in business is also shown by the movement of the GNP.

(Chart #8 - GNP Growth, Annual % Change, 1947-1975)

The top line shows the percent change in the GNP on a gross basis. The second line shows the percent change after adjustment by the GNP deflator (an inflation index similar to the CPI). This line is the most telling indicator: a -1.84% change in 1974 and a -2.01% change in 1975.

A direct consequence of depressed business activity is the rate of unemployment.

(Chart #9 - Employment and Unemployment, 1957-1975)

The lower part of this chart shows that the unemployment rate, which was at a level of 6% or well below in 1973 and prior years, rose steadily in 1974 to about 7 1/2% at the end of the year, and up to almost 9% in mid-1975. It has recently subsided to 7.6% in Feb. of this year.

That's a quick survey of how the economy has been doing recently. But how has corporate management reacted to the various economic problems of the last year or two? I'll list 4 or 5 reactions that we have seen:

1. The combination of factors - inflation, poor market and depressed profits - has made management think long and hard

about the level of funding of their pension plans. On the one hand, inflation and poor fund performance have increased current annual cost levels. On the other hand, a double-digit inflation rate coupled with negative fund returns and depressed company profits has made it extremely unappealing for management to pour more money into pension funds. Some financial executives have expressed their opinion that their money would be better invested within their company where the investment would benefit more directly by the high inflation rate. In other situations, companies are borrowing funds at 10 or 11% and at the same time making contributions to their pension funds, in effect, with that borrowed money. This leads to the feeling that the pension plan could be funded at some future date with so-called "cheaper" dollars. The following techniques have been used to defer pension outlays:

a) Temporarily reducing or eliminating contributions

This was possible in many plans because previous contributions at a high level had left the funds in a favorable position with respect to IRS minimum funding requirements.

b) A second technique is the so-called "explicit" recognition of inflation in actuarial assumptions

There has been heated debate over the Academy Exposure Draft on Present Values which, in effect, requires that inflation be factored into both the salary scale and the interest assumption. In general, the result of such recognition is a reduction in current outlays.

c) A third technique is changing from a level funding cost method to unit credit

Although this is not yet a common technique, I have seen growing acceptance among consulting actuaries of the use of unit credit cost method - even for final average salary plans. Again, the high rate of inflation and poor fund yields have made the larger contribution levels produced by aggregate and entry age methods unattractive to corporate management.

2. A second reaction to the economy has been for corporate financial executives to examine very carefully the performance of their investment managers - be they banks, investment advisers, or insurance companies.

- A common theory in pension funding for many years has been that salary scale losses would be offset by investment gains -- over the long run, at least. Unfortunately, over the short run during 1973 and 1974, the theory has not been working. This tended to put increasing pressure on fund managers.

- The results of pressure from the generally poor stock market as well as increasing pension costs have been:
 - a) More changing of investment managers than in past years.
 - b) Correctly or incorrectly, a shift away from stocks to bonds as illustrated previously. Many corporate financial officers have simply become disillusioned with the stock market.
 - c) Lastly, a shift toward the fixed-income investment products of insurance companies. This is done either through
 - the purchase of annuities for retired employees, or
 - the so-called "guaranteed fixed-income contracts" which are "investment only" contracts and which have offered investment guarantees of as much as 9-9 1/2% for durations of 15 years and more. Either of these approaches has seemed an attractive alternative to a treasurer who has just lost 50% of his fund in the stock market in the preceding two years and who is also concerned with Fiduciary Liability under ERISA.
- 3. A third reaction arises from depressed corporate activity which has resulted in:
 - a) large layoffs and cut-backs in employment,
 - b) shut-downs of whole plants divisions causing plan terminations,
 - c) higher activity in the sales and acquisitions areas - primarily to "unload" unprofitable or marginal operations.

All of these have had an impact on the plan and its funding.

- 4. A fourth reaction is that corporations have been resisting plan amendments and improvements despite the negative effect of inflation on benefits.
 - they have deferred career average updates.
 - they have held up movement to final pay plans.
 - there has been less union pressure on pension benefits because of
 - a) emphasis on wages and job security,
 - b) few large contracts expiring,
 - c) recent layoffs making strikes unappealing to workers.

From what I read in the press, the unions will be attempting to reverse this trend. There are many important contract negotia-

tions in 1976 and they will be fired by increased union militancy and higher corporate profits.

5. One last problem area to mention is multi-employer plans which have been hit particularly hard by the economy. In a number of cases that we have seen, the fixed cents-per-hour contribution rate has no longer been sufficient to support the benefits. This effect is caused by

- depressed fund values,
- the new funding requirements of ERISA, coupled with
- lower employment levels. A critical problem arises when the benefit obligations do not decrease in proportion to the lower number of active employees for whom fixed cents-per-hour contributions are being made.

CONCLUSION

In conclusion let me again emphasize the volatility of conditions in recent years - the large swings upward and downward over short periods of time, not only in stock market and interest rates but also in inflation, profits, etc.

These quickly changing conditions mean that the corporate benefit manager as well as the consulting actuary have had to learn to react a bit more quickly and adjust their thinking to a whole new set of parameters. In the old days, certain patterns could be relied upon by the actuary in making estimates and short-term projections; today, however, it is necessary to think very carefully whether you can assume a constant or slowly changing environment.

DEVELOPMENTS IN CANADA

MR. OWEN M. O'NEIL: I think I should start by sketching in for those of you who are unfamiliar with the Canadian scene the recent economic situation and I will then go on to discuss in more detail its effect on pension plans. Canada of course is heavily dependent on the U.S. for its foreign trade and many of the major trade unions are international unions based in the U.S.

When the Nixon wage and price controls were introduced there was considerable debate about whether a similar policy should be introduced in Canada. No controls were adopted at that time. One of the main issues in the 1974 federal election was the question of wage and price controls with the opposition Conservatives putting forward a fairly detailed set of proposals. The Liberals opposed the controls and were returned to power with an increased majority.

The economic slowdown in the winter of 1974-75 was much less marked in Canada than in the U.S. and wage settlements continued at very high levels, particularly in the public sector. By the middle of 1975, it became apparent that Canada's international trading position was becoming severely affected and various wage indices showed higher wage levels in Canada than

the U.S. for the first time in history. The Consumer Price Index was rising at 11% per annum, wage settlements averaging 18% per annum, and unemployment was at 7%.

In this environment, the Canadian Government did a sharp about-face and on Thanksgiving Day, October 13, 1975, introduced a comprehensive package of wage and price controls extending over a three year period.

On the price side, companies have to restrict the increase in the cost of their products to no more than the increase in their costs.

Dividends are restricted to the actual dividends per share paid in the last fiscal year ending before October 14, 1975.

On the wages side, the controls apply to virtually all forms of compensation including fringe benefits and effectively limit increases in the total compensation packages of groups of employees to 10% in the first year, 8% in the second year, and 6% in the third year.

The controls are compulsory for any organization with 500 or more employees, the construction industry, federal departments and agencies, and professional people. The total of the companies involved was 9,500. There was also provision, however, for the Minister of Finance to designate vital industries such as transportation and grain handling to come under the Act. This has in actual fact been extended to another 41,000 firms. From an administrative point of view this decision may well prove to be the straw that breaks the camel's back.

To show its leadership the Government also cut 1 1/2 billion dollars from this year's budget. However, some cynics point out that Government spending is still scheduled to increase by 16% in the coming year.

Initially, there was much uncertainty about how the controls would work and which groups would be affected since there were no regulations available. There was and still is some scepticism about how fairly the controls will be applied since, shortly after they were introduced, the postal workers, who are Federal Government employees, were granted a settlement clearly in excess of the limits after a lengthy strike. However, the Anti-Inflation Board had turned down and imposed heavy fines on a paper company which paid increases in excess of the limits in accordance with a union-negotiated settlement.

Where, you may well ask, does all this leave private pensions? Before the introduction of controls, most employers were becoming very concerned about the impact of high rates of salary increases especially on final earnings plans.

In the major provinces of Canada, private pension plans are governed by Provincial Pension Benefits Acts which are similar in concept to ERISA. The combination of high salary increases and depressed stock markets has created Experience Deficiencies which have to be funded over five (5) years and not fifteen (15) which is the case under ERISA. The one bright light in this whole exercise has been that the provincial authorities are now re-thinking their ideas on what constitutes an experience deficiency and hopefully a more flexible approach to the funding of these deficits will result.

The high rate of inflation has also forced employers to upgrade career average plans to something close to current earning levels. Employers have also been under pressure to change career earnings to final earnings plans and unfortunately some have given in to this pressure.

Up until two years ago, the government pension, payable under the Old Age Security Act, was frozen, and that payable under the Canada Pension Plan was restricted to increases of 2% per annum. Inflation has changed all of this and these two pensions are now fully indexed to increases in the cost of living. At the same time this legislation was passed, the Federal M.P.s also enacted legislation guaranteeing full indexing to their own pension and that of the Federal Civil Service.

One might ask if our elected representatives have sufficient incentive to keep inflation under control when their own retirement income is fully protected irrespective of the result.

Employers in the private sector have also felt an obligation to increase pensions in course of payment; however, very few have been able to recognize the full impact of inflation over the last few years. Only one company that I know of has guaranteed that its pensions in payment will increase proportionately to the Consumer Price Index in the future.

The recently enacted wage and price controls have introduced some new wrinkles and although it is too early yet to identify new trends, here are a few thoughts on possible developments. The definition of compensation for the purpose of the controls includes the cost of fringe benefits such as pensions but excludes pension costs relating to:

- (I) The funding experience deficiencies; and
- (II) Unfunded liabilities created by increasing accrued pension benefits up to 2% of past six years average earnings for each year of past service.

The two most obvious effects of these exclusion are probably:

- (I) To increase the trend towards career average plans with regular updating since the current service cost of these plans will be lower than for a final earnings plan and the cost of updating may be ignored in the wage and price control context, and
- (II) To produce some pressure on actuaries to relax actuarial assumptions so that the current service cost of any given plan may be minimized even though this may well produce increased overall costs due to experience deficiency payments in future years. The potential pressure to relax actuarial assumptions seems to raise several questions of actuarial ethics, for example:
 - (A) Is the actuary responsible to the employer or to the employees? Although this has been resolved in favor of the employees by ERISA in the U.S., the situation in Canada is by no means as clear.

- (B) Is the actuary's estimate of pension funding payments a single "best estimate" or is it rather his judgement from a range of alternatives which he may vary within limits depending on the employer's wishes?
- (C) Is it ethical or even appropriate or realistic to value a flat benefit or career average plan using a reasonably current nominal rate of interest which includes a substantial allowance for current expected rates of inflation when, if these expected rates are realized, the benefits provided by such plans will almost certainly have to be improved?

To summarize the Canadian situation, therefore:

The recent period of high inflation is forcing companies to upgrade their pension plans at a time when their plans are already in deficit because of the same inflation; and

The Government's program to cure inflation may well prove to be a test of an actuary's ethics, responsibilities, and professionalism.

UNITED KINGDOM

And now a brief comment on the situation in the United Kingdom.

In the last three (3) years, inflation in the U.K. has increased from 9% in 1973 to 16% in 1974 to 25% in 1975. The significant increase in 1974 was caused to a large extent by dramatic increases in the price of commodities, particularly oil. Sadly the workers in the U.K. did not recognize that the "rules of the game" had changed. They had, virtually overnight, suffered a drop in their standard of living and there was nothing they could do about it. Wage settlements, however, moved higher and higher and the result was inflation of 25% in 1975.

In July of 1975, the Government announced its plans to combat inflation. Briefly, it is their intention that all pay raises including the cost of benefits in the year commencing August, 1975 should not exceed 6 pounds per week. Furthermore, for political reasons, those earning 8,500 pounds or more per annum should receive no increase. Unlike Canada, the limits are applied on an individual basis and not in groups.

Again, unlike Canada, the program is purely voluntary. However, for those who do not comply no part of any pay increase can be taken into account when determining price increases. The Government has also stated that any found guilty of granting excessive pay increases would be liable to suffer severe financial consequences mainly by the cancellation of Government contracts and the withholding of investment grants.

The program appears to be working. The rate of inflation has halved over the last three (3) months.

As far as the effect on pension plans is concerned, inflation has increased the demand for final earnings plans. One survey taken shows that the proportion of final earnings pension plans for salaried employees has increased

from 46 to 88 percent from 1970 to 1975. There has also been a significant change in the definition of "final earnings" from the average in the last five (5) years to actual earnings in the final year.

Inflation together with the dramatic collapse of the U.K. stock market has caused several companies to make large contributions to their pension funds--some as high as 40% of the payroll. It should be added, however, that it is thought that some companies were using their pension fund as a vehicle to reduce published profits in anticipation of possible criticism from the Socialist Government.

Inflation has also increased the demand for inflation-proof pensions after retirement. In actual fact, in January of this year, Britain experienced probably its first and certainly its biggest strike over pension benefits by the white-collar workers of Vickers. The workers were unhappy with their 1 1/4% final earnings pension plan because pensions in payment were not tied to increases in the cost of living.

I think one of the tragic things about inflation is that it leads people to demand inflation-proof salaries and benefits which themselves help to maintain the momentum of inflation in future years and therefore make it more difficult to control.

MR. ROWLAND E. CROSS: Mention has been made of a valuation approach which takes into account future improvements in the benefit formula even though at the time of valuation such improvements are not yet a definite commitment of the plan. IRS attitudes on this aside, I question the soundness from a purely actuarial point of view of setting up liabilities for benefits not actually a part of the plan.

Presumably the argument in favor of this valuation procedure is that, since such future liberalizations are believed to be inevitable (as with a career-average plan, for example), the actuary should take account of these trends just as he allows for future wage increases or expansion of social security (in offset plans). On the other hand, the fact remains that the plan sponsor has not, for whatever reason, seen fit to put such a feature into the plan and may indeed later decide not to do so. Even if he was fully aware of the actuary's assumptions in this regard and the consequence thereof, would it not sound a little strange in the actuary's report to claim that there was an experience gain attributable to his not having adopted a liberalization according to the "schedule" (as to amount and timing) that the actuary had set up in the valuation basis?

MR. O'NEIL: I actually agree with not making openended commitments. If I were making any recommendations to a client, it would be to commit to something that you can control but fund at a much higher level, and then every so often just do what I would call bonus reserve values in the UK, i.e., determine what rate pension the funding is really supporting and upgrade to that point. In my talk I questioned whether or not it is ethical to use a much higher rate of interest involving these plans when if their expected rates of inflation materialize, it would be necessary to upgrade them. I think that you should use a lower rate in anticipation of that event although you are not guaranteeing the upgraded benefits to employees. I think this approach is to the benefit of the employees in the long run.

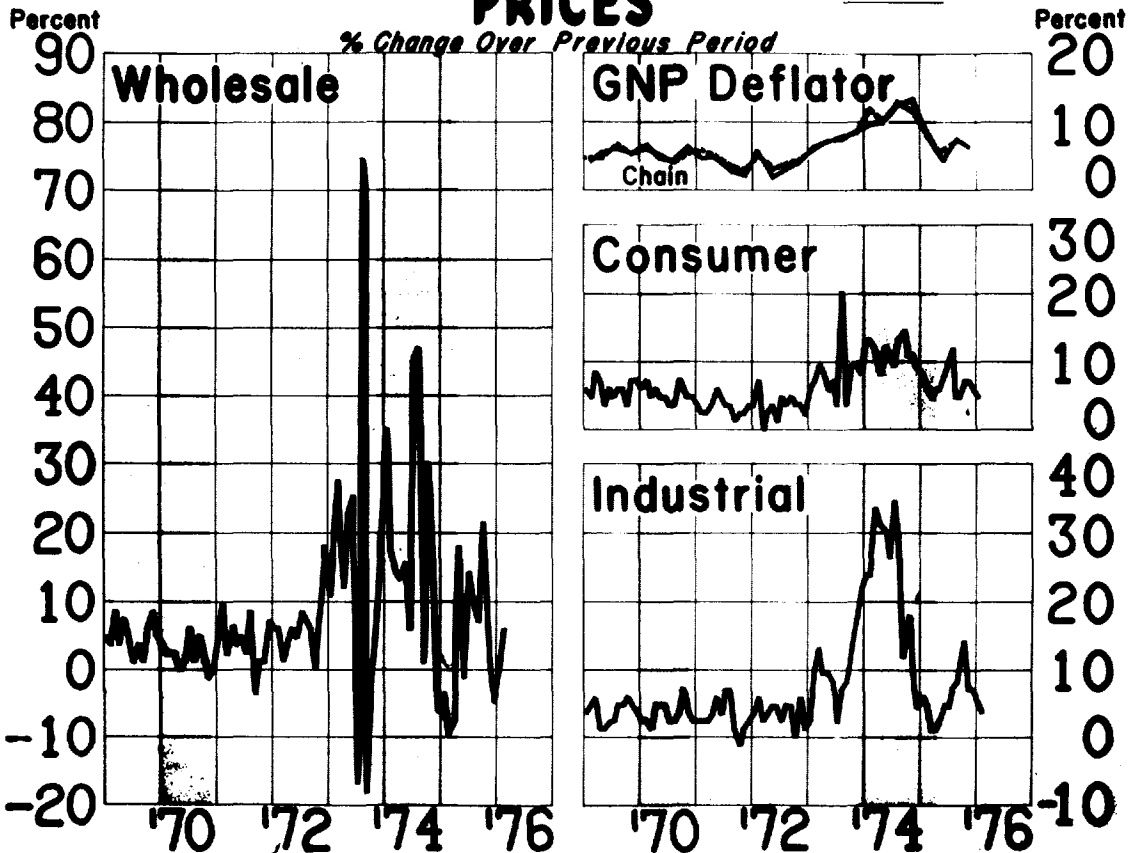
MR. HARWOOD ROSSER: This refers to the statement made that there has been a significant increase recently in the proportion of guaranteed contribution plans, vis-a-vis guaranteed benefit plans. An obvious reason is the desire to avoid the funding requirements under ERISA, as well as the strictures of the Pension Benefit Guaranty Corporation, especially the possibility of invasion of the sponsor's net worth, up to 30%, upon plan termination.

Speaking as a reporter, and not as an advocate, I presume that most of the plan administrators making this change are aware of a specter lurking in the wings: The possibility that equalization of pension benefits by sex may be required at some time in the future, either through regulation or through legislation. This idea has been discussed in this forum before. The most ardent advocate of this is the Equal Employment Opportunity Commission. They are already suing TIAA-CREF in two different jurisdictions; and a third suit of this nature has been filed by an individual retiree.

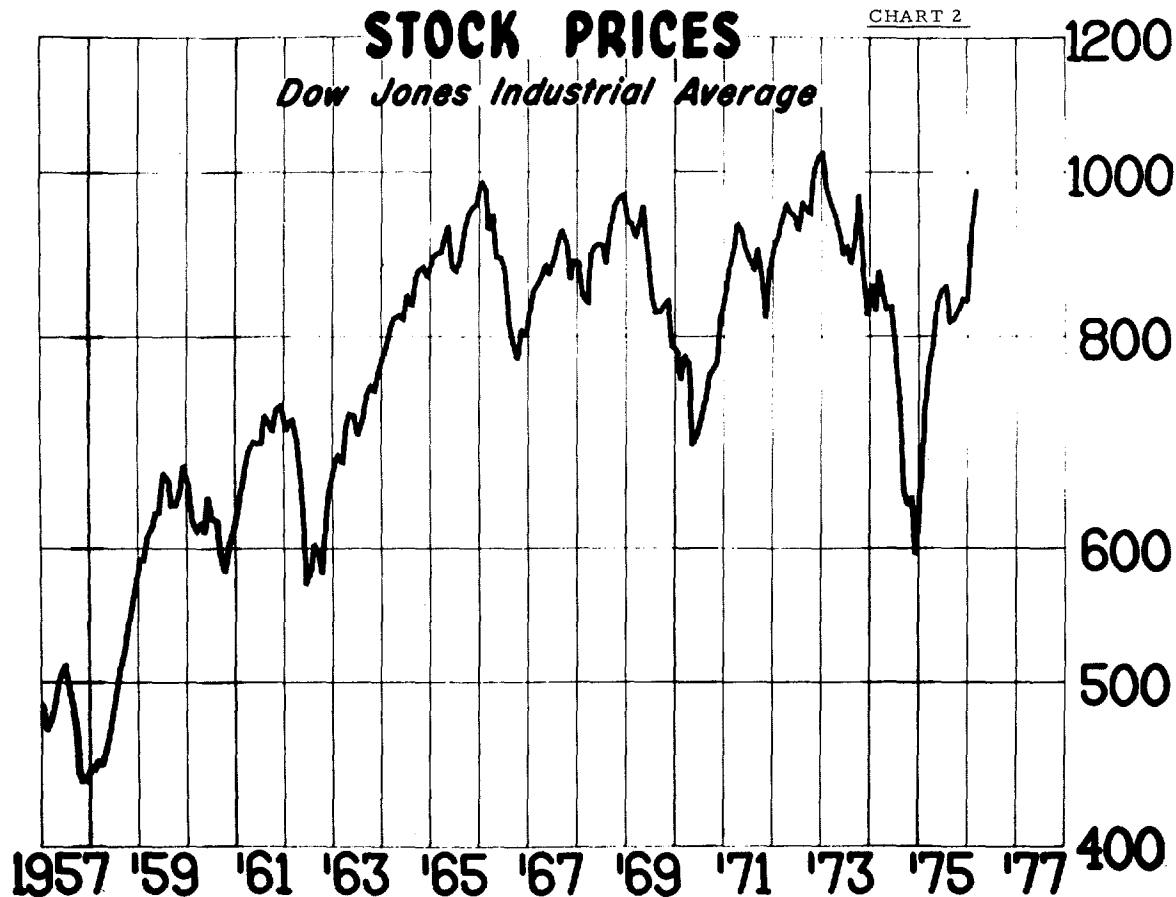
MR. HARRY M. SARASON: In regard to UNISEX, perhaps a change in the laws and regulations would help. For defined contribution individual funding plans, such as I.R.A., a 20% differential allowing more input for females than for males would allow approximately the same benefit for females as for males. This would be a UNISEX benefit.

PRICES

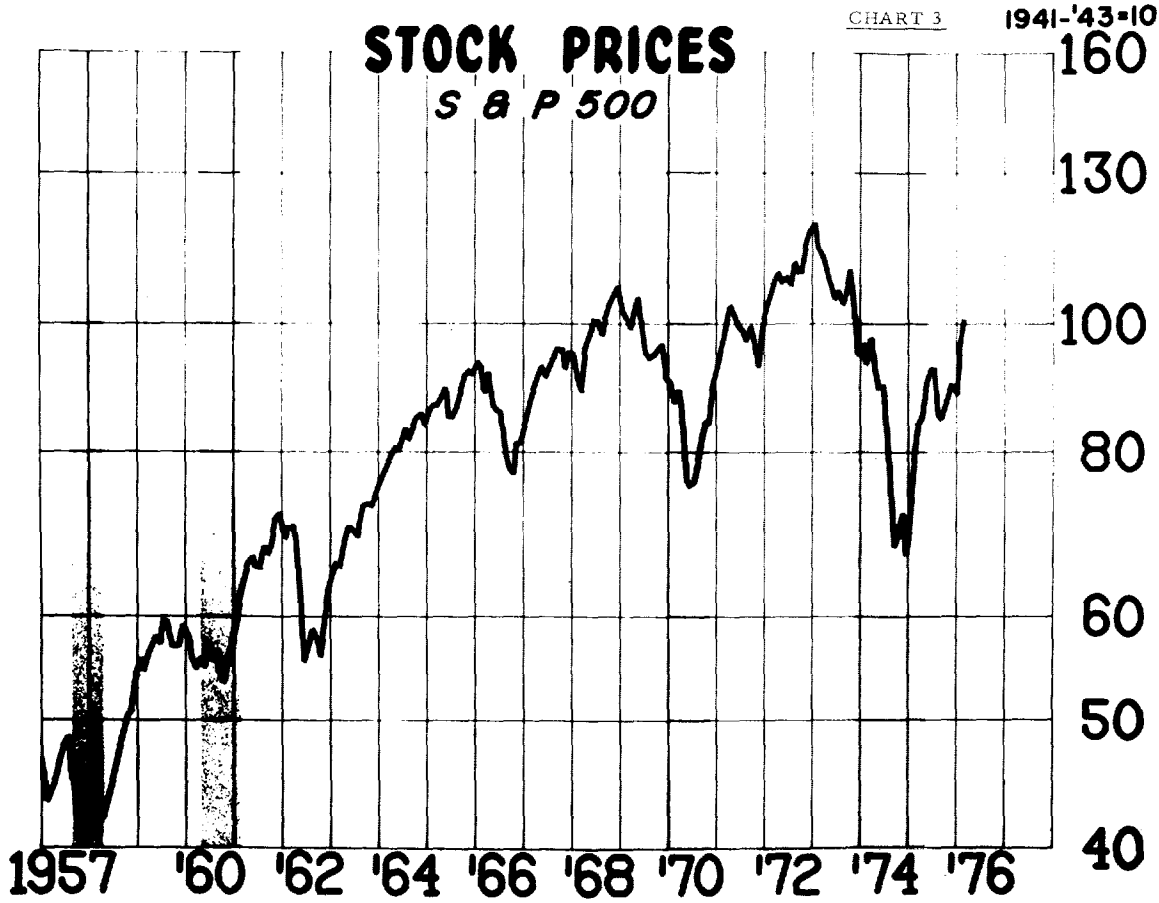
CHART 1



Source: U.S. Bureau of Labor Statistics and U.S. Dept. of Commerce, Seas. Adj. Ann. Rates



Source: Barrons Natl. Bus. & Finl. Weekly.

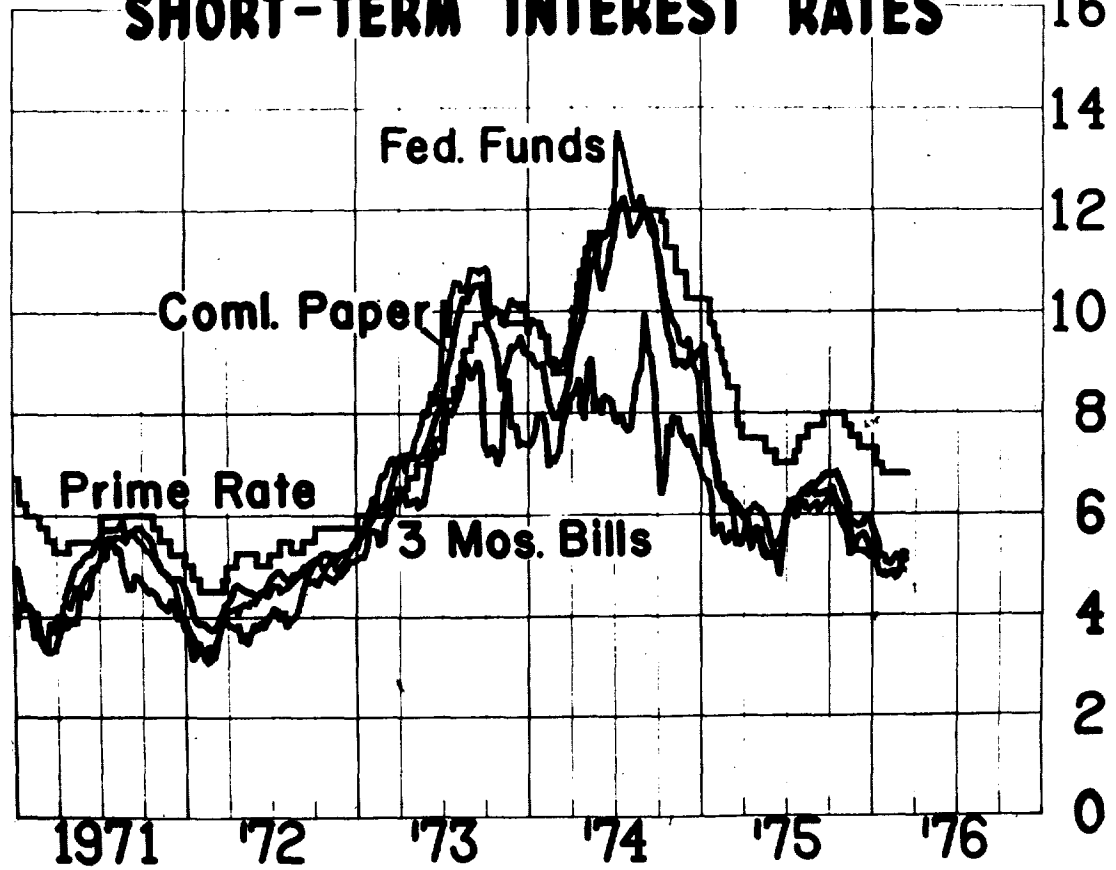


Source: Standard & Poor's

SHORT-TERM INTEREST RATES

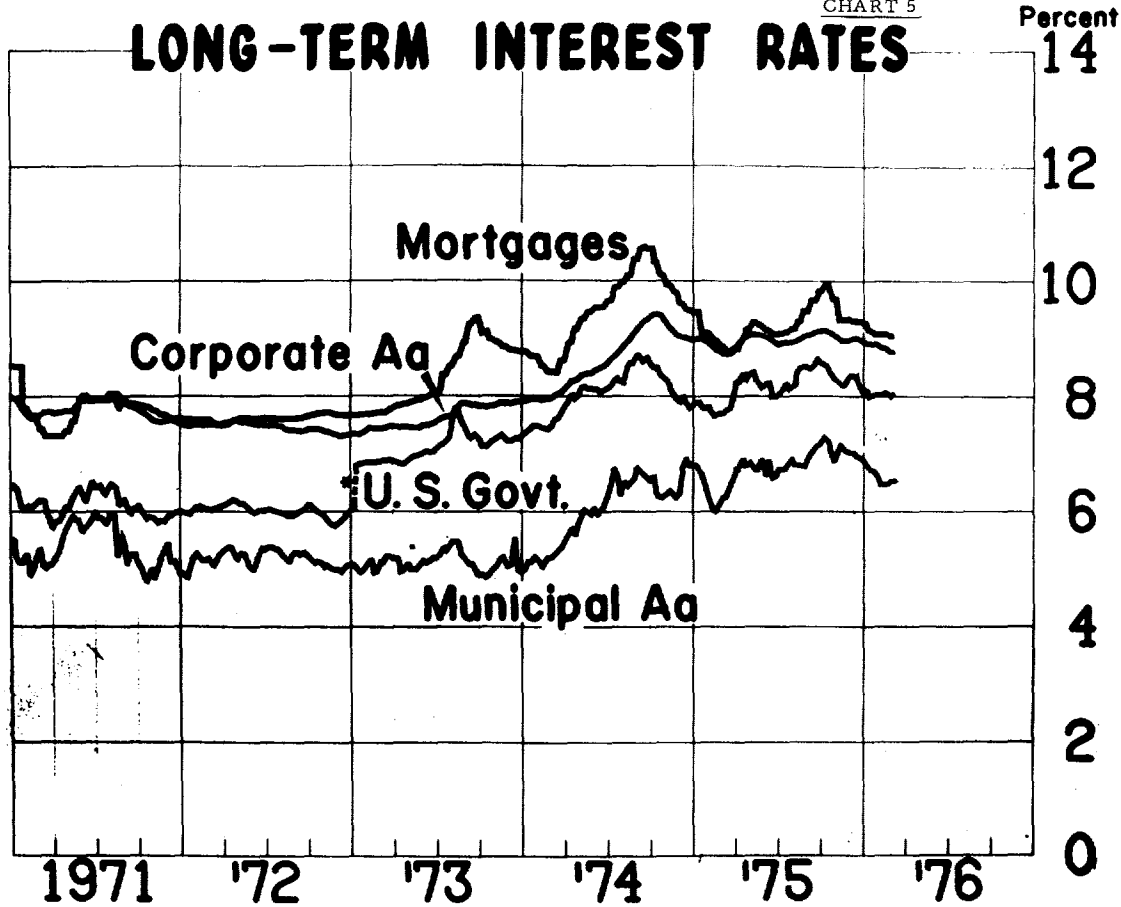
CHART 4

Percent

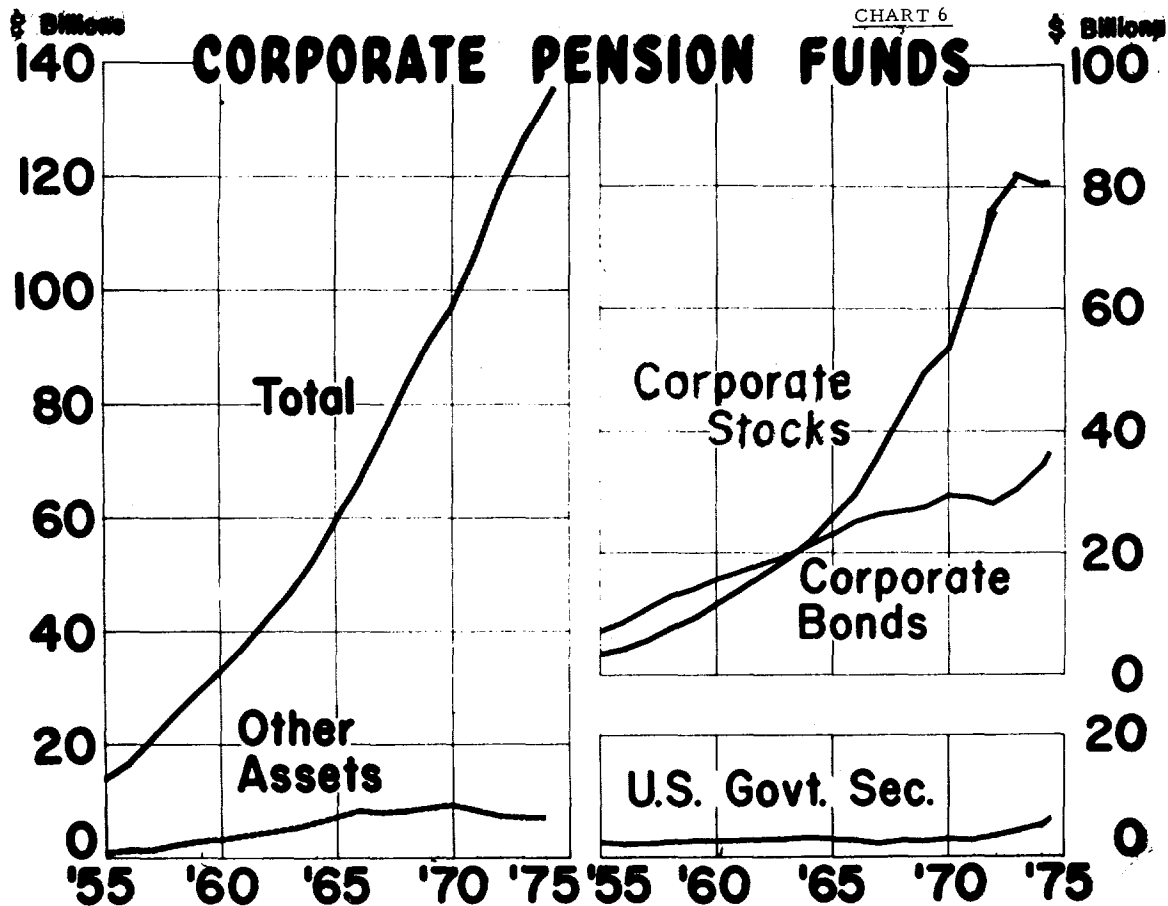


Source: Board of Governors of the Federal Reserve System

LONG-TERM INTEREST RATES



Source: Moody's Investors Service, Board of Governors of the Federal Reserve System. Revised Series.

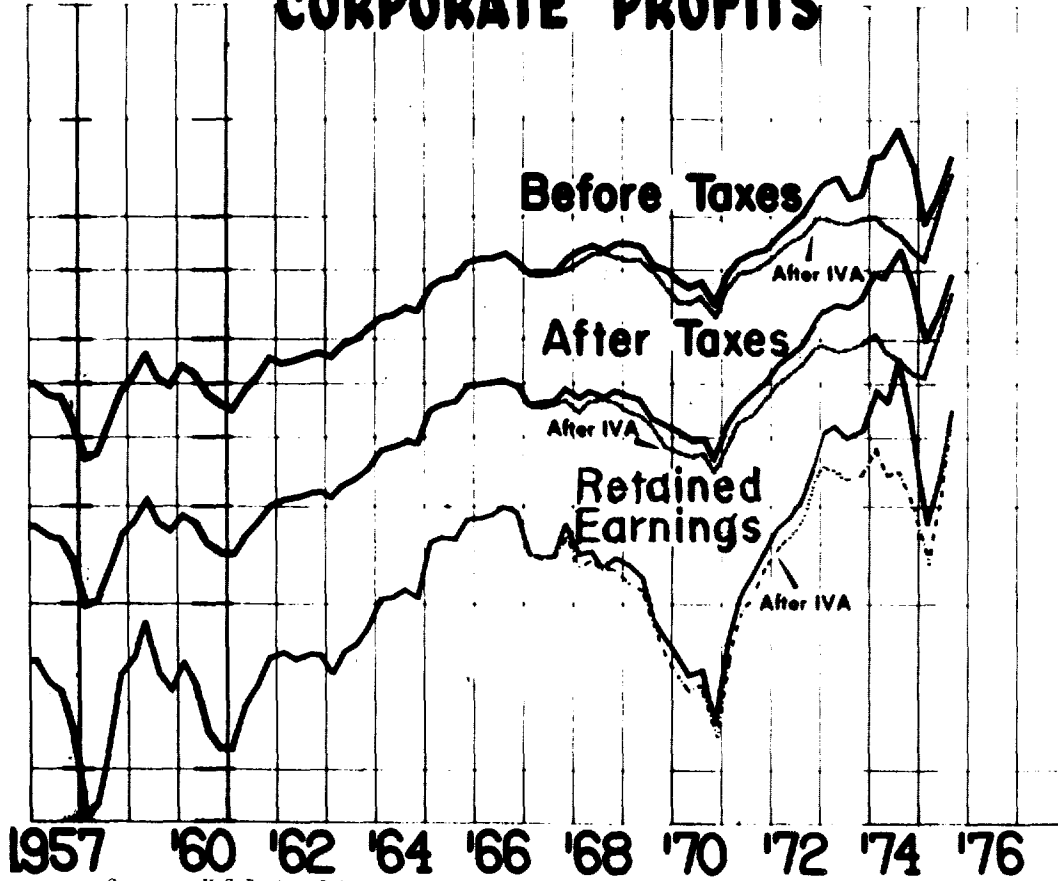


Source: Securities and Exchange Commission.

CORPORATE PROFITS

CHART 7

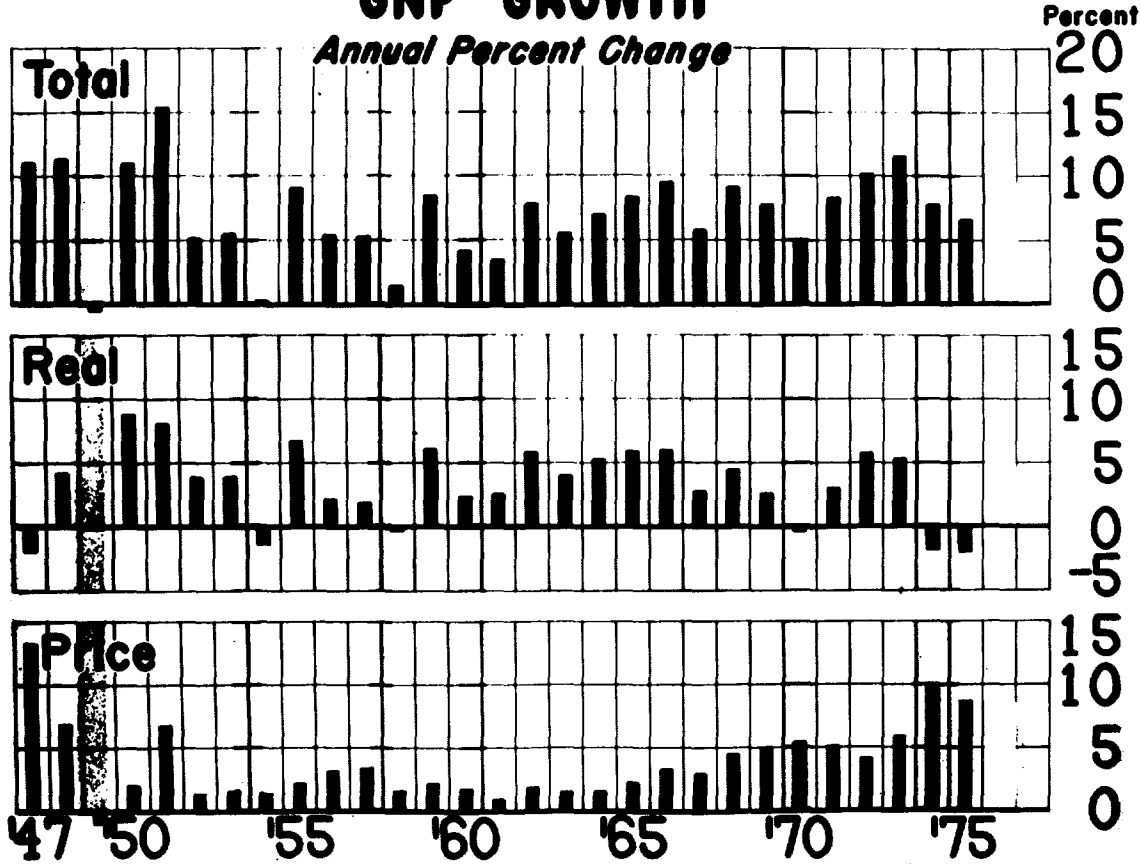
\$ Billions
240
150
100
60
40
20
10



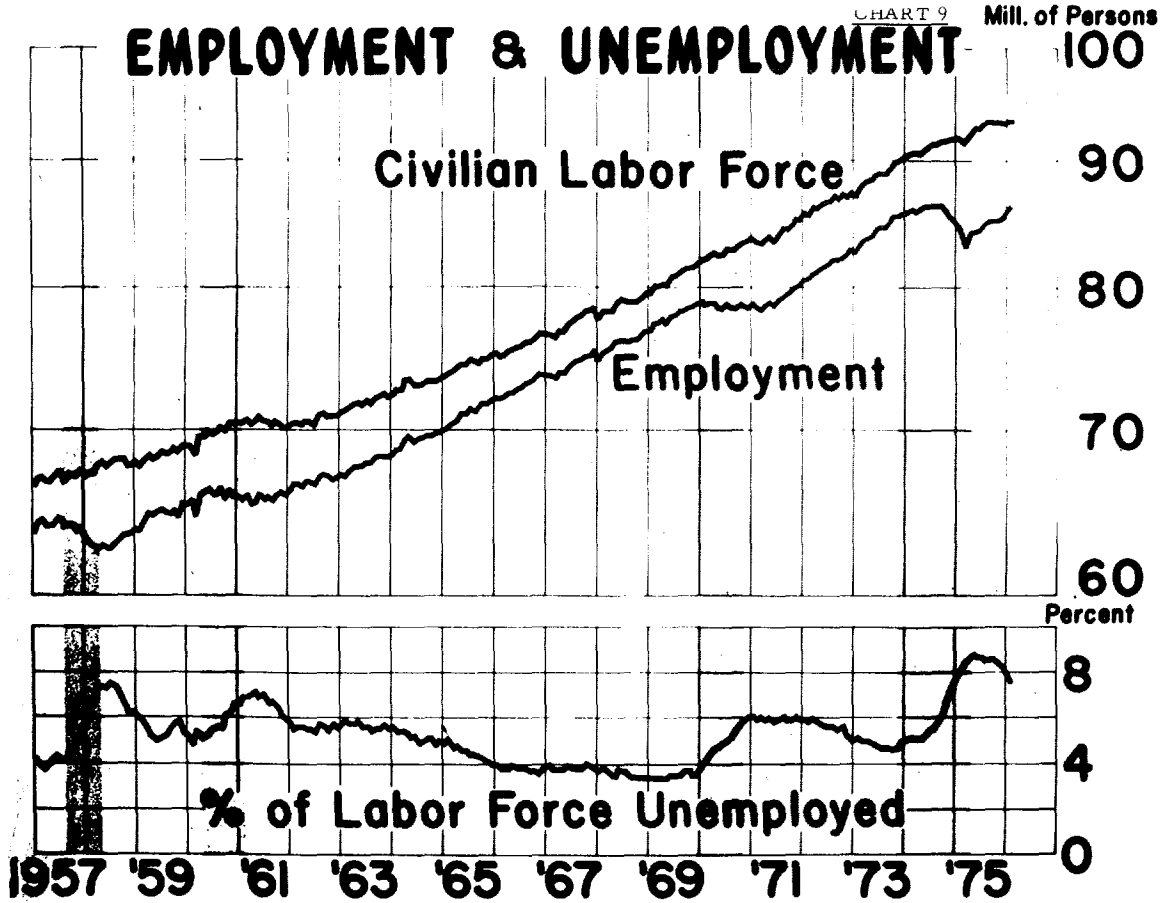
Source: U.S. Dept. of Commerce, Seas. Adj. Ann. Rates.

GNP GROWTH

CHART 8



Source: U.S. Dept. of Commerce.



Source: U.S. Bureau of Labor Statistics, Seas. Adj.