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Remarks by

Henry C. Wallich
Member, Board of Governors of the Federal Reserve System

at the

Regional Meeting of the
Society of Actuaries

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Washington, D.C.

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It is a pleasure to talk to the Regional Meeting of the Society of Actuaries about the protection of savings in a time of inflation.

Inflation has made it almost impossible for savers to achieve financial security. In times past, heads of American families could reasonably believe that, barring acts of God, they could safely provide for their family's and their own future. Today, inflation puts all provision for the future at risk. It is difficult to visualize a more drastic deterioration in the quality of civilized life than this.

Today, only the government can provide a degree of financial security. The Social Security System, whatever its financial vicissitudes, no doubt will always be able to take care more or less of its beneficiaries by drawing on one source of funds or another. The result is that, through inflation, a strong bias is created in favor of public and against private provision for the future.

Individual Savers and Inflation

The individual saver can protect himself against inflation, to a limited degree, by demanding an inflation premium over and above the interest rate. This premium, however, reflects at best a very uncertain guess as to the future. The bonds, mortgages, insurance policies and pension contracts that were written 10 or 15 years ago obviously were based on totally erroneous expectations of future rates of inflation. I hope and believe that the high inflation premia built into today's interest rates and contracts will turn out to be as excessive as their predecessors have proved inadequate. But there is really no way of predicting inflation. The economists' glib phrase "the expected rate of inflation" simply strikes an average across a wide range of ignorance. One should not be compelled to entrust the college education of one's children or the protection of one's widow to assets based on that kind of expectation.

In addition to this fundamental insecurity, inflation confronts the saver with a variety of difficulties that would remain even if the rate of inflation actually experienced did not deviate too drastically, over the average of the years, from the "expected" rate built into interest rates. I would like to review with you some of these problems as they affect different types of assets that the saver may acquire.

Bonds and Other Fixed Claims

Bonds come first on my list. Even though they are not generally held by households directly, they are indirectly held through households' interest in life insurance policies, pension funds and bank deposits.

If we assume, as has sometimes been asserted in the past, that the real, i.e., the inflation-free, rate of interest on high-grade corporate bonds is of the order of 3 to 4 per cent, the apparent inflation premium typically contained in coupons of newly issued high-grade bonds is of the order of 5 to 6 per cent. This corresponds roughly to the rate of inflation that has prevailed over the last year. It falls far short, of course, of the peak rates experienced in 1974. It is well above the average rate of inflation experienced since the period of relative price stability of the early 1960's came to an end. My observations will be addressed, not to its adequacy, but to various distortions introduced by inclusion of such a premium in the interest rate.

To begin with, the true meaning of an inflation premium depends heavily on the tax status of the recipient. To a nontaxable pension fund, the premium means more than for a taxable investor. For example, to an investor in the 50 per cent bracket the post-tax return is less than the amount of the supposed inflation premium. The real return, in other words, would appear to be negative. It is conceivable, however, unless virtually all bonds are sold to tax-exempt or low-tax investors, that more highly taxed investors nevertheless regard themselves as receiving a positive real return even after tax. They could take this view if they anticipate a lower rate of inflation. That would imply that the true inflation premium inherent in a 9 per cent coupon, for example, is less than appears.

If that were the case, and if these expectations were shared by non-taxable investors, the latter would be getting a higher return than they require. Their gain would be analogous, in an inverse sense, to the gain that high-bracket buyers of tax-exempt bonds enjoy when these bonds have to be sold in part to low-bracket investors.

The inflation premium, in an economic sense, is in fact a repayment of capital. The holder, if he accumulates these premia, keeps the purchasing power of his investment intact, assuming his inflation expectations to have been correct. The obligor, at the time of maturity of the bond, will owe a debt of greatly reduced purchasing power. But he will in effect have amortized it over the years. By the same token, the government, in treating the full interest it pays as an expenditure instead of as partly constituting debt repayment, is thereby overstating its deficit.

What has been called the "duration" of a bond thus becomes substantially shorter thanks to the high coupon. It implies that many borrowers will be issuing new debt more frequently to replace that which has in effect been amortized. The true meaning of the term structure of interest rates, i.e., the yield spread, differs somewhat under these conditions from what it appears to mean. Finally, there is a distortion in the national income accounts: true interest paid and received is overstated by the accounts, while corporate profits are understated to the extent that part of interest paid really represents repayment of principal.

How should we expect the saver to behave under these conditions? The long-term bond which he owns, directly or indirectly, in truth comes close to being an annuity. If he consumes the full coupon, he is in fact consuming his principal. For the beneficiary of a pension fund or a life insurance contract who is not concerned with a positive terminal value this may not be a matter to be seriously considered. For the outright investor the issue is crucial.

To the owner of savings deposits, similar considerations apply. He should regard as a real return only that part of the interest he receives that, after taxes, exceeds what he considers an appropriate inflation premium. A low-bracket saver holding a long-period savings certificate might find that he still receives a positive rate of return. For the average saver with a passbook account, the current rate permissible under Regulation Q recently has implied a negative real return. This can be said with assurance, because in the case of deposits payable on demand the loss of purchasing power is measured by the current rate of inflation better than by the expected rate, since the loss has already been realized.

Variable Rate Instruments

The market has to some extent put remedies at the disposal of at least the sophisticated saver. Money market and bond funds allow him to receive rates commensurate with the flexible rates paid and received by large borrowers and lenders. To the extent that such interest

rates reflect the rate of inflation, these instruments receive a variable inflation premium, i.e., enjoy a form of indexing. Some bank holding companies have issued medium-term notes tied to short-term rates, with redemption features enhancing their liquidity. Since the return on bank assets is relatively flexible, the issuer can offer such obligations without excessive risk. In the Euro-currency market, variable interest rates are charged to borrowers based on the prevailing interbank rate. Thus, there is no lack of instruments offering some form of indexation.

The question has often been raised whether it would be advisable for governments to offer an indexed obligation. The British government, caught up in the problems of much higher rates of inflation than those prevailing in most other countries, has issued two types of savings bonds which are protected against loss of purchasing power and are available in limited quantities to individual investors. The interest rate on these securities is minimal. Thus, as a price of protection against loss of principal, the saver is expected to forego a significant return. The response of the public to the bonds so far is reported to have been good.

In the United States, the Federal government has never issued an indexed bond. The objections raised to such a security have been numerous -- the openendedness of the commitment, possible pressures on private borrowers to offer similar instruments that would be excessively risky for them, the problem of what to do if prices should trend down

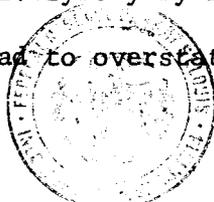
have been prominently mentioned. The principal objection has always been, however, that the offer of such a security would be taken as evidence that the government had given up the struggle against inflation. In view of the efforts that have been made and continue to be made to counter inflation, and of the significant degree of success that has been attained, this "throwing in the towel" objection would scarcely be plausible at the present time.

When I was a professor at Yale and somewhat inclined toward intellectual innovation, I had come to the conclusion that while it would be a mistake for the government to offer general indexing of its debt, it might be desirable to experiment with a small issue of indexed bonds. This would supply some experience of the terms on which the bond might be sold and could also save some money for the government, assuming that the interest rate required to make it saleable would be very low. It continues to be my purely personal view, not shared, I believe, by other members of the Federal Reserve Board, that experimentation with such a security would be desirable. I would regard it as unwise, however, to put a substantial part of the public debt on such a basis. That might induce other borrowers to do the same, would expose these borrowers to excessive risk, and would create other problems in the capital markets.

Stocks as a Hedge

From bonds and other monetary assets I now turn to equities. Scholarly research has shown that the stock market has protected the saver against inflation at best over long periods of time and often only with considerable lags. These two qualifications deserve to be underscored. In the inflation of the last ten years the stock market surely has offered very little protection. Over the decade ending 1975 the real rate of return on equities as indicated by the Standard and Poor's 500 stock index combining dividends and capital gains, has been negative: about minus three per cent. Since 1926, the starting point of the famous study by Lorie and Fisher showing an average annual rate of return of 8.1 per cent at year-end 1974 in current dollars, the return in constant dollars has been about 5.9 per cent. Over this period, therefore, the stock market has provided a return that covers the pure rate of interest plus a modest premium for risk after taking care of inflation. It has not done a great deal more. As a final sidelight on the stock market and inflation, I would note that during the interval between the recent return of the market to the neighborhood of the one-thousand level on the Dow-Jones index and its last prior attainment of that level, the Consumer Price Index advanced by about 30 per cent.

My main point with respect to the impact of inflation on the savers' equity holdings, however, goes to the relationship between inflation and corporate accounting. Everybody by now is aware of how inventory profits and underdepreciation lead to overstatement of corporate profits.



There is far less unanimity as to the kind of accounting system that can fairly and comprehensively portray inflationary effects.

Simply to adjust for these distortions, as the revised national income accounts of the Department of Commerce do, does not fully meet the situation. Such an adjustment does not take account of the fact that corporations are either net debtors or, less frequently, net creditors, and as such gain or lose from the change in the value of money. As far as the national income accounts are concerned, such gains or losses are not part of national income and thus very properly are excluded from the accounts. The net worth of corporations, however, is affected by the impact of inflation on their net debtor or creditor positions. This impact therefore needs to be separately accounted for.

The adjustments made by the Department of Commerce also do not take account of the fact noted earlier -- which is ignored also by the tax law -- that the inflation premium contained in the interest rate is a repayment of principal rather than an expense. By treating this premium as an expense, the debtor tends to understate his true profits. He does so all the more because his tax liability is reduced by the full amount of the interest payment including the inflation premium. Of course, corporations also receive interest which in part may represent return of principal. On these receipts, a corresponding inflation adjustment would be appropriate that would reduce profits.

The proposed price-level accounting principles of the Financial Accounting Standards Board would treat the gain or loss from the net debtor/creditor position as ordinary income. Logical though this may seem, it hardly reflects the true nature of this gain or loss. Corporations that are net debtors are in some sense made better off in a profit and loss sense. But the inflation gain accrues in illiquid form; it cannot be used to pay wages, dividends, or to increase plant, equipment or inventory, although in some circumstances a firm may be able to borrow against it. It does add to the tax burden. Accordingly, it has been pointed out that a corporation could continue to make good profits by this accounting system up to the day that it goes into bankruptcy.

Other accounting systems, such as current-cost or current-value accounting, seem to have more flexibility in this regard. The new requirement of the SEC for disclosure of replacement costs of inventory and fixed assets goes in the same direction. The principal criterion for potential usefulness to the investor, as it appears to me as a non-accountant, seems to be whether or not the non-cash inflation gains are taken into income or credited to some reserve or net worth account. Treatment of these non-cash gains as current income, ignoring their lack of liquidity, seems to me to risk seriously misleading the investor.

Given these complexities, it is not surprising that the stock market reflects and protects against inflation; if at all, only over long periods and with long lags. In addition, the saver

must always contemplate the possibility that corporate profits, upon which the value of his stocks rests, may be overtaken by one of the most basic propositions of economics: the law of diminishing returns. As the supply of man-made capital increases relative to other factors of production, its return must be expected to diminish.

Inventions and innovations may slow down, or perhaps altogether forestall, that development. At a time when many observers anticipate a shortage of capital, it would not be surprising to see the tendency toward diminishing returns temporarily reversed. What I am saying is simply that there is a great uncertainty about the return to equity in our economy, and that in times of inflation that uncertainty is greatly increased.

Real Estate and Inflation

Let me now comment on real estate, the third of the main categories of assets upon which inflation impacts. Real estate differs from man-made capital in that it has the law of diminishing returns working in its favor. Relative to other factors of production, the scarcity of land is increasing. In the United States, the real estate saver also has on his side the tax law, which allows him to deduct interest and taxes and to roll over some capital gains, in contrast to the owner of equities, who experiences double taxation of dividends.

But the saver whose principal asset is his home nevertheless is hit by inflation in a twofold way. The price of land and structures has been rising, and the interest rate at which these higher priced homes must be financed is higher likewise.

The homeowner, like the corporation, pays an interest rate containing an inflation premium. This means that he is amortizing his debt, in an economic sense, more rapidly than the familiar form given to him by the lender, showing the breakdown of his monthly instalments into interest and amortization, would seem to indicate. He is thus saving more than he may recognize, and perhaps more than he can afford to and maintain his desired consumption standards.

If inflation were to continue, the homeowner is likely to find, as the years go by, that the monthly payments become easier to meet because his income tends to rise. He may also find that the value of his home is appreciating. But in the meantime inflation may have made him "house poor" in a painful way. This is the reason for the numerous efforts that are being made to design and make palatable to the borrower and to the Congress novel types of mortgages with variable rates, graduated payments, and similar features that seek to overcome the adverse impact of inflation on saving in the form of homeownership.

Behavior of Savers

My talk has been concerned with the impact of inflation upon savings that already are in existence and need protection. I would like to conclude with a word on the behavior of households with respect to the savings that they are currently accumulating out of income. For many years, it was said that inflation would depress the propensity to save because people would not find it worthwhile to accumulate financial assets which were losing their purchasing power, or because people would rush out and buy things in order to beat inflation. In recent years, as inflation tended to accelerate all around the world, this prediction has not stood up well.

What we have observed has been a rise in the savings rate in most of the major countries. Since the inflation has coincided, to some extent, with mounting unemployment, it is not easy to disentangle the effects of inflation and recession. Recently, as both inflation and recession have begun to moderate, savings rates show signs of coming down. However, the desire to restore some normal relationship of wealth or liquid assets to income, in addition to the fear of losing a job, should be playing a role in pulling up the savings rate. Hence the prospect for continued high saving should be good. While there may be temporary spurts to overcome pent-up needs for durable goods, the restoration of savings

to the desired relationship to income would probably take longer.
People's desire to protect their future seems deeply engrained.
Bringing inflation down will make it easier to fulfill that desire
and must remain a major national objective until it is achieved.