INFLATION AND ACCOUNTING

Ex Post Notes on

Remarks by

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

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Speaking not as an accountant but as an economist, I am aware that I am taking a chance in discussing the impact of inflation on accounting. I shall begin with what is perhaps the most widely discussed aspect of this relationship -- the accounting for profits.

Profit Adjustments

Everyone knows that profits are distorted by inflation and how very difficult it is to come to grips with this phenomenon. The simplest cases are, of course, inventory and fixed assets. Accounting for inventory on a FIFO basis and accounting for fixed assets and their depreciation on an original cost basis both overstate "capital sustaining or economic" profits.

In its national income accounts, the Department of Commerce now makes allowance for these defects by referring to "operating profits." For example, in the third quarter of 1977 profits before taxes and before being adjusted for inflation

amounted to $174 billion or 9.1 per cent of GNP. Operating profits after making the Department of Commerce adjustments were 15 per cent lower, equal to only 7.8 per cent of GNP, a figure that is historically very low. And while the accounting and tax systems do not reflect this, the stock market does.

Moreover, the Department of Commerce makes its adjustment on the basis of straight-line depreciation and 90 per cent of Bulletin F useful lives. If fixed assets were depreciated at a more accelerated rate or were assigned shorter useful lives than those used in the Department of Commerce adjustments, underdepreciation resulting from inflation would turn out to have been even more severe.

Incidentally, the Department of Commerce adjustments are, of course, conceptually analogous to those required by the SEC for its 10-K reports. There, a statement has to be made about replacement costs of inventories and fixed assets. That statement can serve as a means of approximating the impact of inflation; but it falls far short of a complete evaluation.

These misstatements of profits have far-reaching effects on the economy. They interfere with the expansion of plant and equipment, with the progress of the recovery, and ultimately with the ability to create jobs. Perhaps the most critical difficulty in the present expansion is that businessmen are hesitant to make

commitments for new capital spending. At least one of the reasons for this is the profit picture. That is, although profits seem to be close to their historic percentage of GNP, inflation adjusted they are much less.

Devices for Compensating Profits Distortion

Some ad hoc devices that help to cope with the inflation problem do exist in our accounting system. Firms can value their inventories on the basis of LIFO. I am always surprised, however, to find that relatively few firms have shifted from FIFO to LIFO. Based on a 1976 survey of 600 firms taken by the American Institute of Certified Public Accountants, about 50 per cent of the firms were using LIFO in 1975, compared to about 25 per cent in 1973. Those firms that continue to use FIFO induce a larger degree of overstatement in profit determination.

Under-depreciation based on original cost can to some extent be compensated by accelerated methods of depreciation, by shorter Bulletin F lives, and by availability of the investment tax credit. However, these are not adequate substitutes for a more comprehensive inflation adjustment.

General-Price-Level Accounting

More sophisticated methods of dealing with inflation in the accounts of a company have been suggested. One is so-called general-price-level accounting (GPLA) which was proposed by the

Financial Accounting Standards Board (FASB) in their much discussed draft, "Financial Reporting in Units of General Purchasing Power," issued December 31, 1974. Although it has been applied in a tentative way by many firms, it now seems to be quiescent.

Moreover, I find GPLA potentially misleading. The key to GPLA is to revalue nonfinancial assets and equity by the rate of inflation without regard to the changing prices of individual assets. Doing this leads to the firm's net monetary asset position; a company is either a net debtor or a net creditor. During inflation, a company then benefits from a net debtor and suffers from a net creditor position.

When these GPLA adjustments are made, some very interesting results are obtained. A staff economist at the Federal Reserve Bank of Boston recomputed the domestic profits of nonfinancial corporations which in 1975 were $102 billion. When adjusted by GPLA methods, profits were reduced to $68 billion. Of that amount, moreover, only $44 billion were operating profits. Some $24 billion were profits resulting from a negative net monetary asset position, reflecting the fact that the corporate sector as a whole is a net debtor. These profits are of little value to the firm because they are not cash profits. No dividends, no taxes can be paid from them. If such profits were made the basis for tax liabilities, or, by internal corporate decision, the basis for dividend payments, the company would soon find itself in trouble.

For example, Con Edison was quite profitable by GPLA standards on the day the company cut the dividend. Thus, GPLA seems to me a dubious way of adjusting for inflation. There is one area where I believe it has applicability -- the banking system. To this aspect I will revert later.

Current Value Accounting

Current-value accounting (CVA) is another form of adjustment for inflation. CVA emphasizes the present value of assets and the way they may have appreciated or depreciated over time. This again is a noncash adjustment. It focuses on the value of assets and liabilities and the way in which they may have changed rather than on cash flows.

The same economist at the Federal Reserve Bank of Boston found that the 1975 profits just mentioned, $102 billion before adjustment, rose to $146 billion when adjusted to CVA methods. One reason for this is that when inflation strikes, interest rates rise. When interest rates rise, the market values of bonds that are already outstanding fall. By CVA standards, this decline in bond values represents a profit to the issuer.

Due to inflation, for example, a 4-1/2 per cent bond issued by a company years ago may now be selling at 70 in the market. The company could buy the bond at a profit of 30 cents on the dollar, and add that to its profit account. However, the last thing probably

that a company would want to do during inflation is to issue short-term debt in order to buy in long-term debt. In fact, the company probably would be very glad that it had that old debt outstanding. But this noncash item goes to swell total profits by CVA methods.

Pushed to an extreme, if a company were in really bad shape and its bond depreciated severely, the CVA method would suggest mounting profits. If tax liability were based on these profits, the company could go into receivership. This kind of current-value accounting, therefore, would not be a helpful procedure to adjust corporate profits for the effect of inflation.

For a test of a sensible approach to the adjustment of profits for inflation, look at the stock market. The market is not fooled by phony profits. Any accounting system trying to adjust for inflation ought to reflect the judgment and the verdict of the market. It ought to produce a stated level of profits approximately equal to what the market seems to think is the level of profits. During 1974 and 1975, stocks were very low. Many enterprises were selling at large discounts from book value. Those years, of course, were a period of maximum impact of inflation on profits. The market seemed to say that, in 1974-75, profits were exceptionally low.

Bank Profits

Of particular interest is the problem of bank profits during inflation and how to deal with it from an accounting point of view. Banks differ from other corporations in that nearly all of their assets are monetary. Therefore, it seems to make sense to apply a general price index to the valuation of bank assets and bank liabilities, as GPLA does. When both assets and liabilities are mostly in money, the value of money as measured by either the consumer price index or the wholesale price index or the GNP Deflator does become meaningful. It is clear, therefore, that general-price-level accounting seems to be most nearly applicable to banks.

Let us look at the structure of a bank's balance sheet. All its assets are monetary, except the building it may own which is usually a small part of a bank's assets. Its liabilities, by definition, are monetary. It also has equity capital. Typically bank equity capital amounts to from six to ten per cent of total assets. The value of the building, if any, normally is substantially less than the equity. Thus, banks typically are net creditors. Their monetary assets exceed their monetary liabilities. And a net creditor is, of course, a loser in inflation. Banks are natural losers in an inflation.

Bankers may think that their profits are adequate because they make 10-13 per cent on capital after taxes, of which they pay out only one-third to one-half in dividends while retaining the rest. But GPLA indicates that the truth, as far as accounting can reveal it, is

otherwise. In 1974, banks actually paid out in dividends more than their GPLA-adjusted earnings. In two other years, 1973 and 1975, their earnings barely exceeded dividends.

Banks paid taxes, however, on unadjusted earnings. Therefore, when relating bank taxes to adjusted earnings for those years, the rate turns out to have been twice its reported value. Meanwhile the GPLA-corrected rate of return on equity for the period has been of the order of 3-5 per cent, instead of a reported 10-12 per cent.

Taxes and dividends are real. Profits are an accounting phenomenon. What inflation is doing to banks is a form of decapitalization.

Another aspect of banking during inflation reflects certain losses caused by inflation. The problems of the REIT's have to do at least in part with inflation and rising interest rates.

Let me turn to another aspect of the banking system under inflation. While it has to do perhaps as much with losses as with inflation, many of these losses have been produced by inflation. In particular the problems of the REIT's have in good part been caused by inflation and rising interest rates, although also, of course, by ill-conceived projects.

One possible way of dealing with the accounts of a bank is to apply current value accounting and to require a bank to write down to market instantly its weak loans. Suppose a bank owns bonds that it

has bought at par. Meanwhile the bonds have gone down to perhaps 70. Should the bank write off that depreciation immediately even though presumably the bonds will eventually be paid off at par? A current value accounting system says write "it off now." And if that were done, capital might have been reduced and the bank might have to be closed.

Applying this technique to the banking system can have drastic consequences. It carries us back to the conditions of the 1930's when examiners did something similar. They went into the banks, looked at the bond portfolios, which sometimes were well below cost and made those banks write off such bonds. Many banks were closed in consequence. In 1938, the bank supervisory agencies concluded that this was not a good system. The examiners were instructed to give the banks time to work out some of their depreciated assets or to wait until they recovered. This involves the risk, to be sure, that a bank may carry an asset too long at book value instead of making proper adjustments on its books for a probable loss.

There are good reasons nevertheless for proceeding as we have been doing since 1938, letting a bank postpone a write-off if there is the prospect of collecting at maturity -- based on considerations that are implicit even in the "Conceptual Framework" of FASB. I refer to the theory of risk diversification. That theory says that assets that move independently in price, so that one asset may improve while another

deteriorates, are helpful in limiting risk exposure. Risk increases when all of a bank's assets depreciate at the same time.

Therefore, when banks diversify their assets, and it turns out that some assets do well and some do less well, they are following that portfolio philosophy. Their assets then should be looked at as a portfolio, rather than as individual pieces. If any one of them does badly, it need not be written off immediately, but should be given a chance to work out. Else diversification would become very difficult. A bank could then only focus on the safest assets. A diversified portfolio instead allows a bank to take somewhat larger risks on individual assets. Such a strategy does, of course, require acceptance of the prospect of losses on some of the higher risk assets. If those losses are compensated by better performances of other assets, the overall performance of the portfolio will be superior. In a well put together portfolio there will almost inevitably be some losses just as there will be some successes. The accounting system should make it possible for the bank to carry these assets temporarily rather than to write them off immediately.

Inflation Premia in Interest Rates

Let me turn to another problem that inflation poses for savers, for investors, and, therefore, for accountants. I refer to the treatment of the inflation premium that the market has built into interest rates. We all understand that an 8 or 9 per cent interest

rate is not a normal economic rate. The "real" interest rate has been estimated to be in the range of 3 per cent. The rest is inflation premium. If inflation proceeds indefinitely at a rate of 5-6 per cent, then a bond bearing 8 or 9 per cent interest provides an inflation premium just enough to cover the inflation loss to the investor.

But this investor must be nontaxable in order to get an adequate benefit from the inflation premium. For a pension fund or for Yale University, a 5 or 6 per cent inflation premium takes care of the depreciation of the purchasing power of a bond in an ongoing 5-6 per cent inflation. It becomes in effect a continuing repayment of capital, the remaining value of the debt being reduced (by inflation) in real terms. A taxable investor who pays, say, 50 per cent tax on his 8 per cent interest, has 4 per cent left after tax. After 5 or 6 per cent inflation the real return to this investor is negative.

The reverse is true from the side of the debtor, who might be a corporation or a homeowner. To the debtor, the 8 per cent interest is tax deductible. The 5 per cent inflation premium, in effect a repayment of principal, is part of the deductible amount. The government thereby helps the debtor and hurts the creditor. Since inflation by its nature hurts the creditor and helps the debtor, we hardly need the government, with its tax laws, to add to the difficulty. But that is exactly what happens. The government, by insisting on

taxability and tax deductibility of the inflation premium intensifies the effect of inflation.

This, incidentally, also further intensifies the inflation itself. A firm paying an interest rate of 8 per cent presumably builds that interest rate into its price, treating it as a cost. Actually, what it is doing is to charge to the customer part of the amortization of its debt, by raising its price. Inflation thus accelerates.

Cost of Capital

These cost distortions are at least matched by further distortions which relate to the cost of capital. I said earlier that for a taxable debtor the real interest rate may be negative. That would suggest that capital would be cheap to a corporation. However, that is not so. The cost of capital to a corporation is a composite of interest cost and the cost of equity capital. The cost of equity is represented not so much by the income that needs to be earned on new issues, which today are infrequent. It is determined mainly by the equity that is outstanding and by what has to be earned on it in order to induce the stockholder to hold his stock at the going price. Today, in the face of a low real interest rate, the cost of equity nevertheless is very high. This is implicit in the price/earnings ratios observable in the stock market, which are very low. A price/earnings ratio of 6, where years ago one might have seen one of 18, means that the cost of

equity capital to that corporation has become 16.7 per cent when earlier it was 5.6 per cent. Since much the biggest part of total new financing is by means of equity, including, of course, retentions, the dominant element in the cost of capital is in fact the cost of equity capital. Its very high cost today outweighs the low cost of debt. The overall cost of capital, therefore, is high. This is another reason why today business investment is sluggish.

Inflation is at the bottom of this high cost of capital. It is inflation that the market responds to when it lowers the multiples. Recent experience has shown that rising expectations of inflation adversely affect stock prices. The causal chain seems to run from higher inflation to higher interest rates to lower stock prices, and from higher inflation to lower operating profits after taxes to lower stock prices. The distortions that, as we have seen, enter into the economic calculus through these various channels, enhance the adverse effects of inflation.

Capital Gains Taxation

Let me supply one last instance of the impact of inflation on accounting that promises to become relevant if one of the tax reform proposals that have been about should attract further attention. It has been proposed to tax capital gains at ordinary rates, with no allowance to be made for inflation in evaluating these capital gains.

This is being argued despite the fact that for many investors the value of their stock mainly reflects past inflation. In real terms, i.e., in constant dollars, such holdings often show little gain or even a loss.

The justification given for this deliberate disregard of the effects of inflation is one that does not stand up under analysis. It is argued that no inflation adjustment should be made for investors because none is made under the tax system for other income receivers. People who earn income from employment likewise are exposed to higher taxes as inflation raises them into higher tax brackets. If no adjustment is made for this (as a matter of fact, periodic tax cuts to offset the shift into higher tax brackets frequently are proposed), there also should be no adjustment for the inflation effect on capital gains. I think this is a profoundly wrong argument.

This can be seen easily when one traces through what is the effect of inflation on a taxpayer with employment income and one with only investment income. Suppose the taxpayer with employment income has the median family income of about $14,000. Assume, for simplicity, 10 per cent inflation. If all prices and incomes adjust perfectly, this raises the taxpayer to $15,400. Suppose a second taxpayer with $14,000 investment income. If everything adjusts perfectly to inflation, including dividends, that investment income will go from $14,000 to $15,400. For both taxpayers taxes increase equally, by something more

than 10 per cent, reflecting the progressivity of the tax structure. But this is true only if the taxpayer receiving only investment income does not make any portfolio changes. If, as in this example, everything adjusts perfectly to 10 per cent inflation, he will have unrealized gains (over and above his initial position) of 10 per cent of his portfolio. Let us suppose that, at a 5 per cent yield, his $14,000 income implied initial assets are $280,000. Inflation raises these by 10 per cent to $308,000. He has a nominal profit of $28,000 and, if he realizes this, he now pays capital gains tax. The taxpayer has had no real gain at all. Even if he paid at less than ordinary rates, he would be worse off than the taxpayer whose income is from employment. He would have suffered a loss in real terms. It is clear, therefore, that no inequity would be involved in making an inflation adjustment for capital gains even if none were made for ordinary income. Failure to make such an adjustment would convert the capital gains tax into a capital levy with further damage to capital formation and investment incentives.

My talk has covered a random assortment of instances in which inflation distorts nominal magnitudes. It is up to the accountants to find ways of dealing with these problems. The techniques I have described go part of the way, but some of them do not even go in the right direction. Better approaches are needed. This, I think, is the conclusion at which one must arrive from the point of view of the accounting profession in the face of a continuing inflation.

There is a broader conclusion, however. That conclusion is that inflation probably cannot be fully coped with by accounting techniques. Inflation damages the economy no matter how profits, taxes, values of assets and liabilities are restated. The only way to avoid the damages, and to get back to more meaningful accounting data, is to put an end to inflation itself.

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