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REPORT ON U.S. EXPERIENCE ON INFLATION AND THE TAX STRUCTURE

PREPARED FOR THE INTERNATIONAL FISCAL ASSOCIATION

BY

HARVEY GALPER
U.S. TREASURY DEPARTMENT

JOHN MENDENHALL
UNION PACIFIC CORPORATION

ASSISTED BY
MICHAEL KAUFMAN
U.S. TREASURY DEPARTMENT

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This paper was written as a report on United States experience on inflation and the tax structure for the International Fiscal Association (IFA). The IFA is an association of government officials, lawyers, accountants, corporate executives, and members of the academic community who deal with tax issues having international significance. In preparing this paper, the reporters were responding to an IFA questionnaire, which specified both the particular topics to be covered and the order of coverage. This report will be published by the IFA in its series, Studies on International Fiscal Law.

A. Background

1. Table 1 shows the behavior of several price indexes since 1950 and corresponding inflation rates. These measures indicate that inflation has become an increasingly serious problem in recent years. As shown by the table, inflation averaged 1½ to 2½ percent from 1950 to 1965 and generally declined over the period. In contrast, the inflation rate averaged over 4 percent from 1965 to 1970 and has exceeded 6 percent since 1970. Based on December to December changes in the consumer price index, the inflation rate was approximately 12 percent in 1974 and 7 percent in 1975.

2. Recent U.S. inflation can be explained by the monetary and fiscal policies pursued by the government and other external factors. A consistent feature of the last ten years of U.S. experience has been the tendency for growth in the money supply to outpace the growth of real output. Inflation is an almost inevitable by-product of such a policy. Money supply growth has in part resulted from the deficits of Vietnam and subsequent years as monetary policy was directed towards accommodating the interest rate and other credit market effects of these deficits.

Furthermore, partly as a result of stimulative government spending, the economy was operating at high rates of capacity utilization during the 1968-69 period, thereby setting the

Table 1. Statistical Measures of United States Inflation, 1950-1975

(1967 = 100)

Year	Consumer Price Index	Wholesale Price Index	GNP Deflator	Fixed Investment Deflator
1950	72.1	81.8	67.9	71.8
1955	80.2	87.8	77.2	82.3
1960	88.7	94.9	86.9	91.3
1965	94.5	96.6	94.0	93.8
1966	97.2	99.8	97.1	96.8
1967	100.0	100.0	100.0	100.0
1968	104.2	102.5	104.5	104.3
1969	109.8	106.5	109.7	110.4
1970	116.3	110.4	115.6	115.8
1971	121.3	113.9	121.5	121.8
1972	125.3	119.1	126.6	127.1
1973	133.1	134.7	134.0	134.7
1974	147.7	160.1	147.0	149.4
1975	161.2	174.9	159.9	168.5
Average Annual Rate of Price Change:				
1950-55	2.15	1.43	2.60	2.78
1955-60	2.04	1.57	2.40	2.10
1960-65	1.27	0.36	1.59	0.52
1965-70	4.24	2.71	4.21	4.30
1970-75	6.75	9.64	6.71	7.80
1973-74	10.97	18.86	9.71	10.94
1974-75	9.14	9.24	7.87	12.76

stage for subsequent inflation. Price controls initiated in 1971 suppressed inflation, but also led to supply shortages in such commodities as metals, petrochemicals, lumber, and raw materials generally, so that the effective removal of controls in 1973 (on all but oil and gas) led to rapid price increases.

Other events have also had an inflationary effect. The widespread declines in agricultural output first in the Soviet Union in 1972 and then in the United States in 1974 put upward pressure on food prices. Similarly, the 1973 OPEC policies sharply raised the world price of oil.

It may be of interest to compare the inflationary experience of the last 10 years with that of the 1950-1965 period. The earlier inflation rate was much lower as were the magnitudes of Federal deficits and the difference between growth in the money supply and in real output. Two periods, 1952-52 and 1956-58, stood out as being times of especially rapid inflation. Inflation in the former period has been attributed to the deficits associated with financing the Korean War and the dismantling of price controls. The inflationary spurt in 1956-58 has been explained by reduced supplies of some agricultural commodities and higher oil prices occasioned by the Suez crisis.

In the 1970's inflation became much more of a policy concern. In August 1971, a price control system was implemented.

These price controls have been discontinued, except for domestic oil and gas, and have been replaced by a policy which calls for gradually winding down inflation by holding down aggregate demand, particularly through restoring budget balance and moderating monetary expension. However, current policy to reduce inflation has been constrained by the high rate of unemployment prevailing in the economy.

B. Measures to take account of inflation

General

1. The general attitude of the Congress and the state legislatures is that tax liability is based on nominal income and historic cost asset valuations where such valuations are used in the calculation of income. Congress and the state legislatures have generally not dealt with the problems of income measurement which arise in periods of inflation. In the tax structures of the United States, any departures from this principle of nominal values are the sole jurisdiction of Congress and the state legislatures. Tax authorities and the courts have no authority to deal with inflation issues because the statutory structure is specific.

2. While legislation in the U.S. has never included measures that were specifically designed to make the tax system inflation neutral, various tax changes have been enacted over the

last 15 years that have had the effect of moderating the rise in individual tax burdens which otherwise would have occurred. The changes in tax law have generally included increases in the standard deduction and personal exemptions and decreases in the structure of tax rates. The effects of these changes have been to maintain the real rate of taxation, particularly for low- and moderate-income taxpayers. At times the changes were explicitly made to adjust tax burdens for inflation, but more frequently, the changes have been adopted simply as tax cuts or as simplification measures. A more detailed account of these changes is given below in Section 3.

Other tax changes which have been made during this same period, have had the effect of reducing the tax burden on income from capital. These, discussed more fully in Section 4 below, include investment tax credits and general permission to use accelerated depreciation methods. These changes have not generally been advocated as direct corrections for inflation but rather as stabilization devices and as measures for promoting a more realistic measurement of income. But to the extent they were enacted during inflationary periods, they incidentally moderated the inflationary distortion of tax burdens on income from capital.

The decline in the real value of tax provisions which are denominated in dollars--such as, exemptions, standard deductions, and tax brackets--is to be distinguished from the difficulties

in measuring income in an inflationary environment. 1/ Standard income measurement techniques tend to mismeasure income from capital during periods of inflation. This erroneous measurement of capital income results from tax law and accounting conventions in four separate areas--depreciation, inventories, capital gains, and holdings of financial assets and liabilities. In each case, income mismeasurement results when there are lags between the time an asset is acquired (at one price level) and the time it is sold or produces income (at a higher price level). The income measurement problems in each area along with features of U.S. tax law which may have the effect of compensating for inflation are discussed in Sections 4 through 6 below. Section 3 does not deal with issues of income measurement but considers inflation adjustments resulting from changes in provisions of the tax code denominated in dollars.

Income tax, corporate tax, tax on capital gains

3. This section provides a brief account of the general structure of U.S. personal and corporate taxation and discusses major changes in this structure which have had the effect of adjusting for inflation.

The basic structure of the personal income tax is fairly simple. The taxpayer adds up all his income from taxable sources (adjusted gross income or AGI), subtracts certain allowable deductions and exemptions for himself, his wife, and his

other dependents, and applies tax rates to the remainder which is taxable income. In taking deductions, taxpayers have the option of itemizing 2/ or using the standard deduction provisions. The standard deduction which can be taken is the greater of either a minimum dollar amount or a percentage of AGI subject to a maximum dollar amount. The personal exemptions and the tax brackets also refer to fixed dollar amounts. While the expenditures which a taxpayer may itemize increase automatically with inflation, the fixed dollar deductions, exemptions, and bracket widths can be increased only with Congressional approval. In 1975, Congress did, however, provide one automatic adjustment by tying to the consumer price index the maximum allowable contributions and the amounts of benefits under qualified pension and profit sharing plans which provide tax deferral advantages.

Table 2 gives a summary of the changes in the standard deduction, exemption, and tax rate provisions since 1960. The more recent increases in the percentage standard deduction have been explained by Congress as a necessary response to inflation in order to maintain parity between taxpayers who take the standard deduction and those who itemize. Similarly, the minimum standard deduction increases have been supported by the argument that, as a result of inflation, tax-free income levels had failed to keep up with poverty income levels.

Table 2

Summary of Principal Individual Tax Changes, 1960-76

Year	Standard Deduction Provisions 1/			Personal Exemption	Bracket Rates 2/	
	Minimum	Percentage Standard Deduction				
		Percent of AGI	Maximum	Per Family Member	Low	High
1960	$267	10	$1,000	$600	20	91
1961	267	10	1,000	600	20	91
1962	267	10	1,000	600	20	91
1963	267	10	1,000	600	20	91
1964	600	10	1,000	600	16	77
1965	600	10	1,000	600	14	70
1966	600	10	1,000	600	14	70
1967	600	10	1,000	600	14	70
1968	600	10	1,000	600	14	70
1969	600	10	1,000	625	14	70
1970 3/	1,100	10	1,000	675	14	70
1971	1,050	13	1,500	750	14	70
1972	1,300	15	2,000	750	14	70
1973	1,300	15	2,000	750	14	70
1974	1,300	15	2,000	750	14	70
1975	1,900	16	2,600	750 4/	14	70
1976	1,900	16	2,800	750 5/	14	70

1/ Standard deduction for taxpayers who do not itemize is determined by taking the greater of the minimum standard deduction or the percentage standard deduction.

2/ The Tax Reform Act of 1969 introduced a maximum marginal tax rate of 50 percent on earned income which became fully effective in 1972.

3/ Because of special phase-out provisions in 1970, the minimum standard deduction exceeds the percentage standard deduction at very low income levels.

4/ Also eligible for a $30 tax credit per exemption.

5/ Also eligible for a $35 tax credit per exemption.

Table 3 has been developed to assess the degree to which these periodic tax changes have offset the tax increases that would otherwise have been caused by inflation. The years shown in this table have been selected to indicate major changes in tax law. Aside from income measurement problems, if individual tax reductions had perfectly offset inflation, effective tax rates would have stayed the same over time for each real income level. Table 3 shows that despite persistent inflation, the periodic tax reductions have generally prevented effective tax rates from rising for low- and middle-income taxpayers although not for upper-income taxpayers. 3/

Table 3

Effective Tax Rates on Families of Four at the Same Real Income Levels in Selected Years

Year	Real Income Level (In 1975 Dollars)			
	$5,000	$10,000	$20,000	$50,000
1963	0	8.4	13.1	20.6
1965	0	6.4	10.9	17.4
1969	1.7	8.0	13.0	20.8
1972	0	6.8	11.8	19.9
1974	0.9	8.2	12.9	22.1
1975	-6.0 1/	7.1	13.0	23.1
1976	-5.0 1/	7.3	13.2	24.0

Note: This table assumes all income is correctly measured. Each family is assumed to have two dependents and file a joint return to take either itemized deductions equal to 16 percent of AGI or the standard deduction, whichever is higher.

1/ The effective tax rate is negative since a provision in 1975-76 tax law provides a tax credit to persons with less than $8,000 of income with an actual cash payment made to the extent that the credit exceeds tax liability.

Of course, automatic tax cuts would have deprived Congress of the political gains to be had from these discretionary reductions. On the other hand, under a progressive tax structure, even one that is indexed, taxes will rise more than proportionately with increases in real incomes, thereby affording some opportunities for discretionary tax changes.

Recently legislated tax changes have been particularly sensitive to those families at or near poverty levels of income as published by the U.S. Bureau of Census. It is possible to determine whether the periodic tax reductions of Table 2 have kept poverty level income from being subject to tax. Table 4 compares poverty and tax-exempt income levels for five-year intervals since 1960.

Table 4

Comparison of Poverty and Tax-Exempt Levels of Income for a Family of Four, Selected Years 1960-1975

Year	Income Level	
	Poverty	Tax-Exempt 1/
1960	$ 3,022	$ 2,667
1965	3,223	3,000
1970	3,968	3,600
1975	5,504 2/	5,757

1/ Neglects tax-exempt transfer payments.
2/ Figure calculated by adjusting the 1974 figure by 9.14 percent, the change in the consumer price index in 1975.

While tax-exempt income levels have tended to lag behind the rise in poverty levels on a year-to-year basis, over the period as a whole tax-exempt levels have generally risen along with poverty levels, thereby keeping poor families off the tax rolls. Furthermore, in evaluating the tax burdens of lower income taxpayers, it is important to recognize that the amount of transfer income received by such persons has been increasing over the period. Since transfer income is tax-exempt, this tends to reinforce the conclusion that tax adjustments for inflation have been quite good at low income levels. This analysis neglects social security taxes which are discussed in Section 8 below.

Corporate income is subject to separate taxation in the United States. After taxable corporate income has been determined, a normal tax is applied on corporate incomes up to some limit (called the surtax exemption) at a flat rate. For incomes above the surtax exemption an additional surtax is applied (also at a flat rate) in addition to the normal tax. From 1950 to 1975, the surtax exemption was $25,000. Thus under the tax rates in effect from 1971-74, 4/ the first $25,000 of income was subject to the normal tax of 22 percent, and income over $25,000 was taxed at a combined normal and surtax rate of 48 percent. In 1975, the surtax exemption level was increased to $50,000 and the normal tax was changed to 20 percent on the first $25,000 and 22 percent on the second $25,000 with

the combined 48 percent rate applying to corporate income exceeding $50,000. This change was supported by arguments showing that inflation had eroded the value of the $25,000 surtax exemption which had been in effect for 25 years. In this sense, it parallels the kind of personal tax changes discussed earlier.

Despite the surtax provisions, the corporate tax is virtually a proportional tax with about 85 percent of U.S. corporate taxable income taxed at the 48 percent rate. Thus, the main effects of inflation on corporate income taxation is not to move corporate taxpayers into higher tax brackets but rather to cause capital income to be measured incorrectly. The features of business taxation which tend to adjust for mismeasurement of income in times of inflation are discussed below in Sections 4, 5, and 6.

4. After reviewing the status of inflation accounting in the U.S., this section will discuss the income measurement problem including the treatment of depreciation, inventories, and debtors' profits.

(a) Thirty years ago, the American Institute of Certified Public Accountants (AICPA) studied the problem of financial accounting as to price level changes. It concluded that there was no need to make price level adjustments as long as the rate of inflation remained moderate but it recommended such adjustments if the rate increased significantly. In 1969, the AICPA

recommended (but did not require) financial statements based on price level adjusted figures to supplement the financial statements based on historic costs. Generally, this suggestion has been ignored in practice.

The Financial Accounting Standards Board (FASB) is an independent body which now largely determines how public companies will report to their shareholders. The FASB issued an exposure draft at the end of 1974 which would have required supplemental price level statements (i.e., cost adjusted by an index of general purchasing power). Profits which would be reported under the FASB's proposal would vary widely from current financial reporting. An analysis of a system similar to the FASB proposal indicates that after adjustments for price levels changes, profits of nonfinancial companies in 1970 would have been $37 billion rather than the $56 billion actually reported to shareholders. However, for 1974, a year of high inflation, price level adjustments would have yielded a profit figure of $150 billion rather than $110 billion because of the large income from debt which would become reportable. 5/ Likewise a study of 30 large industrial companies showed that their income adjusted for changes in the price level would have been 87 percent of reported income for 1974, or 63 percent of reported 1974 income had gains from monetary items--principally debt--been disregarded. 6/ These latter results reflect the particular characteristics of the companies in the sample, especially their capital intensities

and their debt/equity ratios. Companies with substantial long-lived plant would have had much lower adjusted income, while companies which had high debt/equity ratios would have shown higher adjusted incomes during 1974. The aggregate figures seem to indicate that the effect attributable to the adjustment for debt in 1974 was relatively more important.

The Security and Exchange Commission (SEC) registered its objections to FASB proposal. The SEC proposed a supplemental disclosure of certain replacement costs rather than the use of a general purchasing power index. Replacement cost depreciation adjusts historic costs for the change in the price of the specific assets employed by the firm. General purchasing power adjustments take into account overall price inflation only. Thus, gains or losses resulting from relative price changes do not enter into income with a replacement cost system. In addition, replacement costs calculations may be difficult to make particularly where, due to technological change, no exact counterpart of the depreciating equipment is available on the market. In general, industry opposed mandatory price level adjusted statements while accounting firms generally favored them. 7/

In March, 1976, the SEC decided to require most large industrial and commercial companies to disclose the effect of replacement cost charges in their calendar 1976 supplemental financial statements or in footnotes. Although the SEC stated

that its position is not contradictory or competitive with the FASB price level proposals, the effect has been to cause the FASB to withdraw its general price level proposal and to delay its judgment pending the completion of a study on the general basis on which financial statements should be prepared. Thus, the whole financial statement issue is undecided and historic cost financial statements unadjusted for the effect of inflation continue to be the general rule. The SEC's replacement cost supplemental disclosure will likely fail to provide a solution because the standards of that pronouncement and its method of disclosure are incomplete and poorly thought out.

(b) Since business receipts rise in periods of inflation, business income tends to be overstated if depreciation deductions are based on historic costs. Thus, tax liabilities at given tax rates rise, and real income is transferred from the private sector to the government. In the United States, fixed assets eligible for depreciation have not been entitled to any periodic revaluation to reflect rising prices of plant and equipment nor are special reserves of any kind allowed in calculating taxable income. However, during the Korean War (the early 1950's) as in World War II, plants considered essential to the war effort were allowed a five year write-off. A five year write-off has also been allowed as a special tax incentive in recent years for housing rehabilitation expenditures, pollution control

facilities, railroad rolling stock, coal mining safety equipment, and on-the-job training facilities. Since 1954, accelerated depreciation (double declining balance and sum of the years' digits) has been permitted by statute. Such methods allow a much greater write-off in earlier years than in latter years and were introduced principally to provide a more realistic reflection of economic productivity patterns. In recent years, however, the availability of accelerated depreciation has been curtailed on residential and commercial real estate.

In 1962, depreciation "guidelines" were established to make possible the use of shorter depreciable lives for equipment, if taxpayers could satisfy objective tests based on their experience. The justification for this change was primarily to improve procedures and secondarily to support modernization and offset higher replacement costs. This elective "guideline" system was generously modified and given statutory recognition in 1971 as the Asset Depreciation Range/Class Life system of determining useful lives. This system often permits the use of depreciable lives for tax purposes which are substantially shorter than those used for financial statement purposes.

The investment credit which was first enacted in 1962 allowed at that time a reduction in taxes otherwise due for 7 percent of the cost of eligible capital equipment (utilities were initially allowed only a 3 percent credit), subject to the limitation that liabilities could be decreased by no more

than 50 percent. The investment tax credit was enacted as an incentive to stimulate investment spending. Since then, it has been repealed or suspended for brief periods for purposes of countercyclical fiscal policy. It is now in force at a 10 percent rate including eligible utility property. The depreciable base is not reduced by the credit allowed.

Such ad hoc changes do not directly deal with the continuing tendency of inflation to overstate business income. However, to the extent they reduce the taxability of income from capital, they mitigate this problem.

(c) Since 1938, LIFO inventory valuation has been allowed for both book and tax purposes. For business firms using LIFO methods of inventory valuation, inflation can give rise to higher nominal incomes--and attendant higher tax liabilities--since income as measured includes what are essentially nominal gains on goods and materials purchases at lower prices. LIFO affords a type of automatic basis adjustment for inventories and thereby counteracts this effect. On the other hand, since the basis adjustment under LIFO is asset specific--as is the case with replacement cost depreciation--LIFO excludes from income gains and losses resulting from changes in relative prices as well as those caused by inflation. Many companies have adopted LIFO as a piecemeal solution to the inflation problem. In recent years, more companies have switched to LIFO inventory valuation and have realized substantial tax savings. In 1974,

such switches have been estimated to have reduced aggregate corporate tax liabilities by about ten percent. In that same year, however, corporate tax liabilities could have been reduced by perhaps another 35 percent had all firms been on LIFO.

Although LIFO presents a more reasonable income statement, it understates the balance sheet and may later lead to inflated income when inventory quantities, priced at historic cost, are reduced. The statute requires that LIFO be used for book purposes if it is used for tax purposes. This "conformity" requirement has caused many problems in that management is forced to choose between lower tax liabilities and higher reported net incomes with potential effects on bonuses, credit ratings, collective bargaining, and government regulations. Furthermore, companies have faced a delicate problem of maintaining their LIFO tax benefits while making the type of disclosures required to shareholders under the SEC rules.

(d) Inflation can cause erosion of the real value of outstanding debt, unless reflected in the interest rate charged on the loan. (See Section 5 on this.) However, Congress has not seriously considered requiring taxpayers to take account of the effects of inflation on either debtors' profits or creditors' losses in determining taxable income.

5. The tax code does not permit indexing of interest income for tax purposes. However, in making financial transactions, borrowers and lenders can take expected inflation into account

in determining interest rates. When inflation is expected to increase, lenders will demand more interest and borrowers will be willing to pay it, since they will be repaying their loans with dollars of lower purchasing power.

Of course, market adjustments cannot perfectly neutralize the current tax treatment of interest income. If inflation is not perfectly anticipated, real income in the private sector is transferred between creditors and debtors. Thus, when inflation is underestimated, creditors lose and debtors gain. If inflation were perfectly anticipated, these redistributional effects would tend to vanish as interest rates would rise to compensate lenders.

However, usury laws or other restrictions may prevent interest rates in various markets from adjusting to inflation. For example, the monetary authorities establish the maximum rate that banks can pay on savings accounts and prohibit the payment of interest on demand deposits. Furthermore, the laws of many states do not deal adequately with the question of whether interest or principal payments can vary with changes in the price level. If people did enter into contracts where principal repayments were indexed, there would be questions about the enforceability of such contracts in addition to the fact that present tax rules do not seem clear on how such transactions would be reportable. For these reasons, securities with such provisions are difficult to market. The tax and

legal situation should be clarified to allow individuals to negotiate loans with price level adjustments if they desire.

Even if interest rates could freely adjust, inflation will push borrowers and lenders into higher tax brackets. Furthermore, because taxes are based on nominal interest income, market interest rates would have to rise by more than the rate of inflation to keep borrowers and lenders in their same real after-tax positions. This is because the rise in interest rates must compensate for the taxes to be paid on the higher interest income as well as the inflation itself. If lenders and borrowers are in different tax brackets, market interest rates cannot adjust so as to leave both groups in the same positions as before the increase in prices. Thus, the real costs of borrowing and returns to lending may be altered with attendant effects on the use of debt financing.

6. No special tax measures for other income have been introduced to take direct account of inflation. However, certain categories of income now receive preferential tax treatment, and this has the effect of offsetting the tendency of inflation to raise taxes. For example, many employee fringe benefits are tax exempt. Individuals owning and occupying houses do not have to report their implicit rental income. Interest income from state and local bonds is exempt from Federal income taxes. One-half of capital gains is excluded from income taxation and capital gains tax payments can be deferred--without interest

penalty--until these gains are realized. Until the Tax Reform Act of 1976, unrealized capital gains at death escaped tax entirely. Effective 1977, this Act allows the deferral advantage to be continued indefinitely, but requires a carryover of the decedent's basis in the property to the heir. Also, special DISC (Domestic International Sales Corporation) provisions allow taxes on export income of corporations to be deferred--without interest penalty--on up to 50 percent of such income, although the Tax Reform Act of 1976 reduced these benefits by about one-third. Transfer income such as from social security and unemployment compensation programs is tax exempt as well. Percentage depletion partially exempts from taxation income from many minerals despite recent restrictions on oil and gas depletion benefits. All these special features of tax law that exclude income from the tax base reduce the tendency of inflation to raise taxes on these preferred investments.

It should be noted that many forms of income are now indexed. Congress recently placed social security benefits on an indexed basis. Millions of pension arrangements and wage contracts are indexed. However, because of the tendency of inflation to push people into higher tax brackets, the indexing of these forms of income is not sufficient to prevent effective tax rates from rising on constant real incomes.

Taxes on capital

7. (a) Since 1942, the Federal estate and gift tax structure has consisted of a progressive tax on taxable estates exceeding $60,000 and on lifetime gifts exceeding $30,000. In testimony before the Congress in 1976 on estate and gift taxation, various witnesses, including the Secretary of the Treasury, pointed out that 30 years of inflation had seriously eroded the value of these exemptions. In current dollars, comparable exemption levels would be about $200,000 for estates and $100,000 for gifts. The Tax Reform Act of 1976 unifies estate and gift taxation and increases the value of estates and gifts not subject to tax by means of a tax credit which is to be phased-in over a five year period. By 1981, the level of estate and gift transfers which can be made without tax will be $175,625, much closer to the current dollar equivalent of the 1942 exemptions.

The Tax Reform Act of 1976 also allows property used for farming or other closely held businesses, to be valued in terms of its current use rather than at its highest market value. While this step was taken mainly to benefit farmers and owners of closely held businesses, it has the side effect of reducing estate taxes on inflationary gains on their property.

Property taxes in the United States are the main revenue source of local governments, although they are also imposed at the state level. These taxes are essentially proportional

taxes levied on the assessed value of real property and in many instances personal property. Localities vary greatly in assessment practices, but the tax base tends to increase generally with inflation. The main problem which an inflationary environment raises for property taxation is the possibility of serious inequities among taxpayers as a result of time lags and inaccuracies in assessment procedures and practices.

(b) Taxes on capital make no allowances for inflation even when the tax base includes financial assets.

8. Other major taxes in the United States are sales taxes which are imposed primarily at the state and local level and payroll taxes at the Federal level which finance social security payments and unemployment compensation. Sales taxes are proportional taxes imposed on consumer purchases, although items such as food, medicine, or rent are often exempted. The tax base tends to increase generally with inflation, but there are neither problems of income measurement nor of taxpayers moving into higher marginal brackets such as occurs with income taxation.

Federal payroll taxes for old age and survivors insurance, disability insurance, and medical care are assessed on wage earnings subject to a ceiling and paid by both employers and employees. 8/ As a result of changes first effective in 1974, there has been some form of indexing of payroll taxes in that the wage ceiling itself tends to rise in periods of inflation. Nonetheless, since not all wage income is subject to payroll

taxation, the effective tax rate is always lower on high-wage earners than on wage earners at or below the ceiling. Since 1960, real effective payroll tax rates have been increasing for all wage groups. However, the distributional effects of the payroll tax cannot be evaluated without taking into consideration the structure of social security benefits, which generally replace a larger fraction of the earnings of a low-wage worker than of a high-wage worker.

9. The ability to delay the payment of taxes otherwise due is fairly limited because there is a rather efficient system of requiring withholding and current estimated tax payments for both individuals and corporations. Interest is charged on delayed payments, and the interest rate is set at approximately the prime interest rate. To the extent that expected inflation is adequately built into the prime rate, there is little opportunity for reducing the real value of taxes by delaying payment.

The only exception to the rule that market interest rates are charged for late payment arises in connection with the deferral of estate taxes for estates with closely held farms and small businesses. Prior to 1975, a 4 percent borrowing rate was allowed on such deferrals. Market rates were temporarily established in 1975, but under the Tax Reform Act of 1976 the deferral privilege has been extended and a below market borrowing rate of 4 percent has again been made available. Such a below market borrowing rate reduces real tax liabilities for

people who choose to defer payment of estate taxes, and thereby acts to offset the higher taxes that inflation would otherwise cause.

10. In evaluating the effectiveness of the tax measures tending to offset inflation, it is important to distinguish between the impact of inflation on the tax structure and its effect on the measurement of income. Concerning the first problem, it seems clear that the measures which have adjusted the personal tax structure have been reasonably effective in preventing an inflation-induced rise of real tax burdens at low and moderate income levels, although some increases have occurred in the case of high-income taxpayers.

On the other hand, while the measures which one can be viewed as helping to compensate for the problems of income measurement have provided some relief, they have often done so in a haphazard and unpredictable manner. Changes in these provisions have even increased taxes on capital income at times of accelerating inflation. For instance, the investment tax credit was suspended when inflation was increasing during 1969-1971. In other cases, the special provisions were designed for purposes unrelated to inflation. That the timing of the enactment of these features of tax law helped to compensate to a degree for inflation, appears to be more an accidental result rather than a deliberate policy aim.

To the extent that inflation generally causes income to be erroneously measured, it aggravates horizontal tax inequities. As noted earlier, such income mismeasurement occurs with unanticipated inflation when lenders are repaid in dollars of reduced purchasing power. Similarly, fixed income recipients generally--such as those unindexed pensions--suffer losses as do people holding cash balances or bank deposits. The failure to index depreciation deductions and nominal capital gains also results in the overstatement of capital income. As a consequence, recipients of such overstated capital income pay higher taxes than others who may be in the same real income class.

11. Given the apparent ability of Congress to make reasonably good changes in the income tax structure to correct for inflation, it seems clear that the most needed adjustments relate to income measurement. Since the LIFO method of inventory valuation is presently available, depreciation, capital gains, and the measurement of income from financial assets remain serious problems.

In the absence of impediments to interest rate increases, there appears to be an important distinction between capital income in the form of interest and that generated by depreciating assets and capital gains. One problem with interest income is that of equity since inflation tends to transfer real income from creditors to debtors. If inflation is not correctly

anticipated and no indexing adjustments are made, the resulting gains and losses will not be taken into taxable income. In the longer run, equity may be less of a problem provided interest rates can rise upwards to provide lenders with protection against erosion of their principal. In addition to the equity problem, if market interest rates are not responsive, incentives for continued lending will be diminished. More reasonable rules for measuring the income for financial assets may be appropriate.

The failure to index depreciation and capital gains is potentially more serious. Since current tax laws link depreciation and capital gains to historic costs, there is no avenue of escape from higher taxes on these assets and the associated transfer of resources from the private sector to the government. As a consequence, in addition to considerations of equity, there is the further concern that higher real effective tax rates on income from capital may adversely affect capital formation.

For these reasons, basis adjustments for inflation should be made for both depreciable assets and capital gains. However, in order to keep real tax burdens constant, smaller adjustments would be required where the tax advantages are greater under current law, in the absence of inflation. A matter for separate review is whether the existing tax advantages are appropriate. Of course, the case for these inflation adjustments becomes stronger the higher the rate of inflation.

Although indexing is likely to involve additional costs of compliance, the mechanics of general price level accounting for correcting the measurement of business income for inflation have been fairly broadly tested 9/ and are capable of practical implementation. Neither the initial costs nor the continuing operational costs are likely to significantly inhibit the installation of such a system. However, further work is needed to develop reasonable adjustments for smaller enterprises as well as to investigate appropriate procedures for dealing with financial assets and liabilities.

Several bills have been introduced that would adjust major features of the tax system as the standard deduction, personal exemptions, bracket widths, and withholding schedules automatically depending on movements in the consumer price index. Other bills have gone further and would allow automatic capital gains and depreciation adjustments tied directly to price index movements. The Treasury Department recently proposed a sliding capital gains tax rate such that the rate would decline with the length of time an asset is held, although a basis adjustment is a more appropriate way of dealing with the effect of inflation on capital gains income.

None of these measures has been adopted by the Congress.

C. Measures to combat inflation

Since income taxes are based on nominal incomes, and in the case of individual taxes, rates are quite progressive as well, such taxes tend to be highly elastic with respect to the price level. The elasticity of the individual income tax has been estimated to be about 1.5. 10/ However, there appears to have been no conscious effort to counter inflation by redesigning the tax system to make it more elastic. Instead, aggregate economic policies, on the tax as well as the spending side of the budget, have been used to attempt to control inflation. Particularly good examples of such a use of tax policy are the Revenue and Expenditure Control Act of 1968, which imposed a 10 percent surcharge on personal and corporate income taxes in 1968 and 1969, and the Tax Reform Act of 1969, which suspended the investment tax credit although it was reinstated by the Revenue Act of 1971. Recent evaluations of these measures have found them to be not particularly successful in combating inflation. 11/

FOOTNOTES

1/ For a detailed discussion of these issues see, Henry J. Aaron, ed., Inflation and the Income Tax, (Brookings Institution, forthcoming); Eileen Shanahan, ed. Indexing and Inflation (American Enterprise Institute, 1974); William J. Fellner, Kenneth W. Clarkson, and John H. Moore, Correcting Taxes for Inflation (American Enterprise Institute, 1975).

2/ Itemized deductions include such expenditures as charitable contributions, interest paid, state and local taxes, medical and dental expenses above 3 percent of AGI, and casualty and theft losses above $100, among others.

3/ Using an analysis similar to that demonstrated in Table 3, Sunley and Pechman have reached essentially the same conclusion. See Emil M. Sunley, Jr. and Joseph A. Pechman, "Inflation Adjustment for the Individual Income," in Henry J. Aaron, ed., Inflation and the Income Tax, op. cit.

4/ Since 1950, the combined normal and surtax rate, including a temporary surcharge for the years 1968-1970, ranged from 42 to 52.8 percent.

5/ John B. Shoven and Jeremy I. Bulow, "Inflation Accounting and Nonfinancial Corporate Profits: Financial Assets and Liabilities," Brookings Papers on Economic Activities, 1:1976, p. 40.

6/ Sidney Davidson, Clyde P. Stickney, and Roman L. Weil, Inflation Accounting, (McGraw-Hill, 1976), p. 151.

7/ Adding to this controversy is the fact that many observers believe the whole concept of cost as the basis for financial statements should be abandoned in favor of market values.

8/ Unemployment compensation is also financed by a payroll tax, although with a much lower base and rate, and is assessed only on employers.

9/ See Davidson, et. al. Inflation Accounting, op. cit.

10/ See Joseph A. Pechman, "Responsiveness of the Federal Individual Income Tax to Changes in Income," Brookings Papers on Economic Activity, 2:1973. Elasticity, which is defined as the percentage change of tax receipts divided by the percentage change in the price level, measures the responsiveness of the tax yield to inflation. Thus, an elasticity of 1.5 means that personal tax revenues increase by 1.5 percent for every one percent rise in the price level.

11/ For example, see the evaluation of Alan S. Blinder and Robert Solow, Analytical Foundations of Fiscal Policy, pp. 102-3, in the Economics of Public Finance, Kermit Gordon, ed., (Brookings Institution, 1974).