Recent Trends in the Federal Taxation of Individual Income

The Federal individual income tax is the largest source of Government revenue and a primary feature of the United States economy. The tax, however, was designed for a noninflationary economy. As a result, in an environment of rising prices, the impact of a particular tax code on the economy changes continually. The tax bite out of income—the tax as a percentage of income—expands, marginal tax rates—the highest statutory tax rates faced by individuals—climb, and the distribution of who pays the tax is altered.

The tax code, of course, has not remained the same. Major tax legislation was enacted in almost every year during the 1970s. Up until recently, the tax cuts that emanated from these legislative actions were essentially successful in holding down the aggregate tax bite. However, at present the tax bite appears to be at a historically high level. Moreover, the way in which taxes have been cut—relying heavily on raising the standard deduction and credits—has had dissimilar impacts on different income levels. Individuals with low income have benefited greatly by the tax reductions, so that their tax bite actually has declined over the years. Upper middle and upper income individuals, on the other hand, have experienced growing tax bites. Not until the 1978 tax legislation, the last piece of tax legislation in the decade, was most of the tax reduction directed toward them, but the reduction only partly offset the trends of the earlier years.

Individual income taxes, growth, and inflation

The primary purpose of the Federal individual income tax is to raise revenue. Each year the tax accounts for almost half of the receipts of the Federal Government. In addition to raising revenue, lawmakers have attempted to design the income tax system to be fair and equitable. The income tax also has been designed to promote certain economic goals. These goals have been advanced by a host of incentives, such as exempting several types of income from taxation, applying special tax rates, permitting credits for specific purposes, and reducing the tax base—the taxable part of income—for particular outlays.[1] For example, the exclusion from the tax base of a part of realized long-term capital gains aims in part at encouraging investment and at mitigating the tax on the inflation-induced price appreciation of capital assets.

The many goals that the income tax attempts to achieve have led to some conflicting results. For instance, while the tax system attempts to ease the tax burden of families, under certain circumstances it in fact can impose a higher burden on married couples than on single persons. In addition, although the tax favors income in the form of long-term capital gains, the taxation of dividends—another form of income from investment—to individuals represents double taxation as that income already has been taxed through the corporate income tax.

In addition to promoting specific economic objectives, the tax system affects the economy in other major ways. Because some features of the tax, *i.e.*, personal exemptions, are fixed in dollar terms or have a maximum limit associated with them, the taxable portion of income swings more widely than income

[1] The tax base is calculated by adjusting income for certain expenses and then subtracting deductions and personal exemptions.

itself. In addition, as taxpayers' incomes expand or contract, individuals tend to move into higher or lower tax brackets. Both the swing in the share of income that is taxable and the movement between tax brackets —the bracket effect—tend to exaggerate the response of taxes to changes in income. The elasticity of the tax with respect to income—the percentage change in the tax as a result of a 1 percent change in income—has been estimated to be about 1.5.[2]

In a period of price stability, the high income elasticity of the tax makes the tax a powerful stabilizing force in the economy. In a cyclical upturn, the tax claims a growing share of income, reducing households' purchasing power and spending. During a business downturn, employment falters and income declines. As a result, the tax bite falls, thereby cushioning the decline in spendable income.

In an inflationary period, the response of the tax to income growth can lead to a higher collection of taxes that compounds a cyclical downturn. Even in a recession, incomes may continue to expand as a result of climbing wages and prices. This inflation-induced rise in income leads to a larger tax bite, which tends to reduce households' spending power and economic activity. At the same time, inflation continually pushes individuals into higher tax brackets with correspondingly higher marginal tax rates.

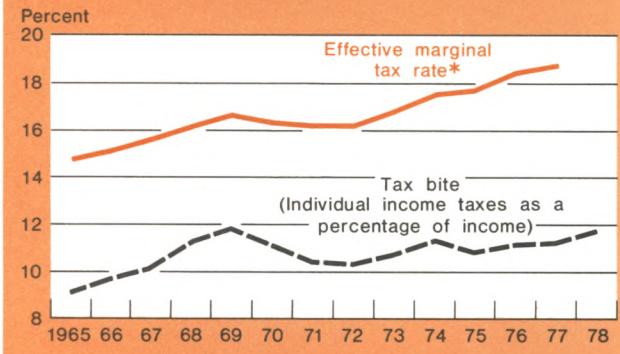
To mitigate these effects of inflation, legislation to lower the income tax has been enacted frequently. The tax reductions were accomplished in many different ways. The personal exemption and standard deduction were raised, credits expanded, and rates lowered.

The net impact of the interaction of growth, inflation, and legislation on the individual income tax will be examined here, using tax return data published annually by the Internal Revenue Service.[3] The study begins in 1965, a year after a major tax reduction was passed into law and the start of a period marked by high levels of inflation, and ends in 1978, the latest year for which comprehensive data are available.

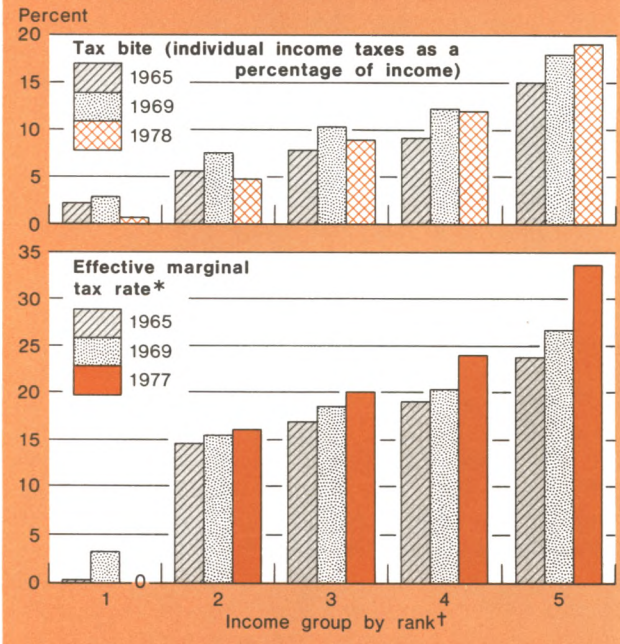
Has the tax bite risen?

In each year since 1965, individual income taxes have grown more rapidly than incomes, except when there was a statutory tax reduction.[4] Between 1965 and 1969,

While taxes tend to rise sharply with inflation, frequent legislation has tempered the tax bite and, to a lesser extent, the effective marginal tax rate.



However, the bulk of the tax reductions have benefited lower income individuals, so that their tax burdens have declined while the tax burdens of upper income individuals have risen.



*The effective marginal tax rate is constructed here by weighing statutory rates by the fraction of tax returns for which the particular rate constitutes the marginal rate.

†Each income group represents 20 percent of all tax returns filed.

Sources: United States Internal Revenue Service, Statistics of Income: Individual Income Tax Returns, and United States Department of Commerce.

[2] See Joseph A. Pechman, "Responsiveness of the Federal Individual Income Tax to Changes in Income", *Brookings Papers on Economic Activity* (Vol. 2, 1977).

[3] Internal Revenue Service, *Statistics of Income, Individual Income Tax Returns*.

[4] Income is defined here to encompass the major components of cash inflow that are related most directly to taxation. Starting with personal income, individual social security contributions and realized capital gains are added in, and government transfer payments are subtracted out.

aggregate demand pressures were strong and taxes were raised by imposing a surcharge—10 percent at its highest level—from 1968 to 1970. As a result, the tax bite out of income grew sharply in the second half of the 1960s (upper panel of the chart). The demand pressures on capacity in the latter part of the 1960s were not sustained continuously throughout the 1970s. Nevertheless, inflation pressures were unrelenting, and incomes in current dollar terms rose rapidly even in years of considerable economic slack.

Legislation to counteract the response of taxes to this income growth managed for most of the decade to prevent the tax bite from rising above its peak level of 1969.[5] (However, data on Federal income tax payments suggest that the tax bite attained its highest level of the postwar period in the fourth quarter of 1979 at close to 13 percent.)[6] Between 1970 and 1978 the tax bite hovered around a level of 11 percent, about ½ percentage point above its average in 1965-69. If taxes had not been reduced by law, the fraction of income paid as individual income taxes would have represented a significantly greater share of income. According to the estimate of income elasticity presented above, the tax bite would have been 14 percent on average in the 1970-78 period, or about a third more than its actual level.

In contrast to the Federal income tax, other taxes paid by individuals advanced more sharply in those years. The sum of individual social security contributions and state and local individual income taxes as a percentage of income rose from 4.2 percent on average in 1965-69 to 6 percent on average in 1970-78. The rate of advance of these combined taxes was about eight times that of Federal individual income taxes.

While the income tax bite registered only a small increase during 1970-78, all income groups were not affected uniformly. During the 1970s, there was a widening dispersion among households in the fraction of income paid as income taxes. The change in the distribution of tax bite was primarily the result of the way in which legislation held down the expanding taxes, mainly through boosts in the standard deduction.

Rise in deductions

The standard deduction was raised in seven of the ten years between 1970 and 1979.[7] This, in combination with the inherent income sensitivity of itemized deductions, caused deductions to grow faster than income in almost every year since 1965 (table).

The standard deduction was introduced in 1944 to simplify tax preparation. For the next twenty years, it equaled 10 percent of a taxpayer's income, up to a maximum deduction of $1,000. In 1964, the minimum standard deduction was established, setting a "floor" to deductions at $200 plus $100 for each personal exemption. The minimum standard deduction now is $3,400 for married couples and $2,300 for single persons and unmarried heads of household. The percentage deduction was eliminated in 1977 to simplify tax preparation.

The raising of the standard deduction has led to many more people taking the standard deduction than in the past. Only a little more than half (52.3 percent) of those individuals filing a tax return took the standard deduction in 1970. By 1978, this percentage stood at 73.6 percent. This growing role of the standard deduction in the determination of taxes deserves some analysis.

To the extent that deductions rise with income, they are a major factor that mitigates the responsiveness of the tax to income growth. Itemized deductions tend to increase by themselves in line with inflation. To a lesser extent, when the percentage deduction was permitted, the standard deduction also rose with inflation. The ending of the percentage deduction therefore increased the income elasticity of the tax.

The great expansion in the number of people taking the standard deduction also may have made the tax more responsive to income growth. Because the standard deduction is less sensitive to growth and inflation than are itemized deductions, the substitution by many people of the standard deduction for itemizing has reduced the role of deductions as a moderating factor. However, the rise in the standard deduction has reduced individuals' taxable incomes, and the consequential reduction of their marginal brackets has had the

[5] The major legislation to reduce Federal personal income taxes includes: the Tax Reform Act of 1969, the Revenue Act of 1971, the Tax Reduction Act of 1975, the Tax Reform Act of 1976, the Tax Reduction and Simplification Act of 1977, and the Revenue Act of 1978.

[6] The payments data probably overstate the tax bite in 1979. There seems to have been substantial overwithhoiding of taxes that year.

[7] The minimum standard deduction was increased in 1970 to between $300 and $1,100, with the exact level depending on a taxpayer's income and number of exemptions; in 1971 to $1,050; in 1972 to $1,300; in 1975 to $1,600 for unmarried persons and $1,900 for married persons; in 1977 (renamed the zero bracket amount) to $2,200 for unmarried persons and $3,200 for married persons; in 1979 to $2,300 for unmarried persons and $3,400 for married persons.

The percentage deduction was raised in 1971 to 13 percent up to a maximum of $1,500; in 1972 to 15 percent up to a maximum of $2,000; in 1975 to 16 percent up to a maximum of $2,300 for unmarried persons and $2,600 for married persons. In 1976 the percentage deduction remained at 16 percent, but the maximum amount that could be deducted through the percentage deduction was lifted to $2,400 for unmarried persons and $2,800 for married persons. In 1977 the percentage deduction was eliminated.

opposite effect of lowering the income-responsiveness of the tax.

The raising of the standard deduction also has influenced the distribution of the tax bite. Inasmuch as upper income individuals are most likely to itemize, the higher standard deductions have not benefited them very much. The tax saving from these legislative actions has accrued mainly to lower-income and lower middle-income groups.

This impact on the distribution of taxes has been reinforced by the decline in exemptions relative to income.

Relative decline in personal exemptions

Because the personal exemption is fixed in dollar amount, its value is eroded over time by inflation. Despite this characteristic, the exemption has not been raised often, even though for many years it was considered by the Congress to be the most straightforward way to acknowledge the basic costs of supporting one's self, spouse, and dependents. From 1948 to 1969, the personal exemption stood at $600 per person. In the early 1970s, it was boosted in several steps to $750.[8] In 1979, it was lifted again, this time to $1,000.

As a percentage of income, exemptions have fallen precipitously over time. Even in the period under study they have not kept pace with income despite the statutory increases of the early 1970s. By 1978, the ratio of exemptions to income had fallen to half its 1965 level (table).

The impact of the relative decline of exemptions on the tax bite has been largely offset by the rise in deductions. The sum of deductions and exemptions as a fraction of income has changed little since 1965 (table). Between 1970 and 1978, the ratio of the sum of deductions and exemptions to income was merely 0.4 percentage point lower than in the second half of the 1960s.

While the total of deductions and exemptions as a percentage of income has been stable since 1965, the expansion of deductions relative to exemptions has substantially changed the distribution of taxes across income groups. As mentioned above, the raising of the standard deduction has benefited mainly lower income taxpayers inasmuch as they tend to take the standard deduction rather than itemize. In addition, the decline of exemptions relative to income has been felt most heavily by upper income taxpayers because they tend to claim a somewhat greater number of exemptions than do lower income taxpayers, many of whom are single individuals. Other features of the tax also influenced the distribution of taxes in this period, namely, the rate structure and tax credits.

Deductions and Exemptions as a Percentage of Income

In percent

Year	Deductions	Exemptions	Sum of deductions and exemptions
1965	11.9	17.3	29.2
1966	11.8	16.7	28.5
1967	11.9	15.9	27.8
1968	12.2	15.0	27.2
1969	12.8	14.5	27.3
1970	13.4	13.9	27.3
1971	14.9	14.1	29.0
1972	15.7	14.1	29.8
1973	15.5	13.1	28.6
1974	15.8	12.6	28.4
1975	16.0	10.7	26.7
1976	16.2	10.0	26.2
1977	17.1	8.8	25.9
1978	18.7	8.2	26.9

Tax rates and credits

Taxes are calculated by applying tax rates to the tax base and then subtracting credits. The rate schedules differ according to the taxpayer's marital status. At present, for the same level of income, married couples filing jointly are subject to the lowest rates, followed by unmarried heads of household, single persons, and married couples filing separately. All the schedules are progressive, meaning that the tax rates escalate with income. The rates range from 14 percent to 70 percent, each rate applying to only the increment of taxable income that falls in the rate's bracket. The sizes of the brackets are uneven and tend to widen as one moves up the income scale.

The tax rate schedules have been altered occasionally since 1965 to influence consumer spending, the distribution of the tax bite, and work incentives. A surcharge was in effect between 1968 and 1970 to help reduce aggregate demand pressures. In 1969 the schedule for single taxpayers was lowered to bring it more closely in line with that for married couples. The minimum tax on preferentially treated income was made effective in 1970 to ensure that upper income individuals paid some amount of tax, and as of 1971 the maximum rate on earned income was set at 50 percent so as to reduce the adverse impact of the tax on work incentives. In another major change aimed at lessening the work disincentive effects of the income

[8] The personal exemption was set at $625 for 1970, $675 for 1971, and $750 for 1972 and years following.

tax, the twenty-five brackets were consolidated into sixteen wider ones, effective in 1979. The widening of brackets lowered tax rates by expanding the income intervals of each rate. This change reduced the sensitivity of the tax to income growth by moderating the bracket effect.

The bracket effect arises from the progressivity of the rate schedule. In a period of growth and inflation, taxpayers are pushed into higher rate brackets, which act to raise taxes at a faster pace than the growth of income. The widening of these brackets reduces the chance that taxpayers enter a higher bracket because of income growth. The bracket effect is largest for those low-income households that cross the taxable threshold. For these households, the tax rate rises from zero to 14 percent. Thereafter, the statutory rate advances slowly. For married couples who file a joint return—the predominant filing status—the bracket effect on earned income disappears at levels of earned taxable income *(i.e.*, wages and salaries) of $63,400 or higher because the maximum 50 percent rate then becomes applicable. However, increases in the level of earned income above $63,400 still can cause "unearned" income, *i.e.*, interest income, to be taxed at a higher rate.

After tax rates are applied to the tax base, an individual's tax liability is determined by subtracting tax credits. Tax credits gained importance in 1975 when a *per capita* credit (renamed the general tax credit in 1976) and an earned income credit were instituted. (A one-time tax rebate on 1974 tax liability and a temporary home purchase credit also were granted at that time.) The general tax credit expired at the end of 1978 when it was replaced by an increase in the personal exemption. The earned income credit is available only to low-income taxpayers who maintain a household and have dependent children. Its purpose is to lessen the burden of social security taxes and to mitigate some of the work disincentives created by the income tax. Other available credits are for child credit, retirement income, energy, and work incentives. Apart from the general tax credit, the tax credits have totaled only about 2 percent of personal income taxes.

Many of the credits that have been legislated have tended to benefit lower income taxpayers relatively more than higher income taxpayers. This is because some credits, *i.e.*, the earned income and work incentive credits, are applicable only to lower income taxpayers. In addition, all these credits have maximum limits which prevent them from rising proportionately with income. These dollar ceilings of the credits also have enlarged the income responsiveness of the tax. In these two respects, the reliance on credits to cut taxes has reinforced the effects of the increased standard deduction. In particular, the distribution of taxes displays the imprint of these legislative changes.

Shifting distribution of taxes

The net effect of growth, inflation, and legislation on the distribution of the tax bite out of income has varied over time (lower panel of the chart).[9] Between 1965 and 1969, years when there were no statutory reductions, taxpayers in the lowest income group sustained the largest percentage increase in tax, with their tax bite rising by a third. Taxpayers in the top income group experienced the smallest advance in the tax bite, although it still was a hefty jump. Their taxes rose from 15 percent in 1965 to 17.9 percent of income in 1969, a rise of 19 percent.

After 1969, the frequent tax reductions mostly improved the positions of the lower income groups. Indeed, in 1978 the bottom 20 percent of taxpayers paid only 0.5 percent of their income as income taxes, compared with 2.9 percent in 1969. All income classes except the top 20 percent were taxed relatively less in 1978 than in 1969. The 1978 legislation, however, did not maintain this trend. By emphasizing rate reductions, replacing the general tax credit with a higher personal exemption, and cutting the capital gains tax,[10] the legislation targeted much of the tax reduction toward more affluent groups.[11]

The change in income taxes for lower income individuals is only part of the story, however. The sharp decline in the tax bite of lower income groups between 1969 and 1978 in part reflected the introduction of the earned income credit in 1975. As mentioned above, the credit is meant to offset the social security contributions of the lower income groups. Consequently, a complete analysis of taxes needs to take account of the impact of social security contributions on the different income groups.

If estimates of individuals' social security contributions are added to income taxes, the tax bite displays different intertemporal patterns. Between 1965 and 1969 the middle-income groups, rather than the lower income groups, experienced the steepest advance of the combined taxes as a percentage of income. A sharp 62 percent increase in the maximum

[9] Changes over time in filing requirements make an intertemporal comparison such as this only approximate.

[10] The 1978 legislation increased the percentage of realized long-term capital gains that could be excluded from taxable income, from 50 percent to 60 percent, and eliminated this excluded portion of these gains from the list of items subject to the minimum tax. However, the legislation also introduced an alternative minimum tax to which the excluded share of long-term capital gains would be subject.

[11] See Benjamin A. Okner, "Distributional Aspects of Tax Reform During the Past Fifteen Years", *National Tax Journal* (March 1979).

taxable earnings base for the social security tax was primarily responsible for this result. In addition, the social security tax rate climbed 32 percent. With the inclusion of social security contributions, the top 40 percent of taxpayers sustained a larger tax bite in 1978 than in 1969.

Overall, the interaction of growth, inflation, and legislative actions since 1969 has caused the distribution of the tax bite to become more progressive. The largest increase in the fraction of income paid as income and social security taxes has occurred among the top 20 percent of taxpayers.

Marginal tax rates

Another important facet of the tax system is the marginal tax rate—the highest statutory tax rate that applies to a person's tax base. The marginal tax rate plays a significant role in many economic decisions. For example, whether to work additional hours or to increase the amount of income that is saved depends to some extent on the aftertax earnings or rate of return. Because the pay for working more hours or the return from greater saving comes on top of an individual's income, it is the marginal tax rate that determines the aftertax value of the extra compensation.

Since 1965 the effective marginal tax rate—the marginal tax rates averaged over all taxpayers—has risen in every year that did not experience a tax reduction and even in some years in which a reduction did occur (upper panel of the chart). The tax cuts of the early 1970s pared the effective marginal rate. However, from 1973 to 1977 the rate rose without interruption as the tax legislation in those years emphasized the use of credits to reduce taxes. These credits did not push many individuals into lower brackets. Between the periods 1965-69 and 1970-77 the effective marginal rate rose about 75 percent faster than the tax bite.

The marginal tax rate has risen unequally across the income distribution, with upper income taxpayers —those in the highest 20 percent—having experienced the sharpest increase (lower panel of the chart). Their average marginal rate climbed by more than 40 percent, from 23.7 percent in 1965 to 33.6 percent in 1977. In contrast, the lowest 20 percent, benefiting the most from the tax cuts of this decade, actually faced lower marginal tax rates in 1977 than in 1965.

Conclusion

The net impact of inflation, growth, and legislation on the taxation of individual income since 1965 has led to several significant changes. Legislative actions to reduce taxes have relied heavily on raising the standard deduction and credits. As a result, the relative tax reductions have accrued mainly to lower income groups. However, except for the lowest income groups, the marginal tax rates have increased. It was not until close to the end of the decade that legislation began attempting to turn around these trends.

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