"Double Taxation" of Dividends, Differential Taxation of Stockholders, and Income Tax Relief

Taxation of Corporate Earnings

To discuss the personal income tax on dividends and neglect the fact that the corporate earnings out of which dividends are paid have been taxed at the corporate level, as in the first part of Chapter 3, does not get at the heart of stockholder taxation. To proceed, as in the latter part of Chapter 3, to take account of corporate earnings and the corporation income tax without relating them to the individual's "capacity to pay" and combined income tax burden fails to remedy this deficiency.

This chapter is addressed directly to the problem of the differential income tax burden on stockholders. First, the "double taxation" of dividends is examined, and then the broader question of the taxation of corporate earnings whether distributed or retained is taken up. Finally there is a discussion of the income tax relief for stockholders introduced in 1954 which Congress was asked by President Kennedy (April 1961) to repeal. All that follows, unless otherwise specified, is based on the tax incidence assumption implicit in the charge of "double taxation" of dividends (or corporate earnings), viz., that the incidence of the corporate income tax is on stockholders via a direct and commensurate reduction in the corporate earnings available to them. Thus we steer clear of two unsettled issues: (1) who in fact bears the corporate tax, and (2) to what degree the tax has been capitalized, i.e., to what degree present holders have purchased their stock at a price lower, by the discounted value of all expected future tax pay-

ments, than that which would have prevailed. With the tax so capitalized, those who are burdened by it would be those who held stock at the time the tax was imposed; those who hold stock presently would in many cases have purchased their shares "free of tax."

As to incidence, I claim no special knowledge, accept it as a matter requiring further investigation, and adopt the nonshifting assumption first because it is the assumption implicit in the much-used phrase "double taxation," and secondly because it has not, in my judgment, been disproved. If the corporate tax is shifted it resembles a sales tax and/or tax on productive services and the analysis that follows is inappropriate.

Concerning capitalization of the tax, I am unable to go any further than other tax burden studies have gone with this problem, but suggest that this may not be as severe a handicap as has sometimes been assumed.

To the question whether, in fact, the corporate income tax is capitalized and to what degree, it is impossible to find a quantitative answer or even some general consensus on broad ranges of magnitudes. Thus, while Dan T. Smith has pointed out that an "increase in the corporation income tax, assuming a constant price-earnings ratio for the stock, will depress the price of the stock commensurately," [1] one cannot (and he does not) stop there. Crucial to the argument in this precise form is the assumption of a constant price-earnings ratio, i.e., a constant capitalization rate. But it is unlikely that this will actually be the case. For the corporate tax cuts such a wide swath that its repercussions will affect the rate by which the capital value of assets is reckoned; in other words, it is of the nature of a general tax whereas the capitalization argument strictly applies to a partial tax—a tax that affects one industry or type of asset.

Smith [2] has noted a number of qualifications to the simple capitalization argument:

> The exact relationship between changes in corporate income tax rates and stock prices is vastly involved. Though prospective earnings per share are probably the most important single factor influencing the market value of most securities, they are certainly not the only, or even at all times the dominant, one. Present dividends,

[1] Dan Throop Smith, *Effects of Taxation: Corporate Financial Policy,* Boston, 1952, p. 87.
[2] *Ibid.,* pp. 86–87.

book value, estimated liquidating value, and prospective changes in all of these are among the other interrelated factors which make impossible any assurance about the precise effects of changes in tax rates on market values.

Also, any general readjustment of stock prices arising from a change in corporate income tax rates would lead to significant but quantitatively indeterminate changes in the yields of other forms of investments, with inevitable readjustment in investors' portfolios and a new pattern of yield differentials. Even more fundamentally, a full analysis of the effects of corporate taxation is complicated by such important but very elusive problems as the effects of the government expenditures financed by the tax on the general level and direction of economic activity and the comparative effects of alternative revenue sources. These more involved analytical problems can only be noted here as important qualifications to any simple conclusions on the extent of influence of corporate income taxation on stock prices.

His comments on capitalization point up how complicated the problem is. However, they permit these conclusions: First, for any degree of capitalization to occur the initial incidence of the corporation income tax must be on stockholders; secondly, whether the corporation income tax is capitalized and, if so, to what extent remains a problem fraught with uncertainty.

Moreover, is capitalization all important? Even if it had occurred, it would have been uneven for various persons and would have been, in general, a transitional phenomenon. If one is concerned with equality of tax treatment for different sources of income and not necessarily with specific persons, then capitalization appears in a somewhat different light. For, to the extent that it has occurred, alleviation of the extra burden on distributed earnings would call for an accompanying capital gains tax to recapture the windfall gains of those who had purchased their stocks free of tax.

On this point Professor Carl S. Shoup says: [3]

Have present owners of common stock, by and large, purchased their holdings, either from former holders, or from issuing corporations, with no expectation whatsoever of diminution in extra taxation? This is surely one of the most difficult factual questions ever

[3] "The Dividend Exclusion and Credit in the Revenue Code of 1954," *National Tax Journal,* March 1955, p. 144.

posed in contemporary public finance. But if the answer were strongly in the affirmative, the case for reducing extra taxation on already outstanding issues of common stocks would be weak, from the viewpoint of tax equity. Those whom the extra taxation had truly harmed—the former holders of common stocks and those who were deterred from buying new issues—can no longer be identified and recompensed for the tax injustice.

This point does not, of course, weigh against reducing the extra taxation with respect to new stock issues if there are any practicable means of making such a distinction. And I am inclined to think that the era of high tax rates and high extra taxation has not yet lasted so long that more bonus would be given than injustice remedied by granting the privilege to outstanding issues. Here we are on highly subjective grounds. In any case, the problem would be mitigated if approximately full taxation of capital gains could be achieved before a truly substantial (dividend tax) credit was put into effect.

Now, back to the problem at hand. Taking into account both the distributed and retained components of the corporate earnings of a given year, and relating them proportionately to stockholder claimants thereof, we may say that at no time since 1913 has our income tax structure (corporate and personal combined) led to complete equivalence of tax liability for corporate earnings and other categories of income. But, for the distributed component alone which is our prime concern in this section, equivalence was initially sought.

The personal income tax act of 1913 exempted dividends from normal tax. Both the tax rate on corporate income and the normal tax rate on personal income were set at 1 per cent; thus for distributed earnings the corporate tax operated as a withholding feature of the personal levy. In effect there was a legislative admission (or assumption) that the corporation income tax was a tax on the stockholder. This treatment continued through 1918, as increases in the personal normal rate were matched by increases in the corporate rate.[4] But after 1919 the corporate rate exceeded the personal normal rate and thus the corporate tax became, in part, a separate and distinct levy on distributed corporate earnings. The rate gap widened gradually until 1936, when the bridge between the two taxes was removed completely

4 With these exceptions: a corporate rate greater than the personal normal rate in 1917, and greater than the rate applicable to the first $4,000 of normal tax income in 1918.

by the abolition of the dividend exemption. A return to legislation that gave some recognition to the idea of "double taxation" appears in the Internal Revenue Code of 1954 in the form of a tax credit based on dividends received. But here, too, a substantial gap exists between the personal income tax credit and the rate of corporate tax. Therefore, since 1919 the distributed earnings of corporate enterprises have been treated differently from the other sources of income for federal income tax purposes: from 1919 through 1935, because the corporate rate was higher than the personal normal rate; from 1936 through 1953, because corporate earnings were taxed at the corporate level when earned with no allowance at the personal level when distributed; and from 1954 on, because the personal income tax relief accorded distributed earnings falls short of the corporate tax rate.

Of course, especially in the earlier years of the income tax, because both personal and corporate rates were "low," the failure to achieve a tax treatment for distributed earnings equivalent to that for other income shares might have had "slight" consequences. And, naturally, much more severe disparities could be expected with the rapid rise of tax rates in the last twenty years. The magnitudes associated with this lack of uniformity in tax treatment will be explored shortly. First, however, it is necessary to explain some conceptual procedures. This can most conveniently be done by referring to the situation that existed from 1936 through 1953. Then qualifications relevant to the earlier period and the more recent modifications can be examined separately.

Conceptual Framework [5]

1936–1953

We are interested in developing a measure of the degree to which distributed corporate earnings have been differentially taxed. For simplicity, we start with the relation that characterized the period 1936 through 1953. Over these years dividends upon receipt by the stockholder were subject in full to personal income tax rates, while the

[5] The main outlines of this conceptual framework are not novel. In setting it up, I have drawn on the work of previous investigators, in particular: Richard B. Goode, *The Corporation Income Tax*, New York, 1951; *The Postwar Corporation Tax Structure*, Washington, 1946; and W. L. Crum, "The Taxation of Stockholders," *Quarterly Journal of Economics*, February 1950.

The considerations set out here are discussed at greater length in Holland, *Income-Tax Burden*, Chapter 1.

earnings out of which dividends were paid had already been taxed at the corporate level. This differs from other corporate payments such as wages or interest which were free of corporate tax. Hence the charge of "double taxation of dividends." But literally interpreted this charge is wrong, since it is not dividends but the earnings permitting their payment which were taxed twice. And the charge is not very informative since it seems to suggest an equally onerous extra burden on all stockholders regardless of their level of income.

For our problem, dividends are not the relevant component of stockholders' income. Rather, in estimating the reduction caused, in potentially disposable income, by this tax, we must work with the pre-tax equivalent of distributed earnings, to which we give the title of earnings for distribution. Assuming for simplicity a corporate tax rate of 50 per cent, then for every dollar of dividends paid out, corporations must earn two dollars. If a given stockholder, therefore, has $100 of dividends, the earnings-for-distribution component of his income will be $200. The difference between earnings for distribution and dividends measures the corporate tax on the distributed segment of net corporate earnings. To this is added the personal income tax on dividends (considered an increment to the stockholder's taxable income from other sources) in order to obtain the total income tax actually levied on earnings for distribution.

But this does not measure the differential tax load. For the personal income taxpayer is not deprived of an amount of potential income equal to the corporate tax payment on earnings for distribution. Had this sum been paid to him instead of to the government, it would have been taxable as personal income. So it is only the difference between the corporate tax and the product of the corporate tax multiplied by the marginal rate of personal income tax that represents the extra burden on stockholders' earnings for distribution. For example, with the corporate rate at 50 per cent, every dollar of earnings for distribution bears a 50-cent corporate tax, but had this 50 cents been paid to stockholders it would have represented something less than a 50-cent addition to their personal income after tax. If the relevant marginal rate is 20 per cent, the deprivation due to the corporate tax will be 40 cents; if the potential marginal rate is 90 per cent, the corporate tax causes a loss of potential disposable income of only 5 cents. Thus in our measure of the extra burden on dividend recipients the potential personal income tax on earnings for distribution is computed and subtracted from the actual combined corporate-personal income tax

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on that component of stockholder income to find the net extra burden on the distributed portion of net corporate earnings. For comparisons among income levels and between years, which will be undertaken later in this chapter, the absolute extra burden was converted to an incremental effective rate by taking it as a percentage of the earnings for the distribution component of stockholders' income. We call this measure the differential against earnings for distribution.

The derivation of the measure may be summarized symbolically as follows (for simplicity, all tax rates and differentials are expressed as ratios):

C_e = effective rate of corporate tax on earnings for distribution

D = dividends received

E = earnings for distribution; $E - C_e E = D$

P = applicable marginal rate of personal income tax [6]

N_e = absolute extra burden on earnings for distribution

$\dfrac{N_e}{E}$ = differential against earnings for distribution.

Then

$$N_e = PD + C_e E - PE$$
$$= PD + C_e E - (PD + PC_e E)$$
$$= C_e E(1 - P)$$
$$\frac{N_e}{E} = C_e(1 - P).$$

Since P rises as stockholder income rises but never reaches 100 per cent, the differential against earnings for distribution is a declining function of stockholders' income, but is always positive. In relation to the distributed segment of net corporate earnings, then, the corporate tax constitutes a burden that is always smaller than its face amount and that varies inversely with the level of stockholders' income.

[6] The relevant P here varies with stockholder taxable income level. Better notation, therefore, would be P_i with i running from zero to the top tax rate. However, for reasons that will become clearer when we consider other years as well as the extra burden (or benefit) on earnings for retention, precision would require quite complicated notation.

The remarks above apply strictly to the years 1936–1953. They need some modifications for earlier years when dividends were exempt from personal normal tax (and from 1954 on because of the exclusion and credit). Specifically, prior to 1954 the extra burden on earnings for distribution was not always positive. In other words, stockholders sometimes paid a smaller tax on their share of earnings for distribution then would have been due had these earnings been singly taxed in full as part of their personal income.

To apply the formula developed above to this earlier period, we need explicitly to take account of personal normal and surtax rates. Therefore, let:

$$P_n = \text{normal rate of personal income tax}$$

$$P_s = \text{applicable surtax rate of personal income tax};$$

rewrite the formula above as

$$N_e = P_nD + P_sD + C_eE - (P_nE + P_sE).$$

Now consider the situation as it existed in the first few years of the income tax—i.e., when the corporate rate and the personal normal rate were the same, and start with a "low" income stockholder not subject to the surtax. The equivalence of the two rates means that C_eE equals P_nE, the nonapplicability of the surtax eliminates the P_s terms, and the exemption of dividends from normal tax gets rid of P_nD, leaving no "extra" burden; N_e is equal to zero. But a different result applies for the stockholder whose income was high enough to get him into a surtax bracket.[7] Then, C_eE and P_nE would wash out of the formula as before (with corporate and personal normal rates equal) and P_nD would drop out as explained, leaving $N_e = P_sD - P_sE$. But clearly E is always greater than D. Note that the difference between D and E is precisely the corporate tax. It is the failure to include the corporate tax payment in taxable personal income that leads to this tax benefit. Under these conditions, therefore, the "extra" burden would always be negative. Compare, for example, for 1916 the zero differential at the $1,000 income level (not subject to surtax) with the tax benefit (negative differential) of 0.2 per cent at the $500,000 income level in Table 41.

[7] Up through 1916, the surtax was applicable to net incomes of $20,000 and over.

We have failed so far to take account of those years—a large majority of the years between 1913 and 1936—in which the corporate tax rate and the personal normal rate were different. For formal completeness we might examine both $P_n > C$ and $P_n < C$, but since during this period when they were not equal the corporate rate always exceeded the personal normal rate, the latter is the only case that will be considered. As before, we start with the no surtax situation first. Then, in the formulae above, everything falls out except $C_\theta E - P_n E$. With C_θ greater than P_n, N_θ will always be positive, i.e., stockholders would always be "overtaxed" on their earnings for distribution. This conclusion, however, would not necessarily apply to those dividend recipients who were subject to surtax as well as normal tax. For we now must add to the value of N_θ a term $P_s D - P_s E$ which, since E exceeds D, is always negative. With this as an offset to $C_\theta E - P_n E$, which is always positive, then in the case where personal surtax applies with corporate tax higher than personal normal tax, there may be "overtaxation," "undertaxation," or equal taxation, depending on the relative size of the positive and negative terms.

We can, of course, say this much more: Since $P_s E$ equals $P_s D + P_s(C_\theta E)$, then $P_s D$ drops out and, after division by E, the negative term becomes $P_s(C_\theta)$. Also, dividing by E, $C_\theta E - P_n E$ becomes merely $C_\theta - P_n$. Therefore: As between years, the greater the excess of C_θ over P_n, the more likely overtaxation at any given income level, while in any particular year, the higher the applicable P_s, the greater $P_s(C_\theta)$, and the more probable undertaxation (i.e., a negative N_θ). Since P_s is a function of stockholders' income, we can rephrase this conclusion to the effect that the higher the stockholders' income, the more likely is a negative differential against his earnings for distribution.

Again, to illustrate with data from Table 41: Note the 1.5 per cent negative differential at $100,000 in 1922, and the 8.5 percentage points of "overtaxation" at $1,000 of taxable income.

SINCE 1954

The tax burden on dividend recipients was lowered in two ways in 1954. President Eisenhower originally proposed relief of this order of magnitude: "Specifically, I recommend that the credit be allowed on an increasing scale over the next three years. For this year, I recommend that a credit of 5 per cent be allowed; for 1955, a credit of 10 per cent; and, in 1956 and later years, 15 per cent. To avoid shifts

in the payment dates of corporation dividends, these credits should apply to dividends received after July 31, of each year. To give the full benefit immediately to small stockholders, I recommend that the first $50 of dividends be completely exempted from tax in 1954 and that the first $100 be exempted in 1955 and later years." [8]

This proposal proved to be one of the thorniest and most controversial considered in writing the revenue bill. After hearings and debate, Congress followed the outlines of the President's suggestion but set the amounts at a lower level. Marion B. Folsom, then Under Secretary of the Treasury, noted, "Under the new Code each stockholder will be permitted to exclude from his gross income up to $50 of dividends and will be allowed a credit against tax equal to 4 per cent of the dividends in excess of the exclusion. The amount of the credit is limited to 2 per cent of the stockholders' total taxable income in 1954 and to 4 per cent in later years." [9]

The formula at the start of this section that summarized the "extra" burden, viz., $N_e/E = C_e(1 - P)$, now must be adjusted because of the relief provisions. First, we take up the credit. Recall that $D = E - C_eE$. Therefore the credit which is equal to 0.04D, also equals as a rate (i.e., after division by E) $0.04 - 0.04(C_e)$, and with C_e equal to 52 per cent,[10] this comes to 0.0192. So at all income levels, the "extra" burden is lowered by 1.92 percentage points.[11] (It is worth noting that had President Eisenhower's original proposal been adopted, currently the credit would amount to 15 per cent of dividends or 7.2 cents per dollar of earnings for distribution; this would provide a net tax benefit at higher income levels.) Because of the credit, we adjust downward our

[8] *The Budget of the United States Government for the Fiscal Year Ending June 30, 1955*, Washington, 1954, p. M 18.

[9] Remarks by Marion B. Folsom, Under Secretary of the Treasury, before the American Management Association, New York City, August 19, 1954. The $50 exclusion applies to separate returns. Stockholders filing jointly are permitted an exclusion of $100, if each has at least $50 of dividends. See *Internal Revenue Code of 1954*, Public Law 591, Chapter 736, Sections 34 and 116.

[10] The use of a 52 per cent rate, of course, is a gross simplification. Only in the limit is this 52 per cent approached, although for large corporations it is approached closely enough to be a realistic figure. Many corporations pay only 30 per cent. The average rate on all corporations was less than 43 per cent in 1956. But some corporations, those filing consolidated returns, may pay close to 54 per cent. Moreover, there are numerous special provisions and tax rates. In sum, the average rate (effective rate) on corporations in the aggregate is well below 52 per cent; the marginal rate in the aggregate is probably quite close to 52 per cent.

[11] This is the same as saying that since, with a corporate tax of 52 per cent, $D = 0.48$ of E, the credit of 0.04D equals 0.0192 or 1.92 percentage points.

measure of the differential (the "extra" burden as a rate) against earnings for distribution; i.e., it now reads

$$\frac{N_e}{E} = C_e(1 - P) - 0.04(1 - C_e).$$

The credit, of course, will lower the differential by a flat amount (as noted above, under existing law, assuming the full corporate rate of 52 per cent to apply, the differential will be cut by 1.92 percentage points). But the differential itself varies inversely with P, i.e., with the stockholder's taxable income. Thus near the bottom of the income scale the credit would be responsible for a very slight relative reduction in the differential; near the top of the income scale, however, we should expect to find the "extra" burden reduced by a substantial percentage. This feature of the credit is somewhat obscured in comparing the *Statistics of Income* data from tax returns for 1953 and 1955 (the first year in which the full credit was operative) because tax rate changes between these two years, particularly the decline in personal income tax rates, tended, *ceteris paribus,* to make for higher differentials in 1955 than 1953.

The credit, as we have just observed, gives a flat amount of relief at all stockholder income levels, and thus is not directly geared to the condition for which it is designed to provide relief. But the exclusion is even less focused on the problem. For, like any deduction, it is the more valuable the higher the applicable marginal rates of tax, while the differential declines in severity the higher the stockholder's marginal rate of tax.[12] But limited to a specific amount of dividends, the exclusion has a strong effect only on those who receive a small amount of dividends. In our tabular comparisons for 1954–60, those related to marginal dollars (Table 41) neglect the exclusion completely (assuming the marginal dollar to come in above the exclusion), while those that are based on assuming all income to be corporate earnings (Table 40) tend to swamp out the exclusion's effect since it is limited to $100 of dividends at most.

For a more general statement, the exclusion and credit can be combined as follows: with the corporate tax at 52 per cent, earnings for

[12] For example, not paying tax on $1 of dividends saves 20 cents in the 20 per cent rate bracket and 90 cents in the 90 per cent rate bracket. Yet at the former level, the differential is 40 per cent (assuming, for simplicity, a corporate rate of 50 per cent) and only 5 per cent at the latter level.

TABLE 40

DIFFERENTIAL AS A PERCENTAGE OF EARNINGS FOR DISTRIBUTION, COMPUTED AT AVERAGE RATES AT SELECTED TAXABLE INCOME LEVELS, 1913–1961 [a]

(per cent)

Year	\$1,000	\$3,000	\$5,000	\$10,000	\$25,000	\$50,000	\$100,000	\$500,000	\$1,000,000
					Taxable Income Level				
1913–1915	0.0	0.0	0.0	0.0	0.0	c	e	g	h
1916	0.0	0.0	0.0	0.0	b	d	f	−1.8	−2.0
1917	2.0	1.3	0.8	0.3	−0.2	−0.4	−0.8	−1.8	−2.2
1918	6.0	6.0	4.8	2.0	−0.3	−2.2	−5.2	−7.5	−7.7
1919–1921	6.0	6.0	5.2	3.3	1.6	0.1	−2.4	−4.3	−4.5
1922	8.5	8.5	7.7	6.0	4.0	2.2	−0.9	−1.7	−1.7
1923	9.5	9.5	8.9	7.6	6.7	4.8	2.5	1.8	1.8
1924	11.0	11.0	10.7	9.0	7.0	5.0	2.6	1.9	1.5
1925	11.8	11.9	11.6	10.4	8.2	6.9	5.8	5.4	5.4
1926–1927	12.3	12.4	12.2	10.9	8.6	7.4	6.2	5.8	5.4
1928	10.8	10.9	10.6	9.4	7.2	6.0	5.0	4.6	4.6
1929	10.6	10.6	10.4	9.3	6.4	5.7	5.1	4.8	4.8
1930–1931	10.8	10.9	10.6	9.4	7.2	6.0	5.0	4.6	4.6
1932–1933	9.8	9.7	9.9	7.2	5.2	3.2	−0.2	−1.4	−1.6
1934–1935	10.2	10.1	9.2	8.9	7.4	6.1	4.1	2.0	1.8
1936–1937	14.4	14.5	13.8	13.5	11.9	10.4	7.4	4.2	3.6
1938–1939	18.3	18.3	17.4	17.2	15.2	13.3	8.1	5.2	4.6
1940	23.4	23.1	22.1	20.9	16.3	12.9	9.1	5.1	3.9
1941	28.3	28.5	26.8	26.4	20.0	13.3	10.4	7.6	6.9
1942–1943	32.5	32.6	31.1	27.6	18.9	15.6	8.3	4.8	4.8
1944–1945	30.8	30.1	29.0	26.0	17.0	11.6	5.8	2.4	3.9
1946–1947	30.6	30.1	29.3	26.0	18.0	15.0	8.0	5.1	5.3
					SEPARATE RETURNS				
1948–1949	31.6	30.8	29.9	27.1	19.4	15.2	10.3	6.8	8.7 [i]
1950	34.6	33.8	32.8	29.9	21.4	16.1	10.6	6.6	8.4 [i]
1951	38.6	39.7	38.5	34.8	23.8	16.6	9.6	4.6	5.9 [i]
1952–1953	40.4	39.7	38.3	34.1	21.8	15.5	9.2	4.2	5.8 [i]
1954	40.9	40.2	38.7	35.1	24.0	16.5	9.1	3.7	5.2 [i]
1955–1961	38.9	38.7	37.7	34.1	23.0	15.5	8.1	2.6	4.2 [i]
					JOINT RETURNS				
1948–1949	31.6	31.7	31.7	29.4	25.3	16.7	15.2	9.2	6.8
1950	34.6	34.7	34.7	32.4	28.2	21.4	16.1	6.7	6.4
1951	38.6	39.7	40.2	38.5	34.6	23.8	16.6	4.9	4.6
1952–1953	40.4	40.5	39.8	38.3	32.8	21.0	15.5	4.6	4.0
1954	39.7	40.3	40.1	38.7	32.8	24.0	16.5	4.2	3.7
1955–1961	38.1	39.1	39.0	37.7	31.8	23.0	13.3	3.2	2.8

[a] Assumes all taxable income from earnings for distribution.
[b] −0.02.
[c] −0.01.
[d] −0.04.
[e] −0.03.
[f] −0.08.
[g] −0.05.
[h] −0.06.
[i] Effective rate limit in effect.

Dividends Under the Income Tax

distribution would be slightly more than twice as great as dividends, and the exclusion limits would then be $104 (i.e., the pre-tax equivalent of $50) for separate and $208 (i.e., the pre-tax equivalent of $100) for joint returns. For brevity, only joint returns (the majority) will be considered. The maximum relief afforded by the exclusion varies from $20 to $91, or from 20 to 91 per cent of the excluded amount. With the corporate tax at 52 per cent and dividends equal to 48 per cent of earnings for distribution (designated as E), the relief provided by the tax credit equals $0.04 \, (0.48E - \$100)$ for all stockholders. Hence the combined relief, i.e., the sum of the credit and exclusion, covers a span from $0.02E + \$16$ for stockholders in the 20 per cent rate bracket to $0.02E + \$87$ for those subject to a marginal rate of 91 per cent; or, measured as a differential relative to E, from $0.02 + \$16/E$ to $0.02 + \$87/E$.

When E is small, say $250 (i.e., when dividends are $120), the fractions $\$16/E$ and $\$87/E$ will be considerably larger than 0.02 and noticeably different from each other. The exclusion feature will outweigh the credit. When E is large, say $100,000, the two fractions and the differences between them become insignificant. The credit predominates; the relief is very close to 2 per cent of earnings for distribution. We cannot, therefore, simply conclude that the patterns of relief described for the credit and exclusion separately will characterize their combination. The degree of relief will vary with the amount of what we have defined as earnings for distribution. This, of course, has reference only to comparisons of average (effective) rates and differentials based thereon (as in Table 40) but not to those comparisons concerned with marginal (incremental) dollars of earnings for distribution (as in Table 41).

TABLE 41

DIFFERENTIAL AS A PERCENTAGE OF EARNINGS FOR DISTRIBUTION, COMPUTED FOR MARGINAL
INCREMENTS AT SELECTED TAXABLE INCOME LEVELS, 1913–1961

(per cent)

				Taxable Income Level					
Year	$1,000	$3,000	$5,000	$10,000	$25,000	$50,000	$100,000	$500,000	$1,000,000
1913–1915	0.0	0.0	0.0	0.0	[a]	[c]	[b]	[d]	[d]
1916	0.0	0.0	0.0	0.0	[c]	[b]	−0.1	−0.2	−0.2
1917	2.0	0.0	[b]	−0.1	−0.3	−0.5	−1.1	−2.0	−2.4
1918	6.0	6.0	−0.1	−0.5	−1.3	−2.9	−6.2	−7.7	−7.8
1919–1921	6.0	6.0	1.9	1.6	0.9	−0.4	−3.2	−4.4	−4.5
1922	8.5	8.5	4.5	4.3	3.3	1.6	−1.5	−1.8	−1.8
1923	9.5	9.5	6.5	6.3	5.6	4.3	2.0	1.8	1.8
1924	10.5	10.5	8.5	6.4	5.6	3.6	0.5	0.3	0.3
1925	11.5	11.5	10.0	7.9	7.1	6.3	5.4	5.4	5.4
1926–1927	12.0	12.0	10.5	8.4	7.6	6.7	5.8	5.8	5.8
1928	10.5	10.5	9.0	6.9	6.2	5.4	4.6	4.6	4.6
1929	10.5	10.5	9.0	6.9	6.2	5.8	4.8	4.8	4.8
1930–1931	10.5	10.5	9.0	6.9	6.2	5.4	4.6	4.6	4.6
1932–1933	9.8	9.8	5.8	5.5	4.4	2.6	−0.9	−1.5	−1.8
1934–1935	9.8	9.8	9.2	8.8	7.4	5.6	2.6	1.9	1.6
1936–1937	14.4	14.4	13.8	13.4	11.9	9.8	5.7	3.9	3.5
1938–1939	18.2	18.2	17.5	16.9	15.0	12.4	7.2	4.9	4.4
1940	22.9	22.9	21.9	20.3	15.8	11.3	7.6	4.5	3.7
1941	27.9	27.0	25.7	22.0	16.1	12.1	9.6	7.1	6.5
1942–1943	32.4	31.2	29.6	24.8	16.8	11.2	6.0	4.8	4.8
1944–1945	30.8	30.2	28.4	23.6	15.2	8.8	4.0	2.4	4.0
1946–1947	30.8	30.1	28.6	24.3	16.7	10.9	5.9	5.2	5.2
					SEPARATE RETURNS				
1948–1949	31.7	30.6	29.3	25.3	18.3	12.9	8.2	6.8	9.7
1950	34.7	33.6	32.1	27.5	21.5	13.3	8.0	6.6	8.4 [e]
1951	40.4	39.4	37.1	31.0	20.3	12.7	5.6	4.6	6.5 [e]
1952–1953	40.5	39.2	36.9	30.2	17.7	12.0	5.2	4.2	6.2 [e]
1954	40.7	39.6	37.5	31.3	20.4	12.0	4.8	3.7	5.3 [e]
1955–1961	39.7	38.6	36.6	30.3	19.4	11.1	3.8	2.8	2.8 [e]
					JOINT RETURNS				
1948–1949	31.7	31.7	30.6	29.3	23.6	18.3	12.9	6.8	6.8
1950	34.7	33.6	32.1	27.5	25.6	21.5	13.3	6.6	6.6
1951	40.4	40.4	39.4	37.1	28.9	20.3	12.7	4.6	4.6
1952–1953	40.5	40.5	39.2	36.9	27.0	17.7	12.0	4.2	4.2
1954	40.6	40.6	39.6	37.5	28.7	20.4	12.0	3.7	3.7
1955–1961	39.7	39.7	38.6	36.6	27.7	19.4	11.1	2.8	2.8

[a] 0.01.
[b] 0.04.
[c] 0.02.
[d] 0.06.
[e] Effective rate limit in effect.

Dividends Under the Income Tax

Highest corporate rate is applied each year excluding excess profits tax.

All reductions or increases in personal rates are included in rates. (E.g., for 1923 the 25 per cent refund is taken into account in computing the rates.)

Dividends excluded from normal tax until 1936.

Earned income credits are ignored.

In years where there is a limit to the effective rate, figures apply to limit rather than marginal rate. (E.g., in 1944–1945, 90 per cent limit applies to upper bracket.)

For 1954–1961 dividend exclusion provision is ignored since marginal rates on dividends assumed in excess of exclusions are being applied. In 1954, a 2 per cent credit is used, for 1955–1961 the credit is 4 per cent.

An Alternative Measure

There is, of course, nothing unique about the measure chosen. In my judgment it is simple, direct, and meaningful. Moreover, it can be easily and conveniently extended to the retained component of corporate earnings, as will be seen later in this chapter.

In particular, our measure of the differential relates the extra tax to the base on which it is levied—corporate earnings. There is nothing wrong with such a measure; indeed, it seems a natural thing to do. But it could be argued that to stop at this point is to leave part of the story untold. For another interesting and valid base is income *after* tax. At the very least it would be an incomplete presentation of the facts if we failed to consider the "extra" burden on stockholders in relation to income after tax; and it could be downright misleading to fail to do so.[13]

This is a convenient place to examine the "extra" burden in relation to income after tax. As a start, we restate the particular measure used so far and the effect of the dividend tax credit in more general terms. Then some comparisons using income after tax are made. The symbols are as defined earlier unless otherwise stated with these exceptions:

To avoid too much notation, what was C_e will be written more simply as C. Also, N_B will designate the extra burden before the credit; N_A will denote the extra burden after the relief provided by the credit.

1. "The" differential, i.e., our measure of the "extra" tax on earnings for distribution is:

[13] For a recent statement that stresses the necessity of analyzing tax liabilities and changes therein in relation to income both before and after tax, see Dan Throop Smith, *Federal Tax Reform*, New York, 1961, particularly page 37.

$$N_B = CE(1 - P)$$

and
$$\frac{N_B}{E} = C(1 - P)$$

also
$$N_A = CE(1 - P) - \alpha(E - CE)$$

$$\frac{N_A}{E} = C(1 - P) - \alpha(1 - C)$$

where α is the fraction of dividends allowed as a tax credit.

The conclusion from this formulation is familiar by now. The extra burden, $C(1 - P)$, declines as P increases; the relief, $\alpha(1 - C)$, is constant for all doubly taxed stockholders. The amount of relief is the same for all stockholders, but the degree of relief varies directly with their income level.

To take some illustrative figures: with $C = 50$ per cent, $\alpha = 4$ per cent, and P's of 20 and 90 per cent (all personal income taxpayers in effect fall in rate brackets bounded by these two), then the 20 per cent rate stockholder's differential is reduced from 40 to 38 per cent; for the 90 per cent rate stockholder, the reduction is from 5 to 3 per cent. The proportionate relief, i.e., the relative degree of relief, can be obtained by relating the credit to the extra burden.

$$\beta = \frac{\alpha(1 - C)}{C(1 - P)}$$

where β can be considered to be the degree of relief.

With the numerator constant and the denominator declining with increasing P, then the higher P, the larger β.

2. Now consider $N_B/(E - PE)$, that is to say, consider the extra burden in relation to earnings for distribution after tax, the tax in this case being the personal income tax that would have applied to earnings for distribution in the absence of the corporate tax.

$$\frac{N_B}{E - PE} = \frac{CE(1 - P)}{E(1 - P)} = C.$$

This appears to be quite a different result from our usual formulation, for here we find the extra burden to be invariant with stockholder income level; it is simply the corporate tax rate. Yet the conclusion

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previously reached that the credit provides proportionately greater relief for higher income stockholders still holds. Because:

$$\frac{N_A}{E - PE} = \frac{CE(1 - P) - \alpha(E - EC)}{E(1 - P)}$$

$$= C - \frac{\alpha E(1 - C)}{E(1 - P)}$$

$$= C - \frac{\alpha(1 - C)}{1 - P}.$$

C is a constant for all doubly taxed stockholders, as is the term $\alpha(1 - C)$. As P gets larger, $\alpha(1 - C)/(1 - P)$ gets larger. Therefore $C - \alpha(1 - C)/(1 - P)$ gets smaller. To insert some illustrative numbers, as before let:

$$C = 0.5, \quad \alpha = 0.04, \quad P_1 = 0.2 \quad \text{and} \quad P_2 = 0.9.$$

Then for the 20 per cent bracket stockholder we have:

$$\frac{N_A}{E - PE} = C - \frac{\alpha(1 - C)}{1 - P_1} = 0.5 - \frac{0.04(1 - 0.5)}{1 - 0.2} = 0.475.$$

While for the 90 per cent bracket stockholder we have:

$$\frac{N_A}{E - PE} = C - \frac{\alpha(1 - C)}{1 - P_2} = 0.5 - \frac{0.04(1 - 0.5)}{1 - 0.9} = 0.300.$$

The extra burden is reduced from 50 to 47.5 per cent in the one case, and from 50 to 30 per cent in the other. That is to say, before taking account of the dividend tax credit on $1,000 of earnings for distribution, the 20 per cent tax bracket stockholder would have $400 left after corporate-personal tax, while he would have $800 left under the personal tax alone. Similarly, again on $1,000, the 90 per cent bracket stockholder would have $50 and $100, respectively. In both cases, the reduction in after-tax income would be one half, i.e., $400/$800 = $50/$100 = ½. After relief, however, the reduction would be $380/$800 and $30/$100. Both have been given $20 of relief, but clearly, the high rate stockholder has been given a proportionately higher degree of relief, relative to the after-tax income he would have in the absence of the corporate income tax.

It should be observed that this measure of "overtaxation" implies that a given percentage reduction in after-tax income has the same significance regardless of the extent to which the before-tax income has been reduced by the personal income tax. That is, although the 50 per cent reduction in the $800 after-tax income of the low income stockholder is arithmetically the same as the 50 per cent reduction in the $100 after-tax income of the high income stockholder, these equal percentage reductions may not necessarily be regarded as equivalent by the taxpayers concerned, or by legislators. Although the additional $1,000 of before-tax earnings for distribution have been brought 50 per cent closer to zero dollars in both instances, that belonging to the high income taxpayer was nearer that point to begin with. The reason for this, of course, lies basically with the progressivity of the personal income tax schedule, but this does not necessarily justify an assumption that equal percentage reductions in income after the personal tax are, from the point of view of tax equity, really equal.

To revert to the main theme of this section, it appears that the deprivation due to the corporate tax amounts to the same fraction for all stockholders. If the corporate rate were 20 per cent, for example, then after the corporate and personal tax on their earnings for distribution, all stockholders, *regardless* of income level, would have left after taxes 20 per cent less than they would have had were there no corporate tax and were their earnings for distribution (equal to dividends in this case) taxed under the personal income tax. With the corporate rate at 50 per cent, then the reduction in income after tax due to "double taxation" amounts to 50 per cent of what they would have had under the personal income tax alone.

But it would not be correct to argue from this proportionality that because stockholders are deprived of a similar fraction of after-tax income, an equal amount of relief per dollar of dividends, such as is provided by the credit, is the appropriate remedy for their overtaxation. For one thing, as already noted, equal amounts of relief mean varying degrees of relief, a fact which the reader is free to qualify in accordance with his attitudes toward the considerations pointed out two paragraphs above. But, in addition, there is a simple arithmetic fact that does not depend on attitudes for interpretation. At present the credit leaves all stockholders overtaxed to some degree, but a larger credit would change this. Whatever credit is chosen, however,[14]

[14] Sometimes 10 per cent is suggested; Canada's 20 per cent has been cited as appropriate; a 15 per cent credit was initially proposed in 1954.

it will achieve equal taxation of earnings for distribution and other income in only one particular marginal rate bracket. In rate brackets higher than this, undertaxation will prevail, while overtaxation will still be the case in rate brackets lower than the particular one.

That is to say, for equal tax treatment of earnings for distribution and other income, it must be:

$$E - \hat{P}E = E - CE - \hat{P}(E - CE) + \hat{\alpha}(E - CE)$$

or
$$C(1 - \hat{P}) = \hat{\alpha}(1 - C)$$

and
$$\hat{\alpha} = \frac{C(1 - \hat{P})}{1 - C}$$

where $\hat{\alpha}$ is the credit that equalizes the tax liabilities for a stockholder in a given tax bracket denoted by $\hat{P}$. Therefore, α is a function of P, and from the expression $C(1 - \hat{P}) = \hat{\alpha}(1 - C)$, it can be seen that, given $\hat{\alpha}$, then for any P higher than $\hat{P}$, $C(1 - P) < \hat{\alpha}(1 - C)$, while for any P lower than $\hat{P}$, $C(1 - P) > \hat{\alpha}(1 - C)$.[15]

If the extra burden due to the corporate tax is to be reduced proportionately for each stockholder, the credit should be a constant fraction of the extra burden. If this fraction were r then

$$N_A = CE(1 - P) - rCE(1 - P) = CE(1 - P)(1 - r)$$

and
$$\frac{N_A}{E - PE} = C(1 - r).$$

The effect on after-tax income of such a credit would be equivalent to that provided by a straight reduction in the corporate tax rate. Also, of course,

$$\frac{N_A}{E} = C(1 - P)(1 - r)$$

$$= [C(1 - r)](1 - P),$$

where the term in brackets is, in effect, a lower corporate rate. Thus a simple way of providing the equivalent of a proportional cut in the extra burden is to lower the corporate rate. This might be done for

[15] A discussion of this point with particular reference to the 15 per cent credit originally proposed in 1954 appears later in this chapter.

all corporate earnings, or, directed to earnings for distribution only via a credit against corporate tax for dividends paid. An alternative procedure but with equivalent results would be to assume some fraction of dividends received, say w, represented the amount of tax withheld at source. From this would be subtracted the personal tax due on this withheld amount, and the difference would be the net credit allowed.[16] This procedure would provide proportionate relief since the extra burden would be:

$$CE(1 - P) - [w(E - CE) - Pw(E - CE)]$$

which simplifies to

$$(1 - P)[C - w(1 - C)].$$

Finally the two procedures can be precisely related since for any given r, the equivalent (in terms of relief provided) w would be given by

$$w = \frac{Cr}{1 - C}.\text{[17]}$$

In summary, every statement about the credit and the type of relief it provides based on our preferred formulation could be phrased in terms of relationships based on income after tax. Indeed, it would be surprising if it could not be since nothing new has been introduced; terms have merely been rearranged. Yet a purpose is served by this relatively lengthy aside. First, the similarity of the conclusions based on after-tax measures and pre-tax measures is not immediately obvious. Secondly, this similarity relates to conclusions concerning the dividend credit and its appropriateness. In other connections, the two sets of bases for measuring the extra burden may give different results. In particular, we will remark on this once again when the trend in overtaxation is discussed.

Variation of "Extra" Burden Among Income Levels and over Time

In addition to what we have noted about the special provisions in particular periods, it is worth reminding the reader that a "push-pull"

[16] For a recent discussion of these two procedures and a demonstration of their equivalence by numerical examples, see *Growth and Taxes*, Committee for Economic Development, Washington, 1961, pp. A-1 through A-G.

[17] Set $C(1 - r)(1 - P) = (1 - P)[C - w(1 - C)]$ and simplify to get this expression for w.

relationship between the corporate and personal tax rates determines the differential. Other things equal, a rise in the corporate rate will send it up, a rise in the personal rate will send it down.

The relevant data, the "extra" burden as a percentage of earnings for distribution, i.e., the differential, are summarized for stockholders with selected amounts of taxable income in Tables 40 and 41. Table 40 presents the differentials calculated on the assumption that all of the stockholder's taxable income was in the form of earnings for distribution, while in Table 41 the differentials are calculated on marginal increments (strictly one dollar, but more generally the amount that falls in the highest applicable bracket) of earnings for distribution at the chosen taxable income levels. Both tables cover the period 1913–1961, and in both, starting with 1948, there are two sets of entries—one for joint returns, the other for separate returns. This distinction was, of course, not necessary before 1948.

Basically, they tell the same story. The discussion will center on the data of Table 41, and, wherever it is necessary to choose, joint returns will be considered since they represent the more usual situation.[18] This will obscure no matters of principle and make it easier to focus on the broad sweep of the differentials. It also makes for simplicity to take four typical taxable income levels—$1,000 to symbolize low, $5,000 and $50,000 to stand for lower middle and upper middle respectively, and $500,000 to represent the top of the income range.

One of the most important conclusions that emerges from Table 41 is the simple one that as a general rule over the whole of our income tax history earnings for distribution have been "overtaxed," that is to say the tax load on them was heavier than if the pre-corporate-tax counterpart of dividends had been included in personal taxable income and so taxed.[19] But it is equally important to point out that the degree of overtaxation was uneven, particularly among income classes. This is what our earlier discussion would lead us to expect. In every year, the greatest degree of "overtaxation" occurred at the lowest income level, the least at the top of the income range.[20] Thus, to cite

[18] In 1956, for example, joint returns accounted for two-thirds of dividend recipients and 65 per cent of total dividends on taxable returns. (See *Statistics of Income, Individual Income Tax Returns—1956*, pp. 23 and 27.)

[19] With the corporate tax paid thereon taken as a credit against personal income tax liability so computed.

[20] Outside the purview of our tables fall those most heavily "overtaxed"—stockholders with income too low to be taxable. Their earnings for distribution paid the corporate tax, while the personal tax that would have been due was zero.

the evidence for only a sprinkling of years: In 1929, the differential against earnings for distribution ranged from a high of 10.5 per cent at the $1,000 stockholder taxable income level to a low of 4.8 per cent at $1,000,000; or take 1939, where the span was from 18.2 to 4.4 per cent, again being higher the lower the stockholder's income; or 1949 where the range was 31.7 to 6.8 per cent; or the 1955–1960 gamut from 39.7 to 2.8 per cent; and going back to an early period, in 1919 it was 6 per cent at the lowest income and −7.8 per cent at the highest. Even in the earliest years of our period 1913–1917, when the lower taxable income range suffered no "extra" burden at all, i.e., the differential was zero, it is still true that the higher incomes were taxed less heavily, for in these years (and some later ones as well) their differential was negative; i.e., they enjoyed a tax benefit. (The reasons for this have been developed above.)

Now let us look at variations over time for the four chosen income levels (see Chart 7). But before undertaking a discussion of the trend in the differential, it is important to pick up the thread of the note on alternative measures that appeared several pages earlier. When movements in overtaxation over time are analyzed on the basis of $C_e(1 - P)$ as summarized in Table 41 and Chart 7, we are talking about the "extra" tax as a decimal fraction (or percentage) of a given amount of earnings for distribution. Everything that is said relates to this particular way of measuring overtaxation, which varies among income classes markedly. The alternative measure, which relates the "extra tax" to income after tax, shows for the period 1936–1953 a degree of overtaxation invariant with stockholder income level (i.e., marginal personal rate), and generally for the other years of our study, when personal income tax relief was provided for dividend receipts, it exhibits a less pronounced difference among income levels than does $C_e(1 - P)$. The relevant data, which appear in Table 42 and are plotted on Chart 8, will be taken up after we examine the trend in $C_e(1 - P)$. Reading from the beginning to the end of our period, at the $1,000 level there is virtually continuous growth in the "extra" burden. Thus we can summarize what happened very quickly by citing the zero differential of 1913, the sizable 39.7 per cent differential in 1955–1960, and the additional information that from 1923 on it was 10 per cent or more. At $5,000 of stockholder's taxable income, much the same pattern is found. At $50,000, too, a general tendency for the weight of the extra "burden" to grow over time is apparent, yet there are some noteworthy exceptions. Thus, until 1922, it was either zero

CHART 7

Differential on Marginal Increments of Earnings for Distribution
at Four Selected Taxable Income Levels, 1913–1961
(joint returns)
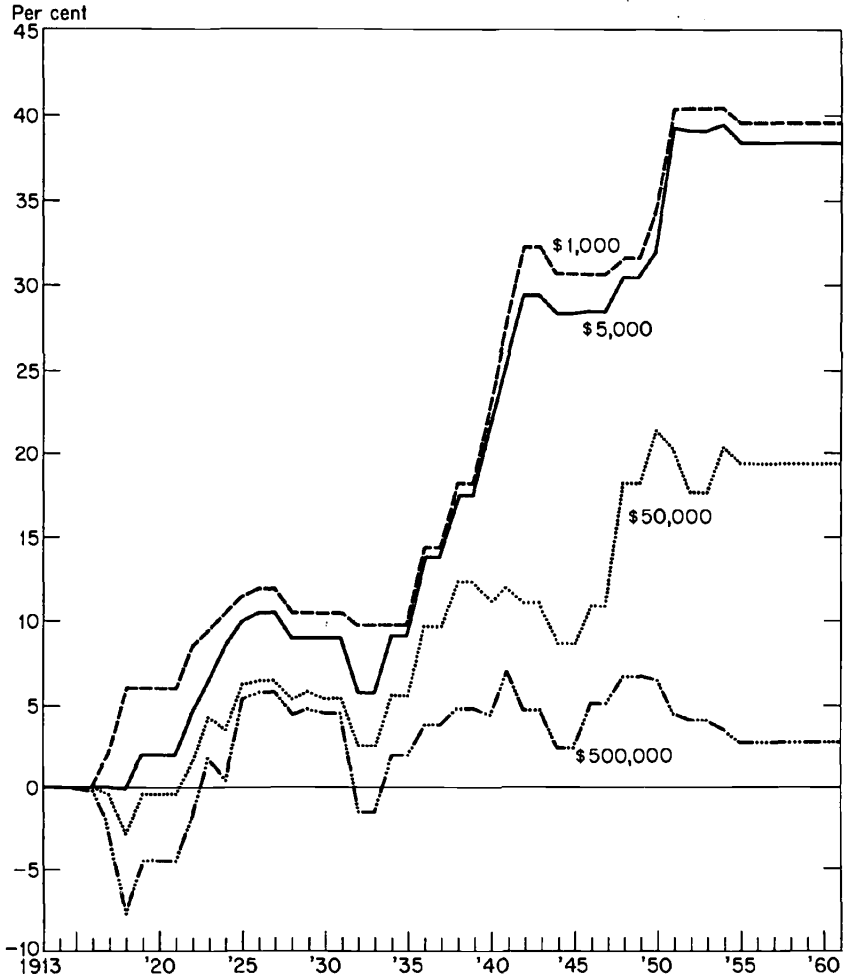
or negative, and from 1922 through 1935, it was at a moderate level, generally 6 per cent or less. From that date to the present, the differential, of course, increased, but still remained well below those at the lower income levels. At the $500,000 level, we find a result quite different from those noted heretofore. Definite undertaxation existed

from 1913 through 1922, reaching almost an 8 per cent tax benefit in 1918. This, by the way, was greater than any positive differential experienced at this income level since that date. With negative differentials in 1932 and 1933 also, this gives "undertaxation" for twelve years, "overtaxation" of under 3 per cent for eleven years, "overtaxation" of between 3 and 6 per cent for twenty-one years, and a differential of over 6 per cent for only four years. Thus at this very high income level, "overtaxation" was not a severe problem. Comparing merely the terminal years of the period, we get a rise from −0.06 per cent to 2.8 per cent—certainly a moderate experience when judged against that of most stockholders.

The explanation of this moderate "overtaxation" and its failure to vary much [21] over time lies in the "push-pull" relation between corporate and personal rates. Given the personal rate, the higher the corporate rate, the higher the differential. Given the corporate rate, the higher the personal rate, the lower the differential. The same relation applies, of course, when both rates rise or fall together, as long as they change differentially.[22] Thus in 1938 stockholders at the top of the income scale were more heavily "overtaxed" than in 1951, despite a corporate rate of 50.75 per cent in this latter year compared with 19 per cent in 1938, and a rise in personal marginal rates from 74 in 1938 to 91 in 1951. For while C_e rose by 31.75 points, $1 - P$ fell from 26 to 9, i.e., proportionately more than the increase in the corporate rate. This is the explanation also that lies behind one of the summary observations in the introduction where it was noted that using the differential as the measure of overtaxation, for low and moderate income stockholders the trend in overtaxation was sharply upward, while for stockholders with very high incomes there was a very modest rise. Indeed, for them overtaxation has been less severe since 1952 than it was in 1925–1931.[23] More generally than is brought

[21] Compared with that of other income levels.

[22] Or more precisely, to revert to our earlier symbols, as long as the change in C_e and the change in $1 - P$ are proportionately different. When C_e increases and P falls, the differential will always increase; when C_e falls and P rises, the differential will always decline.

[23] To emphasize that it is overtaxation as measured by the differential against earnings for distribution that is under discussion here, and to clarify further why it is not incongruous to find a decline in overtaxation so measured coincident with a rise in tax rates, the relevant data for two taxable income levels for the years 1926–1927 and 1955 to date are set forth.

In 1926 and 1927 the corporate rate was 13.5 per cent; the normal tax from which

out in these numerical examples, what is involved in the *change* in overtaxation when both the corporate rate and the personal rate rise can be expressed as follows. (For convenience we use simpler notation than heretofore.)

Let ρ_1 and ρ_2 = the amount of overtaxation per incremental dollar of earnings for distribution where 1 and 2 denote two different years.

C_1 and C_2 = the corporate rate in each of these years; $C_2 > C$.

P_1 and P_2 = the relevant marginal personal rate in each of these years; $P_2 > P_1$.

To avoid undue complications, without really losing sight of principle, let us restrict the comparison to periods when neither the exemption of dividends from normal tax nor the dividend tax credit prevailed, i.e., 1936–1953.

1. If $\rho_2 = \rho_1$, i.e., both corporate and personal rates rise, but overtaxation remains unchanged, then:

$$\rho_2 = \rho_1, \quad \text{or} \quad \frac{C_2(1 - P_2)}{C_1(1 - P_1)} = 1, \quad \text{hence} \quad \frac{C_2}{C_1} = \frac{1 - P_1}{1 - P_2}.$$

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dividends were exempt was 1.5 per cent at the $1,000 taxable income level and 5 per cent for those with incomes of more than $8,000; no surtax applied if taxable income was less than $10,000; the surtax on income over $100,000 was 20 per cent. For the years 1955 to date, the corporate rate is taken to be 52 per cent; the marginal rate applicable to $1,000 of taxable income is 20 per cent; while the marginal rate for married persons with taxable incomes in excess of $400,000 income is 91 per cent. Against personal income tax there is a credit equal to 4 per cent of dividends received.

Let a = corporate tax on additional $1,000 of earnings for distribution; b = personal tax on $1,000 minus a; $c = a + b$ = total tax on additional $1,000 of earnings for distribution; d = personal tax on additional $1,000 of income from other sources; and $e = c - d$ = extra burden on an additional $1,000 of earnings for distribution = overtaxation.

Note: $1,000 is chosen as a value that will give convenient numbers with no decimal points. The additional amount could equally well be $1, $10, etc.

	Stockholder with $1,000 of Taxable Income		Stockholder with $500,000 of Taxable Income	
	1926 and 1927	1955 to date	1926 and 1927	1955 to date
a	$135	$520	$135	$520
b	0	77	173	418
c	135	597	308	938
d	15	200	250	910
e	120	397	58	28

As a reminder that there are other ways of measuring the degree of overtaxation, from these same figures we compute the percentage reduction in after-tax income

2. If overtaxation increased following a rise in both corporate and personal rates, then:

$$\rho_2 > \rho_1, \quad \text{or} \quad \frac{C_2(1 - P_2)}{C_1(1 - P_1)} > 1, \quad \text{hence} \quad \frac{C_2}{C_1} > \frac{1 - P_1}{1 - P_2}.$$

3. If overtaxation decreased following a rise in both corporate and personal rates, then:

$$\rho_2 < \rho_1 \quad \text{or} \quad \frac{C_2(1 - P_2)}{C_1(1 - P_1)} < 1, \quad \text{hence} \quad \frac{C_2}{C_1} < \frac{1 - P_1}{1 - P_2}.$$

Thus

$$\rho_2 \gtreqless \rho_1, \quad \text{as} \quad \frac{C_2}{C_1} \gtreqless \frac{1 - P_1}{1 - P_2}.$$

Since C_2/C_1 is the same no matter what the stockholders income level, while $(1 - P_1)/(1 - P_2)$ generally varies with income, it is perfectly consistent to find overtaxation between two years increasing for some taxpayers and declining for others. Now, by rearranging terms, attention can be turned more directly to those cases where overtaxation declines as rates rise. By rewriting (3), we note that this requires that:

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occasioned by the corporate tax, i.e., the measure considered in the note several pages earlier. For the stockholder with $1,000 of taxable income, we get:

1926 and 1927: $\dfrac{\$120}{\$1,000 - \$15} = \dfrac{\$120}{\$985} = 0.12$

1955 to date: $\dfrac{\$397}{\$1,000 - \$200} = \dfrac{\$397}{\$800} = 0.50$

For the stockholder with $500,000 of taxable income we have:

1926 and 1927: $\dfrac{\$58}{\$1,000 - \$250} = \dfrac{\$58}{\$750} = 0.08$

1955 to date: $\dfrac{\$28}{\$1,000 - \$910} = \dfrac{\$28}{\$90} = 0.31.$

The results here may seem to contradict the conclusions in the note that explained this measure, because the $500,000 taxable income stockholder is less heavily overtaxed than the $1,000 taxable income stockholder. But this is because both in 1926 and 1927 and 1955 to date special provisions related to the taxation of dividends: in the earlier years they were exempt from normal tax, and in the later period the tax credit was in effect.

4. $\dfrac{1 - P_1}{1 - P_2} > \dfrac{C_2}{C_1}$ which by further manipulation can be expressed as:

5. $P_2 > \dfrac{C_1}{C_2}(P_1 - 1) + 1.$

If we let $C_1/C_2 = k$, the general expression for the P_2 required for overtaxation to increase, given P_1 and the proportionate increase in corporate rates (measured not directly but by k which is its inverse) is:

6. $P_2 > k(P_1 - 1) + 1$ and

7. $P_2 - P_1 > k(P_1 - 1) + 1 - P_1.$

Thus, using fractions to represent percentages,

$$\text{If } P_{1i} = \quad 0.10, \qquad 0.20, \quad \cdots, \qquad 0.90.$$

$$P_{2i} - P_{1i} > 0.9 - 0.9k, \; >0.8 - 0.8k, \; \cdots, \; >0.1 - 0.1k, \text{ or}$$

$$P_{2i} - P_{1i} > 0.9(1 - k), 70.8(1 - k) \cdots, 70.1(1 - k).$$

Thus it is clear that for any $k < 1$ (which is the case we are considering), the required rise in P, i.e., $P_{2i} - P_{1i}$, is absolutely (and also, of course, relative to P_{1i}) smaller, the larger P_{1i}. For $0.9\,(1 - k) > 0.8(1 - k) > \cdots > 0.1(1 - k)$.

One further observation is in order here. Going back to inequality (2), we note that as P_2 approaches 1 (i.e., confiscatory taxation of 100 per cent), $(1 - P_1)/(1 - P_2)$ grows larger without limit, and therefore, if, as is the case, $C_1 > 0$, then no conceivable increase in C_2 (limited to tax rates no greater than 100 per cent) could make $(C_2)/(C_1) > (1 - P_1)/(1 - P_2)$. In this case the situation in (3) would apply automatically. Is it not a strange result to find overtaxation inevitably declining as personal rates approach 100 per cent? The answer, of course, is that the result is strange only if one fails to distinguish between *level of taxation* and *overtaxation*. If personal rates were 100 per cent, then overtaxation would not exist, because payment of a tax on corporate earnings would deprive stockholders of nothing, since had that money come to them instead of going to the government, they would have kept none of it.

This is not to argue that the way to cure overtaxation, if indeed it does exist (remember the incidence and capitalization assumptions

behind our analysis), is to raise the personal rate to 100 per cent. Rather, the purpose of this explanation is to remind the reader that we measure overtaxation relative to a standard—that schedule of rates which applies to personal income other than corporate earnings.

Earlier, in the section on alternative measures, it was pointed out that the degree of overtaxation could be measured in different ways, namely, in terms of the percentage reduction in income after the personal tax that is attributable to the corporate tax on earnings for distribution. This measure was invariant with stockholder income level from 1936 through 1953. But from 1913 through 1935, because of the exemption of dividends from personal normal tax, and from 1954 on, because of the credit (for simplicity the exclusion is neglected), the upper income stockholders experienced a smaller percentage reduction in after-tax income (or in a number of the earlier years a positive increase) than the low marginal rate stockholders. The main interest here is in the trend of overtaxation, and the relevant information appears in Table 42 and Chart 8. At all income levels overtaxation existed from 1925 on, and at the lowest income level from 1917 on. Thus overtaxation set in earlier and in a slightly more pronounced form at the lower income levels, and this difference persisted until 1936 when the complete divorce between the corporate and personal tax that lasted through 1953 brought all income levels together; and over this period overtaxation became increasingly severe. It bottomed out in 1954 with the introduction of the dividend tax credit, but only at the high income levels has there been any really sizable reversal of trend.

Effect of a More Liberal Dividend Credit

The relativity of answers according to what base is chosen that has just been observed in discussing the variation in overtaxation over time is not, as has been noted earlier, relevant to judgment on the effect of the dividend tax credit. Therefore, without ambiguity, we can point up a basic limitation of the credit by exploring more fully what would have happened had the 15 per cent credit proposed by President Eisenhower been in effect in, say, 1960. Table 43 lists the differential tax rates on an added dollar of earnings for distribution:

1. As it would have been without any credit (column 2).
2. As it stood with the 4 per cent of dividends tax credit (column 3).
3. As it would have been with a 15 per cent credit (column 4).

Dividends Under the Income Tax

TABLE 42

PERCENTAGE REDUCTION IN EARNINGS FOR DISTRIBUTION AFTER PERSONAL TAX [a]
BECAUSE OF CORPORATE TAX, 1913–1961

(marginal increments at selected taxable income levels, joint returns)

Period	Taxable Income Level			
	$1,000	$5,000	$50,000	$500,000
1913–1915	0	0	−1 [b]	0 −
1916	0	0	−1 [b]	0 −
1917	2	0	−1 [b]	−4 [b]
1918	6	0	−4 [b]	−32 [b]
1919–1921	6	1	−1 [b]	−14 [b]
1922	9	5	2	−4 [b]
1923	10	7	5	0 +
1924	11	9	6	−1 [b]
1925	12	10	8	7
1926–1927	12	11	8	8
1928	11	9	7	6
1929	11	9	8	6
1930–1931	11	9	7	6
1932–1933	10	6	4	−4 [b]
1934–1935	10	10	6	5
1936–1937	15	15	15	15
1938–1939	19	19	19	19
1940	24	24	24	24
1941	31	31	31	31
1942–1943	40	40	40	40
1944–1945	40	40	40	40
1946–1947	38	38	38	38
1948–1949	38	38	38	38
1950	42	42	42	42
1951	51	51	51	51
1952–1953	52	52	52	52
1954	51	51	50	41
1955–1961	50	50	48	31

NOTE: In computing the degree of overtaxation for the table only corporate normal and surtax rates were used, and the corporate rate was taken to be the maximum rate of normal tax and surtax combined. But no account was taken of the excess profits tax. Had there been some adjustment on this score (it is difficult to think of what it could have been because of the uneven impact of the EPT), overtaxation would have shown up as more severe than the table indicates.
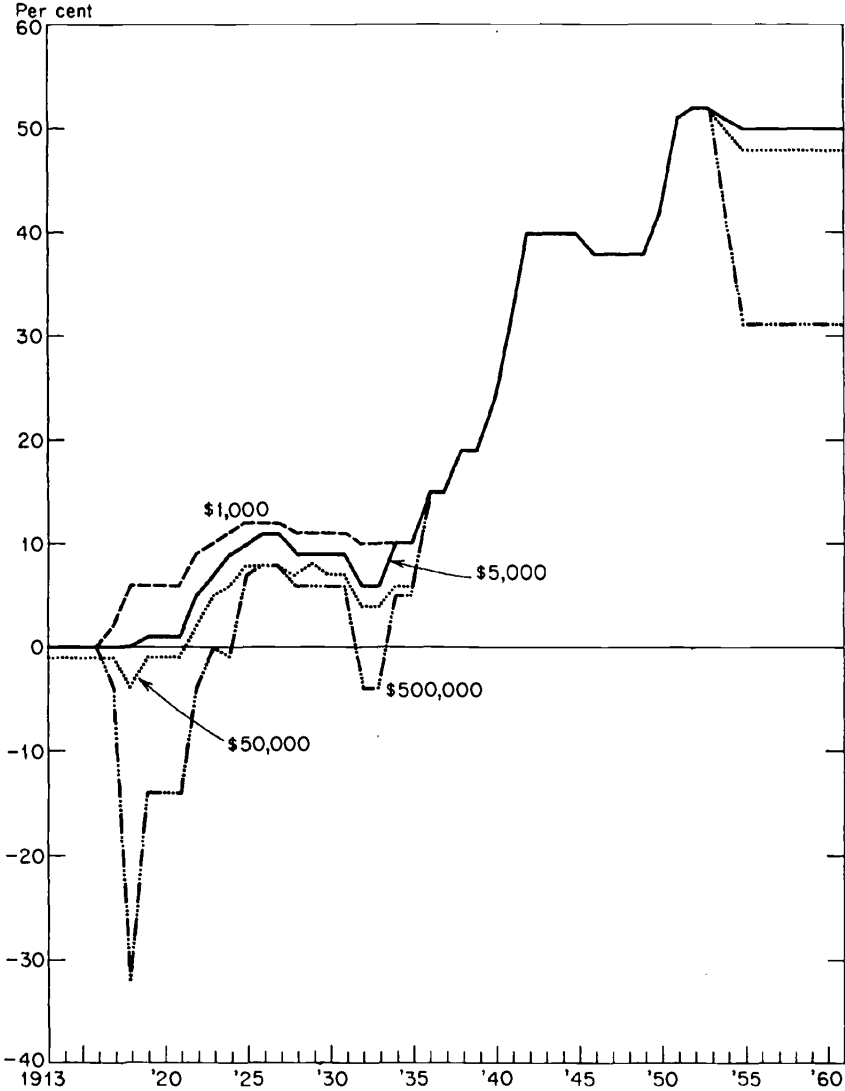
[a] This is the personal tax on the full amount of earnings for distribution, i.e., assuming no corporate tax or, alternatively, the personal tax on an equivalent amount of other income.

[b] Percentage increase indicated by a minus sign.

CHART 8

Percentage Reduction in Earnings for Distribution After Personal Tax Because of Corporate Tax, 1913–1961

TABLE 43

"EXTRA" BURDEN COMPUTED ON MARGINAL RATES AND RELIEF PROVIDED BY
DIVIDEND TAX CREDITS OF 4 AND 15 PER CENT, AT SELECTED LEVELS OF
STOCKHOLDERS' TAXABLE INCOME, 1961 [a]

Taxable Income Level (1)	"Extra" Burden in the Absence of Any Relief (2)	"Extra" Burden After Dividend Tax Credit of 4% (Present Law) (3)	"Extra" Burden After Dividend Tax Credit 15% [b] (4)	Percentage Reduction in "Extra" Burden Due to 4% Credit (5)	Percentage Reduction in "Extra" Burden Due to 15% Credit (6)
$ 1,000	$0.4160	$0.3968	$0.3440	4.6%	17.3%
3,000	.4160	.3968	.3440	4.6	17.3
5,000	.4056	.3864	.3336	4.7	17.8
10,000	.3848	.3656	.3128	5.0	18.7
25,000	.2964	.2772	.2244	6.5	24.3
50,000	.2132	.1940	.1412	9.0	33.8
100,000	.1300	.1108	.0580	14.8	55.4
500,000	.0468	.0276	−.0252	41.0	c
1,000,000	.0468	.0276	−.0252	41.0	c

NOTE: Col. 3 = col. 2 − $0.0192; col. 4 = col. 2 − $0.072.

[a] Computed on the basis of a corporate tax rate of 52 per cent and personal marginal rates applicable to joint returns in 1957.

[b] As originally proposed by President Eisenhower, see the *Budget of the United States Government for the Fiscal Year Ending June 30, 1955*, Washington, 1954, p. 1718.

[c] "Extra" burden converted to a tax saving.

Because P is always positive, in the absence of any credit a positive (albeit declining) differential would exist at all income levels. The relief presently afforded by the credit is not sufficient to change this, involving at all income levels a cut of slightly under 2 points in the differential. Had the 15 per cent tax credit been effective, however, the relief would have been enough to cause a negative "extra" burden on earnings for distribution at the top two of the taxable incomes listed in our table.[24] Any higher credit would mean a shift from "burden" to "benefit" at a lower level.[25]

[24] More precisely, with a 52 per cent corporate rate assumed, the "break-even" point would have been $180,000 of taxable income. This is for joint returns. For separate returns, subject to higher marginal rates and, hence, lower differentials, the "break-even" point would have come at $90,000 of taxable income. (For a neat and precise formulation of the relationships involved here, see Carl S. Shoup, "The Dividend Exclusion and Credit in the Revenue Code of 1954," *National Tax Journal*,

Double Taxation, Differential Taxation, and Tax Relief

The last three columns of Table 43 are designed to illustrate a feature of the credit already noted. With a flat amount of credit per dollar of earnings for distribution [26] and an "extra" burden that falls with rising stockholder income, the degree of relief, i.e., the percentage by which the "extra" burden is cut by the credit, increases with stockholder income. Thus, the credit ameliorates less than 5 per cent of the "extra" burden at the lower income levels (per marginal dollar of earnings for distribution), but relieves those at the top of the income range of over 40 per cent of their differentially heavier tax load. If the 15 per cent credit had been enacted, then, with tax rates assumed unchanged, less than 20 per cent of the "extra" burden would have been removed, for the lower stockholder incomes, while substantial relief would have occurred higher up—well over half at $100,000, and relief so great as to result in a tax saving for the very highest incomes.[27]

The relief actually obtained is, of course, determined by total amount of dividends, not marginal dollars thereof. An estimate of what it comes to for stockholders at different income levels appears in the latter part of this chapter.[28]

Differential Taxation of Stockholders

The tax liability on distributed earnings by no means exhausts the stockholder's tax burden. For while we have been able to identify an inequality in the tax burden on stockholders' dividend receipts (or, more precisely, on earnings for distribution), we have not yet evaluated the extent to which the rest of the income generated by corporations

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March 1955, p. 147.) In terms of our symbols we must find a P so that $C_e(1 - P) = 0.15(1 - C_e)$. With C_e at 0.52, the relevant P is about 0.86, the closest bracket rate to which is 0.87, applicable at the taxable incomes cited.

[25] Canada's dividend tax credit, instituted in 1949 at 10 per cent, currently is 20 per cent.

[26] Assuming a corporate rate of 52 per cent, the credit is 0.04 ($0.48) or $.0192 per dollar of earnings for distribution.

[27] Remember that this applies to marginal increments to incomes of a given size, and the particular figures just cited also refer to joint returns only. For separate returns, which were not, of course, permitted to split their income, substantial relief would occur considerably lower down the income scale as would the transition from "over-" to "undertaxation."

[28] The rest of this chapter draws heavily on the author's book, *The Income-Tax Burden on Stockholders,* from which some materials have been selected for summary presentation here because they round out the discussion of the preceding section of this chapter. For a more thorough discussion, additional data, and more details on procedure than furnished here, the reader is referred to the book.

for their stockholder owners is differentially taxed. The overtaxation we found for distributed earnings could be exacerbated or moderated by the tax treatment accorded retained earnings. And this would be relevant to any discussion of dividend taxation since retention is the alternative to distribution. We shall find that the most salient conclusion about stockholders' taxation is not that distributed earnings bear an extra burden, but that when account is taken of their pro rata share of corporate earnings, whether distributed or not, stockholders are unequally taxed compared with other income taxpayers. And this inequality of taxation is not all in the direction of an extra burden.[29] On net balance, from this broader view, most stockholders are overtaxed, but some are undertaxed. Who they are and what this means will be spelled out as we go on.

The "Extra" Burden on Earnings for Retention

In our measure of the extent to which earnings for distribution (the pre-corporate-tax counterpart of dividends) were overtaxed, the burden of the corporate tax was moderated by taking account of the personal income tax that would have applied. Thus we imputed a marginal dollar of earnings for distribution (the pre-corporate-income-tax equivalent of dividends), determined the potential personal income tax on such an imputation, and compared with it the actual tax liability— viz., the corporate income tax on earnings for distribution and the personal income tax on dividends.

The degree to which the retained earnings component of stockholders' income is overtaxed is measured by a similar yardstick. In connection with that part of corporate earnings not distributed to the stockholder, in measuring what we again denote the extra burden, we consider a basic amount of corporate income, to be designated earnings for retention, which is the pre-corporate-tax equivalent of what is usually called retained earnings. Under our present tax structure, earnings for retention are subject to the corporate income tax. We, on the other hand, estimate the potential personal income tax which the earnings for retention would bear if they were fully distributed

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[29] The reader is reminded that these conclusions are valid only on the assumption that the incidence of the corporation income tax is on profits. For only so far as the tax falls on stockholders is there validity in the charge of "double taxation" of dividends or in the finding of the overtaxation of distributed earnings.

(or imputed) to the stockholders,[30] and the difference between these two tax liabilities is the extra *burden* if the actual exceeds the hypothetical, the *benefit* if potential liability is bigger than the actual. The extra burden, taken as a percentage of earnings for retention, we call the differential against earnings for retention.

Add to the symbols used earlier in this chapter:

R = earnings for retention

C_r = effective rate of corporate income tax on earnings for retention (this is higher than C_e because earnings for retention are net of deficits reported by loss corporations)

N_r = absolute extra burden on earnings for retention

$\dfrac{N_r}{R}$ = differential against earnings for retention.

Then [31]

$$N_r = C_r R - PR$$
$$= R(C_r - P)$$
$$\frac{N_r}{R} = C_r - P.$$

It is apparent that the differential against earnings for retention can be positive, zero, or negative depending on the relative heights of C_r and P. With C_r invariant on stockholders' income and P a rising function thereof, the differential measured as a rate declines as stockholders' income rises, and if P is high enough at some point in the income scale, the differential will become negative. (Note that because the personal income tax rate schedule is progressive, the P that applies here is higher than the one in the differential against earnings for

[30] Use of this imputation procedure for retentions and distributions implies neither support for nor opposition to a change in the tax laws that would treat stockholders like partners. We adopted it as an analytical framework most relevant for assessing the equity that attaches to the income taxation of stockholders (given that the incidence of the tax is on profits).

[31] We could more properly write P_j, where $j \geqq i$ and, like i, runs from zero to the top marginal rate (see footnote 3 of this chapter). We felt this hypothecation of subscripts might, on net balance, hinder rather than help our expression of the basic relations involved here.

distribution formula. More precisely, since earnings for retention are taken to be incremental to earnings for distribution, they would be subject to marginal rates equal to or greater than those applying to earnings for distribution.)

As described, the actual tax load on earnings for retention consists simply of the corporation income tax, and the extra burden on this segment of corporate earnings is measured as the difference between the corporate tax and the hypothetical personal tax. This measure is designated variant 1 of our standard method. Values of the differential against earnings for retention (and of two additional measures de-scribed below—the differentials against net corporate earnings and stockholders' income—in the derivation of which this measure of the extra tax burden on retained earnings is employed) we call variant 1 values. Variant 1 is a clear-cut measure that tells us for a given year how much more (or less) income tax stockholders paid on their pro rata share of earnings for retention than would have been due if this income share had been subject promptly and in full to the personal income tax alone. But it leaves out something.

For it can be argued that some portion, at least, of retained earnings would show up as capital gains, and that some of these capital gains would be realized by stockholders in taxable form. Thus, because of current retentions, sometime in the future an additional tax liability would be incurred. Therefore variant 2 was developed. Under variant 2, in measuring the tax load on retained earnings (before corporation income tax), a term (explained below) was added to represent the present value of the future capital gains tax on the undistributed earnings of a given year. Unless otherwise specified it is the variant 2 values that are used throughout this section.

To make such an adjustment with precision is impossible, however. Too many factors about which little is known are involved. To what extent do retained earnings show up in share prices? What proportion of resulting capital gains is realized, and of this what fraction shows up in taxable form? Our adjustment, therefore, is arbitrary but reasonable in the sense that it is in the right direction, and that sub-stantial changes in the assumptions used in its derivation would lead to only slight changes in the size of the estimated additional tax liability on earnings for retention.

Briefly, variant 2 incorporates an additional tax liability of stock-holders—a capital gains tax—determined on the assumptions that for each dollar of retained earnings share prices rose by 72 cents, and that

two-thirds of these increments in the value of stock were realized in taxable form at an even rate over a five-year period.[32] The adjustment for the future capital gains tax liability enters as an additive term in N_r/R.

But it might be argued that this adjustment does not go far enough. For one assumption used in the variant 2 estimate is that stock prices rose by only 72 per cent of reinvested earnings, or that 28 cents of every dollar of retained earnings failed to show up in enhanced stock values. Apparently, then, when earnings are reinvested rather than paid out, stockholders lose 28 cents per dollar of such earnings. Should not this be considered a deprivation and, while not a formal tax, should it not be taken into account in estimating the extra tax load on earnings for retention? Despite good grounds for answering this question in the negative (see the next paragraph), and because the matter is debatable, variant 3 was developed. Very simply, in addition to the corporate tax and the present value of the future capital gains tax due to reinvested earnings, variant 3 includes the present value of this 28 cents loss as though it were an additional tax on earnings for retention. This adjustment affects N_r/R, making it higher than the variant 2 values which, in turn, of course, exceed the variant 1 values of the differentials.

But variant 3 seems to cover too much. For there is a difference between a tax and the reduction in potentially disposable income caused by the failure of corporations to distribute fully. The latter lacks the strong element of compulsion that characterizes a federal tax levy. Stockholders are not forced to acquiesce in corporate distribution policies. They can press for fuller distribution by the companies whose shares they hold; or acquire shares in corporations whose policy it is to distribute more of their earnings; or make other kinds of investments. On this reasoning variant 2 was selected as superior. Variant 3 goes too far; variant 1 not far enough.

[32] The 72 cents comes from a finding for the period 1870–1937 "that every $2.50 of earnings retained by a corporation has, on the average, been associated with an increase of $1.80 in the value of its stock" (Alfred Cowles 3rd and Associates, *Common Stock, Indexes 1871–1937*, Principia, 1938, p. 42). The two-thirds and five years are arbitrary, but varying the fraction and the number of years would not change our measure much.

Measuring the Differential Taxation of Earnings for Stockholders

Combining the differentials against earnings for distribution and earnings for retention furnishes a net result—the differential against net corporate earnings, a weighted average of the differential against each component.

Add to the symbols used up to this point:

$$T = \text{net corporate earnings} = E + R$$

$$N_t = \text{the absolute extra burden on net corporate earnings}$$

$$\frac{N_t}{T} = \text{the differential against net corporate earnings.}$$

Then

$$N_t = N_e + N_r$$
$$= C_e E(1 - P) + R(C_r - P).$$

Since

$$T = E + R,$$

$$\frac{N_t}{T} = \frac{N_t}{E + R}$$

$$= \frac{C_e E(1 - P) + R(C_r - P)}{E + R}$$

$$= C_e(1 - P)\left(\frac{E}{E + R}\right) + (C_r - P)\left(\frac{R}{E + R}\right).$$

NOTE: This is the formula based on variant 1 values of the differential against earnings for retention. With variants 2 and 3 the procedures are the same, but N_r/R and N_t/T are larger. Also note that we use the measure of the differential against earnings for distribution that applied in the period 1936–1953. The dividend credit and exclusion are not yet incorporated in our measure; they will be later.

The differential against net corporate earnings will, of course, have the same characteristics as its components. The higher the proportion of earnings for retention to total corporate earnings, the closer N_t/T

lies to N_r/R. Further, since both its components behave in the same way on this score, it will be a declining function of stockholders' income. Also, after a point N_r/R can (and in a number of years did) weigh so heavily that N_t will turn negative, i.e., an income tax differential in favor of net corporate earnings will exist at the higher income levels.

By now it is evident that an income as well as a tax liability adjustment is incorporated in these measures. That is to say, we conduct our comparisons on the basis of the size of stockholders' income after the imputation of their full pro rata share of net corporate earnings (defined as the sum of earnings for distribution and earnings for retention), or (the equivalent) the sum of dividends, corporate savings, and corporation income taxes (with corporate savings taken net of deficits). This distinguishes the results of this section from those presented earlier in this chapter. There for illustrative purposes we imputed small sums—marginal dollars. Now, however, in converting *adjusted gross income* which contains stockholders' dividends as the measure of their income from corporate activity to *imputed gross income* which includes their full pro rata share of net corporate earnings, we use a corporate earnings multiplier derived from the ratio of pre-tax earnings to dividends for the corporate system as a whole.[33]

Specifically this income adjustment was made each year as follows:

We used the data of *Statistics of Income*, primarily an array of dividend recipients (stockholders) cross-classified by size of adjusted gross income and dividend size class. The array consisted of over 200 cells—one, for example, containing the data on stockholders with adjusted gross income of $4,000 to $5,000 and dividend receipts of less than $100; another for those in the same income range, but with dividend receipts falling in the range $100 to $200, etc. To the average amount of dividends in each of these cells we applied the corporate earnings multiplier and obtained imputed gross income by adding this product to the average adjusted gross income in that cell. Then stockholders were rearrayed into imputed gross income classes; averages were struck and plotted, and from them we read off, for selected imputed gross incomes, the amount of corporate earnings and taxable income. With this information we proceeded in the manner already described to measure the degree of differential taxation of earnings

[33] Thus we measure the average experience and refer to our stockholders as typical or representative stockholders at particular imputed gross income levels.

for distribution, earnings for retention, and net corporate earnings. The data cover only individuals who were "double-taxed." They leave out fiduciaries (estates and trusts) and dividend recipients who were not subject to personal income tax.

The Net Extra Burden as a Percentage of Stockholders' Total Income

One more measure has been developed for this analysis. By relating the extra burden to the total income of stockholders, we obtain the differential against (or in favor of) stockholders. It enables us to ascertain how much more heavily, measured in terms of effective rates, stockholders were actually taxed on the whole of their income from all sources because of the combined (nonintegrated) corporate-personal income tax system than they would have been with the corporate tax abolished and their pro rata share of net corporate earnings subject fully and promptly to the personal income tax.

Add to the symbols listed above:

S = imputed gross income of stockholders

O = stockholders' income from sources other than net corporate earnings

$\quad = S - T$

$\dfrac{N_t}{S}$ = differential against stockholders

$S = T + O$

N_t = the extra burden on net corporate earnings. This is also the extra burden on stockholders, since it is only on the corporate earnings component of their income that stockholders are differentially taxed.

Therefore:

$$\frac{N_t}{S} = \frac{N_t}{T + O}.$$

With O positive, the differential against stockholders lies below that against net corporate earnings. But, since the only difference is in the denominator, the smaller the value for O, i.e., the larger the

proportion of T in S, the closer N_t/S to N_t/T. Thus, as we shall see, at the lower stockholder income levels, the two measures diverge considerably; near the top of the income scale, however, they lie very close together. This is a reflection of the fact that, except for the lowest portion of the income range, the proportion of T to S is a rising fraction reading up the array of stockholder incomes.

What we have given here is a brief description. For a more thorough explanation of these procedures, the reader is referred to *Income-Tax Burden on Stockholders,* Chapters 1 and 2 and Appendix B.

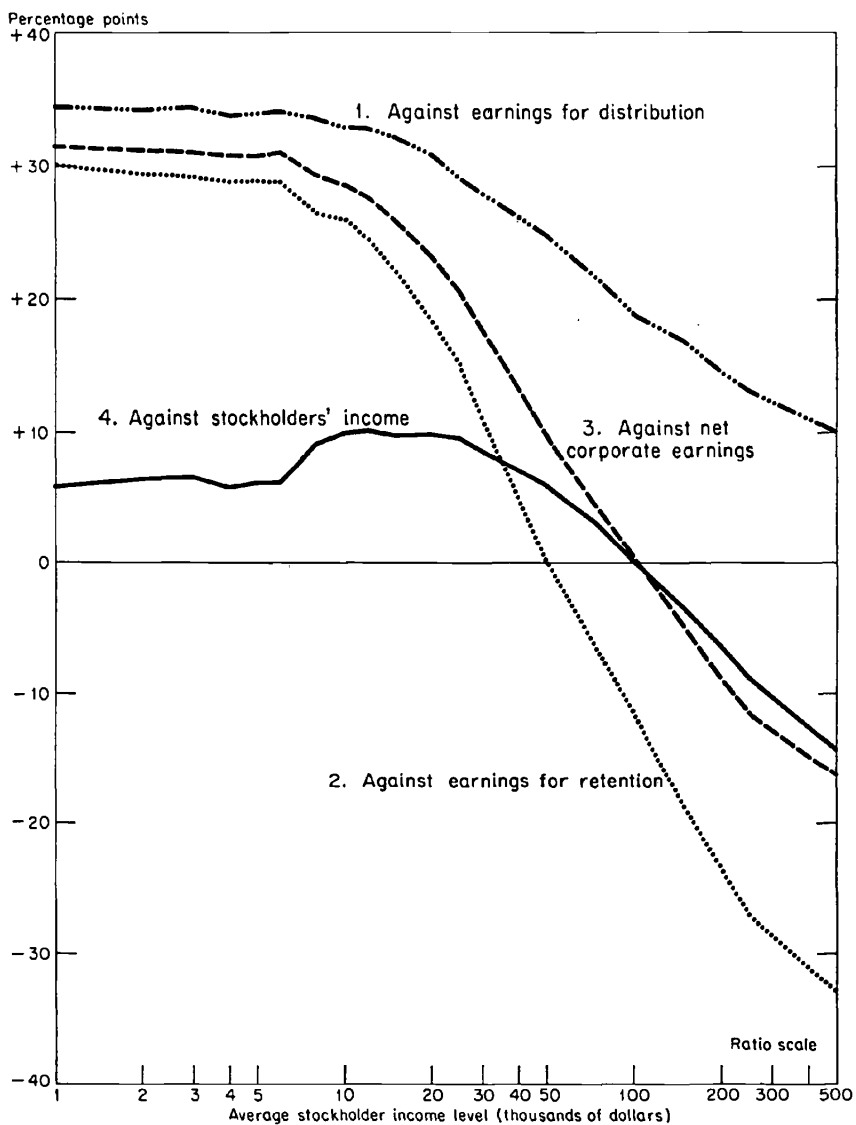## Differential Taxation of Stockholders in 1950

We turn now to the findings, and, to anchor the discussion, present them for a particular year 1950. Similar results, however, were obtained for all years 1944–1952. Modifications of the pattern because of the dividend tax relief provisions of the Internal Revenue Code of 1954 are considered later in this section.

Chart 9 and Table 44 summarize how heavy the differential taxation of net corporate earnings and of stockholder income was in terms of the four selected measures, for the 1950 data. The reader is reminded that the results are for "average" stockholders representing the aggregate experience in each stockholder income class, that the values plotted are those obtained from variant 2 of our standard measures, and that the income of stockholders includes their pro rata share of pre-tax corporate earnings. The marginal rate schedules for joint and separate returns showed substantial differences, except at the two extremes of the income range, because of the income splitting permitted married stockholders. Therefore, the differentials for each type of return were computed separately, and weighted averages were struck for plotting the chart.

Examination of line 1 in Chart 9—the differential against earnings for distribution—reveals that the double taxation of distributed earnings was substantial but became steadily less severe as stockholder income rose. At the bottom of the taxable stockholder income scale, earnings for distribution were subject to a tax more than 34 percentage points higher than would have been due under the personal income tax alone. At the $25,000 stockholder income level, the net extra burden averaged about 29 percentage points, and at the top of the stockholder income range plotted on the chart ($500,000) it was only 10 per cent.

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CHART 9

Differentials, 1950
(variant 2)

Percentage points

1. Against earnings for distribution

4. Against stockholders' income

3. Against net
corporate earnings

2. Against earnings for retention

Ratio scale

Average stockholder income level (thousands of dollars)

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Double Taxation, Differential Taxation, and Tax Relief

TABLE 44

PERCENTAGE DIFFERENTIALS, 1950

Average Stockholder Imputed Gross Income ($000's)	Differential Against:										
	Earnings for Distribution Variants 1, 2, 3	Earnings for Retention Variant			Net Corporate Earnings Variant			Stockholder Imputed Gross Income Variant		
		1	2	3	1	2	3	1	2	3
1	34.3	27.3	30.0	43.6	30.0	31.7	40.0	5.4	5.7	7.2
2	34.2	26.9	29.3	43.0	29.7	31.2	39.6	6.0	6.3	8.0
3	34.3	26.8	29.1	42.6	29.7	31.1	39.4	6.2	6.5	8.2
4	33.9	26.1	28.7	42.3	29.1	30.7	39.1	5.5	5.8	7.4
5	33.8	26.3	28.8	42.3	29.1	30.7	39.0	5.7	6.0	7.6
6	34.0	26.2	28.7	42.3	29.2	30.8	39.1	5.7	6.0	7.6
8	33.7	24.0	26.5	40.0	27.7	29.3	37.6	8.6	9.0	11.6
10	32.9	23.1	26.0	39.5	26.8	28.6	36.9	9.3	9.9	12.8
12	32.7	21.7	24.6	38.2	25.9	27.7	36.0	9.4	10.0	13.0
15	32.1	19.2	22.0	35.5	24.0	25.9	34.2	9.1	9.7	12.8
20	30.8	15.2	18.5	32.0	21.2	23.3	31.6	9.0	9.8	13.4
25	29.2	11.3	15.2	28.7	18.2	20.6	28.9	8.4	9.5	13.4
50	24.9	−4.4	0.4	13.9	6.9	10.0	18.2	4.2	5.9	10.8
75	21.7	−12.4	−6.7	6.8	0.7	4.2	12.5	0.5	2.9	8.5
100	19.1	−17.3	−11.4	2.1	−3.3	0.4	8.7	−2.3	0.3	6.1
150	16.7	−24.6	−18.7	−5.1	−8.7	−5.0	3.3	−6.2	−3.6	2.3
200	14.6	−29.3	−23.4	−9.9	−12.4	−8.7	−0.4	−9.0	−6.3	−0.3
250	13.2	−32.8	−26.9	−13.5	−15.0	−11.4	−3.1	−11.5	−8.7	−2.4
500	10.0	−38.8	−32.9	−19.3	−19.9	−16.3	−8.0	−17.5	−14.3	−7.0

While the differential against earnings for retention (line 2 of Chart 9) follows the same general pattern, it is lower at all income levels, the difference becoming very marked over the upper portion of the stockholder income array. Starting at 30 per cent for the lowest income class, it falls rapidly to only 15 per cent at the $25,000 mark, above which the burden changes to a benefit increasing to a differential of −33 per cent at the top of the stockholder income scale. At this level ($500,000) the earnings for retention component of stockholders' income was subject to a tax liability 33 percentage points less than would have been the case had it been reached promptly and in full by the personal income tax alone. It appears, then, that on their share of earnings for retention some stockholders were overtaxed and others were undertaxed to significant degrees. The inversion from over- to undertaxation occurred, on average, at just over the $50,000 stockholder income.

The weighted average of these two measures, the differential against net corporate earnings (line 3), traces the same general path over the income range as the differentials that comprise it, and falls between

them. Reflecting the greater absolute magnitude of earnings for re-
tention, it lies closer to line 2 than to line 1. Over most of the income
scale the net corporate earnings component of stockholders' income
was overtaxed, but for stockholders higher up the income pyramid,
undertaxation occurred.[34] The heaviest extra burden falls on the
lower stockholder income levels ($1,000 to $10,000)—between 32 and
29 percentage points. Above $10,000 the differential drops rapidly,
reaching zero at about $100,000 and low point of −16 per cent at
$500,000. Thus the substantial over- or undertaxation found on net
corporate earnings depends on the stockholder's income level.

So far, we have measured the differential tax load on net corporate
earnings and its components. Now we relate the over- and undertaxa-
tion to total stockholder income. How much heavier or lighter was
the effective tax rate for stockholders than that applicable if their
income (including their full pro rata share of net corporation earn-
ings) had been reached by the personal income tax alone?[35] (The
personal income tax is used as the benchmark throughout this analysis
because it presumably measures the community's "consensus" as to
the rates of income taxation appropriate at different income levels. I
am not contending that this "consensus" has been deliberately arrived
at; rather, the legislative structure of our community suggests that
many considerations of varying degrees of merit and relevance, and
numerous factors, some purposeful, others accidental, all are associated
with the process by which this rate schedule was determined. Perhaps
"consensus" is not the right word here. The community has never
voted for a particular rate schedule per se, nor has it chosen from
among candidates for legislative office on the basis of a particular rate
schedule as the only issue differentiating them. Yet if we raise the
question of what we have in fact established as our standard for per-
sonal income taxation, income being defined as regularly taxable in-
come, it is to this schedule we must look for an answer.)

To put the choice of benchmark in a somewhat different focus, we
might say we use the personal income tax rate schedule for this pur-
pose because it is the rate schedule that applies to income (withdrawn

[34] In 1950, earnings for distribution totaled $11 billion, earnings for retention
$19 billion. (These figures are the totals for taxable stockholders only.)

[35] Another way of putting the question is: How much heavier (or less onerous)
was the combined corporate-personal income tax rate on stockholders at a given
income level than the personal income tax on nonstockholders with a similar amount
of income?

or retained in the business) generated by noncorporate business enterprises.

The answer is provided by the differential against stockholders' income, line 4 on Chart 9. It appears that the majority of stockholders, having incomes ranging from $1,000 to $50,000, were liable to an appreciable extra income tax of from 6 to 10 percentage points. Those most severely affected were in the income range between $10,000 and $25,000 with a maximum differential of 10 points. But near the top of the income scale a different picture emerges, with the differential declining very rapidly after the $50,000 point and reaching zero at a little over $100,000. Stockholders with incomes above this point enjoyed a tax benefit that became relatively more important as income increased. Thus, at the $500,000 imputed gross income level we find the combined corporate-personal income tax liability to be 14 percentage points lower than would have been the case without any corporate tax but with stockholders' full pro rata share of net corporate earnings subject only to the personal income tax.

Instead of falling constantly as income rises, the differential against stockholders tends first to increase over a portion of the income range and then, after reaching a maximum between the $10,000 to $20,000 level, to fall constantly thereafter. This difference in behavior compared with the other three differentials occurs because of uneven variations in the proportion of imputed gross income derived from corporate earnings. For the value of the differential against stockholders is equal to that fraction of the differential against net corporate earnings that net corporate earnings represent of imputed gross income. In general this fraction tends to rise with income. (This is why line 4 lies closer to line 3 at the higher income levels.) Over the stockholder income span from $6,000 to $20,000, the rise in the proportion of net corporate earnings to imputed gross income more than compensates for the fall in the differential against net corporate earnings, thereby causing the product—the differential against stockholders—to rise over this range.

The findings apply to average stockholders, and figures on how many fell in the over- and undertaxed categories cannot be obtained directly from these data. However, from a closely related set of procedures (detailed in Chapter 6 of *Income-Tax Burden on Stockholders*) we can get some idea of the number of stockholders in each of these categories. For 1950 the estimate is about 3.3 million double-taxed stockholders. Slightly under 3.2 million paid a higher combined cor-

porate-personal income tax than would have been due under the personal income tax alone and were, in the sense adopted here, over-taxed. On the other hand, some 4 per cent, about 130,000, were under-taxed.[36] For the latter, a higher tax liability would have occurred if the corporate tax had been eliminated and their share of corporate earnings had been taxed in full as personal income. While small as a proportion of all stockholders, the undertaxed group assumes greater importance when its share of all double-taxed net corporate earnings is measured. Some 44 per cent of net corporate earnings was under-taxed.

The findings for 1950 are based on the tax treatment of corporate earnings then in effect. With the Internal Revenue Code of 1954, modifications of the procedure for taxing dividends were introduced —an exclusion of the first $50 of dividends ($100 for joint returns) and a personal income tax credit equal to 4 per cent of dividends over and above the amount excluded. How this dividend tax relief would have changed the results for 1950 is considered next.

But first we remind the reader that the findings just presented are for a given year and hence their specific magnitude depends on the particular levels of personal and corporate income tax, corporate earnings, dividends, and corporate saving that prevailed in that year. Values of the differentials annually from 1944 through 1952 can be found in *Income-Tax Burden on Stockholders,* Appendix A. We note in passing that for all these years the general pattern of results was similar, i.e., it shows differentials that decline with income, and, in the case of earnings for retention and net corporate earnings, decline sufficiently to lead to negative extra burdens. The income level at which this "crossover" from extra burden to benefit occurred varied, of course, from year to year. On a variant 2 basis, the lowest income level at which the differential against net corporate earnings "crossed over" was $30,000 in 1947; the highest, $138,000 in 1951.

Our findings are, of course, no more reliable than the assumptions used in their derivation. This is not the place to analyze all our assumptions or procedures, but two deserve specific mention. We

[36] These estimates, while germane, are not strictly comparable with the variant 2 values of the differentials that have been used in discussing the findings for 1950. For in deriving the number of over- and undertaxed stockholders, no account was taken of the future capital gains tax liability on reinvested earnings of 1950. An adjustment on this score would lead to somewhat larger overtaxed and smaller undertaxed totals than those given in the text. (See *Income-Tax Burden on Stock-holders,* p. 154.)

assumed, for reasons noted above, that the incidence of the corporation income tax is on stockholders via a commensurate decline in the income generated on their behalf. This is still a widely held opinion. But among students of public finance there is much disagreement about this whole matter. If the corporate tax is shifted to any degree, the findings given here overstate the extra tax burden and understate the tax benefit. The larger the fraction of the tax shifted, the greater this over- and understatement. We also accepted the tax law's definition of income which permits tax-free recoupment of the outlays on depreciable assets but only on a historical cost basis. And not all taxpayers have chosen the LIFO option for inventories. If corporate earnings were measured with regard to current costs of maintaining inventory and replacing depreciable assets, overtaxation would be found to be more severe than we have measured it, while undertaxation would be less pronounced. The effects of alternative definitions and assumptions on the measures of stockholder differential taxation are explored at some length in Chapter 4 of *Income-Tax Burden on Stockholders*, but we insert Table 45 here to show the effect of varying the two assumptions noted above.

TABLE 45

COMPARISON OF DIFFERENTIAL AGAINST NET CORPORATE EARNINGS UNDER
STANDARD ASSUMPTION AND TWO ALTERNATIVE ASSUMPTIONS, 1947

(per cent)

Average Stockholder Imputed Gross Income ($000's)	*Differential Against Net Corporate Earnings*		
	Standard Method	Assuming One-Half the Corporate Tax Is Shifted	Taking Account of Current Price Level for Depreciable Assets and Inventory
1	24.6	11.1	39.5
3	23.8	10.7	39.5
5	22.5	9.4	38.1
10	17.7	5.0	33.4
25	2.0	−10.0	18.3
50	−7.6	−18.1	10.1
100	−16.2	−26.3	1.7
250	−24.5	−33.9	−5.3
500	−25.7	−34.8	−6.1

NOTE: See pp. 81–103 of Holland, *Income-Tax Burden on Stockholders*, for an explanation of these adjustments.

Effect of Relief Provisions on Differentials

'The analysis in the first part of this chapter of the relief provisions of the Internal Revenue Code of 1954 ran in terms of marginal dollars. In order to determine how much relief on the average, rather than at the margin, tends to be provided by the Internal Revenue Code of 1954, its provisions have been applied to our average stockholder data for 1950. The results are shown in Table 46.

An examination of column 6 shows that the absolute reduction in the extra tax burden (measured in percentage points) is greatest at the lowest income and falls steadily as income rises. Apparently, this contradicts the point made earlier that the relief afforded by the dividend tax credit is the same at all income levels, while relief traceable to the exclusion of a flat amount of dividends rises with stockholder income. But this conclusion referred to marginal increments of earnings for distribution of the same amount at all income levels. Here, we are concerned with the total amount of earnings for distribution, and that, of course, varies with the stockholders' income. So the pattern

TABLE 46

EFFECT OF RELIEF PROVISIONS OF INTERNAL REVENUE CODE OF 1954 ON DIFFERENTIAL
AGAINST EARNINGS FOR DISTRIBUTION

(estimated from 1950 data)
(weighted average of joint and separate returns)

Average Stockholder Imputed Gross Income ($000's) (1)	*Earnings for Distribution*		Differential Against Earnings for Distri- bution (4)	*Internal Revenue Code of 1954* [a]		
	Amount (2)	Per Cent of Stockholder Income (Col. 2 ÷ Col. 1) (3)		Differential After Relief (5)	Absolute Reduc- tion in Differ- ential (Col. 4 − Col. 5) (6)	Relative Reduc- tion in Differ- ential (Col. 6 ÷ Col. 4) (7)
1	$ 70	7%	34.3%	24.3%	10.0%	29.2%
3	242	8	34.3	27.8	6.5	19.0
5	376	8	33.8	28.3	5.5	16.3
10	1,343	13	32.9	29.3	3.6	10.9
15	2,176	15	32.1	29.1	3.0	9.3
25	4,458	18	29.2	26.4	2.8	9.6
50	11,519	23	24.9	22.3	2.6	10.4
100	27,013	27	19.1	16.6	2.5	13.1
250	73,418	29	13.2	10.8	2.4	18.2
500	169,989	34	10.0	7.6	2.4	24.0

[a] Exclusion of $50 for separate and $100 for joint returns plus tax credit of 4 per cent of dividends in excess of excluded amount.

of relief we now get is a matter of weighting. At the lower stockholder incomes where the amount of earnings for distribution is small, the exclusion, which gives more relief per dollar, far outweighs the credit in importance; hence the large amount of relief (measured in percentage points of differential reduction). As we move up the income scale and the amount of earnings for distribution increases, the weight of the exclusion in the relief provided dwindles, while the credit grows in importance. For the highest incomes, the effect of the exclusion is negligible, and the absolute amount of relief (measured in percentage points of differential reduction) tends to approach the constant set by the credit alone.

Column 7 contains the data relevant to an appraisal of the degree of relief, i.e., the amount of relief relative to the severity of the inequity it is designed to ameliorate. Here the pattern is U-shaped. Proportionately the greatest relief is provided at the bottom and top of the income scale, with a lesser degree of easing of the extra burden in between. These results follow from two factors already noted—the relative weights of the exclusion and credit, and the fact that the differential moves inversely with income. At the lower income levels the exclusion has a substantial effect, accounting for the high degree of relief there. Moving up the income scale, the exclusion fades in importance, and the absolute amount of relief tails off toward the constant provided by the credit. With the differential declining as income rises, after a point (somewhere after $15,000 of imputed gross income on average), the higher the stockholder's income, the greater the degree of relief provided.

Since the differential against earnings for distribution is only one aspect of the unequal taxation of stockholders, it may be of interest to view the relief provisions against the net result of stockholders' differential taxation, i.e., with reference to the differentials against net corporate earnings and stockholders. This is done in Table 47. But our first conclusion is so obvious that no reference to the table is required. It is merely this: Relief is provided all dividend recipients, yet while some stockholders were overtaxed on their share of corporate earnings, others were undertaxed. Relief is granted to the latter as well as to the former. Specifically, the data of the table show that the differential against stockholders (taking account of both distributions and retentions on their behalf) is moderated but slightly, something on the order of 5 to 10 per cent (see column 5 or 9 of Table 47). On the other hand, existing undertaxation is made more pronounced.

TABLE 47

REDUCTION IN DIFFERENTIAL AGAINST NET CORPORATE EARNINGS AND STOCKHOLDER INCOMES
DUE TO RELIEF PROVISIONS OF THE INTERNAL REVENUE CODE OF 1954 [a]

(estimated from 1950 data)
(weighted average of joint and separate returns)
(per cent)

Average Stockholder Imputed Gross Income ($000's) (1)	Differential Against Net Corporate Earnings				Differential Against Stockholder Income			
	Before Relief (2)	After Relief (3)	Absolute Reduction (Col. 2 − Col. 3) (4)	Relative Reduction (Col. 4 ÷ Col. 2) (5)	Before Relief (6)	After Relief (7)	Absolute Reduction (Col. 6 − Col. 7) (8)	Relative Reduction (Col. 8 ÷ Col. 6) (9)
1	31.7	27.8	3.9	12.3	5.7	5.0	0.7	12.3
3	31.1	28.6	2.5	8.0	6.5	6.0	0.5	7.7
5	30.7	28.6	2.1	6.8	6.0	5.6	0.4	6.7
10	28.6	27.2	1.4	4.9	9.9	9.5	0.4	4.0
15	25.9	24.7	1.2	4.6	9.7	9.3	0.4	4.1
25	20.1	19.5	1.1	5.3	9.5	9.0	0.5	5.6
50	10.0	8.8	1.2	12.0	5.9	5.3	0.6	10.2
100	0.4	−0.6	1.0	250.0	0.3	−0.4	0.7	233.3
250	−11.4	−12.3	0.9	7.9 [b]	−8.7	−9.4	0.7	8.0 [b]
500	−16.3	−17.2	0.9	5.5 [b]	−14.3	−15.1	0.8	5.6 [b]

[a] Exclusion of $50 for separate and $100 for joint returns plus tax credit of 4 per cent of dividends in excess of excluded amount.
[b] Denotes increase in differentials in favor of net corporate earnings and stockholders.

Of course this type of uneven result is frequently found for tax relief granted by the statutes; in the nature of the case, Congress will prefer measures which result in the application of fairly simple rules of computation of tax or tax credit; and inevitably the impact varies unevenly among taxpayers. This does not mean, however, that the dividend relief could not have been framed to fit the facts more closely without undue trouble for the taxpayer had the real nature of "double taxation" been used as a guide for the relief provisions. Moreover, some additional complexity, had that been necessary, might well have been worth the effort if providing greater relief at some future time were being seriously considered. For, as we have seen, the peculiarities of the method chosen become more pronounced as the rate of tax credit is increased.

Yet in pointing out the differential degree of relief the credit and exclusion provide among stockholders, we should not lose sight of the fact that some measure of relief has been provided them all.