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## CHAPTER 3

### Changes in the Differential Tax Burden, 1940-1952

THE procedures described in the preceding chapters were undertaken for each of the years in the period 1940-1952, with the exception of 1942 and 1943 for which years the data required in our calculations were not published. Having examined the findings for 1950 in detail, we can go on to discuss in more summary fashion the results for the other years covered by the study.

That there should be sizeable differences among years is hardly surprising. The results are the outcome of interaction of a number of factors which varied significantly in level and relative weight from year to year (see Table 6). The primary direct determinants of the value of the differentials are:

1. The level of corporate tax rates (columns 4 and 6)
2. The level of personal income tax rates (column 1), and the slope of the rate schedule, i.e., the rapidity with which the effective rate rises
3. The amount and relative importance of earnings for distribution and for retention (columns 3 and 5, and 7 and 8)
4. The amount of net corporate earnings (columns 2 and 9)

1. With everything else equal, the higher the corporate tax rate, the greater the extra burden against earnings for distribution, earnings for retention, corporate earnings and stockholders.

2. Conversely, with other factors unchanged, the higher the personal income tax rate, the lower the extra burden in all these connections. Similarly, the more progressive the rate schedule, i.e., the more rapidly the marginal rate increases, the less onerous these extra burdens become as stockholder income rises.

3. The extra burden (or benefit) on net corporate earnings is a weighted average of (a) the extra burden on earnings for distribution and of (b) the extra burden or benefit on earnings for retention. Therefore, the higher the proportion of earnings for distribution, the greater the weight of (a) in the determination of the extra burden (or benefit) on net corporate earnings. The importance of these proportionate interrelations is particularly apparent at those income levels where we find an extra burden on earnings for distribution and a net tax saving on earnings for retention; but their importance is also obvious at all stockholder income levels.

4. With other factors unchanged, the proportion of income derived

TABLE 6  
Summary Information on Taxable Stockholders, 1940-1941 and 1944-1952  
(dollars in millions)

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TABLE 6  
Summary Information on Taxable Stockholders, 1940-1941 and 1944-1952  
(dollars in millions)

YEAR	Effective rate of personal income tax for all taxpayers <sup>a</sup> (1)	Net corporate earnings (2)	Earnings for distribution (3)	Effective rate on earnings for distribution <sup>b</sup> (4)	Earnings for retention (5)	Effective rate on earnings for retention (6)	Earnings for distribution as % of net corporate earnings (7)	Earnings for retention as % of net corporate earnings (8)	Net corporate earnings as % of stockholder income (9)
1940	5.8%	\$ 5,302	\$ 4,289	27.1%	\$ 1,013	78.6%	80.9%	19.1%	38.8%
1941	7.9	11,302	6,454	44.5	4,848	59.3	57.1	42.9	50.2
1944	14.1	18,087	7,922	57.5	10,165	61.6	43.8	56.2	56.1
1945	14.5	14,243	6,905	51.2	7,338	58.0	48.5	51.5	46.5
1946	13.6	16,555	6,183	34.0	10,372	40.0	37.3	62.7	47.4
1947	13.4	21,867	7,323	34.5	14,544	38.5	33.5	66.5	53.4
1948	10.9	23,906	8,167	34.7	15,739	38.2	34.2	65.8	52.0
1949	10.5	19,903	8,593	34.1	11,310	40.5	43.2	56.8	47.5
1950	11.6	30,202	11,655	41.3	18,547	44.3	38.6	61.4	53.9
1951	13.2	31,220	13,843	51.1	17,377	55.6	44.3	55.7	51.5
1952	14.1	26,506	13,073	50.0	13,433	56.0	49.3	50.7	46.2

Source: Basic data used for estimates from *Statistics of Income*, Parts 1 and 2.

<sup>a</sup> Rate on adjusted gross income (or estimated equivalent for 1940 and 1941). This column serves only as a rough index of the height of rate schedules because effective rates are affected also by changes in the income distribution. But these data do bring out all that is necessary for our purpose—i.e., that income tax rates (comparing the years cited and the years directly below them in the table) rose in 1941, rose in 1944 and 1945, fell in 1946 and 1947, in 1948 and 1949, and rose in 1950, 1951, and 1952.

<sup>b</sup> Effective rate of corporate income taxes on net income corporations.

<sup>c</sup> Higher than column 4 because earnings for retention are net of deficits of deficit corporations.

## CHANGES OVER TIME

from net corporate earnings determines the degree of over- or under-taxation of stockholders.

The reader is reminded of the amplified treatment of these factors and their interrelations in determining the differential tax burden on stockholders given in the two preceding chapters. This cursory recapitulation will serve as a point of departure for our investigation of the variations found over the period of the study.

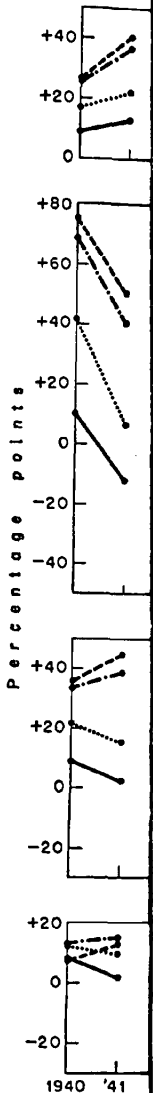
### COMPARISON OF DIFFERENTIALS OVER THE PERIOD FROM 1940 THROUGH 1952

Over the years 1940 through 1952, what were the trends in differential taxation of stockholders? For tracing the directions and extent of change, four selected income levels are analyzed and shown graphically in Chart 4. For this purpose \$3,000 is taken as representative of the bottom of the stockholder income scale, \$500,000 to summarize the experience at the top, and \$10,000 and \$50,000 to cover the range in between.<sup>1</sup> As in Chapter 2, the values are derived in terms of variant 2 (although data for variants 1 and 3 would show essentially similar patterns).

Consider first the trend in the differential against earnings for distribution (panel A). While there are slight variations in its time pattern at the lower and upper income levels; in general there occurs a rise in the first years of our period, then a decline reaching a low in 1946, and finally year-to-year increases up through 1951 with a slight fall in 1952. A detailed analysis, to illustrate the operation of the previously noted factors determining the height of the differential, is given later in this chapter. The chief points relevant to Chart 4 are that a rise in the corporate tax rate increases the differential, and a rise in personal tax rates causes it to decline. The rise in the extra burden on earnings for distribution during the early years of our period is explained, therefore, by the sharper increase in corporate rates compared with personal tax rates. In 1945 the effective rate of corporate income tax was lower than in 1944 (primarily because of a pronounced fall in excess profits tax liability), and with the end of the war corporate rates were cut more sharply than the personal income tax schedule; thus the fall in the differential. Note what happened between 1947 and 1948. The introduction of income splitting in 1948 led to a decline in personal income tax rates—slight at the lower income levels but substantial for higher income stockholders.

<sup>1</sup> For tabulations of the differentials for every year of this period at all nineteen selected income levels see Appendix A.

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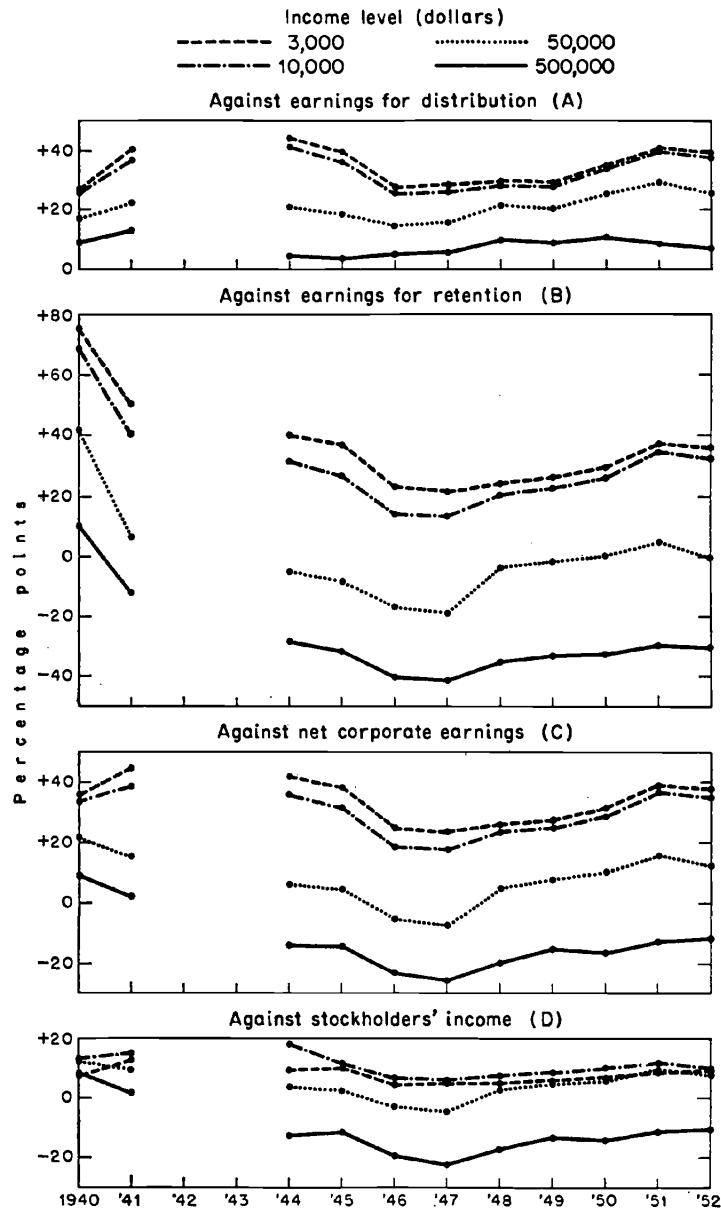
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CHART 4—Differentials at Selected Stockholder Income Levels, 1940-1941 and 1944-1952



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This explains the slight rise between these two years in the differential against earnings for distribution at the \$3,000 stockholder income level, and the very great increase that occurred at \$500,000. Once again in 1950 and 1951 heavier increases in corporate than in personal rate were set; the differentials rose. The fall in 1952 is due to the rise in personal rates (increases introduced for the last several months of 1951 and in effect throughout 1952) and to the slight fall in the effective corporate rate.<sup>2</sup>

In panel B of the chart the differential against earnings for retention shows a steady decline from the beginning of the period up through 1947, followed by a pattern similar to that observed for the differential against earnings for distribution. In some years between 1940 and 1947 the effective corporate rate applicable to earnings for retention actually declined; in the other years its rise was not sharp enough to counteract the effect on the differential exerted by the increase in personal rates.<sup>3</sup> From 1947 on, the movement of the differential was shaped by the same factors noted in connection with the differential against earnings for distribution.

Of more direct importance is the behavior of the net resultant of these two measures, i.e. the differential against (or in favor of) the net corporate earnings component of stockholder income (panel C). In general, at all four income levels we find a decline over the early part of our period reaching a low in 1947,<sup>4</sup> and then a rise over the remainder with a slight dip between 1951 and 1952. Of particular interest is the fact that coincident with the sharp rise in corporate and personal income tax rates that took place during the war there occurred a substantial decrease in the overtaxation of stockholders' pro rata share of net corporate earnings. A striking result of this decline, noted previously, appears at the upper end of the income distribution, epitomized in this summary by \$500,000; the overtaxation of net corporate earnings changed to undertaxation in 1944, and the differential continued below zero for the rest of the period covered by the investigation. Comparison of the values of the differentials at the four selected income levels shows a tendency to cluster in 1940

<sup>2</sup> The analysis in this paragraph is sketchy. It fails to take account of the proportion that corporate earnings and earnings for distribution constitute of stockholder income, variations in which would affect the personal rate that would have been applied against the corporate tax paid on earnings for distribution. But this degree of detail is not required here.

<sup>3</sup> Losses which are subtracted from income to determine earnings for retention were proportionately greater in 1940 than in 1941. That is why the effective rate of corporate tax on earnings for retention was higher in 1940 than in 1941, even though the rates fixed by law were lower.

<sup>4</sup> The exception—a rise at the \$3,000 and the \$10,000 levels between 1940 and 1941.

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and a pronounced widening of the gap between those at the lower income and those at the upper income levels by 1952. Little change in the differential values occurred at the bottom of the income scale, the widening gap being caused by the falling differentials at the top.

Imputed gross income level (\$000's)	Differential against net corporate earnings		Change in differential
	1940	1952	
3	35.6%	37.4%	1.8
10	33.5	34.7	1.2
50	21.6	12.3	-9.3
500	8.9	-12.0	-20.9

In the differential against stockholders these same variations among income levels occur (panel D). Note how similar were the values of the differential against stockholders at the extremes of the income range in 1940 and how great the spread between them was in 1952. The differential at the lowest income level rose slightly from the beginning of our period to its end. Over the middle and at the top of the income scale, on the other hand, a fall occurred, particularly

Imputed gross income level (\$000's)	Differential against stockholders		Change in differential
	1940	1952	
3	7.4%	8.4%	1.0
10	12.7	9.9	-2.8
50	12.2	7.4	-4.8
500	8.0	-10.8	-18.8

for stockholders with very high incomes. In fact the fall was so great, that we find, in every year but 1940 and 1941, that stockholders at the \$500,000 imputed gross income level were "undertaxed." (In several years this was true also of the average \$50,000 stockholder.) One further point. The first three differentials reached their maximum at the lowest income level and moved down regularly as income levels rose. The differential against stockholders, however, reached its peak (for the four income levels plotted) at \$10,000. At this income level the proportion of stockholder income represented by net corporate earnings was sufficiently higher than the ratio characterizing the average \$3,000 imputed gross income to more than compensate for the effect of the higher differential against net corporate earnings found at the lower of these two income levels.

In brief summary: Concentrating on the difference between the years that begin and terminate our period—1940 and 1952—as corpo-

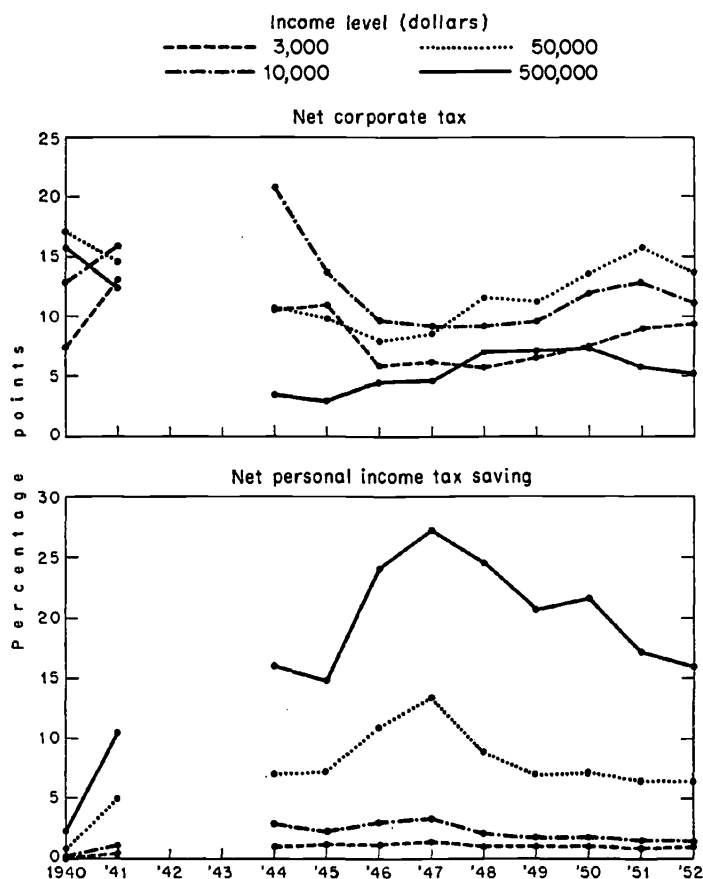
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rate and personal income tax rates rose, and retentions comprised a higher percentage of corporate earnings, the differentials tended to fall, most notably at the higher income levels. The severity of the overtaxation of corporate earnings and stockholders tended to decline, and, at the higher income levels, undertaxation developed. With the general decline in value of the differentials came a widening of the spread between them because the decline was more pronounced in the upper portion of the stockholder income range than at the lower income levels.

A slightly different way of reviewing the same evidence is furnished by examination of the net corporate tax and the net income tax saving (Chart 5). The net corporate tax (explained in Chapter 1), taken as

a percentage of the rate of income tax was explained in "benefit" for stockholders. The benefit is the difference between the rate of income tax and the rate of income tax after the benefit is taken into account. Taking as our example the reader will note that the lowest income tax rate is the lowest income tax rate. A fall for the other income levels, both the decline, both the tax saving is pronounced. The income levels rose of tax saving in the income range that why it declined and very much in

CHART 5—Net Corporate Tax and Net Personal Income Tax Saving as Percentages of Stockholder Income at Selected Income Levels, 1940-1941 and 1944-1952

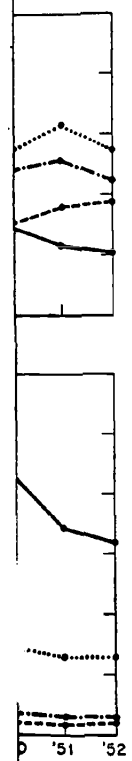


### AVERAGE

Another way of showing the differentials for a period is also useful in showing the variations from the average tends to wash out the variations to provide a more accurate picture. Simple averages for each year given a distribution of the income tax found (up to about 30 per cent and over) a considerable extent of the income tax were likewise subject to the portion of the total the incremental tax of stockholders with the extra tax average period 1940-1952. Dividends (defined as imputed gross income) may be

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#### CHANGES OVER TIME

a percentage of stockholder income, can be considered an incremental rate of income tax on stockholders. The net income tax saving, likewise explained in Chapter 1, may be viewed as a rate of income tax "benefit" for stockholders. The excess of the extra burden over the benefit is the differential against stockholders.

Taking as our points for comparison the years 1940 and 1952, the reader will note a slight rise in the net corporate tax percentage at the lowest income level plotted on the upper section of Chart 5, and a fall for the other incomes. The higher the income level, the greater the decline, both absolutely and relatively. In the lower panel where the tax saving is plotted, the pattern is similar but, in this case, more pronounced. The net income tax saving percentages at the two lower income levels rose moderately, and at the two upper levels the rate of tax saving increased substantially. While over virtually the whole income range the differential against stockholders fell, it can be seen why it declined relatively little over the lower portion of this range, and very much in the upper reaches of the income scale.

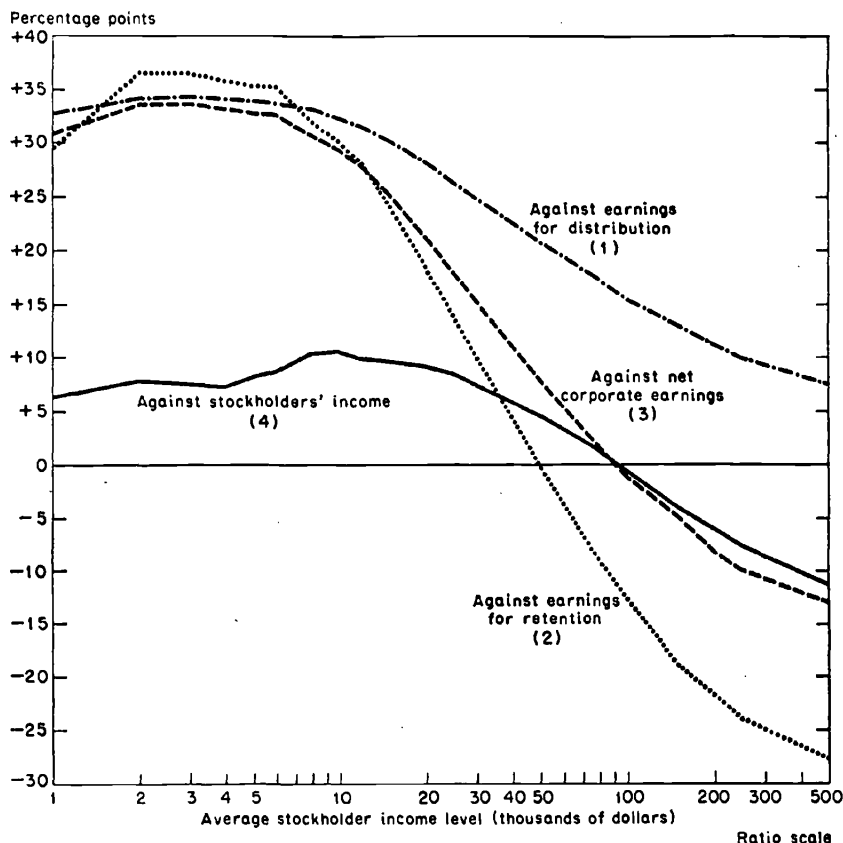
#### AVERAGES FOR THE PERIOD AS A WHOLE

Another way of summarizing the findings is to strike averages of the differentials for all eleven years covered by the study. This procedure is also useful in view of the effects on the values of the differentials of variations from year to year in a number of factors. Averaging tends to wash out peculiarities associated with any given year and to provide a more "representative" picture.

Simple averages for each of the four measures, with the values for each year given equal weight, are plotted on Chart 6. Over that portion of the income range in which the majority of stockholders are found (up to about \$25,000 of imputed gross income) the part of the corporation income tax levied on earnings for distribution constituted a considerable extra burden on this segment of net corporate earnings—30 per cent and over. Stockholders with incomes of \$500,000 and over were likewise subject to an extra burden on the earnings for distribution portion of their pro rata share of net corporate earnings, but the incremental tax load was much less severe. For the small minority of stockholders with imputed gross incomes from \$100,000 to \$500,000 the extra tax averaged from 15 to 7.5 per cent. The findings over the period 1940-1952 (1942 and 1943 excluded) on the double taxation of dividends (defined as earnings for payment of dividends or for distribution) may be summarized more starkly: stockholders at the \$3,000 imputed gross income level were overtaxed by 34.2 per cent of cor-

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CHART 6—Average Differentials for the Period 1940-1952, Excluding 1942 and 1943



porate earnings on their behalf for distribution as dividends; stockholders with \$500,000 of income were overtaxed by 7.5 per cent.

What about the undistributed segment of net corporate earnings? Averages for the eleven years (see line 2 of Chart 6) reveal that most stockholders were overtaxed on the earnings for retention component of their incomes, while the high income minority were undertaxed.<sup>5</sup> For stockholders with incomes up to about \$12,000, the net incremental burden ran between 28 and 37 per cent of their share of earnings for retention; for stockholders with incomes ranging from \$100,000 through \$500,000, the net tax benefit ranged from over 12

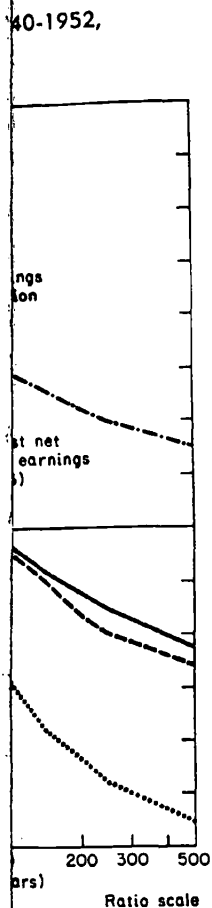
<sup>5</sup> The atypical results in 1940 (and to a lesser extent in 1941) when, because of relatively heavy deficits, the differential against earnings for retention, particularly at the lower income levels, exceeded that on earnings for distribution, explains why line 2 lies above line 1 over this portion of the income range.

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per cent to about 28 per cent. The differences in the tax liability between the lowest income level (\$3,000) and the highest (\$500,000) stand out more strongly when the actual tax is compared with the obligation that would have been incurred if earnings for retention had been reached by the personal income tax alone. Stockholders at the lowest income paid as tax 37 per cent more of their share of retained earnings than they would have paid in personal income tax; those at the top of the income range experienced a tax saving equal to 28 per cent of their share of retained earnings.

The extra burdens on earnings for distribution and earnings for retention together constitute the net additional tax liability on the corporate earnings component of stockholder incomes. This incremental tax load expressed in percentage form (i.e. as a per cent of net corporate earnings) is the differential against net corporate earnings, which is a weighted sum of the differential against earnings for distribution and the differential against (or in favor of) earnings for retention. An average of the annual findings plotted on line 3 of the chart shows the following picture of differentials against the net corporate earnings component of stockholder income: a significant degree of overtaxation for stockholders with incomes below \$15,000—ranging from an additional tax load of over 30 per cent at the lowest income level to nearly 25 percentage points of additional tax at the \$15,000 income point; a more moderate degree of overtaxation for stockholders with incomes over \$15,000 and up to \$75,000—ranging from an extra tax load of 21 per cent at the \$20,000 income level down to an additional burden of less than 3 per cent at the \$75,000 level; and a noticeable degree of undertaxation over the \$75,000 income level, reaching a maximum tax saving of almost 13 percentage points for stockholders whose imputed gross income averaged \$500,000.

One further differential was investigated. How much heavier or (lighter) was the effective tax rate on stockholders than it would have been had there been no corporation income tax and stockholders were called to account fully and promptly on their pro rata share of net corporate earnings under the personal income tax? In other words, the additional net burden was converted to an effective rate on all of stockholder income. The absolute amount of the net extra burden (or tax saving) is, of course, the same used in computing the differential against (or in favor of) net corporate earnings. Since, however, this amount is now related to a larger base, the differentials against or in favor of stockholders will be lower than those against corporate earnings. The ratio of net corporate earnings to imputed gross income, discussed in Chapter 2, tends to rise with income—increasing from

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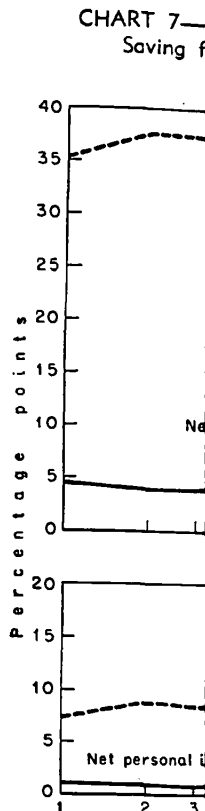
about 20 per cent at the lowest income levels, to over 90 per cent at the top of the income scale. Therefore, the differential against stockholders with low imputed gross incomes runs at only one-fifth of the differential against net corporate earnings, but the differential in favor of stockholders at the top of the income range runs at about 90 per cent of the value of the differential in favor of net corporate earnings. Again by way of simple summary, the annual values were computed and plotted as line 4 of Chart 6. Stockholders whose income averaged \$25,000 or under, were subject to a sizeable incremental tax levy. In effect they paid an additional tax that averaged between 6 and over 10 per cent of their total income. Over the income interval between \$20,000 and \$75,000, there existed a smaller and declining additional income tax on stockholders. At the top of the income scale, stockholders were undertaxed. Their combined corporate-personal income tax was lower than what they would have had to pay if all their income had been subject promptly and in full to the personal income tax alone. This tax saving ranged from 0.7 per cent of total income (income from all sources) in the case of the average stockholders at the \$100,000 imputed gross income level, to a sizeable 11 per cent for the stockholder with \$500,000 of income.

How much difference the corporation income tax alone made can be seen from the data of Chart 7. (The top portion shows the net corporate tax as a rate against net corporate earnings, and the lower section shows it as a rate against all of the average stockholder's income.)

On average, over the years 1940-1952 (excluding 1942 and 1943), the corporate tax represented a heavy net extra burden on stockholders' pro rata share of net corporate earnings. A declining function of the level of stockholder income, this extra income tax liability ranged from 35 per cent of net corporate earnings at the bottom of the stockholder income scale to 7 per cent at the top.

When related to all of stockholder income and not merely to one component of it, the net corporate tax constituted a smaller but not inconsiderable proportion. Stockholders with \$1,000 of imputed gross income, on average, were subject to 7 additional percentage points of income tax, and those at the top of the income scale to a similar increment. Over the middle span of incomes the net corporate tax ran higher, reaching a maximum of about 13 per cent. Reading from low to high incomes we find first a rise then a fall in the incremental burden represented by the corporate tax.

But this is only part of the story. The failure of reinvested earnings to be subject to the personal income tax meant a tax saving which

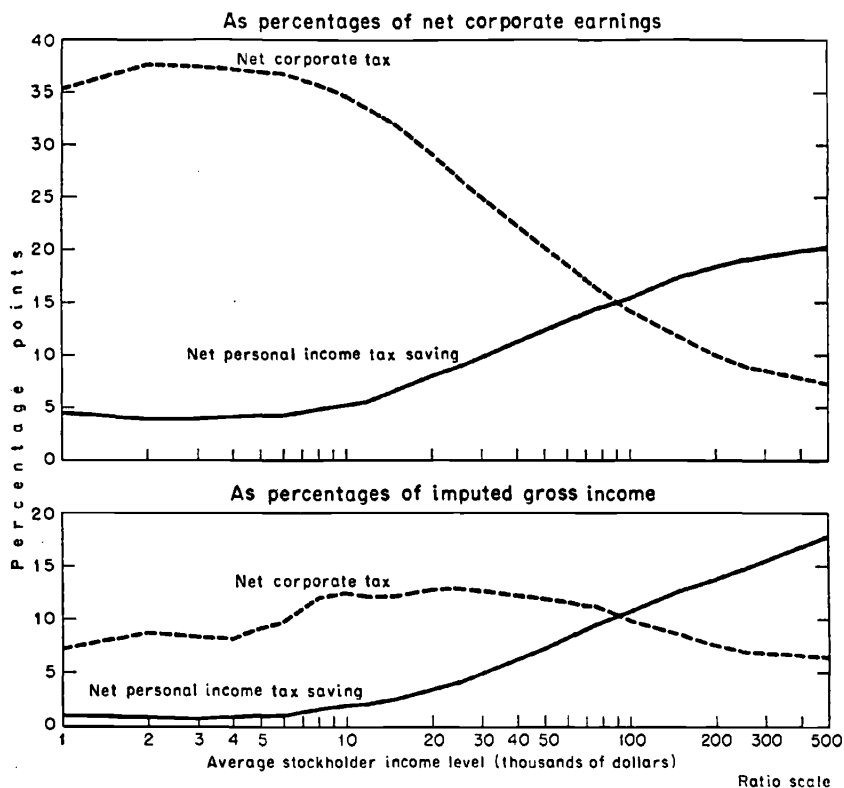


rose with stockholder income. In the lower portion of the income scale, the net corporate tax was only 2 per cent of net corporate earnings. At the top of the income scale, the net corporate tax was 7 per cent of net corporate earnings. That stockholder's tax saving is shown here.

Differences among stockholders' tax burdens rose up vividly by comparing income levels at the bottom of the scale with those at the top. In all years except 1940, the net corporate tax differential turned in favor of the stockholder in 1940.

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CHART 7—Average Net Corporate Tax and Net Personal Income Tax Saving for the Period 1940-1952, Excluding 1942 and 1943



rose with stockholder income (see solid lines on Chart 7). Over the lower portion of the income range, it was quite unimportant, being only 2 per cent of stockholder income at the \$12,000 level. After this point, the saving reached sizeable proportions—almost 18 per cent at the top of the income range. The difference between the net corporate tax and the net income tax saving is the differential against stockholders. That story has already been told. It is not necessary to repeat it here.

Differences among the years covered by the study can be pointed up vividly by concentrating on the "cross-over" points, i.e. those income levels at which the differential changes from positive to negative—from a burden to a benefit. Table 7 summarizes the relevant data. In all years except 1940, at some high level of income the differential turned in favor of earnings for retention; similarly in every year except 1940 and 1941, as incomes rose, the differentials turned

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TABLE 7  
Cross-Over Income Levels, 1940-1941 and 1944-1952  
(thousands of dollars)

YEAR	DIFFERENTIAL AGAINST EARNINGS FOR RETENTION			DIFFERENTIALS AGAINST NET CORPORATE EARNINGS AND STOCKHOLDER INCOME		
	variant 1	variant 2	variant 3	variant 1	variant 2	variant 3
1940	a	a	a	a	a	a
1941	59	80	397	a	a	a
1944	35	41	63	68	77	117
1945	27	33	56	62	71	102
1946	17	20	45	27	36	69
1947	17	19	41	24	30	63
1948	35	43	101	56	73	159
1949	38	47	108	71	94	192
1950	43	51	115	79	104	195
1951	52	64	116	113	138	214
1952	45	50	99	105	130	206

<sup>a</sup> No cross-over.

in favor of net corporate earnings and stockholders. In general, the cross-over points reached furthest down the income scale in the several years just following the war. In the years 1946 and 1947, corporate rates were relatively low, personal rates remained rather high, and retentions comprised a very high proportion of corporate earnings. All this tended to cause low values of the differentials.

BRIEF ANALYSIS OF SELECTED YEARS

Factors that determine the values of the differentials varied considerably over the period of the study. Some complexities of the interrelationships which constitute the crux of the problem under investigation can be illuminated by examining these variations and their effect on the height and pattern of the differentials.

The magnitude of the differentials is directly determined by the four variables, described at the beginning of this chapter—the corporate tax rate, the personal tax rate, the relative size and importance of distributions and retentions by corporations, and the weight of corporate earnings in stockholder incomes.<sup>6</sup> On the basis of these magnitudes and also of their income level patterns the years of the whole period fall roughly into four groups. One year from each group has been chosen as representative with 1952 added as the most recent, and four income levels have been selected as focal points for

<sup>6</sup> Each of these, of course, is itself the net result of a number of interacting factors.

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<sup>7</sup> For simplicity the diffe  
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AGAINST NET CORPORATE STOCKHOLDER INCOME	
variant 2	variant 3
a	a
a	a
77	117
71	102
36	69
30	63
73	159
94	192
104	195
138	214
130	206

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CHANGES OVER TIME

this analysis. Summary information on the determining variables for the years 1940, 1944, 1947, 1950, and 1952 appears in Table 8. In the discussion of the findings, the following symbols are used.<sup>7</sup>

- $C_e$  = Effective rate of corporate tax on earnings for distribution
- $C_r$  = Effective rate of corporate tax on earnings for retention
- $P$  = Applicable marginal rate of personal income tax
- $D_e$  = Differential against earnings for distribution
- $D_r$  = Differential against earnings for retention
- $D_t$  = Differential against net corporate earnings
- $D_s$  = Differential against stockholders

The discussion is carried out in terms of variant 1 (see the description of the three variants in Chapter 1) because the relevant determinants stand out most clearly, and no essential difference in principle is involved.

1940

In this year, which marks the beginning of our period, legislated corporate and personal income tax rates were lower than in any other covered by the study. This is confirmed by the values for  $C_e$  and the personal income tax rate listed in Table 8, but seems contradicted by the  $C_r$  of 78.6 per cent. This high  $C_r$ , however, is the rate on earnings for retention computed net of deficits, and in 1940 deficits loomed large in relation to retentions. (In the other years deficits were relatively small;  $C_r$  was only between 3 and 6 percentage points higher than  $C_e$ ).

Variations in the corporate and personal income tax rates exercise an opposite effect on the differentials. The higher the corporate rate, the higher the differentials; the higher the personal rate, the lower the differentials. On net balance, these effects at the two lower income levels brought the values of  $D_e$  to the lowest for the period, whereas for the two upper income levels in the table the values were smaller in 1947. In that year, at the two upper incomes, the applicable marginal rates of personal income tax, designated by  $P$ , had risen relatively more than  $C_e$ ; therefore  $D_e$ , which is equal to  $C_e - C_e P$  failed to reach its 1940 values. The very large values for  $D_r$  in 1940 are the result of a high ratio of deficits to earnings. The retained earnings of net income corporations were subject to the legal rate, but when this tax liability is applied to net retentions (i.e. earnings for retention of profit corporations minus losses of deficit corporations) the result is a much higher effective rate on net earnings for retention.

<sup>7</sup> For simplicity the differentials are designated by single symbols rather than by the fractions used in Chapter 1.

TABLE 8

Factors Determining the Differentials Illustrated for Selected Income Levels, 1940, 1944, 1947, 1950, and 1952 (per cent)

AVERAGE STOCK-HOLDER IMPUTED GROSS INCOME (\$000's)	Personal rate		Differential against earnings		Corporate rate on earnings for retention (6)	Personal rate on earnings for retention (7)	Differential against earnings for retention (6) - (7) (8)	Earnings for distribution as % of net corporate earnings (9)	Earning for retention as % of net corporate earnings (10)	Differential against net corporate earnings <sup>a</sup>		Net corporate earnings as % of income <sup>a</sup> (11) X (12)	Differential against stockholder income <sup>a</sup> (11) X (12) (13)
	Corporate earnings for distribution (2)	tax on earnings for distribution (3)	Complete personal rate 100 - (3) (4)	Differential against earnings for distribution (2) X (4) (5)						Corporate earnings for retention (6)	Personal rate on earnings for retention (7)		
	1940												
3	27.1	4.0	96.0	26.0	78.6	4.2	74.4	80.9	19.1	35.2	20.9	7.4	
10	27.1	8.4	91.6	24.8	78.6	10.9	67.7	80.9	19.1	33.0	37.8	12.5	
50	27.1	37.6	62.4	16.9	78.6	39.1	39.5	80.9	19.1	21.2	56.5	12.0	
500	27.1	68.1	31.9	8.6	78.6	70.8	7.8	80.9	19.1	8.5	89.3	7.6	
	1944												
3	57.5	23.0	77.0	44.3	61.6	23.0	38.6	43.8	56.2	41.1	22.8	9.4	
10	57.5	28.5	71.5	41.1	61.6	31.7	29.9	43.8	56.2	34.8	50.2	17.5	
50	57.5	63.9	36.1	20.8	61.6	70.2	-8.6	43.8	56.2	4.3	56.3	2.4	
500	57.5	92.9	7.1	4.1	61.6	94.0	-32.4	43.8	56.2	-16.4	88.9	-14.6	
	1947												
3	34.5	19.0	81.0	27.9	38.5	19.0	19.5	33.5	66.5	22.3	20.3	4.5	
10	34.5	24.8	75.2	25.9	38.5	27.8	10.7	33.5	66.5	15.8	33.9	5.4	
50	34.5	55.7	44.3	15.3	38.5	62.5	-24.0	33.5	66.5	-10.9	62.9	-6.8	
500	34.5	84.8	15.2	5.2	38.5	86.3	-47.8	33.5	66.5	-30.1	88.0	-26.5	
	1950												
3	41.3	17.4 <sup>c</sup>	82.6	34.1	44.3	17.4 <sup>c</sup>	26.9	38.6	61.4	29.7	20.9	6.2	
10	41.3	20.6 <sup>c</sup>	79.4	32.8	44.3	21.1 <sup>c</sup>	23.2	38.6	61.4	26.9	34.8	9.4	
50	41.3	39.6 <sup>c</sup>	60.4	24.9	44.3	48.7 <sup>c</sup>	-4.4	38.6	61.4	6.9	59.7	4.1	
500	41.3	75.7 <sup>c</sup>	24.3	10.0	44.3	83.0 <sup>c</sup>	-38.7	38.6	61.4	-19.9	88.1	-17.5	
	1952												
3	50.0	22.2 <sup>c</sup>	77.8	38.9	56.0	22.2 <sup>c</sup>	33.8	49.3	50.7	36.3	22.4	8.1	
10	50.0	25.5 <sup>c</sup>	74.5	37.2	56.0	25.8 <sup>c</sup>	30.2	49.3	50.7	33.6	28.3	9.5	
50	50.0	49.9 <sup>c</sup>	50.1	25.0	56.0	59.7 <sup>c</sup>	-3.7	49.3	50.7	10.4	59.4	6.2	
500	50.0	86.3 <sup>c</sup>	13.7	6.8	56.0	91.1 <sup>c</sup>	-35.1	49.3	50.7	-14.4	89.3	-12.9	

Because rounded values were used in the computations, the figures in this table, in some cases, differ slightly from those in the tabular summary in Appendix A, and the rates in column 7 may differ slightly from those of the Internal Revenue Code.

<sup>a</sup> Variant 1 definition. <sup>b</sup> Imputed gross income. <sup>c</sup> Weighted average of joint and separate returns.

This result deficits should be subtracted from the income tax liability.  $D_t$  is a weighted average of the income tax liability in columns 9 and 10. In columns 9 and 10,  $D_t$  generally represents the value in 1940. In columns 11 and 12, it was assumed that heavy corporations with negative  $D_t$  would fail to find, so that the developing on  $D_t$  is equal to the value of stockholder income in column 12, and the dominant of year-to-year variation of the income in  $D_t$ .

The full weighted average of the 1944. Both corporations were equaled. (The liability.) The income tax liability at the time the income tax rate. Remember that the \$3,000 income tax rate,  $C_e P$ , rose by 10%. At the top of the income tax point increase, the rate increased by 10%. Since  $D_t$  is equal to the income tax once more the income tax while  $C_e$  declines term to be subtracted. Reflecting the change depends in 1944.

CHANGES OVER TIME

This result is a logical corollary of our imputation procedure, for deficits should be taken into account equally with earnings in determining the income of stockholders.

$D_t$  is a weighted average of  $D_e$  and  $D_r$ . The relevant weights appear in columns 9 and 10 of Table 8. Compared with the rest of the years covered, the 1940 weight of earnings for retention was extremely low.  $D_t$  generally lies very close to  $D_e$ , but note the 1940 behavior of values for  $D_t$  compared with those for  $D_e$ . At all income levels  $D_t$  took a higher value in 1940 than in either 1947 or 1950; at the two upper income levels, it was higher in 1940 than in 1944 and 1952. Note also that the heavy corporate rate on earnings for retention led to the absence of a negative  $D_t$  at all income levels. (It is only for 1940 and 1941 that we fail to find, somewhere up the income scale, a negative differential developing on net corporate earnings.)

$D_e$  is equal to that fraction of  $D_t$  that corporate earnings constituted of stockholders' imputed gross income. These percentages, listed in column 12, varied but slightly from year to year at any given stockholder income level. Thus, this proportion is not an important determinant of year-to-year changes in the value of  $D_e$ . The above explanation of the variations in  $D_t$ , therefore, applies also to variations in  $D_e$ .

1944

The full weight of wartime tax increases is reflected in the data for 1944. Both corporate and personal tax rates reached levels never since equaled. (The excess profits tax is included here in the corporate tax liability.) The net result was the highest  $D_e$  of the period for stockholders at the lower income levels, and the smallest  $D_e$  at the top of the income range.

Remember that  $D_e = C_e - C_e P$ . Between 1940 and 1944, at the \$3,000 income level,  $C_e$  rose some 30.4 points. The subtracted term,  $C_e P$ , rose by 12.1 percentage points, hence an 18.3 increase in  $D_e$ . At the top of the income range (\$500,000), we have, again, a 30.4 point increase in  $C_e$ , but the term to be subtracted in arriving at  $D_e$  increased by more than this, i.e. by 34.9.  $D_e$ , therefore, fell by 4.5.

Since  $D_r$  is equal to  $C_r - P$ , it can be seen that a similar interrelation of the corporate and personal tax sets the value of  $D_r$ . Compare once more the change between 1940 and 1944, at the \$3,000 level: while  $C_r$  declined 17 points,  $D_r$  fell by 35.8 points because  $P$ , the term to be subtracted, had increased by 18.8.

Reflecting the fact that retentions came to a little more than dividends in 1944,  $D_t$  lies somewhat closer to  $D_r$  than to  $D_e$ . Compared

3	41.3	17.3	67.0	32.8	44.3	21.1c	23.2	38.6	61.4	26.9	34.8	9.4
10	41.3	20.6c	79.4	32.8	44.3	48.7c	-4.4	38.6	61.4	6.9	59.7	4.1
50	41.3	39.6c	60.4	24.9	44.3	83.0c	-38.7	38.6	61.4	-19.9	88.1	-17.5
500	41.3	75.7c	24.3	10.0	44.3	1952						
3	50.0	22.2c	77.8	38.9	56.0	22.2c	33.8	49.3	50.7	36.3	22.4	8.1
10	50.0	25.5c	74.5	37.2	56.0	25.8c	30.2	49.3	50.7	33.6	28.3	9.5
50	50.0	49.9c	50.1	25.0	56.0	59.7c	-3.7	49.3	50.7	10.4	59.4	6.2
500	50.0	86.3c	13.7	6.8	56.0	91.1c	-35.1	49.3	50.7	-14.4	89.3	-12.9

Because rounded values were used in the computations, the figures in this table, in some cases, differ slightly from those in the tabular summary in Appendix A, and the rates in column 7 may differ slightly from those of the Internal Revenue Code.

<sup>a</sup> Variant 1 definition. <sup>b</sup> Imputed gross income. <sup>c</sup> Weighted average of joint and separate returns.

### CHANGES OVER TIME

with 1940, the most obvious difference is the negative value at \$500,000 of stockholder income. This results from the much lower  $D_r$  and its greater weight in the later year. The remaining observations relevant to  $D_i$  and  $D_e$  have already been made in connection with  $D_r$  and  $D_e$ .

#### 1947

This year contrasts strongly with 1944, with both relevant tax rates—corporate and personal—being lower. The decline in the corporate rate between these two years was considerably more pronounced than the decline in the personal income tax rate schedule; the differentials in 1947, therefore, were smaller than in 1944. Actually, with only the exception of  $D_e$  at the top incomes, the combination of a low corporate rate and high personal rate led to smaller differentials in 1947 than in any other year of the period covered by our study.<sup>8</sup>

$C_e$  was 23 points lower in 1947 compared with 1944. The decline in  $D_e$  was less marked. At the \$3,000 level  $C_e P$  was 13.2 in 1944 and 6.6 in 1947, hence the 16.4 fall in  $D_e$ . At the \$500,000 stockholder income level, however, we find a slight rise in  $D_e$ , for while  $C_e$  fell 23 points,  $C_e P$  declined 24.1 points, hence a rise in  $D_e$  from 4.1 to 5.2. The only noteworthy point about  $D_r$  is the extremely large negative differentials at the higher income levels. With retentions comprising approximately two-thirds of corporate earnings,  $D_i$  lies closer to  $D_r$  than  $D_e$ . More precisely  $D_i$  is equal to  $D_r$  plus about one-third of the difference between  $D_e$  and  $D_r$ .

#### 1950

Compared with 1947, the 1950 corporate rate shows a rise and the personal rate a decline. Both these factors work in the same direction, exercising an upward push on the differentials which at every income level were higher than in 1947.

At the \$500,000 level why were  $D_r$ ,  $D_i$ , and  $D_e$  for 1950 higher than in 1944, but lower at the average \$50,000 imputed gross income? Because of the much sharper decline between these two years in  $P$  at \$50,000, which is traceable primarily to income-splitting first introduced for joint returns in 1948. The major portion of returns at \$50,000 were joint returns. The weighted average marginal rate (for joint and separate returns combined) was below 50 per cent. The income-splitting effect is gradually lost as income rises to where most of the income lies in the maximum marginal rate bracket;  $P$  for both

<sup>8</sup> The corporate and personal income tax rates are designated low and high, respectively, only in a relative sense, i.e., compared to what they were in the other years of the period 1940-1952.

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#### CHANGES OVER TIME

types of return is therefore not so disparate. Specifically, comparing 1944 and 1950, the marginal rate of personal income tax applicable to earnings for retention declined by 31 per cent at the \$50,000 level, but by only 12 per cent for the average \$500,000 stockholder income. Again, the heavier weight of  $D_r$  in the determination of  $D_t$  is demonstrated by the fact that the  $D_t$  values lie closer to  $D_r$  than to  $D_o$ .

#### 1952

Between 1950 and 1952 the corporate rate (embodying normal and surtax rate increases and excess profits tax in effect throughout 1952 and for only the latter half of 1950) and personal rates both rose. In general the rise in the corporate rate overshadowed that in the personal income tax rate schedule; the values of the differentials were higher in 1952 than in 1950. The only exception occurred for  $D_o$  at the \$500,000 stockholder income level. Here the  $C_o$  increase of 8.7 points was smaller than the  $C_oP$  rise of 11.9 points.  $D_o$  with  $C_oP$  subtracted from  $C_o$  in its derivation, fell by 3.2 points, i.e. from 10 to 6.8.

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