Pitfalls in the Computation of "Effective Tax Rates" Paid by Corporations

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1. Statement of the Problem.

Published income statements of corporations, including those filed with the Securities and Exchange Commission, invariably include an item labelled "Federal Income Tax." This encourages the unwary reader to compute the ratio of this number to the preceding number, "Income Before Taxes," and conclude that it describes the "effective" rate of tax paid by the corporation in question. In almost every case, however, the ratio thus computed tells little or nothing about the taxability of the corporation's income. The reasons for this statement follow, but to help the reader through the discussion, the following income statement format is presented first:

The ABC Corporation
Consolidated Income Statement for Year Ended
December 31, 1976

Sales, net of returns and allowances		$10,000
less: Cost of goods sold	$9,000	
Allowance for depreciation	200	9,200
Income from operations		$ 800
Plus: Net interest (interest received less interest paid) . . .	$ 10	
Dividends earned (non-consolidated corporations). . . .	90	100
Income before tax:		$ 900
less: Provision for foreign income tax .	$ 200	
Provision for U. S. income tax . . .	90	
Deferred U. S. tax	10	300
Net income for year		$ 600

The automatic reflex of journalists and others unskilled in the interpretation of financial statements is to pick out the $90 for U. S. tax, divide by $900 of income before tax, and proclaim in headlines that, "The ABC Corporation in 1976 paid an effective tax rate of 10 percent, and this is less than the rate paid by their assembly line workers!" Headlines like this cause irate citizens to write to the Treasury wanting to know how the ABC Corporation has managed to avoid paying its fair share of income taxes which is supposed to be 48 percent, not 10 percent.

In response, the Treasury tells them that in interpretating "effective tax rates" it is important:

(1) <u>to account for both domestic and foreign tax and income items</u>.

In the foregoing statement, $200 is reported as provision for foreign income taxes. This suggests that some part of the $900 of before-tax income has been earned abroad. Since by long-standing international conventions the United States (and other developed countries) do not "double-tax" incomes of their residents which are earned abroad and taxed there, if foreign income is to be included in the denominator of the "effective tax rate" calculation, foreign taxes should be included in the numerator. If this were done, a more

appropriate inference of the ABC Corporation tax rate is $290/$900 = 32.2 percent. This is closer to the "truth" but, for reasons yet to be explained, still incorrect.1/

(2) to remember that the accounting rules for determining income for financial reporting purposes are not the same as those used for tax accounting purposes.

Income tax items are the product of tax accounting rules. At the most basic level, rules for determining which corporate entities may be consolidated -- aggregated for purposes of tax assessment -- differ from those used for financial reporting, and this causes radical differences between "income before tax" reported to stockholders and "income before tax" subject to tax. In general, the difference in rules invariably causes financially reported income before tax to be larger than taxable income. While this discrepency has no direct effect on the taxability of corporation income, it invariably leads to an understatement of "effective tax rates" gleaned from financial statements.

(3) to make allowances for capital consumption; depreciation and depletion used for financial reporting and income tax accounting differ.

Since the net income of corporations is that attributable to assets employed in the business, the allowance for depreciation and depletion is a critical

determinant of income before tax. Frequently, the rules adopted for measuring capital consumption for financial reporting result in a currently lower deduction from gross income than that produced by permissible tax rules. But since either set of rules involves estimates of a cost not established by market transactions, there is no objective basis for choosing which is more nearly "correct" and, therefore, whether reported income is a "truer" representation of "income" than taxable income. In terms of the foregoing example, it is not clear that $900 is the proper denominator to use when evaluating taxes paid.

(4) <u>to remember that at both the corporate or Treasury levels current year tax accounts are ambiguous measures of tax borne by the income of that year.</u>

If, during a current year, the corporation experiences a negative income but had paid positive taxes in three prior years on taxable income at least equal to its current year loss, it can get a refund. In this case, the corporation's tax account for the loss year will display the refund as a negative tax, which increases its after-tax net income. On the other hand, if the corporation cannot so carryback its current year loss to qualify for a refund, it may carry the loss forward to future years. Then, in a future year, when it does have positive taxable income, it may take as a deduction whatever amount of prior losses it is carrying

forward up to the current year's otherwise taxable income. In the extreme, this refund with respect to prior year losses may reduce the current year tax liability to zero. This use of the tax account as a clearinghouse for intertemporal adjustments never fails to confuse those who compute "effective tax rates."

Similarly, the tax account is used as a clearing mechanism for a number of subsidy programs -- the investment credit, the WIN credit, rapid amortization, etc. In exchange for the performance of some service, the corporation or other taxpayer is permitted a remission of tax, either by some additional deduction from gross income or by a direct credit against tax otherwise due. If these subsidies were paid in cash rather than cleared through the tax account, the income of the corporation would be increased by the subsidy. If this were a normal subsidy, then the tax liability would be increased correspondingly and the effective tax rate would be unchanged. But if the subsidy were to be declared tax exempt then the effective tax rate of the corporation would be reduced. However when Congress chooses finance subsidy through the tax system it does so by reducing the amount of the tax currently payable and usually does not require the value of the subsidy to be reflected in taxable income. The effect of providing a subsidy in this manner is to sharply

reduce the numerator, taxes paid, while holding the denominator, taxable income constant. The significance of such a "low effective tax rate" produced by a numerator which does not measure tax liability and a denominator which does not measure taxable income is open to serious question.

The following sections explain in specific detail how accounting for these four points results in an estimate of "effective tax rate" ranging from 42 to 47 percent, depending on one's choice of "income subject to tax."

2. Penetrating the Fog of Financial Statements.

The initial income statement format presented above provides the reader no clue as to the foreign and domestic portions of the ABC Corporation income. Indeed, aside from income tax accounting rules, there is no standard set of procedures by which a multinational corporation can divide its activities into separate geographical parts.2/ This being so, we must imagine we have access to the ABC Corporation books of account to derive the following reorganization of its income statement:

The ABC Corporation
Consolidated Income Statement for the Year ended December 31, 1976

	Domestic	Foreign	Total
Sales	$5,000	$5,000	$10,000
less: Cost of goods sold	4,500	4,500	9,000
Depreciation . . .	100	100	200
Operating income . . .	400	400	800
Plus: Interest	10	--	10
Dividends	90	--	90
Income before tax	500	400	900
less: Provision for taxes	90	200	290
Tax deferred . . .	10	--	10
Net income for year	$ 400	$ 200	$ 600

With this reformatting, we may now take account of Point #1 above; we can distinguish between domestic and foreign income and associated taxes. We see that half the operating income and 5/9 of total income before tax originates within the United States, the remainder abroad. With respect to domestic income the apparent "effective tax rate" is $90/$500, or 18 percent; and with respect to the foreign income, the rate is $200/$400, or 50 percent. From the U. S. point of view, these approximations of foreign income and tax are consistent; the foreign income is measured by such rules as the reporting corporation employs, and the foreign taxes it has paid or accrued with respect to that income are obviously related to that income.3/ But the domestic income and tax items are not consistant with each other, nor is the U.S. tax item consistant with the foreign tax item. These consistancy problems are due to the difference between tax

and financial accounting procedures noted in Point #2 above, a matter to which we now turn.

3. Differences between Financial and Tax Accounting Procedures.

a. Rules for Consolidation: Foreign Income Aspects.

For financial reporting purposes, a corporation may consolidate all corporate entities in which it holds 50 percent or more of the voting stock, and the corporate entities so consolidated may be chartered in the United States or abroad. For tax purposes, however, a corporation may consolidate only those corporate entities in which it holds 80 percent or more ownership and which are not chartered in a foreign country. The difference this makes, along with other differences in rules, may be illustrated by comparing the foregoing income statement with the following statement reflecting the tax accounts for the same year for the ABC Corporation:

The ABC Corporation
Consolidated Tax Rules Income Statement for the Year Ended Dec. 31, 1976

	Domestic	Foreign	Total
Sales	$5,000	$1,000	$6,000
less: Cost of goods sold	4,500	900	5,400
Depreciation . . .	120	20	140
"Operating" income	380	80	460
Plus: Interest	10	--	10
Dividends	90	300*	390
less: Dividend rec'd deduction	(76.50)	--	(76.50)
Current year taxable income	403.50	380	783.50
less: Net operating loss carryforward . . .	103.50	--	103.50
1976 Taxable income . . .	300.00	380	680.00

*Includes dividend plus foreign tax of $150 attributed thereto.

Information items:

U. S. tax rate = 48%

Tax rate abroad = 50%

Foreign taxes paid; .50 x $380 = $190

Investment (domestic) qualified for credit = $320

Tentative investment credit = $32

Plus: Investment credit carryforward = $22

Tax calculation:	World-wide income. . . .	$680.00
	U. S. tax @ 48 percent .	326.40
	Less: Foreign tax credit	
	(.48 x $380) . .	182.40
	(excess credit carryforward = $7.60)	
	Equals U.S. tax before	
	investment credit . .	144.00 (=.48 x $300)
	Less: investment credit.	54.00
	Net tax due	
	U. S. Treasury . . .	$ 90.00

The effect of difference in consolidation rules shows up vividly in the foreign income column: Whereas in its financial statement the ABC Corporation reported operating income of $400 derived from foreign sales of $5,000, in its tax accounts only $80 of income is reported as derived from $1,000 of sales. That is, of the $5,000, of foreign sales

consolidated in the ABC Corporation financial statement, only $1,000 of the sales were by U.S. corporate entities controlled by ABC Corporation and hence reportable in U.S. tax returns. The remaining $4,000 of foreign sales were by foreign corporations not controlled by ABC Corporation; and the $320 of operating income attributable to these $4,000 of foreign sales is not reportable in the U. S. tax return for ABC Corporation in 1976. Instead, only the income from these controlled foreign corporations (commonly called "subsidiaries" by tax practitioners) which ABC "repatriated" --received as dividends -- is reportable as potentially taxable U. S. income; and since, in accordance with long-standing international conventions observed by the Internal Revenue Code, income from foreign sources is not to be subjected to two separate taxes (levied on the same income base), the dividends from foreign sources are grossed-up for income taxes paid to the foreign governments so that U. S. tax liability and creditable foreign taxes may be later computed.

As a consequence of the ABC Corporation repatriation of $300 (a cash dividend of $150 plus imputed tax of $150 paid to foreign governments) plus the $80 of foreign operating income of consolidated U. S. corporations (commonly referred to as "branches" by tax practitioners), a total of $380 is

all that appears in the ABC Corporation foreign income tax accounts. Thus, in the year in question $20 of foreign income, not having been repatriated, is unreported in the U.S. tax accounts of the ABC Corporation. Of course, since the foreign tax rate in this case is a shade higher than the U.S. tax rate, which means that no U S. tax will ever be collected with respect to this foreign income, the discrepancy between the financially reported income and the tax accounts will not result in any misstatement of the "effective rate" of foreign tax: in its financial statement, $200 is 50 percent of $400; in its tax accounts, $190 ($40 of tax with respect to "branches" plus $150 with respect to "subsidiaries'" dividends) is also 50 percent of $380, the taxable (U. S.) foreign income. However, since foreign income reported in financial statements is invariably higher than that reported in tax returns, "effective tax rate" calculations derived from financial statements will <u>overweight</u> the foreign relative to domestic income items in the denominator and, therefore, increase the contrast between "U. S. tax as a percentage of world-wide income" and "U. S. plus foreign income tax as a percentage of world-wide income".4/

b. Accounting for Capital Consumption.

In any income statement, the allowance for depreciation or depletion is a critical determinant of "income" -- the amount which is available to pay tax and be distributed to stockholders or retained for expansion. In the ABC Corporation statement above (p. 6), of the $500 excess of domestic sales revenue over the "cost-of-goods sold" (material and labor costs, etc.), $100 is deducted for capital consumption. This is 1/5 of the "gross margin" and 1/3 of the "net' or after-tax margin on operations. Notwithstanding its critical importance in income measurement, appallingly little attention is paid to its estimation. Virtually any procedure which allocates the cost of a depreciable asset over a "reasonable" expected life will be accepted by accountants if it is "consistently" applied, i.e., if year-to-year changes in the procedure are not made in a capricious manner. Moreover, since acceptable procedures are always tied to the historical cost of assets, if there has been inflation, the current year estimate of the cost of capital "consumed" or expired during the year will be a melange of allocations of cost expressed in dollars of prior years, each dollar of which will be worth progressively less compared with current dollars the farther in the past their origin.5/

These same considerations apply to the allowance for depreciation used to derive taxable income. Then, inasmuch as the two allowances may differ, the question is raised: Which allowance is more nearly correct? Which produces a measure of income suitable for use in the computation of a corporation's "effective tax rate?" Those who would compute "effective tax rates" from corporations' financial statements implicitly assume the underlying accounting procedure yields the more nearly correct result. Yet, there is no empirical evidence to support this choice. Indeed, the notorious tendency of corporate managements to wish to report large "earnings per share", in view of the fact they are under no obligation to distribute reported earnings, suggests that when the financial report estimate of depreciation is smaller than the tax allowance figure the latter number may be nearer to the truth.6/

In the example we are pursuing, absent knowledge of the tax allowance for depreciation, how does one know the tax allowance differs so that he may correct the reported allowance and, accordingly, reduce reported income before tax? He looks to see whether an item labelled "deferred taxes" is reported. If he finds such an item, as in the case of the ABC Corporation income statement where $10 of deferred

tax is reported, the inference that tax depreciation allowances exceed the financial estimate is warranted. The origin of this item is revealed by comparing the allowances for depreciation with respect to domestic operations in both the reformatted ABC Corporation income statement and the tax rules income statement, above. Whereas the ABC Corporation reported $100 in its financial statement, computing its taxable income by rules available in the tax laws, it deducted $120 for depreciation expense that same year. As a consequence, the corporation's taxable income from domestic operations was $380 while it reported $400 to stockholders.

At a tax rate of 48 percent, this difference of $20 results in a tax liability which is $9.60. Since the ABC Corporation's accountants are bound by their certification of $100 as depreciation for the year, according to prevailing accounting principles they must "reconcile" this difference.

If the $100 allowance is correct, and since no more can be ultimately be written-off for depreciation under any set of rules than the original cost of the property, deducting $120 this year for tax purposes means that, in some future year, $20 less will be deductible and future tax will be $9.60 higher. Thus, "reconciliation" of the excess of tax over financial accounting depreciation takes the form of

recognizing the $9.60--which was rounded to $10 for expositional purposes in the foregoing income statements -- as "deferred taxes": It, along with the $90 of actual taxes paid the Treasury, is deducted from before-tax income to derive the residual presumably available to distribute to stockholders or retain in the business. By this procedure, the accountant declares that $100 has been the "tax expense" for the year; $90 due within the statutory payment period (and credited to "accrued taxes payable"); $10 due in the indeterminate future (and credited to "deferred income tax", an account presented in balance sheets between long-term liabilities and net worth).

Many critics of this accounting procedure, particularly those who regularly engage in the computation of "effective tax rates" delight in correctly pointing out that, so long as the enterprise at least maintains its stock of depreciable assets, it will never arrive at the time when the "deferral" ends. But, this is a frivolous criticism of the accountants' procedure for maintaining financial consistency. The fact that, for tax purposes, the undepreciated cost ("adjusted basis") of assets is different from that reported in the financial books of account is a matter bearing on the financial status of an enterprise; should the corporation run on hard times, its tax bill <u>will</u> be higher; and should the

enterprise have to be liquidated, the lower tax "basis" also has operational significance to the corporation's stockholders.

Rather, the real issue is whether the observer believes the financial or tax allowance for depreciation is nearer the truth. If he believes the financial allowance is better, and if he believes the corporation is in no imminent danger of decline, then he should regard the actual tax paid, $90 in this instance, with respect to the reported financial before-tax income as a final discharge of the corporation's tax obligation. On the other hand, if he believes the tax allowance for depreciation is superior, he should divide the reported deferred tax by .48 to derive the difference between the two measures of depreciation, and subtract this amount from the reported before-tax income, again taking $90 as the tax for the period.

c. Effects of Using the Tax Account for Clearing Purposes.

(1) Intercorporate Dividends.

If several corporations are consolidated for purposes of financial reporting or for tax accounting, the payment of dividends from one to another of the consolidated group has

no effect on the aggregate income of the group; the payment of a dividend by a subsidiary to a parent merely relocates the funds but has no effect on the combined income of the two. In a tax system with a separate corporation income tax such as that of the United States, the possibility exists that there may be intercorporate ownership of stock but that the degree of ownership should fall short of the 80 percent control required in order that the separate corporations might be consolidated, for tax purposes.

In the present example, it is apparent from the $90 of dividends reported by the ABC Corporation that it has minor interests in other corporations. These other corporations have filed tax returns and paid taxes. If these other corporations could have been consolidated with ABC Corporation, the payment of tax with respect to their earnings would have terminated corporation tax liability for all. But since ABC Corporation cannot consolidate its share of the income of the others, the question is raised how the shareholders of the ABC Corporation can be spared incurring an additional tax on the flow of already-taxed income that comes to ABC Corporation. In the United States, this question is answered by allowing the ABC Corporation to deduct 85 percent of the dividends it has received from domestic corporations in the computation of its own taxable

income. Presumably, this penalty of "double-taxing" unconsolidated intercorporate dividends to the extent of 15 percent of the normal corporate rate is intended to discourage use of particular corporate entities as independent vehicles for managing portfolios rather than distributing as dividends funds not needed for investment in physical assets employed in carrying out the corporate purposes of those entities.

The effect of this deduction, of course, is to cause the taxable income of the ABC Corporation to be $76.50 less than its reported before-tax income. Correspondingly the unsophisticated observer who examines only the ABC Corporation income statement is likely to conclude that, because each dollar of dividend income reported pays tax at only 7.2 percent (.15 x .48), the ABC Corporation "pays" a distressingly low "effective tax rate", for the reported dividend income accounts for 18 percent of the total reported before tax income. Paradoxically, the imposition of a "penalty" tax on corporations' dividend income produces the appearance of "tax avoidance!"

In a system of separate corporation income taxation, the logical procedure for determining the "effective tax" on the income of a particular corporation requires that its

"dividend income" from domestic corporations be removed from its reported income before tax, and that the tax attributable to that income be removed from its reported tax paid. The residual income and tax thus obtained will refer specifically to the income produced by the particular corporation during the year in question; it will be net of the share of other corporations' income claimed by the given corporation as shareholder, which has been taxed elsewhere.

(2) Clearance of "Tax Refunds" Through The Current Year Tax Accounts.

The corporation income tax is strictly a levy on the income attributable to equity claims -- interest payments to creditors are "deductible", both in financial and tax accounting procedures. The essential characteristic of the equity share of income is that it is residual: the claims of employees, government, and creditors precede the claims of the equity owners. As a consequence, corporate "income before tax" and taxable income are highly volatile quantities which may even be negative during a given accounting period. Over a long period of time, the positive and negative periodic incomes must average to a positive return, else no equity investment would be forthcoming.

This being so, if an income tax system is not to unduly depress after-tax returns and thus discourage risk taking, when risk taking refers to the acceptance of a variable stream of returns some of which may be negative,it must make provision for offsetting negative periodic incomes against other years' positive incomes. This is practically accomplished by permitting a corporation (or other taxpayer with equity income) to "carryback" a given year's negative taxable income -- known as "net operating loss" -- against 3 prior years' positive taxable income and thus to claim a refund; or, in the event the positive income in the 3 prior years is insufficient to cover the current year negative, the balance may be carried forward 5 additional years. In the latter case, the carryforward of unrequited and unexpired prior years' losses negatives will constitute a deduction from current year taxable income.

If a current year negative income is carried-back and the corporation receives a refund, its income statement will duly show the subtraction of the refund (shown as a negative tax payment) from before tax income.7/ But, if an unrequited prior year negative income is carried forward, it will merely depress the current year U.S. tax liability. As the ABC Corporation tax rules income statement above shows, in 1976 that corporation carried-forward $103.50 of unrequited prior

year losses, reducing its taxable domestic income of $403.50, after taking account of the dividends received deduction, to but $300 in 1976. In effect, the ABC Corporation is permitted to pay $49.68 (.48 x $103,50) less in tax for 1976 in order to make that amount of refund with respect to its negative taxable income in prior years which had not been requited theretofore.

To the unwary observer, however, these uses of the current year tax liability to adjust for events occurring in other years -- refunds from prior years in the event of a carryback; refunds this year in the event of a carryforward from prior years -- naturally appear to reduce the taxability of the corporation in the current year. Unless the observer who would divide this year's reported tax by this year's reported income can adjust the numerator for these refunds, his result will be meaningless. In the case of the ABC Corporation, he should add $48.60 to the 1976 reported U.S. tax of $90 before dividing by an appropriate 1976 domestic income measure.

(3) Clearance of Subsidies in The Form of Tax Credits through the Current Year Tax Account.

If Congress appropriates funds to subsidize a business activity, the normal treatment of the payment by the

recipient is to "bring it into income." If the payment is an above-market price for commodities, the seller appropriately reports the entire payment (in both his financial and tax books-of-account) as gross income (sales). If the payment is for improving his land, either by draining it or letting it lie fallow, the land-owner might record the receipt as gross income in the year received, or, preferably, prorate the payment as income over the period it is expected the improvement will persist. On the Federal budget side of these subsidy transactions, the expenditures are duly recorded as outlays; and for tax accounting purposes receipts of these outlays become an addition to taxable income.

But consider what happens when Congress, instead of appropriating funds for subsidy payments, authorizes entities which receive the subsidy to simply pay a corresponding amount less in tax. First, and most obviously, the enterprise is absolved from including the value of the benefit in his gross income for tax purposes; and he will not be required by his accountant to display the subsidy in his before tax income.8/ Secondly, the Budget shows the subsidy not as an expenditure, but as a "reduction in tax revenues." The effect of this convention, the sole purpose of which is to give the tax-writing committees of Congress jurisdiction over the subsidy in place of the cognizant standing

appropriations committees, is to completely muddle the concepts of income and effective tax rates.

Refer to the tax rules income statement of the ABC Corporation, for example. We see there that during 1976, the Corporation had acquired $320 of property qualified for the 10 percent investment credit. But, instead of the $32 subsidy being paid in cash, the tax laws provide that $32 less may be paid in tax otherwise due that year.9/ In addition, due to prior years' lack of tax liability (remember its carryforward of $103.50 in unrequited prior year negative taxable income), the ABC Corporation is able to reduce its 1976 payment by $22 more to satisfy the amount of its as yet unrequited subsidy claim for qualified investment in prior years.

Harking back to our earlier remark about the treatment of cash subsidies, it is clear that, if we wish to discuss the taxability of the ABC Corporation income for 1976, we need to do two things: We must restore the $32 of credit to the $90 of tax due that year; and we must add $32 to the before-tax (or taxable) income figure.10/ That, in fact, the subsidy is not taxed merely means that this portion of the ABC Corporation income bears a zero tax rate; including it in income, but restoring it to tax due, serves to reduce the

effective tax rate, but by far less than simply excluding the subsidy from tax due and not including it in income. With regard to the $22 of prior year investment credits "cashed" this year, this, too should be restored to the numerator in the effective tax rate calculation, but it should not be added to the 1976 income denominator since it merely reflects extinguishing a prior year's obligation of the Treasury, not a current year income transaction.

4. Summary: Presenting a Meaningful Estimate of the "Effective Tax Rate" of a Particular Corporation.

If the pitfalls of "effective tax rate" estimation are to be avoided, the general rules set forth above advise that the estimator should be careful to match the numerator -- income tax liability for the year -- with the denominator -- income before tax. Unfortunately, no set of assembled income accounts, whether maintained by rules prescribed for financial reporting, or for tax return accounting, permits this to be done. Although the proper tax numerator can be derived from a corporation's tax books-of-accounts, its annual tax return is insufficiently complete for this task, since it does not include the requisite carryback and carryforward data. Nor can published financial statements provide the information required for the computation, since the principles of consolidation used for deriving the tax

element of the calculation are not consistent with those used for the income element in the denominator.

But we may recapitulate what needs to be done by reference to the example we have used throughout this paper. We begin with the obviously misguided "effective tax rate" derived directly from the ABC Corporation income statement, which was noted at the outset, and proceed by stages to the end, a reasonable statement of the taxability of the ABC Corporation income for 1976:

U.S. tax paid income before tax: $90/$900 . . . . . 10%
(effective rate)

(1) Match domestic and foreign income and tax items:
Domestic: $90/$500 = 18%

Foreign: Either financial consolidation:
$200/$400 = 50% yielding a weighted
average of 32.2
or, tax consolidation
$190/$380 = 50%, yielding a weighted
average of 31.8

(2) Choose domestic income measure:
$500, if book depreciation seems right
or, $480, if tax depreciation seems right

(3) Correct domestic income and tax for inter-corporate dividends:
$500 - $90 = $410)
(Domestic income, net of dividends
or $480 - $90 = $390)
$90 - $6.48 = $83.52, tax, net of penalty tax

(4) Correct tax for refund with respect to prior year losses:
$83.52 + $49.68 = $133.20 tax gross of net operating loss refund

(5) Correct domestic income and tax for current year investment credit:

Income:

$410 + $32 = $442)
) Domestic income including subsidy
or, $390 + $32 = $422)

Tax: $133.20 + $32 = $165.20 tax, before subsidy payment

(6) Correct tax for refund of prior year credit:

$165.20 + $22 = $187.20

We are left with two sets of domestic income figures: $442, if the financial statement estimate of depreciation is taken as the norm: $422, if tax depreciation is the norm; and, for domestic tax we have $187.20. We also have two sets of foreign income figures: $400 if the financial statement consolidation rules are followed; $380 if tax consolidation rules are followed; and, corresponding to the $400 foreign income is a $200 tax paid abroad; to the $380 income a tax of $190.

This provides us the following meaningful estimates of effective tax rate paid by the ABC Corporation with taxes in the numerators matched to the incomes in the denominators:

Domestic income only:

$187.20/$442 = 42.3%

$187.20/$422 = 44.4%

World-wide income:

Financial statement rules, foreign and domestic:

($187.20 + $200)/($442 + $400) = 46.0%

Tax rules, foreign and domestic:

($187.20 + $190)/($422 + $380) = 47.3%

Plus a penalty tax of 7.2 percent on $90 of domestic dividends received, in any of the above cases.

FOOTNOTES

1/ Sometimes financial statements distributed to stockholders will not separately show the provision for foreign income taxes. Instead, the foreign tax is subtracted from "income before tax," which then becomes "income before U. S. tax." In this event, the "effective tax rate" would be $90/$700 = 12.85 percent. But this still mismatches numerator and denominator, for the denominator still includes "net" foreign income, and this is not subject to U. S. tax.

2/ The principal problems are those concerning intra-corporate transactions. It is easy to consolidate all the activities of a far-flung enterprise without concern about whether the prices at which goods and services are transferred from one sub-entity to another properly allocate costs and earnings between the parts, for the only concern is with the total enterprise' revenues and costs. But if separate accounts are to be independently maintained for individual units, a uniform set of rules for establishing inter-unit transfer prices must be established. This is uniformly done in every well-managed multi-unit firm, but the sets of rules adopted serve highly varied management objectives unconstrained by the need to periodically inform outsiders about the financial condition of the separate

units. This is also done under the tax laws, of course, in order to achieve a definite assignment of income and tax liabilities as between foreign and domestic operations. The rules are, of course, controversial; but in no important respect would the tax rules be those that might be used for financial reporting by multi-unit, multi-national corporations.

3/ The tax rate abroad is assumed to be 50 percent.

4/ A related phenomenon occurs with respect to consolidated U.S. income, although it is not illustrated in the example in the text. Since consolidation criteria are lower for financial reporting purposes, the likelihood occurs that more domestic controlled corporation "operating income" will appear in financial statements than in tax returns; and for the same reason, less "dividends" in financial statements as compared with tax returns. In published financial statements, therefore, more income of consolidated companies and their associated taxes will appear, and this will tend to boost the apparent effective tax rate. On the other hand, if the reporting company uses the "equity" method for pooling its interests in other corporations, it will report only its share of "net income", that is, income net of taxes paid by the subsidiaries; in this case, the effect will be to depress

the apparent effective tax rate of the reporting company.

5/ If prices have increased by 50 percent over a decade of depreciation representing an allocation of cost expressed in dollars of 10 years before needs to be "inflated" to $1.50 if it is to be compared with sales and other income statement items expressed in current years dollars. If only $1 of current year gross income is set aside to maintain the stock of depreciable assets -- to offset the value of depreciable assets consumed, or expired during the year -- the stock will not be maintained. This is equivalent to saying that ignoring the impact of inflation has caused an overstatement of "operating income" due to an understatement of depreciation, in current year dollar magnitudes.

6/ The reader is cautioned that this generalization applies only to machinery and equipment and, to a lesser degree, to industrial plant. It has no application to such real estate assets as rental housing, office buildings and commercial structures for which tax allowances for depreciation are egregiously exaggerated.

7/ Recalling that before tax income is a combination of both domestic and foreign income, instances have occurred when reported before-tax income is positive -- reflecting income

abroad -- while a U. S. tax refund is shown. Since the foreign income has been taxed and would not generate additional U. S. tax, the foreign tax credit wipes-out U.S. tax liability; then, it the corporation has earned tax credits for eligible investment, these would be carried-back to prior years and, thus, generate a tax refund. See section (3), following.

8/ In the ABC Corporation financial statement, the investment credit for the year (including that from prior years discussed later in the text) is "flowed-through" to net (after tax) income by simply reducing tax expense for the year. Even companies which "normalize" the credit, i.e., prorate the credit benefit over the life of the subsidized assets, "bring the credit into income" "below the before tax" line. They would never do this if the subsidy were paid in cash, even if the payments earned in a year were paid in installments over a future period.

9/ One of the constraints on availability of the investment credit subsidy which has been imposed to keep the credit a "reduction in tax", and thus to sustain the illusion that it is solely a tax matter, is the limitation which prevents the amount of the credit in any one year from extinguishing more than the first $25,000 of tax liability plus 50 percent of

the excess. Amounts of credit in excess of this annual limitation can be carried-back (3 years) or -forward (7 years),

10/ A more precise accounting procedure would be to "bring-in" to income in 1976 all the prorata shares of prior year investment subsidies plus a portion of this year's $32 subsidy. To fail to do this, a procedure called "normalization" by accountants, introduces the possibility of overstating the contribution of the subsidy to this year's income, as when net additional capacity is being added.