



Commentaries

Fundamental Flaws in the Minimum Tax Depreciation Preference

Tax Notes

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Summary

In this special report, the authors illustrate the adverse consequences of the depreciation recalculation required under the alternative minimum tax systems contained in the House and Senate tax bills. These consequences include the imposition of disproportionately high effective tax rates on capital-intensive companies and the creation of new tax-oriented merger incentives. The authors also track the impact of the minimum tax on a capital-intensive company with declining earnings, pointing out that as the earnings of such a company drop, its effective tax rate will increase, unless it engages in the self-defeating process of cutting back on capital investments.

The authors attribute these undesirable consequences to flaws in the calculation of depreciation preference, principally a baseline that significantly understates economic depreciation, and the system's failure to allow taxpayers to fully "net" their depreciation allowances. The authors argue that these defects could be easily corrected by the Conference Committee, and suggest several approaches the Conference Committee could take.

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I. Introduction

The alternative minimum tax ("AMT") systems included in the tax bills passed by the House and Senate contain serious structural flaws that run counter to sound tax and economic policy. This analysis illustrates, by numerical examples, those defects and their negative consequences, particularly for capital-intensive companies.

Under the proposed minimum tax systems, the more a company spends on capital equipment, the greater is the percentage of its income that will be subject to tax. All other things being equal, if two minimum-taxpaying corporations have the same economic income, the more capital-intensive company will pay more tax. Under the minimum tax, declines in income will not cause proportionate declines in taxes. If a capital-intensive company's earnings decline to marginal levels for a year, its effective tax rate will increase, even to a level where taxes exceed economic income.

These results violate established principles of tax policy. First, they compromise the principle of horizontal neutrality. Companies with the same net earnings should pay a comparable amount in taxes each year, not vastly different amounts. Second, the imposition of higher effective rates of tax on companies with declining or marginal earnings is perverse, especially since such declines may be caused by a recession, a labor strike, some new thrust of subsidized foreign competition, or even by actions of our own government. Third, the disparate effective tax rates imposed under the AMT create tax incentives for companies to engage in corporate reorganizations that lack a bona fide business purpose.

The impact of the AMT on capital-intensive companies also raises serious questions of economic policy. To the extent that the minimum tax nullifies the benefits of depreciation, it will work to deter capital investment. This result will constrain future growth in sectors of the U.S. economy. Ultimately, decreased capital investment will spur the movement overseas of U.S. jobs, as well as production facilities. Do the drafters of tax reform really intend to encourage capital flight and to accelerate the shift to a services-based economy?

These consequences stem from a flawed depreciation preference. Both the House and Senate tax bills compute alternative minimum taxable income ("AMTI") by adding back certain preferences and recomputing certain deductions. In the case of depreciation, both bills require that AMTI be determined using an alternative depreciation system.⁽¹⁾ In general, that system requires taxpayers to compute depreciation using the straight-line method over the ADR midpoint life of the asset. Thus, the depreciation "preference" consists of the excess of regular tax depreciation over alternative system ("baseline") depreciation. The preference is computed with respect to all property placed in service after the effective date, and not on an item-by-item basis.

There are at least two major problems with the computation of depreciation under the minimum tax. First, the proposed definition of baseline depreciation (straight line over the ADR midpoint of an asset) stretches out depreciation over too long a period of time in proportion to the decline in productive output or value of the machinery and equipment. Second, because taxpayers are not permitted to "net" their depreciation on assets placed in service prior to the effective date, the calculation will produce artificially inflated preference amounts in the first three to 10 years after the AMT is enacted.

II. Consequences of the AMT

Largely as a result of the flawed computation of the depreciation preference, application of the minimum tax will place a disproportionate burden on capital-intensive companies. The examples illustrate that as companies' capital-intensity ratios increase, they will be increasingly subject to high effective tax rates under the minimum tax.⁽²⁾ Moreover, when such companies encounter periods of declining profitability, their effective tax rates can still be expected to rise.

The examples focus primarily on the Senate bill, but the negative consequences they illustrate are equally applicable to the House bill; indeed, the impact of the AMT on capital-intensive companies would be even more punitive in nature if the House bill's 25 percent AMT formed the basis for a Conference Committee bill that included the Senate bill's regular tax depreciation system.

A. Methodology and Assumptions.

The first part of the analysis compares the tax obligations of companies of varying capital intensity that have the same net earnings. The second part focuses on a particular company that experiences a decline in earnings. The hypothetical corporations have only one preference for minimum tax purposes -- "excess" depreciation on equipment that has an ADR midpoint of 14 years.⁽³⁾ The corporations acquire a constant amount of equipment each year.⁽⁴⁾

The key variable in the first part of the analysis is the amount of equipment each corporation acquires annually in order to earn the same net profit. Use of the variable reflects common business realities. Whereas some corporations are forced to acquire substantial amounts of capital equipment to maintain profitability, others are able to earn the same profit while acquiring less equipment. For example, a company engaged in manufacturing tires cannot avoid making substantial capital outlays for depreciable equipment and plant; by contrast, a company that produces computer software would be able to earn an equivalent profit at a much lower capital-intensity ratio.

This analysis treats the excess of a corporation's predepreciation earnings over the amount it spends on capital equipment each year as the corporation's "economic income" for purposes of measuring its real tax rate. If a corporation earns x dollars before depreciation, but spends y dollars on equipment each year, it seems clear that its economic income equals $x - y$. Thus, a corporation that earns \$100 before depreciation each year and spends \$85 annually on capital equipment would have economic income of \$15.

The corporation's minimum tax liabilities are calculated using the Senate bill's rate of 20 percent; the regular corporate tax is calculated at a 33 percent rate for the entire period (including the first six months of 1987). Table E provides background computations of the depreciation preference.

B. Overtaxation of Capital-Intensive Companies.

Graphs A and B and Tables A and B compare the tax obligations of companies of varying capital intensity. Graph A and Table A provide comparisons for 1991. Graph B and Table B provide comparisons for the period 1987-1992.

In general, the analysis shows that as corporations' capital- intensity ratios increase, their exposure to the minimum tax will also increase. The analysis also shows that such minimum-taxpaying corporations will pay tax at effective rates substantially in excess of 33 percent of taxable income, and in many cases, in excess of 20 percent of economic income. For example, suppose a company (Delta) earns \$45 million annually before depreciation and invests \$30 million each year. As Table A indicates, Delta (having a capital- intensity ratio of 2.00) would pay taxes of \$6.9 million or 46 percent of its \$15 million economic income in 1991. If another company (Gamma) earns \$75 million each year before depreciation, but spends \$60 million per year on equipment (resulting in a capital- intensity ratio of 4.00), it would pay taxes of \$10.8 million in 1991, or an astronomical 71.9 percent of its \$15 million economic income. Table B shows that over the period 1987-1992, Gamma would pay taxes of \$40.2 million or 44.7 percent of the company's \$90 million economic income over that period; by contrast, the less capital- intensive Delta would pay 32.4 percent in tax.(5)

The analysis also illustrates the potential for gross disparities in effective tax rates under the minimum tax. For example, in 1991, a corporation (Sigma) that acquires \$90 million of machinery and equipment each year and earns \$105 million each year before depreciation will pay a minimum tax/6/ of \$14.7 million, or 97.9 percent of its economic income. Over the six-year period from 1987 to 1992, Sigma would pay \$51.4 million in tax, or 57.1 percent of its economic income. At the other extreme, a company (Kappa) that earns \$20 million before depreciation and invests \$5 million each year would pay only \$5.0 million in taxes -- an amount which equals 33.3 percent of its net earnings in 1991. Over the period 1987-1992, Kappa would be taxed at a real tax rate of only 31.1 percent, paying a total of \$28.0 million of its \$90 million economic income in taxes.

C. Tax Consequences of an Earnings

Change. Another major concern is the AMT's reverse response to declines in corporate earnings. As earnings of a capital-intensive company drop, it will become increasingly subject to the minimum tax as a result of the depreciation "preference" -- unless it engages in the self-defeating process of cutting back on productive capital investments. If a company maintains its level of investment in an unprofitable year, its tax base will consist largely of preference amounts, as opposed to real income.

Companies decide on the annual amount of their equipment expenditures at least partially on the basis of their company's projected earnings for that year. It would be entirely possible for a company to spend \$15x on the basis of projected earnings of \$35x, and then to find itself in a particular year with net earnings that barely cover those expenditures. For example, an airline may face unexpected, new competition on major routes, causing profits to plummet. An industrial company may be hit by a strike that shuts down an entire plant or, alternatively, forecloses an otherwise economical source of input. Profit levels in the energy sector are also highly variable and somewhat unpredictable: In one year, an oil embargo may depress profits for high-volume dealers, while in another year, an unexpected oil glut may cause both prices and profit margins to drop substantially.

Table C and Graph C illustrate the impact of a change in earnings in 1991 on a company that acquires \$15 million of equipment each year. If the company's earnings (before depreciation) decline to \$15 million, the company would incur a relatively small regular tax (\$200,000), but would pay a minimum tax of almost \$2 million. Since the latter amount would be payable on no economic income, the resulting effective tax rate would be infinite. By contrast, if the company had been able to earn \$35 million before depreciation, it would pay \$6.8 million in tax on its \$20 million of economic income -- a real tax rate of only 34 percent. As Graph C illustrates, there is even a range where a company's taxes will exceed its economic income.

The failure of the minimum tax to decrease in proportion to declines in earnings will exacerbate the financial woes of individual companies and contribute to recessionary trends. In an unprofitable year, companies often face a number of difficult choices. In order to meet payroll and other obligations, a company may have to cut back on production or lay off substantial numbers of its workers. It may also have to rely on borrowed funds to meet its obligations. These difficulties will be compounded if a substantial tax obligation must be met in an unprofitable year. The tax obligation may force high- cost borrowing or result in a level of capital investment that is substantially less than the amount needed to maintain or enhance business productivity. Moreover, if a major segment of the business community endures a bad year, cutbacks in capital investment and employment will further fuel the recession.

In addition, the tax impact of a change in earnings will intensify the pressure on capital-intensive companies to participate in tax-motivated mergers and acquisitions. As illustrated below, a company that has already made substantial investments in capital equipment can move itself out of a minimum tax position most easily by consolidating with a high profit-margin, less capital-intensive company. A company with declining earnings

will be under even greater pressure to consolidate for tax purposes.

In theory, taxes should not compound cyclical economical problems. Rather, taxes should be higher in good years when they can be paid out of profits, instead of out of jobs and investment. Companies should not be forced to engage in economically wasteful acquisitions and reorganizations merely to reduce taxes.

D. Tax Incentives for Mergers/Acquisitions

The prospect of being subject to high effective tax rates under the minimum tax will put American companies under increasing pressure to merge, to acquire other corporations, or simply to sell off capital-intensive businesses. Both the Senate and House bills include provisions explicitly designed to reduce incentives for mergers -- e.g., additional limitations on the use of NOL carryovers following a change in ownership. Operation of the proposed AMT, however, would create new incentives for precisely such behavior.

A simple example illustrates how the proposed AMT under either the Senate bill or the House bill would give companies a strong incentive to merge in order to reduce their collective tax liability. Alpha Corporation is a capital-intensive company which must make substantial annual investments in depreciable equipment in order to earn a profit. In 1991, under either of the proposed minimum tax systems, Alpha will pay a minimum tax of at least 50 percent of its taxable income. Beta Corporation is a high profit-margin company with virtually no depreciable assets; it is able to produce its product relatively cheaply, relying on patented processes and advertising to capture its share of the market. Beta will pay tax at the regular corporate rate.

Tax Year 1991	Alpha		Beta	
	Senate	House	Senate	House
Taxable Income	\$1,000	1,500	\$3,000	3,000
Regular Tax	\$ 330	540	\$ 990	1,080
AMT Income	\$3,000	3,000	\$3,100	3,100
AMT	\$ 600	750	\$ 620	775

Collectively, Alpha and Beta would pay \$1,590 in taxes for 1991 under the Senate bill (\$1,830 under the House bill).(7)

If Alpha and Beta merge, their total tax liability will be significantly less.

Post-Merger Tax Liability of Alpha-Beta

	Senate	House
Taxable Income	\$4,000	\$4,500
Regular Tax	\$1,320	\$1,620
AMT Income	\$6,100	\$6,100
AMT	\$1,220	\$1,525

By merging, Alpha and Beta would save, in 1991 alone, \$270, or 17.0 percent under the Senate bill; in 1991, the two corporations would save \$305, or 16.7 percent, under the House bill.

III. Underlying Defects in the Proposed AMT

The imposition of excessive rates of tax on capital-intensive companies and the creation of tax-oriented merger incentives are caused by two fundamental defects in the proposed AMT: 1) the baseline for determining the depreciation preference and 2) the failure to allow full netting of depreciation on all assets placed in service by the taxpayer.

A. Towards a Redefinition of Baseline Depreciation.

To properly reflect economic depreciation, a depreciation system should be accelerated and indexed for inflation. Economists generally agree that depreciation occurs on an accelerated basis.(8) Thus, the use of the straight-line method over long lives fails to approximate economic depreciation.

Another flaw in the baseline used to compute allowable depreciation under the minimum tax is the system's use of ADR midpoint lives as the applicable recovery periods. The ADR midpoint is not an appropriate

measure of an asset's economic or useful life. Most of the current Asset Depreciation Ranges were developed decades ago and have not been updated to reflect technological and economic change. Consequently, many of the stated lives are too long. The use of longer lives would be partially mitigated if the baseline system were indexed, or if an accelerated depreciation method were substituted for the straight-line method. However, given the lack of those two features, the use of ADR midpoint lives produces particularly distorted results.

Prior to 1981, taxpayers were permitted to depreciate their equipment using the 200 percent declining balance method over the ADR lower limit. The lower limit was approximately 80 percent of the ADR midpoint. For argument's sake, assume that 200 percent declining balance depreciation over the ADR lower limit with full indexing might now approximate economic depreciation. Table D illustrates the extent to which straight-line depreciation over the ADR midpoint produces an excess preference for property with an ADR midpoint of 14 years under the Senate bill.

Table D shows that during the first five years such property is in service, the preference will be overstated by an amount equal to approximately 33 percent of the cost of the asset, or approximately 102 percent of the depreciation allowed under the baseline system over the five-year period. The preference would be overstated by 21 percent of asset cost if an overly conservative 150 percent declining balance rate were used in the preceding example instead of a 200 percent declining balance rate.

B. Extension of the Netting Concept

A major technical problem in both the Senate and House tax bills is the exclusion of pre-1987 assets from the taxpayer's computation of the depreciation preference. If the provision is not modified in the Conference Committee, many corporations' depreciation preference amounts will be artificially inflated for the sole reason that older assets initially will be excluded from the calculation. The exclusion will impose a particularly harsh penalty on companies that have made steady investments in depreciable property over the past decade.(9)

Conceptually, if a minimum tax is to include a depreciation preference, the preference amount should be a measure of the extent to which a taxpayer's total tax depreciation exceeds total economic depreciation. In order to compute such a preference fairly, one must determine the taxpayer's economic depreciation in a consistent manner.

A simple example is illustrative. A taxpayer places one \$100 machine in service each year. The item loses 25 percent of its original value per year, but assume the tax law allows the cost to be recovered in two years.

Year Placed in Service	Tax Depreciation		Economic Depreciation	
	1987	1988	1987	1988
1984	--	--	\$ 25	--
1985	--	--	25	\$ 25
1986	\$ 50	--	25	25
1987	50	\$ 50	25	25
1988	--	50	--	25
Total	\$100	\$100	\$100	\$100
Total (post-1986)	\$ 50	\$100	\$ 25	\$ 50

The taxpayer has no "excess" depreciation when its entire tax depreciation is netted against its entire economic depreciation. On the other hand, if the depreciation preference computation applies only to post-1986 property, the taxpayer would have a preference of \$25 for 1987 and \$50 for 1988. Thus, the taxpayer's AMT base would be increased by those amounts even though the taxpayer's total depreciation deductions are no greater than they would be if the taxpayer had used economic depreciation for tax purposes throughout the period.

In mandating that the depreciation preference be calculated with respect to all post-1986 depreciable assets held by the taxpayer (rather than on an item-by-item basis), the taxwriters explicitly recognized that the preference should be computed using a netting concept.(10) The only purpose served by excluding pre-1987 assets is to avoid retroactively penalizing new investments -- i.e., assets placed in service just prior to the effective date of the new minimum tax system. However, the provision penalizes taxpayers in another way: It will artificially inflate the amount of the preference in the first three to 10 years after the new tax system goes into effect, especially for those companies that have made investments in depreciable assets on a steady basis.

The calculations included in Table E illustrate the magnitude of the netting problem with respect to a taxpayer that places in service each year a constant amount of equipment with a 14-year ADR midpoint.⁽¹¹⁾ If full netting were allowed, the taxpayer's depreciation preference would equal \$106 over the period 1987-1992 (assuming constant investment of \$100 per year). However, since the preference computation excludes depreciation on pre-1987 assets, the taxpayer's preference will total \$291, or approximately 175 percent more than if full netting were allowed. Over the period 1987-1992, the limitation on netting will produce a depreciation preference that equals almost 300 percent of the taxpayer's yearly investment amount. In 1991, the depreciation preference will exceed 60 percent of capital investment for that year.

There are several ways the tension between netting and retroactivity could be resolved by the Conference Committee. As one commentator has suggested, the taxwriters could make the effective date elective with the taxpayer.⁽¹²⁾ A taxpayer thus could choose to calculate the depreciation preference either with regard to all depreciable assets or with regard to post-1986 assets only.

A second approach avoids the ancillary problems often associated with taxpayer elections. The Conference Committee could adopt a statutory formula providing that the preference amount, as calculated with respect to property placed in service after the effective date, shall in no case be greater than the preference calculated with respect to all property placed in service by the taxpayer. Under this statutory limitation on the amount of the preference, the appropriate calculations would be made by taxpayers each year and the lesser amount would automatically constitute the preference amount for that year. The formula would effectively allow for full netting of depreciation and, at the same time, avoid imposing a retroactive penalty on recent investments.

A third approach involves adopting a substantially improved definition of baseline depreciation -- at least in part, as a proxy for the system's lack of full netting. As Table E indicates, adopting unindexed 200 percent declining balance depreciation (using the asset's lower limit as the applicable recovery period) would reduce somewhat the amount of the depreciation preference. The proxy approach, however, would still fail to adequately compensate for the limitation on netting: Full netting reduces the taxpayer's six-year preference total from 291.4 to 106; adopting a modified baseline (using the 200 percent declining balance method as described above) reduces the total by a much lesser amount, to 170. If the Conference Committee chooses to address the netting problem by modifying the baseline, perhaps it should consider adopting a baseline depreciation system that is more favorable than 200 percent declining balance depreciation.⁽¹³⁾

IV. Conclusion

The primary purpose of the minimum tax system is to ensure that all financially profitable corporations pay a reasonable amount of tax. The minimum tax provisions contained in the Senate bill and in the House bill go beyond that legitimate objective: The proposed AMT will subject some capital-intensive companies to excessive real tax rates, especially over the next three to 10 years.

By definition, companies that fall under the minimum tax will pay in excess of 33 percent of their taxable income in tax (in excess of 36 percent under the House bill). The fact that minimum-taxpaying companies have a higher ratio of tax to regular taxable income than companies that do not pay a minimum tax is inherent in any alternative minimum tax. The rationale for such a system assumes that the regular tax income of some companies understates economic income. Based on this assumption, certain deductions (or a portion thereof) are required to be added back to the tax base. However, the theory behind the minimum tax does not mandate certain results which flow from the proposed recalculation of depreciation, such as (i) the significant and disproportionate minimum tax burden on companies with declining or marginal earnings and (ii) the disproportionately high effective rates of tax borne by some capital-intensive companies in comparison with their less capital-intensive counterparts.

In effect, companies that are thrown into the minimum tax because of the depreciation preference will be denied full use of one of the keystones of the Senate bill -- 200 percent declining balance ACRS depreciation. Instead, these minimum-taxpaying companies will be forced to use a depreciation system that severely understates economic depreciation. In addition, the system's lack of full netting will artificially inflate preference amounts for a significant number of taxpayers in the early years of the new system's operation.

It is widely recognized that the operation of an inadequate depreciation system will impair capital formation and retard economic growth and productivity.⁽¹⁴⁾ Although the Senate bill contains a much improved depreciation system compared to the one contained in the House bill, the depreciation recomputation required under the minimum tax would nullify its benefits for many companies.

The adverse effects of the proposed minimum tax could be mitigated if the Conference Committee proves willing to make at least one of the minor technical changes outlined above. None of the suggested changes will undermine the intended purpose of the minimum tax; rather they will merely blunt certain adverse consequences which the taxwriters probably did not intend.

PRIOR COVERAGE

For prior Tax Notes coverage of tax incentives in general, see:

"The Impact of the Tax Reform on the Slope of the Playing Field" by Patric Hendershott, June 16, 1986, p. 1107.

"Investment Incentives: Do They Work?" by Margo Thorning, May 5, 1986, p. 515.

"McIntyre Responds to Thorning Article" May 19, 1986, p. 711.

"The Depreciation Debate: Have Bulow and Summers Suggested a Viable Compromise" by Michael G. Durst, January 20, 1986, p. 259.

"How Tax Reform Would Affect Companies with Different Growth and Profitability Characteristics," by Gilbert A. Harter, April 21, 1986, p. 297.

"Recapture of Excess Depreciation: What Are the Issues" by Emil Sunley and C. Clinton Stretch, June 24, 1985, p. 1501.

"The Treasury Tax Reform Proposal and the Prospects for Long-Run Growth" by Charles R. Hulten, May 6, 1985, p. 627.

"A Federal Income Tax Designed for Revenue Only" by Hugh Calkins, April 9, 1984, p. 201.

For prior Tax Notes coverage of the pending alternative minimum taxes see:

"What Tax Shelter Transition Phase-In Rule? The Senate is Fooling the Public on Existing Investments" by Byrle M. Abbin and James Sharp, July 7, 1986, p. 57.

"Thinking About Senator Packwood's Alternative Minimum Tax For Corporations," by Emil M. Sunley, April 28, 1986, p. 395.

"Making Timing Adjustments Subject to the Alternative Minimum Tax Requires a Principled Transition Rule," by John B. Jones, Jr., April 21, 1986, p. 285.

"A Brief Critique of the Ways and Means Alternative Minimum Tax Proposal," by Byrle M. Abbin, October 28, 1985, p. 415.

"Tax Reform and the Not So Minimum Tax Proposals," by Byrle M. Abbin, Stephen R. Corrick, and Linda Gould, July 22, 1985, p. 443.

"Major Tax Proposals Before the 99th Congress," by Margo Thorning, July 8, 1985, p. 195.

"Proposal for an Alternative Minimum Tax for Corporations," by Emil M. Sunley, February 15, 1982, p. 363.

FOOTNOTES

1. Under current law, the alternative depreciation system is applicable only to property leased to tax-exempt entities.

2. The term "capital-intensity ratio" signifies the ratio of a company's investment in depreciable equipment to its economic income.

3. The following types of equipment have ADR midpoints of 14 years: petroleum and natural gas production equipment; equipment used in the manufacture of rubber products, primary nonferrous metals, and foundry products; and railroad machinery and equipment. The cost of such property may be recovered over five years under ACRS depreciation. The analysis would be applicable even if a higher or lower ADR midpoint were used, but the magnitude of the results would differ from those presented here.

4. The analysis reflects a constant nominal amount of investment, as opposed to a constant real amount. Thus the effects of inflation are disregarded. If inflation were taken into account, the general conclusions reached here would not be altered, but the magnitude of the results would change.

5. The incidence of effective tax rates below 33 percent is caused by a combination of factors including the fact that if the regular tax depreciation system contained in the Senate bill is adopted, on two occasions in the past decade (in 1981 and again in 1987), a more accelerated depreciation system will have replaced a less accelerated depreciation system. It also reflects the failure of the analysis to take inflation into account.

6. This analysis uses the term "minimum tax" or "AMT" to refer to the tentative minimum tax, 20 percent (Senate version) or 25 percent (House version) of alternative minimum taxable income (reduced by the alternative foreign tax credit), rather than the excess of the tentative minimum tax over the regular tax.

7. Alpha's taxable income is higher under the House bill because the regular tax depreciation system in the House bill is less favorable than the depreciation system contained in the Senate bill.

8. See e.g., C. Hulten and F. Wykoff, *The Measurement of Economic Depreciation*, in *Depreciation, Inflation, and the Taxation of Income from Capital* 85 (C. Hulten ed. 1981) (noting that the largest rate of price decline occurs in the early years of an asset's life). See also *The President's Tax Proposals to the Congress for Fairness, Growth and Simplicity* 144 (May 1985). Although we question the appropriateness of the rates and lives in the Administration's tax reform proposal, it clearly recognized that an economic depreciation system should be accelerated (e.g., through use of declining balance methods, plus indexing).

9. The point is illustrated by the examples developed in Section II, *supra*; it was first made in this publication by John B. Jones, Jr., "Making Timing Adjustments Subject to the Alternative Minimum Tax Requires a Principled Transition Rule," 31 *Tax Notes* 285 (April 21, 1986).

10. See H.R. Rep. No. 426, 99th Cong., 1st Sess. 309-310 (1985); and S. Rep. No. 313, 99th Cong., 2nd Sess. 522-523 (1986).

11. For an explanation of the impact of this assumption, see *supra* note 4.

12. Jones, *supra* note 9 at 286.

13. The figures in Table E, including the computation of 200 percent declining balance depreciation, are not indexed for inflation. At a minimum, the baseline should be indexed for inflation in order to approximate economic depreciation. Conversely, the use of shorter lives could be employed to compensate for the lack of full netting.

14. See, e.g., *The President's Report*, *supra* note 8 at 134 (noting that if depreciation allowances understate economic depreciation, "income from the investment is overtaxed and a tax disincentive is created which impairs capital formation . . .").

GRAPH A
EFFECT OF CAPITAL INTENSITY (1991)
[Graph omitted.]

Table A

Effect of Capital Intensity (1991)
(Assumed Economic Income of \$15/year)

A	B	C	D	E	F	G	H
Annual Earnings Before Depreciation	Annual Capital Investment	Taxable Income	Regular Tax	AMTI	AMI	Capital Intensity	Real Tax Rate
\$115	\$100	\$18.0	\$5.9	\$79.9	\$16.0	6.67	106.5%
105	90	17.7	5.8	73.4	14.7	6.00	97.9
95	80	17.4	5.7	66.9	13.4	5.33	89.2
85	70	17.1	5.6	60.4	12.1	4.67	80.6
75	60	16.8	5.5	53.9	10.8	4.00	71.9
65	50	16.5	5.4	47.5	9.5	3.33	63.3
55	40	16.2	5.3	41.0	8.2	2.67	54.6
45	30	15.9	5.2	34.5	6.9	2.00	46.0
35	20	15.6	5.1	28.0	5.6	1.33	37.3
30	15	15.5	5.1	24.8	5.0	1.00	34.0
25	10	15.3	5.0	21.5	4.3	0.67	33.7
22.5	7.5	15.2	5.0	19.8	4.0	0.50	33.5
20	5	15.2	5.0	18.2	3.6	0.33	33.3
15	0	15.0	4.9	15.0	3.0	0.00	33.0

Formulae(1)

$$C = A - .97(B)$$

$$D = .33(C)$$

$$E = C + .619(B)$$

$$F = .20(E)$$

$$G = B/15$$

$$\text{Tax} = \text{Greater of } F \text{ or } D$$

$$H = \text{Tax}/15$$

FOOTNOTES TO TABLE A

1. These formulae are derived from Table E. For example, Table E shows that the 1991 depreciation allowance for a company that acquires the same amount of equipment each year is 97 percent of equipment cost. Thus, taxable income (C) equals earnings (A) minus 97 percent of equipment cost (B).

GRAPH B

EFFECT OF CAPITAL INTENSITY (1987-1992)
[Graph omitted.]

Table B

Effect of Capital Intensity (1987-1992)
(Assumed Economic Income of \$15/year)

A	B	C	D	E	F	G	H
Annual Earnings Before Depreciation	Annual Capital Investment	Regular Taxable (1987-1992)	Regular Tax/1/ (1987-1992)	AMTI (1987-1992)	AMT	Capital Intensity	Real Tax Rate (1987-1992)
\$115	\$100	\$-16.0	0	\$275.4	\$55.1	6.67	61.2%
105	90	-5.4	0	256.9	51.4	6.00	57.1
95	80	5.2	1.7	238.3	47.7	5.33	53.0
85	70	15.8	5.2	219.8	44.0	4.67	48.9
75	60	26.4	8.7	201.2	40.2	4.00	44.7
65	50	37.0	12.2	182.7	36.5	3.33	40.7
55	40	47.6	15.7	164.2	32.8	2.67	36.5
45	30	58.2	19.2	145.6	29.1	2.00	32.4
35	20	68.8	22.7	127.1	25.4	1.33	28.8/2/
31.24 .	16.24	72.8	24.0	120.1	24.0	1.08	26.7
30	15	74.1	24.4	117.8	23.6	1.00	27.1
25	10	79.4	26.2	108.5	21.7	.67	29.1
20	5	84.7	28.0	99.3	19.9	.3	31.1
15	0	90.0	29.7	90.0	18.0	.00	33.0

Formulae(3)

$$C = 6(A) - 7.06(B) = 6(A) - 7.06(A-15) = 105.9 - 1.06(A)$$

$$D = .33(C)$$

$$E = C + 2.914(B)$$

$$F = .20(E)$$

$$G = B/15$$

$$\text{Tax} = \text{Greater of } D \text{ or } F$$

$$H = \text{Tax}/90$$

FOOTNOTES TO TABLE B

1. Assumes a 33 percent rate for 1987.
2. Reflects the fact that taxpayer would pay a regular tax in 1987, and a minimum tax thereafter.
3. These formulae are derived from Table E.

GRAPH C

MINIMUM TAX'S RESPONSE TO CHANGES IN REAL EARNINGS OF A CAPITAL-INTENSIVE COMPANY (1991)

Table C

Minimum Tax's Response to Changes in Real Earnings
of a Capital-Intensive Company (1991)

A Earnings Before Depreciation	B Real Earnings (Economic Income)	C Regular Tax	D AMT
40	25	8.40	6.95
38.5	22.5	7.91	6.65
35	20	6.75	5.95
32.5	17.5	5.93	5.45
30	15	5.10	4.95
28	13	4.44	4.55
26	11	3.78	4.15
24	9	3.12	3.75
22	7	2.46	3.35
20	5	1.80	2.95
18	3	1.14	2.55
16	1	0.48	2.15
15	0	0.15	1.95
10	-5	-1.50	0.95
7.5	-7.5	-2.33	0.45
5	-10	-3.15	-0.05
0	-15	-4.80	-1.05

Formulae(1)

$$B = A - 15$$

$$C = .33(A - .97(15)) = .33(A) - 4.8$$

$$D = .20(A - .97(15) + .6187(15)) = .20(A) - 1.05$$

$$\text{Tax} = \text{Greater of C or D}$$

FOOTNOTE TO TABLE C

1. These formulae are derived from Table E.

Table D

Measurement of the Overstatement of Depreciation Preference(1)

Year	A Tax Deduction	C Straight-Line Over Midpoint	D Pre- ference (B-C)	E 200 Percent DB Over Lower Limit (11 yrs.)		F 200 Percent DB Over Lower Limit (indexed)		G Pre- ference (F-C)
1	20.00	3.57	16.43	9.09	9.09	5.52		
2	32.00	7.14	24.86	16.53	17.36	10.22		
3	19.20	7.14	12.06	13.52	14.91	7.77		
4	11.52	7.14	4.38	11.07	12.81	5.67		
5	11.52	7.14	4.38	9.05	11.00	3.86		
Total								
1-5	94.24	32.13	62.11	59.26	65.17	33.04		

FOOTNOTE TO TABLE D

1. Indexed figures developed in Table D assume a five percent inflation rate. The cost of the hypothetical asset is \$100x.

Table E

Depreciation Allowances and Preferences(1)

A. Tax Depreciation Allowance

Year Property Placed in Service	Year							Total
	1987	1988	1989	1990	1991	1992		
1976-1980 (200 Percent DB, 11 yrs.)	27	21	15	9	3			
1983	21							
1984	21	21						
1985	21	21	21					
1986	22	21	21	21				
1987	20	32	19	12	11	6		
1988		20	32	19	12	11		
1989			20	32	19	12		
1990				20	32	19		
1991					20	32		
1992						20		
Totals								
1. All Property	132.0	136.0	128.0	113.0	97.0	100.0	706.0	
2. (Post-1986 Property) ..	20.0	52.0	71.0	83.0	94.0	100.0	420.0	
B. Baseline Depreciation								
1. All Property	100.0	100.0	100.0	100.0	100.0	100.0	600.0	
2. (Post-1986 Property)	3.6	10.7	17.9	25.0	32.1	39.3	128.6	

C. Modified Baseline Depreciation							
(Post-1986 property)							
1. 200 percent DB over							
ADR lower limit	9.1	25.6	39.1	50.2	59.3	66.7	250.0
2. SL over ACRS							
recovery period	10.0	30.0	50.0	70.0	90.0	100.0	350.0
D. Depreciation Preference							
1. Full Netting Approach							
(A1-B1)	32.0	36.0	28.0	13.0	(3.0)	0	106.0
2. Netting Only Post-1986							
(A2-B2)	16.4	41.3	53.1	58.0	61.9	60.7	291.4
3. Modified Baseline 1							
(200% DB/lower limit)							
(A2-C1)	10.9	26.4	31.9	32.8	34.7	33.3	170.0
4. Modified Baseline 2							
(SL/ACRS lives)							
(A2-C2)	10.0	22.0	21.0	13.0	4.0	0	70.0
E. AMTI Depreciation							
Under Senate Computation							
(A1-D2)	115.6	94.7	74.9	55.0	35.1	39.3	414.6

FOOTNOTE TO TABLE E

1. All numbers are expressed as percentages of the constant annual investment in depreciable equipment. The depreciable property has an ADR midpoint of 14 years and an ADR lower limit of 11 years.