

# SOFT MONEY INVESTING UNDER THE INCOME TAX†

Calvin H. Johnson\*

*A tax shelter is a special kind of investment [that] is financed by a marvelous kind of boot-strap arrangement . . . .*

*The act of making the investment itself produces a deduction which retrieves for the taxpayer money which he would otherwise have to pay to the Internal Revenue Service, and which, when retrieved, may be used to pay for the very investment which created the deduction. It is a wondrous device. It is much more fun for taxpayers than such old-fashioned investments as tax-free municipal bonds. It is like buying a tax-free municipal bond and having the federal government give you . . . the money with which to buy the bond in the first place.<sup>1</sup>*

## I. INTRODUCTION

In a tax system that identifies true income, a taxpayer makes and continues investments only with after-tax amounts, that is, only with "hard money." An employee, for instance, may deposit only "take home" pay and not gross salary in a savings account. The deposited moneys remain nondeductible so long as they remain in the account and continue to be investments. In this respect, the taxation of a savings account is a model for the taxation of all investments. In a true income tax, the cost of an investment is a capital expenditure that the investor may not deduct when made.<sup>2</sup> Instead, the cost becomes basis<sup>3</sup> that the investor may deduct only as the cost expires and ceases to be an investment.

The requirement that a taxpayer make and continue investments with post-tax, hard money amounts is a guiding norm for the federal income tax. Within a system that generally requires hard money invest-

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1. Hickman, *Pensions and Profit-Sharing Plans: The Quintessential Tax Shelter*, 113 TR. & EST. 140, 141 (1973).

2. I.R.C. § 263 (1988). Tax systems that allow the general deduction of investments are consumption taxes, not income taxes. See, e.g., Andrews, *A Consumption-Type or Cash Flow Personal Income Tax*, 87 HARV. L. REV. 1113 (1974).

3. I.R.C. § 1012 (1988) provides that, in general, the basis of property is the cost of such property.

ments, the ability to make or continue investments with pretax "soft money" is an extraordinary privilege. Under what is sometimes known as the Cary Brown thesis, the ability to undertake an investment with soft money is ordinarily as valuable as not paying tax on the subsequent income from that investment.<sup>4</sup> Under what is sometimes known as "Samuelson" or economic depreciation, moreover, we can identify and tax the real return from property only if the remaining investment is continued as a hard money amount.<sup>5</sup> Investments of all kinds have an "outstanding principal" that is like the interest-generating amount in a savings account. We can identify the income from an investment and subject it to tax at the statutory rate only by identifying the "outstanding principal" of that investment and keeping it as an undeducted, hard money amount.

Together, the Cary Brown and Samuelson depreciation theses support a common hard money principle: investments under an income tax should be made and maintained from post-tax amounts. Deducting costs that remain investments allows taxable income to fall below true income and permits the effective tax rate to fall below the statutory tax rate. Soft money investing is inconsistent with taxing the income from an investment.

The hard money principle is a guide for both Congress and the courts toward better tax law decisions. Within a general income tax, soft money investing produces a low effective tax rate that distorts investment decisions, gives premium returns to high-bracket investors, or yields some combination of both. In reaction to the lower effective tax rate, high-bracket taxpayers bid up the price for the soft money investments. The bidding pulls resources away from better economic investments and pulls assets away from lower bracket or tax-exempt investors. But the market usually fails to rise so high as to bring the purchase price into equilibrium with other investments and when that phenomenon occurs, high-bracket taxpayers receive premium returns for which they provide no public good in return.

Soft money investing is also inconsistent with our traditional taxa-

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4. Brown, *Business-Income Taxation and Investment Incentives*, in *INCOME, EMPLOYMENT AND PUBLIC POLICY: ESSAYS IN HONOR OF ALVIN H. HANSON* 300 (1948). Good explanations of the thesis and its scope conditions include DEPT OF THE TREASURY, *BLUEPRINTS FOR BASIC TAX REFORM* 123-24 (1977); Andrews, *supra* note 2, at 1123-28; Surrey, *The Tax Reform Act of 1969—Tax Deferral and Tax Shelters*, 12 B.C. INDUS. & COM. L. REV. 307 (1971).

5. Samuelson, *Tax Deductibility of Economic Depreciation to Insure Invariant Valuations*, 72 J. POL. ECON. 604 (1964), is the pioneering article (hence the usage "Samuelson depreciation"). Notable and useful explanations of economic depreciation include M. CHIRELSTEIN, *FEDERAL INCOME TAXATION: A LAW STUDENT'S GUIDE TO THE LEADING CASES AND CONCEPTS* ¶¶ 2.02, 6.07(d) (5th ed. 1988); Gann, *Neutral Taxation of Capital Income: An Achievable Goal?*, 48 LAW & CONTEMP. PROBS., Autumn 1985, at 77, 108-13; Hulten & Wykoff, *The Measurement of Economic Depreciation*, in *DEPRECIATION, INFLATION, AND THE TAXATION OF INCOME FROM CAPITAL* 84 (C. Hulten ed. 1981); Schapiro, *Recapture of Depreciation and Section 1245 of the Internal Revenue Code*, 72 YALE L.J. 1483, 1509 (1963); Warren, *Accelerated Capital Recovery, Debt, and Tax Arbitrage*, 38 TAX LAW. 549 (1985).

tion of debt. The traditional tax treatment of debt is that borrowed proceeds are not taxed but borrowing is included in depreciable basis and interest is deductible. When soft money investing is combined with debt, as our tax system traditionally has treated debt, the effective tax rate drops below zero. Instead of reducing investment returns, tax increases investment returns. Soft money investments financed with debt are tax shelters, i.e., artificial tax losses that allow consumption to go untaxed. With a combination of debt and soft money investing, we cannot tax consumption fully.

Although in deep structure the federal tax system is an income tax requiring capitalization, many trivialize the importance of capitalization. The Internal Revenue Code gives many opportunities to deduct invested amounts even though they continue to have value as investments.<sup>6</sup> The legal community that thinks about tax issues has systematically underestimated the importance of capitalizing investments.<sup>7</sup> Traditional tax accounting is imbued with the attitude that capitalization is a "mere" timing issue and that mere timing issues are less weighty than questions of whether to include or exempt income.<sup>8</sup> Respected legal commentators still make mistakes that diminish the importance of the hard money principle.<sup>9</sup> A "steady state fallacy," for instance, claims erroneously that immediately deducting or capitalizing property costs makes no difference to a mature company.<sup>10</sup> Trivializing the importance of capitalization has allowed soft money investment too easily, even for massive investments.<sup>11</sup>

This article explains why soft money investing is inconsistent with the income ideal. Parts II, III, and IV explain, respectively, the Cary Brown thesis,<sup>12</sup> Samuelson depreciation,<sup>13</sup> and the role of debt.<sup>14</sup> Part V applies these economic ideals to criticize legal and accounting attitudes<sup>15</sup> and legal doctrines regarding research and development expenditures,<sup>16</sup> prepaid expenses,<sup>17</sup> long-lived repairs,<sup>18</sup> and farm expenses.<sup>19</sup>

The aim of this article is to help the legal tax culture digest the Cary Brown thesis and Samuelson depreciation and to suggest that Congress and the courts should enforce the hard money ideal more rigorously and

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6. See, e.g., *infra* notes 27-28, 64, 75, 104, 170, 182-89, 201-10 and accompanying text.
  7. See, e.g., *infra* notes 133-35, 138, 146, 156-59 and accompanying text.
  8. See *infra* notes 139-46 and accompanying text.
  9. See *infra* notes 133-35 and accompanying text.
  10. See *id.* (discussing steady state fallacy).
  11. See, e.g., *infra* notes 194-96 and accompanying text (discussing prepaid expenses).
  12. See *infra* notes 20-75 and accompanying text.
  13. See *infra* notes 76-113 and accompanying text.
  14. See *infra* notes 114-30 and accompanying text.
  15. See *infra* notes 131-46 and accompanying text.
  16. See *infra* notes 147-61 and accompanying text.
  17. See *infra* notes 162-98 and accompanying text.
  18. See *infra* notes 199-220 and accompanying text.
  19. See *infra* notes 221-43 and accompanying text.

consistently. Congress and the courts should view soft money investing with skepticism, even hostility.

## II. THE CARY BROWN THESIS

Under the Cary Brown thesis, the ability to make an investment with untaxed soft money is usually as valuable as exempting subsequent investment income from tax. "Expensing"—deducting an investment immediately—and exempting the subsequent profit from tax are usually equivalent tax benefits. This part of the article first demonstrates the Cary Brown thesis by using an illustrative tax shelter, the herbal rollover.<sup>20</sup> It then shows the Cary Brown thesis from two slightly different perspectives: making government a "fair partner"<sup>21</sup> and relieving double tax.<sup>22</sup> The overlapping explanations are intended to make the thesis comprehensible and portable to other situations. Part II(B) analyzes the scope conditions beyond which expensing and exemption are not strict equivalents.<sup>23</sup> Finally, Part II(C) discusses how the market reactions to the benefit of soft money investing might take away the advantage to the investor in full or part.<sup>24</sup> Part II(C) also argues that possible market capture of the advantage should not much reduce our skepticism about soft money investing.<sup>25</sup>

### A. *The Equivalence of Expensing and Exemption*

The ability to make an investment with soft money is usually an advantage as valuable as not having to pay tax on the subsequent income from the investment. The heart of the advantage is that soft money investments can be larger because the investor does not need to pay tax at the outset of the investment. Hickman describes the phenomenon as a "boot-strap arrangement." "The act of making the investment," he says, "itself produces a deduction which retrieves for the taxpayer money which he would otherwise have to pay to the Internal Revenue Service, and which, when retrieved, may be used to pay for the very investment which created the deduction."<sup>26</sup> A larger early investment generates larger returns and those larger returns offset the subsequent tax on the investment income. Within certain scope conditions, the Cary Brown thesis is true for any constant tax rate, high or low, and for any rate of return on the investment, whether normal or extraordinary.

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20. See *infra* notes 27-43 and accompanying text.

21. See *infra* notes 44-46 and accompanying text.

22. See *infra* notes 47-48 and accompanying text.

23. See *infra* notes 49-69 and accompanying text.

24. See *infra* notes 70-75 and accompanying text.

25. *Id.*

26. Hickman, *supra* note 1, at 141.

### 1. *Demonstrating the Cary Brown Thesis: The Herbal Rollover*

To illustrate the equivalence between expensing an investment and exempting its income from tax, let us look first at a historical, but now defunct, tax shelter called the herbal rollover.<sup>27</sup> In an herbal rollover, the investor paid the expenses for planting a winter crop that would be harvested and sold early in the next tax year. One can assume that the crop was green vegetables, filled with vitamins and minerals, or marijuana, without affecting the tax analysis.

The investor deducts the planting expenses immediately, under long-standing rules allowing the deduction of the costs of producing a crop as soon as they are incurred.<sup>28</sup> Expensing the investment would make income disappear in the year of the planting but the entire proceeds of the harvest, including the return of the original investment, were taxable in the next year. Thus, the shelter took income from the year of the investment and "rolled it over" into the next tax year.<sup>29</sup>

The immediate deduction of the investment in an herbal rollover is an advantage because investment costs are, in general, nondeductible capital expenditures.<sup>30</sup> "In theory, the taxpayer has not actually spent the dollars he paid for [an investment] but rather has converted them into a different type of property."<sup>31</sup> Generally, taxpayers who make or sell goods must use inventory accounting,<sup>32</sup> an especially wide-reaching kind of capitalization.<sup>33</sup> Under inventory accounting, a taxpayer must wait until the goods are sold before deducting the allocable costs. The taxpayer cannot deduct the cost of "closing inventory"—goods on hand at year end. But an exception to the general rule exists for farmers.<sup>34</sup> A

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27. *5 General Tax Reform: Panel Discussions Before the Comm. on Ways and Means*, 93d Cong., 1st Sess. 677 (1973) (statement of Herrick K. Lidstone) (counsel for "largest Mexican winter vegetable tax shelter" notes that shelter lost everything and the "lawyers haven't been paid").

28. I.R.C. § 180 (1988); Treas. Reg. § 1.162-12 (as amended in 1973); see also *infra* notes 221-42 (discussing historical origin of farm expensing).

29. Note that winter crops conveyed some further advantage because by late December taxpayers could fairly estimate their taxable income for the year and knew what amounts they would like to be able to deduct.

30. I.R.C. § 263(a) (1988).

31. Kahn, *Accelerated Depreciation—Tax Expenditure or Proper Allowance for Measuring Net Income?*, 78 MICH. L. REV. 1, 13 (1979). Consistently, the purchase of an asset is not an expense for nontax purposes because the owner's equity does not change. BASIC CONCEPTS AND ACCOUNTING PRINCIPLES UNDERLYING FINANCIAL STATEMENTS OF BUSINESS ENTERPRISES, APB Statement No. 4, ¶ 134 (Accounting Principles Bd. 1970), reprinted in 2 AM. INST. OF CERTIFIED PUB. ACCOUNTANTS, APB ACCOUNTING PRINCIPLES 9057 (1971).

32. Treas. Reg. § 1.471-1 (1958).

33. Treas. Reg. § 1.471-11 (as amended in 1987) uses a moderated version of "full absorption" inventory accounting. Full absorption accounting, in core philosophy, requires that *all* overhead and indirect costs should be collected and allocated to some goods, whether sold or retained as inventory. The assumption is that a business firm incurs all its costs to further the manufacturing or sale of specific goods. Thus, a company has to charge some customer for every cost or go bankrupt. Section 263A extended the full absorption philosophy to large (\$10,000,000 gross) sellers of goods. I.R.C. § 263A (1988). *But see* I.R.C. § 263A(d) (1988) (exception for taxpayers in farming business).

34. Treas. Reg. § 1.471-6(a) (as amended in 1987).

taxpayer making cakes from wheat will be able to deduct the costs only as the cakes are sold; a farmer making wheat from seed will deduct the costs as soon as the costs are paid.<sup>35</sup>

A normal farmer will have many capital costs, even though a farmer avoids inventorying and many kinds of capitalization. The purchase price of farm land, farm buildings, farm machinery, and breeding of dairy animals are capital investments, for instance.<sup>36</sup> Promoters selling farming investments as tax shelters, however, try to distill the essence of sheltering by purifying their offering to direct most, if not all, of the investors' money to immediately expensed costs. Most farmers get little tax advantage from immediately deducting crop planting expenses, moreover, because most farmers plant, harvest, and sell the crops in the same tax year. Rolling income over from April to September of the same tax year produces no tax benefit. The herbal rollover gave its advantage because planting and harvesting crossed over taxable years.<sup>37</sup>

Assume that the taxpayer has a choice between two investments that are identical in the absence of tax. Both give a 10% pretax return over the same period of investment and for the same risk. One investment, however, is in a bond of a manufacturing corporation where the investment costs are capitalized. The other investment is the herbal rollover, where the costs are deductible immediately.

Deducting the investment in the herbal rollover at the time of the investing means that more money can be invested. Assume, as shown in Table 1-1, a taxpayer in a 33% tax bracket who has \$100 in income to invest from salary or some other taxable source.<sup>38</sup> If the taxpayer invests in the capitalized bond, then the taxpayer must pay \$33 tax on the income and will have only \$67 to invest. If the taxpayer invests the \$100 in the rollover, however, the taxpayer can deduct the entire \$100. Because of the deduction, there will be no taxable income and taxes will not reduce the amount that the taxpayer can invest. Thus, the expensed investment starts out as a soft money investment of \$100, while the capitalized investment starts out with a hard money amount of only \$67. The expensed investment can be one and one-half times larger than the capi-

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35. "Under general principles of accounting . . . it would be expected that expense incurred by ranchers in raising breeding livestock should be charged to capital account, even though the ranchers employed the cash method of accounting." *United States v. Catto*, 384 U.S. 102, 109-10 (1966).

36. *Treas. Reg.* § 1.162-12 (as amended in 1972).

37. If the courts would deny expensing of planting costs as "not clearly reflecting income" under I.R.C. § 446(b) (1988), as they should, it would affect only the unusual farm that plants in one year and harvests and sells in the next and would have no impact on the normal farm that plants and harvests in the same tax year.

38. The 33% tax rate is the highest marginal rate faced by individual taxpayers by reason of the Tax Reform Act of 1986. I.R.C. §§ 1(a), (b), (c), (d) (1988) provide for a maximum tax rate of 28% for individuals. The other 5% comes from the "phase out" tax of I.R.C. § 1(g) (1988). The individual rate is just below the 34% tax rate that large corporations face. I.R.C. § 11(b)(1)(C) (1988) (applicable to taxable income in excess of \$75,000).

talized investment for the same after-tax sacrifice or burden.<sup>39</sup>

At a 10% rate of return, the \$100 investment in the herbal rollover gives the investor \$10 profit for a total of \$110. Because the investor expensed the investment in the prior year, the investor must pay tax on the full \$110, including both profit and return of the amount invested. At 33% tax rates, the investor would pay \$36.30 and would have \$73.70 left.

The stock or bond with only \$67 invested would give \$6.70 in profit at the 10% given return rate for a total of \$73.70. Ordinarily, one must pay tax on profit (33% of \$6.70, or \$2.21), and that would leave only \$71.49 from the stock or bond. But assume that Congress decides not to tax the profit from this particular bond. The enacted tax exemption would leave the investor with \$73.70 from the stock or bond—exactly the position that the herbal rollover investor achieved, without explicit exemption, because of the soft money investing at the outset.

TABLE 1-1  
EXPENSING IS LIKE EXEMPTION

	Capitalized Investment (Stock or Bond) (\$)	Soft Money Investment (Herbal Rollover) (\$)
(1) Investor's Income	100.00	100.00
(2) Tax on (1) (33% Bracket)	33.00	0
(3) Take Home Pay Invested	67.00	100.00
(4) Return on (3) @ 10%	6.70	10.00
(5) Gross Return [(3) + (4)]	73.70	110.00
(6) Tax (33% Rate)	Exempt	36.30
(7) Gross Return Net of Tax [(5) - (6)]	73.70	73.70

39. In general, an expensed investment can be  $1/(1 - m)$  times larger than a capitalized investment, for the same after-tax burden, where  $m$  is the tax rate at which the expensed investment is deducted. If an investor has amount of income,  $I$ , that he or she is willing to invest, expensing allows investment of  $I$  without reduction by tax. With capitalization, the investor would have to pay tax of  $mI$  and could invest only  $(1 - m)I$ . The expensed investment at  $I$  is equal to  $1/(1 - m)$  times the capitalized investment,  $(1 - m)I$ . The following table shows  $1/(1 - m)$  for various tax rates.

HOW MUCH LARGER AN EXPENSED  
INVESTMENT CAN BE

Tax Rate ( $m$ )	$[1/(1 - m)]$
10%	111.00%
25%	133.00%
33%	149.25%
50%	200.00%
70%	333.00%

See also *infra* note 58 and accompanying text (proof of the  $1/(1 - m)$  relationship, assuming that the taxpayer reinvests the pyramiding tax savings in the expensed investment).

In sum, the investor pays tax on the return from the herbal rollover but the soft money privilege was as valuable as if the profit were exempt from tax. Both investments produce the same bottom line.

The rollover is a simple investment with only one period in which the return, both principal and profit, comes back. There is no compounding because the investor earns no interest on accumulated interest. But more complicated soft money investments are also equivalent to tax-exempt investments because a soft money investment can be larger at the outset. So long as the Code does not tax the returns from the soft money investment more harshly than the hard money investment,<sup>40</sup> the extra size of the soft money investment at the outset makes up for later tax.

The Cary Brown thesis is true for any rate of return from the investment. Some have assumed that the Cary Brown thesis is correct solely because tax saved by expensing has the same present value as the tax subsequently paid on the income. Mundstock, for instance, states "[T]he present value of the tax savings from the immediate deduction [approximates] the future taxes on receipts . . . to be generated by the investments."<sup>41</sup> Explanations based on "present value," however, require an assumption that the rate of return from the specific investment equals discount rates available generally.<sup>42</sup> But the Cary Brown thesis will be true within its scope for high- and low-return investments whatever the relationship of the return to general discount rates.

Assume, for example, an investment giving a 100% return—a return far in excess of returns available from alternative investments. Further, assume a 50% tax rate and continue to make the same assumptions about the herbal rollover and the bond investment as in Table 1-1. Table 1-2 has the same logic and format as Table 1-1 except for the extraordinary 100% return and the 50% tax rate.

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40. See *infra* notes 68-69 and accompanying text (discussing cases in which soft money investing entails later double tax on income that offsets expensing advantage).

41. Mundstock, *Taxation of Business Intangible Capital*, 135 U. PA. L. REV. 1179, 1232 (1987).

42. Tax on investment returns will have a present value equalling tax saved by expensing only within the rigorous assumption that the pretax return on the expensed investment drops down to equal the after-tax returns on other investments. In Table 1-1, for instance, expensing the rollover saved \$33 that the taxpayer would have paid as tax absent the investment. Compare Table 1-1, col. 2 with Table 1-1, col. 1. The tax on the return from the rollover, \$36.30, has a present value of \$33 only by using the 10% pretax return from the investment. The pretax return on the expensed investment must equal the after-tax discount rate that the investor could expect from alternative investments. See *infra* note 72 (indicating that pretax return is not likely to drop to equal normal after-tax returns).



TABLE 1-2  
EXPENSING IS LIKE EXEMPTION FOR EXTRAORDINARY  
RETURNS

	Capitalized Investment (Stock or Bond) (\$)	Soft Money Investment (Herbal Rollover) (\$)
(1) Investor's Income	100.00	100.00
(2) Tax on (1) (50% Bracket)	50.00	0
(3) Take Home Pay Invested	50.00	100.00
(4) Return on (3) @ 100%	50.00	100.00
(5) Gross Return [(3) + (4)]	100.00	200.00
(6) Tax (50% Rate)	Exempt	100.00
(7) Gross Return Net of Tax [(5) - (6)]	100.00	100.00

Once again, the investor is indifferent between a tax exemption and expensing. Expensing the investment allowed the investor to invest twice as much in the extraordinary investment (under a 50% tax regime) and that soft money privilege made up for the tax paid on the investment's return. With less drama, the equivalence between exemption from tax for the profits and expensing would apply as well if the investment gave minimal profits. One can use algebra to generalize the result for any return rate and any constant tax rate.<sup>43</sup>

## 2. *Expensing Makes Government a Fair Partner*

There are a number of other ways to look at the Cary Brown thesis that make it plausible and portable to other situations. For instance, one can look at the soft money privilege as making the government a fair partner in an investment. Taxes are ordinarily not fair partnerships; the purpose of tax is to transfer wealth from the taxpayer to the government. But with expensing, the government becomes a fair partner contributing as much to the enterprise at the outset as it takes back from income. The

43. The bond investor received  $I$  income (\$100) from some source, paid tax at rate  $m$  (33% in Table 1-1), invested  $I - mI$  or  $(1 - m)I$  (\$67 in Table 1-1), and received  $r$  rate of return (10% in Table 1) from the bond. Thus, the investor received a pretax profit of  $r(1 - m)I$  annually (\$6.70 in Figure 1-1) plus the invested amount of  $(1 - m)I$  (\$67 in Table 1-1), for a total of  $(1 - m)I + r(1 - m)I$  or  $(1 + r)(1 - m)I$  before tax (\$73.70 in Table 1-1). If we completely exempt the investor's bond income from federal tax, the investor could keep that full pretax amount,  $(1 + r)(1 - m)I$ .

The soft money investor in farm planting did not pay tax at the time of the investment and can invest the full  $I$ , or \$100, at an annual return of  $Ir$ , or \$10, and have  $(1 + r)I$ , or \$110, before tax at the end of the investment. If the investor is subject to tax at rate  $m$  on gross return, the investor will pay tax of  $m(1 + r)I$  and will have an after-tax return of  $(1 - m)(1 + r)I$  or \$73.70. The exempt return on the bond was  $(1 + r)(1 - m)I$ , which is the same thing as  $(1 - m)(1 + r)I$ . The farming investor has achieved the same thing as exemption merely by deducting the investment immediately.

government partner, working through the tax system, does not rec the taxpayer's rate of return on the taxpayer's part of the investmer

When the investor deducts investment costs immediately, the g ernment partner "reimburses" the taxpayer partner by forgiving otl wise-payable tax. The amount that the government partner reimburse equal to the tax rate ( $m$ ) times the initial cost of the investment. Beca the government picks up  $m$ , the taxpayer's share of the initial burden  $1 - m$ . For instance, with a 25% tax rate, the government, upon expensing, gives tax savings of 25¢ per dollar invested so that the t payer bears a burden of only 75¢ per dollar invested. The governm partner taxes the return by tax rate  $m$  thereafter and gets a share of t return. The government partner's share reduces the taxpayer partne share to  $1 - m$  of the gross return. If  $m$  equals 25%, the governme gets 25¢ per dollar and the taxpayer keeps 75¢ per \$1. But the gover nment partner's percentage share of the profits,  $m$ , neither helps nor hur the taxpayer so long as the government partner contributes the same pe centage of the original investment. With a 25% tax rate, the governme partner both puts up and takes out 25% of the money. By allowing e pensing, the government has acted as a fair partner.

Ordinarily, taxes reduce the taxpayer's return. For example, assum that an investment will double the investor's money over some period o time. Figure 1-1, following, is a cash flow chart illustrating the cash flo from the investment in the absence of any tax. If an investor puts in \$ in year one, for instance, the investment will return \$6 in year two, th year in which the investor liquidates the investment.<sup>44</sup>

FIGURE 1-1  
100% RETURN IN ABSENCE OF TAX

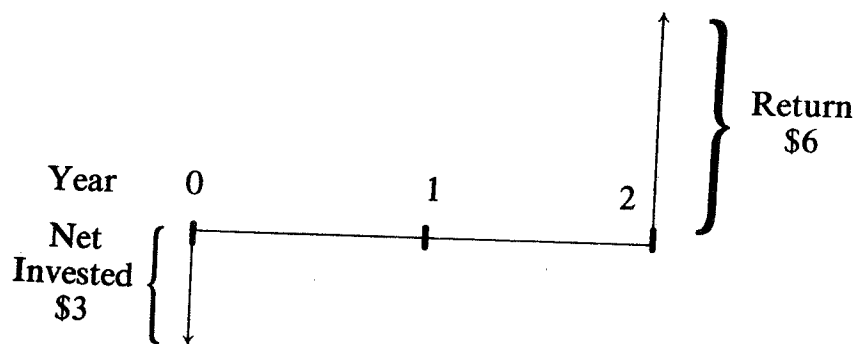
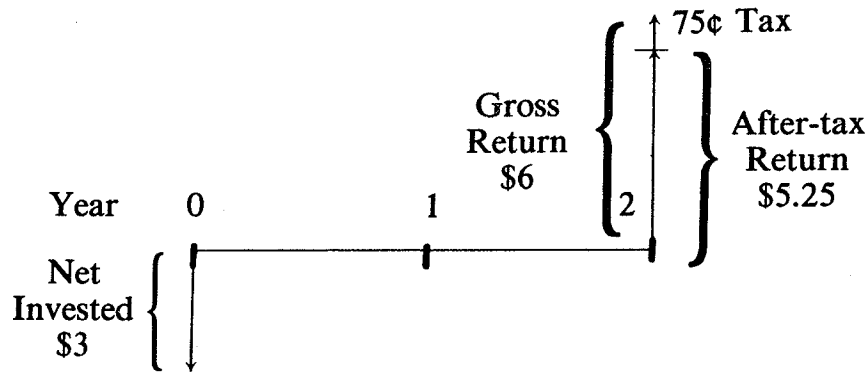


Figure 1-2 illustrates a 25% real income tax on the investment. In year two, when the taxpayer realizes profits, the taxpayer has a taxable gain of \$3—the \$6 gross receipts realized less the \$3 basis that the taxpayer invested in year one. At a 25% rate, tax on that \$3 net income is 75¢, leaving the taxpayer with \$5.25 after tax. The \$5.25 represents a

44. In the hypothetical, year two need not be the year immediately following year one.

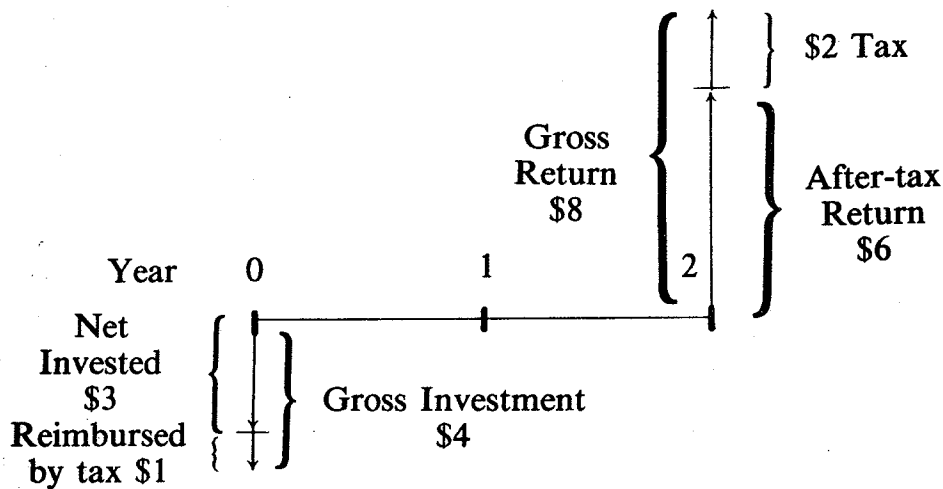
profit of \$2.25—75% of the \$3 invested—plus return of the \$3 investment. The 25% tax appropriately has reduced the investor's rate of return from 100% to 75%.

FIGURE 1-2  
25% TAX ON THE 100% PROFIT



But if the investor can expense the \$3, then tax does not reduce the 100% profit from the investment at all. Figure 1-3 illustrates a "fair partnership" for the same investment. In Figure 1-3, a line across the invested and returned cash flow separates the government and taxpayer share of the partnership. The government's 25% share is outside the line and the investor's 75% share is inside the line. Gross investment in year one is \$4, and at a return rate of 100% the gross return in year two is \$8.

FIGURE 1-3  
25% TAX WITH EXPENSING



In the middle of the cash flow chart in Figure 1-3 is a picture of an investment exactly like the absence-of-tax investment in Figure 1-1. Without tax, the investor could put in \$3 and get back \$6 when the investment doubled. With a tax rate of 25% and expensing, the investor can expand the gross investment to \$4, counting on a reimbursement of

\$1 because the \$4 deduction saves \$1 tax, so that the net cost of the investment remains at \$3. The gross investment of \$4 doubles to \$8 at the 100% return rate. The income tax on the return causes the investor to lose \$2 to tax in year two, but the \$2 tax just reduces the investor's return to the \$6 that he or she would have received in the absence of tax. The initial tax savings leaves the investor with the same investment and investment result that the investor would have had if the investor had been exempt from all tax.<sup>45</sup>

One can even redo Figure 1-3 with a 90% tax rate. At such a high tax rate, the reimbursement in tax savings would be 90% of the deductible cost and the taxpayer could make a gross investment of \$30 for the same \$3 after-tax cost borne in Figure 1-1 (no tax) and Figure 1-3. Upon return, the investor would owe tax of 90%, but that again would leave the same \$6 return that the investor would have had in the absence of tax. Even at very high rates, taxes do not reduce the pretax rate of return on the investor's capital so long as the investor can deduct the capital outlay immediately.<sup>46</sup>

### 3. Relief from Double Tax

One also can look at the Cary Brown thesis as a relief from the "double tax" on investment income. Expensing and exemption are alternative and equivalent ways to avoid what is referred to as the "double tax on income from capital." Irving Fischer criticized the income tax as imposing two taxes on investment: one before or upon the investing and one upon the returns.<sup>47</sup> A 50% taxpayer, Fischer argued, intuitively expects to halve his or her consumption. If the taxpayer receives an

45. Compare Figure 1-1 with Figure 1-3.

One can use algebra to generalize the result. With expensing, the investor can expand the investment to  $I/(1-m)$ , see *supra* note 39, or from \$3 to \$4. The annual profit at rate  $r$  is  $[I/(1-m)]r$  so that profit and return of investment equals  $[I/(1-m)] + [I/(1-m)]r$  or  $[I/(1-m)](1+r)$  or \$8, before tax. Because all basis has been deducted, the entire return is subject to tax of  $[I/(1-m)](1+r)m$ , or \$2, for an after-tax return of  $[I/(1-m)](1+r) - [I/(1-m)](1+r)m$  or  $[I/(1-m)](1+r)(1-m)$  or \$6, which at constant tax rates simplifies to  $I(1+r)$ . Because  $[I/(1-m)](1+r)(1-m) = I(1+r)$ , expensing yields the same result as the absence of tax.

46. With a regime of expensing, the government shares in the profits from an enhanced investment. When the investment gives an extraordinary profit (such as the 100% return used for illustration), expensing can leave the government better off than under a true income tax regime. For example, in Figure 1-3 (expensing regime) the government could invest \$1 in year one but get back \$2 in year two. That result may be better for the government than merely collecting its 75¢ in year two under the income tax regime (Figure 1-2) because the government's \$1 invested in year one may give less than \$1.25 back in year two if invested elsewhere. But an income tax regime almost always will yield better revenue because investments usually do not give such extraordinary returns. Sellers raise prices to prevent obvious bargains.

If expensing occurs in a world that generally requires capitalizing investments, moreover, the pretax return on the expensed investment will tend to drop because of a market reaction to the expensing privilege. See *infra* notes 70-72 and accompanying text. The government then would share only in lousy returns.

Finally, if the Code is to distribute tax fairly according to the ability to pay, the extraordinary returns are most likely to be optimal sources of revenues.

47. Andrews, *supra* note 2, at 1124-25 (citing I. FISHER & H. FISHER, CONSTRUCTIVE INCOME TAXATION 56-57 (1942)).

orchard as compensation for services, for example, we expect a 50% tax to reduce the number of apples a taxpayer can eat from the orchard to one-half of what would be available without tax. But under an income tax, the taxpayer must pay one-half of the orchard in tax when receiving it as compensation and also must pay one-half of the apples harvested on the remaining half orchard. The orchard owner subject to a 50% income tax keeps only a quarter of the apples that would be available without tax. There are, in effect, two slips between the cup of pretax economic earning and the lip of consumption.<sup>48</sup>

The orchard owner can avoid the double tax and keep one-half of the total number of apples with either a tax exemption for apples or a tax exemption for orchards. On handing over one-half of the orchard, the taxpayer can avoid the double tax and keep one-half of the total number of apples if harvested apples (income) are tax exempt. But the orchard owner can also keep half of the total number of apples if the orchard is received in a tax-exempt transaction and tax is paid only on the subsequent harvests. Expensing allows the taxpayer to keep the whole orchard. As long as the tax rate on orchards and the tax rate on apples is the same, the Cary Brown thesis says that the taxpayer is indifferent between the tax-free receipt of the orchard and the tax-free receipt of the apples.

### B. Scope Conditions

Expensing is exactly equal to exempting subsequent income only if four scope conditions are met. First, the amount of the investment must expand by tax saved from expensing and the rate of return on the expanded investment must remain constant.<sup>49</sup> Second, delaying the tax savings resulting from expensing the investment must hurt the taxpayer no more than the deferral of tax after receiving income helps the taxpayer.<sup>50</sup> Third, tax rates must be constant over time.<sup>51</sup> Fourth, avoiding tax at the outset of the investment must not cause an added or doubled tax on the subsequent income.<sup>52</sup> The Cary Brown thesis is often illuminating and substantially true, however, even beyond the scope where it is strictly true.

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48. The two taxes are not on the same income, however. The orchard owner paid tax on income—the orchard—earned by working because that income represented the ability to pay, power, or new wealth. The income from the investment—the apples—also represented the ability to pay, power, or new wealth. Tax transfers resources from the private sector to government ownership, and both apples and orchards are resources. See Andrews, *supra* note 2, at 1168 n.122. Moreover, relief from the double tax would make no sense in a world in which borrowing is excludable and interest is deductible. See *infra* notes 114-27 and accompanying text.

49. See *infra* notes 53-59 and accompanying text.

50. See *infra* note 60 and accompanying text.

51. See *infra* notes 61-67 and accompanying text.

52. See *infra* notes 68-69 and accompanying text.

### 1. *The Amount Invested Must Be Sensitive to Tax*

The Cary Brown equivalence presumes that investors will expand their gross investment by the amount that expensing reduces the after-tax burden of investing and that investors will receive the same rate of return on the expanded investment. Investors must keep the after-tax cost of their investment the same. With a tax rate of 33%, for instance, the expensed investment must be one and one-half times larger than the capitalized investment.<sup>53</sup> It does not matter, on the one hand, whether soft money investment is viewed as expanding investment beyond what the taxpayer would invest with hard money<sup>54</sup> or, on the other hand, whether capitalization is viewed as contracting tax-free investing.<sup>55</sup> But the amount of the investment must be sensitive to tax.

If the investor does not expand the expensed investment by the tax saved by expensing, or if the rate of return changes with the expansion, then the equivalence between exemption and expensing breaks down.<sup>56</sup> For example, suppose that the investor in the 100% return investment in Figure 1-3 does not expand the investment of \$3 in reaction to tax savings but, instead, takes the tax savings and puts it in a bank account paying a mere 5% before tax. The investor's final position in year two would be \$5.28 after tax<sup>57</sup>—less than the \$6 that would result if the investment was tax free.

Increasing the expensed investment usually gives the maximum value to soft money investing. Amounts invested internally, including amounts invested in reaction to tax savings, are deductible. Increased investment produces larger deductions and tax savings, which in turn increase the amount available for investment.<sup>58</sup> If the return from the

53. At tax rate  $m$ , the expensed investment will be  $1/(1 - m)$  times as large as the capitalized investment for the same after-tax burden. See *supra* note 39.

54. See *supra* note 45.

55. See *supra* note 43.

56. Mundstock compares expensing with depreciation by comparing the present value of the after-tax cash flows from a given investment under expensing and depreciation. Mundstock, *supra* note 41, at 1194. However, his presentation assumes implicitly that the size of the initial investment is the same no matter which tax regime governs. *Id.*

57. If the \$3 investment, in absence of tax, did not expand in reaction to expensing, then the taxpayer would save 25% of \$3, or 75¢. If the investor took the 75¢ and put it in an outside bank account paying 5%, he or she would have 79¢ before tax in year two plus the \$6 that came from the doubling of the \$3 investment for a total of \$6.79 before tax. The year two tax at 25% would be \$1.50 on the expensed, now \$6, investment and 1¢ (0.94¢ rounded) on the interest from the outside bank account, or \$1.51, leaving \$5.28 after tax in year two.

58. The pyramiding cycles are converging so there is an end to the process that is the same as the end reached previously by viewing tax savings as a reimbursement of gross investment. One may invest amount  $I/(1 - m)$  under an expensing regime at the same after-tax burden as when one invests  $I$  under a capitalization regime where  $m$  is the tax rate. See *supra* note 39. The proof in note 39 viewed tax savings upon expensing as partially reimbursing the taxpayer's gross investment cost,  $I/(1 - m)$ . One can reach the same result by viewing expensing as allowing constant, simultaneous, and pyramiding reinvestment of the tax savings that arise from expensing net investment amount  $I$ . Investing and expensing  $I$  yields tax savings of  $mI$  and will allow the taxpayer to expand the expensed investment to  $I + mI$ . If the taxpayer expenses  $I + mI$ , then the tax savings will increase to  $(I + mI)m$  or  $I(m + m^2)$ . Continuing the same process of increasing the investment and the tax

expensed investment is poor enough,<sup>59</sup> however, putting tax savings into an outside investment would be better for the taxpayer even though the internal investment would have an expensing advantage.

### 2. *Delays in Tax Savings Must Not Be Unbalanced*

The explanation of the Cary Brown thesis in part II(A) assumed that tax savings arise simultaneously with the investment deduction. In fact, tax deductions often benefit the investor only later, when the investor files a return for the year in which the expensing deduction occurs. Even investors subject to quarterly payment of estimated tax might have to wait three months for any savings to occur.

The delay in tax savings is not normally significant. Taxpayers can increase their investment, relying on reimbursement from tax savings in a reasonably short time, and the interest cost they must bear until the reimbursement normally will not be significant in relation to the investment.

The delay in tax savings, moreover, has an even less significant impact on the equivalence between expensing and exemption because both tax payments and tax savings usually are delayed by roughly equal amounts. The delay in tax on the investment return offsets the delay in tax savings. One can look at the tax rate as if it were really a discounted rate (i.e.,  $m/(1 + d)$ ), where  $m$  is the tax rate and  $1 + d$  is the discount factor) to reflect the part-year delay in tax or tax savings. As long as the tax rates, delay, and interest cost of delay are the same for the tax on investment return as for the tax savings on investing, the cost of delay in tax savings,  $1/(1 + d)$ , factors out of the equation.<sup>60</sup> Asymmetrical delays in tax savings, however, will not factor out.

Delays in tax reimbursement from expensing undoubtedly reduce the sensitivity of investment to tax savings in practice and thereby affect a necessary part of the Cary Brown equivalence. But for optimal investments the delays affect neither the rigor nor the interest of the basic Cary Brown equivalence.

### 3. *Tax Rates Must Not Change*

The most important break in the equivalence between expensing and exemption occurs when the tax rate producing the up front tax savings is

savings yields a converging series,  $I(m + m^2 + m^3 + \dots + m^n)$ . The series converges to  $I/(1 - m)$ , with  $0 < m < 1$ : If we multiply the series by  $1 - m$ , the terms with  $m$  in them will cancel each other out and leave only  $I$ . The whole series equals  $I[1/(1 - m)]$ , the same value for an expensible investment from note 39. See *supra* note 39.

59. If an investor can get  $r(1 - m)$  from a fully taxed investment after tax, then why should he or she accept a pretax rate from the expensed investment of less than  $r(1 - m)$  even if there is no effective tax on such investment?

60. The algebraic description of the Cary Brown thesis is that  $[I/(1 - m)](1 + r)(1 - m) = I(1 + r)$ . *Supra* note 45. It is equally true when the tax rate,  $T$ , has an assumed constant discount factor of  $1 + d$  applied to it:  $[I/[1 - [m/(1 + d)]]](1 + r)\{1 - [m/(1 + d)]\} = I(1 + r)$ .

receipt of the deferred compensation, the executive pays a second tax on that growth. Deferred compensation, but not current compensation, imposes an added tax on withdrawn income. The second withdrawal tax "cures" the advantage of soft money investing.<sup>69</sup>

Cases of an added tax, caused by the soft money privilege, are not rare. Shareholders who let their investment grow in their corporation also pay a double tax. But even when the double or excise tax takes away the net benefit to the taxpayer, the wash situation can be analyzed as an exemption-like component and an offsetting double or excise tax. Absent the double or excise tax, soft money investing is an identifiable exemption. Thus, the potential double tax does not rebut the general benefit from soft money investing.

### C. Market Capture?

Expensing is an advantage in a world in which investors ordinarily pay tax on investment income, but investors may find that their pretax return drops so that they get no better deal from expensed investments than from anything else. Whether or not the market captures the advantage, however, Congress and the courts should use the hard money principle as a normative guide. Within a system that generally taxes income, soft money investing worsens overall economic utility, gives high-bracket investors premium returns, or yields some combination of both.

The market price for tax-favored investments tends to rise because investors can accept lower pretax returns on soft money investments and still do as well as they can from competing hard money and fully taxed investments. Table 1-4 shows, for a 33% tax bracket investor, that a bond giving taxable interest of 10% is equivalent to a soft money investment with a return of only 6.7%.

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69. Under Warren's algebraic description, an executive who does not defer compensation immediately reduces the investable amount,  $A$ , by his or her tax rate,  $m$ . *Id.* The invested take-home pay,  $A(1 - m)$ , will grow only at an after-tax rate,  $s$ , to  $A(1 - m)(1 + s)^n$  after some period of time,  $n$ . Within these assumptions, deferring compensation is not a better alternative. The  $A$  that the employer commits to the benefit of the executive can grow in the employer's hands at no better than the executive's after-tax rate,  $s$ , under the assumptions, so that the employer can have no more than  $A(1 + s)^n$  to give out by the expiration of period  $n$ . Tax at that executive's rate,  $m$ , on the distributed deferred compensation will reduce the executive position to  $A(1 + s)^n(1 - m)$ , which is no better than the sum the executive earned on his or her own account  $A(1 - m)(1 + s)^n$ .



TABLE 1-4  
RETURN RATE CAN DROP ON EXPENSED INVESTMENT

	Capitalized Investment (Stock or Bond) (\$)	Soft Money Investment (Herbal Rollover) (\$)
(1) Investor's Income	100.00	100.00
(2) Tax on (1) (33% Bracket)	33.00	0
(3) Take Home Pay Invested	67.00	100.00
(4) Return on (3)		
@ 10%	6.70	
@ 6.7%		6.70
(5) Gross Return [(3) + (4)]	73.70	106.70
(6) Tax (33% Rate)	2.21	35.21
(7) Gross Return Net of Tax [(5) - (6)]	71.49	71.49

Generalizing beyond Table 1-4, an expensed investment can match a capitalized and fully taxed investment by returning pretax what the capitalized investment gave back post-tax.<sup>70</sup> If return rates from the soft money investment reach equilibrium with after-tax returns available generally, then the market has captured all of the tax advantage from expensing and left none of the advantage for the investor.<sup>71</sup>

Although returns on expensed investments will drop toward equilibrium and can reach equilibrium in theory, the market price generally seems unable to capture the full value of tax advantages. High tax bracket investors have many alternative ways to avoid tax and tax-favored investments swamp the market. The rate of return on explicitly tax-exempt municipal bonds, for example, has not dropped by enough to capture the benefit of tax exemption.<sup>72</sup> There is no reason to expect the

70. An expensed investment can match a capitalized and nonexempt investment with a pretax rate of return at rate  $r$  by giving a pretax return of only  $(1 - m)r$ , where  $m$  is the assumed constant tax rate. The bond gives a pretax annual return of  $(1 + r)(1 - m)I$ . *Supra* note 43. The Code exacts a tax on  $r(1 - m)I$ , so that the after-tax annual return from the bond is  $(1 + r)(1 - m)I - mr[I(1 - m)]$  or  $[1 + (1 - m)r][I(1 - m)]$ . If the expensed investment gives a return rate of  $r_1$ , then the investor in the expensed investment will achieve  $(1 + r_1)(1 - m)I$ . *Supra* note 43. Setting the after-tax position of the expensed and capitalized investment so that they are equal to each other generates the following equations:  $[1 + (1 - m)r][I(1 - m)] = (1 + r_1)[(1 - m)I]$  or  $(1 - m)r = r_1$ .

71. Soft money investments can even turn out to be bad investments if they give lower than the return needed to match other investments. No one, however, would enter into the investment expecting such returns. If an investment does not generate a profit, a privilege equivalent to excluding profit from tax is not very exciting because nonexistent profits are not taxable any way.

72. In late 1986, for instance, long-term municipal bonds gave returns equal to 94% of the return given by comparable taxable corporate bonds. Peterson, *Examining the Impacts of the 1986 Tax Reform Act on the Municipal Securities Market*, 40 NAT'L TAX J. 393, 397 (1987). If the market had fully captured the benefit of exemption, municipal bonds would have given returns equal to 50% of the comparable taxables. The market thus captured only 6/50 or 12% of the tax benefit.

below the statutory tax rate. The lower effective tax rate drives up the price that high-bracket bidders are willing to pay for depreciable property, gives high-bracket taxpayers premiums beyond what the statutory rate implies, or both. Maintaining statutory rates would maintain price neutrality among taxable assets and between high- and low-bracket investors.

This section first identifies the income from a perpetuity such as crop land.<sup>77</sup> Second, it identifies the same concept of income in a finite-life asset, first one with constant cash flows and then one with cash flows that rise or decline.<sup>78</sup> Third, this section shows that we can identify an interest-like or crop-like return even for assets with extraordinary rates of return.<sup>79</sup> Fourth, this section shows that we sometimes can use extraordinary rates of return to remain consistent with the income ideal without taxing unrealized appreciation.<sup>80</sup> Finally, this section shows that if we allow depreciation rates faster than economic depreciation, then we tax less than all of the income from the property and make the property more valuable for higher bracket investors.<sup>81</sup>

### A. Perpetuities

The concept of income comes from a harvested crop or interest on a savings account.<sup>82</sup> Land and savings accounts are "perpetuities," that is, we can expect them to give infinite streams of income, or at least such indefinite and long streams of income that we can presume for practical purposes that they are infinite. After a portion of the stream of income goes by, the perpetual stream yet to come keeps the property, at least by presumption, at its original value. In each period, one may withdraw cash from the perpetuity, but the future income, stretching in a still-infinite line, steps up closer to replace the withdrawn cash. Like penguins on a toy escalator slide, when one penguin drops down the slide, the other penguins climb to take its place. Accordingly, the taxpayer has the same asset in each subsequent year as he or she had immediately after purchase—an infinite line of income.<sup>83</sup>

Because the investment—the line of future income—is perpetually the same, withdrawable cash is entirely income. Tax law allows depreciation deductions for investments in finite-life assets, but perpetuities like raw land, corporate stock, or savings accounts do not depreciate, or, more accurately, their true depreciation deduction is zero. Purchasers

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77. See *infra* notes 82-84 and accompanying text.

78. See *infra* notes 85-96 and accompanying text.

79. See *infra* notes 97-98.

80. See *infra* notes 99-103 and accompanying text.

81. See *infra* notes 104-13 and accompanying text.

82. See, e.g., Warren, *Would a Consumption Tax Be Fairer than an Income Tax?*, 89 YALE L.J. 1081, 1085 (1980).

83. See, e.g., Blum, *Amortization of a Retained Terminable Interest After Transfer of a Remainder*, 62 TAXES 211 (1984).

get tax recognition for their costs when they sell the property. As long as the asset retains its value, a purchaser has not expended the purchase price, but rather just converted it from cash to an asset—just as the original purchase merely converted wealth from cash to an asset.

Perpetuities like land and corporate stock do go up and down in value, sometimes very volatily. But the realization principal treats perpetuities as giving constant cash flows. It treats real changes in value as unrealized appreciation or unrealized loss that is relevant for tax purposes only upon sale. As long as the taxpayer cannot anticipate systematically which direction the cash flows will go and as long as the Code treats gains and losses symmetrically, delay in recognizing gain or loss does no harm.<sup>84</sup>

### B. Depreciable Property

Assets like buildings, machinery, and equipment have a finite economic life and they decline in value over their life. Even if the annual cash they generate remains constant, finite-life assets, unlike perpetuities, lose value by the mere passage of time. Their value declines because the number of remaining cash flows grows smaller as the end of the asset life approaches.

Depreciation deductions reflect the fact that funds invested in depreciating assets become worthless in part over time and cease to be income-producing investments. The costs disappear and are not converted to some other asset. Because worthless property gives no subsequent income, there is no advantage in deducting this cost, even if the deduction is equivalent to exempting subsequent income. Depreciable property has an outstanding principal that declines over time and depreciation deductions properly reflect the decline of the outstanding principal of the investment.

Depreciation deductions matching declines in the outstanding principal of the investment are necessary to identify income from the property. An investment in depreciable property is economically equivalent to a hypothetical savings account that gives interest at some fixed rate and returns the full invested principal at the end. Thus, one can analyze all depreciable property as giving an interest-like return on an outstanding principal even though the property is tangible and not debt.<sup>85</sup> The

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84. See *infra* note 88 and accompanying text.

Bulow and Summers argue that allowing merely symmetrical tax treatment of changes in value of an asset is insufficient because investors are inevitably risk averse. Bulow & Summers, *Taxation of Risky Investments*, 92 J. POL. ECON. 20 (1984). They argue that maintaining tax neutrality between risky and stable-price investments requires that the Code must exempt from tax the premium return on a risky investment given to overcome risk aversion. *Id.* However, all taxes on income reduce pretax returns. One could make the Bulow and Summers argument for premium returns due to social approbation attached to an investment or for returns given to overcome a taxpayer's normal aversion to deferring consumption (i.e., saving) or normal aversion to working. If we could run the government without tax, all economic activities would be closer to their pretax ideal.

85. The analysis computes an internal rate of return. The internal rate of return is the constant

schedule of depreciation that matches decline in outstanding principal called economic or Samuelson depreciation, identifies the pretax return from the property and ensures that an investor's pretax rate of return from the investment is reduced exactly by the statutory tax rate.<sup>86</sup> In a world in which the statutory tax rate reduces an investor's alternative investment returns, only Samuelson depreciation causes all investors to be willing to pay the same amount for an asset regardless of the tax rate.<sup>87</sup>

### 1. *Constant Payments*

Samuelson depreciation can be very slow. An asset that gives a constant cash flow for a number of years declines in value slowly in the early years of its life, i.e., on decelerated schedules slower than straight line or pro rata deduction of basis. Deductions larger than a pro rata share of the costs come only in the last years of the life of the asset. Decelerated schedules, when measured by the present value of the tax savings, are less valuable to the investor than faster schedules. But the decelerated schedules constitute economic depreciation and economic depreciation reduces the return from the investment by the statutory tax rate.

The schedule of decline for a depreciable asset with a constant cash flow has a pattern like the schedule for repayment of principal on a constant-payment mortgage. Depreciable property is analytically like an investment in debt. Some part of the cash flow that the investor receives each year is payment of interest, earned on the outstanding principal, and the remaining cash is repayment of the outstanding principal. Thus, depreciation deductions should be allowed only for the part of the cash flows that represents repayment of the outstanding principal and reduction in the amount invested. Economic depreciation identifies that part of the cash flow attributable to real income and that part of the cash flow attributable to a reduction in the outstanding principal.

Assume, for illustration, a three-year-life Gum Biddy Fabricator. Like a goose that lays golden eggs, the Fabricator will produce three Gum Biddies, one at the end of each year starting one year away. At the

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discount rate that will make the present value of the positive cash flows equal to the present value of the invested, negative cash flows. A positive net present value for an examined investment means that the investment has a return better than the return on the alternative investment providing the discount rate that we use to compute net present value. A negative net present value means that the examined investment has a return worse than the discount rate. A zero net present value thus means that the investment has a return just equal to the discount rate return. See, e.g., R. BREALEY & S. MYERS, *PRINCIPLES OF CORPORATE FINANCE* 71-85 (3d ed. 1988).

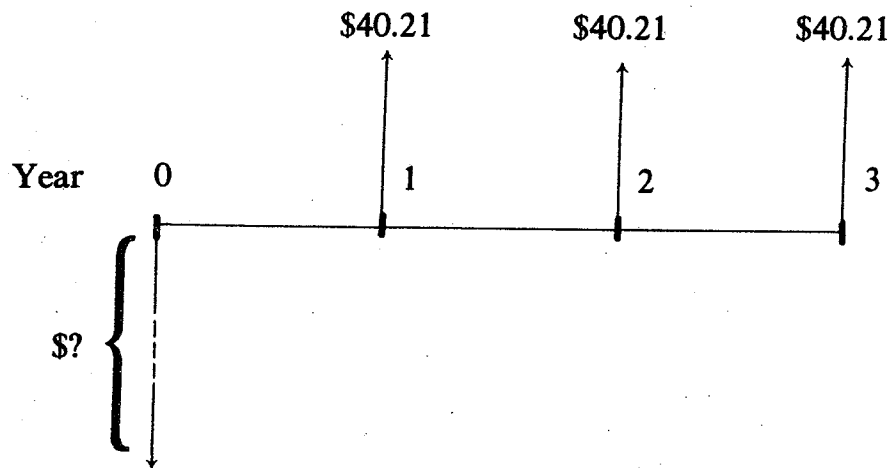
Internal rate of return is a misleading analysis when one cannot reinvest interim returns in the project and when negative and positive cash flows alternate so that present values sum to zero using a number of different discount rates. Financial analysis of the effective return then needs to use rates of return available outside the investment. The impact of tax on investments analyzed with an external rate of return depends unfortunately on how we tax external investment. Many of the problems with the internal rate of return analysis are beyond the scope of this article.

86. See, e.g., *infra* Tables 2-5A, 2-5B, 2-5C and accompanying text.

87. See generally Samuelson, *supra* note 5.

end of three years, it will stop producing and will have no remaining value; its scrap value just offsets the costs of dismantling it and hauling it away. Assume that each Gum Bidy will sell for a price such that, after subtracting all costs but the purchase price for the Fabricator, the owner will have \$40.21. In this illustration, Figure 2-1, as in all the cash flow illustrations to follow, assume that we know the cash flows from the investment, although in practice an investor makes decisions according to expected or predicted cash flows.<sup>88</sup>

FIGURE 2-1



The amount an investor would pay for the Fabricator depends on going fair interest rates, i.e., what return the investor could get elsewhere. But if the fair market interest rates on comparable investments equal 10%, then the investor would pay \$100 for the Fabricator—as Table 2-1 illustrates—because that is the sum of the net present values of the three cash flows.

TABLE 2-1

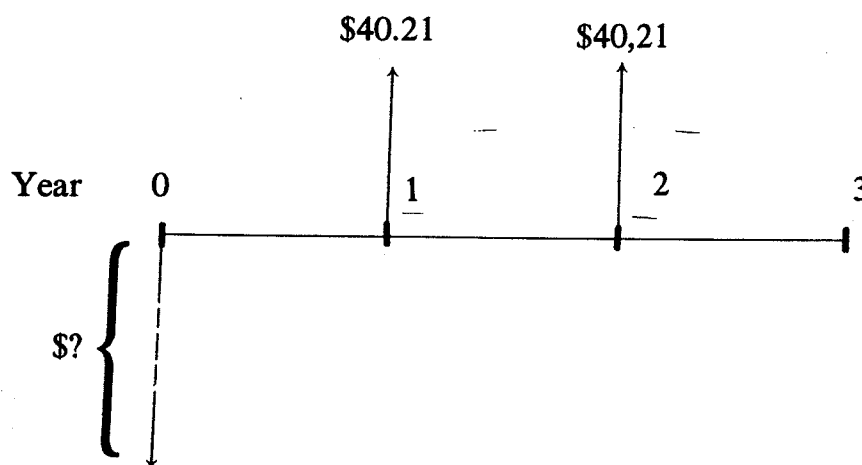
	Year 1	Year 2	Year 3	Sum
Cash Payment	\$40.21	\$40.21	\$40.21	
Discount Factor	1/1.10	1/(1.10) <sup>2</sup>	1/(1.10) <sup>3</sup>	
Discounted Value	\$36.56	\$33.23	\$30.21	\$100

88. Because investors make decisions according to expectations, not outcomes, only the expected cash flows generally should count. But where a taxpayer can react if outcomes differ from expectations, and know about the reactive strategy at the time of investment, then outcomes will affect investment decisions. For instance, an investor can sell investments with unexpectedly low returns and take a tax loss (within limits imposed by I.R.C. § 1211 (1988) of having outside gains to take the loss against). Similarly, an investor can avoid the tax on gain by avoiding sale if returns are unexpectedly high. It is, in general, beyond the scope of this article to deal with cases in which cash flows turn out to be different than expected. *But see infra* text accompanying notes 97-98 (higher-than-expected returns do not necessarily imply different schedules of economic depreciation).

By the end of the third year, the three cash flows produce the same result as depositing \$100 in a bank account paying 10% interest.<sup>89</sup> Each cash flow is in part like a withdrawal of interest and in part like a withdrawal of a portion of the original \$100 deposit. The third \$40.21 withdrawal will deplete the account fully.

Assume that the investor pays the \$100 fair market value for the Fabricator and gets a \$100 basis for computing depreciation deductions. After a year goes by and the investor withdraws the first Gum Bidy, the Fabricator has only two cash flows remaining.

FIGURE 2-2



At that point the investment is worth only \$69.79, as Table 2-2 illustrates.

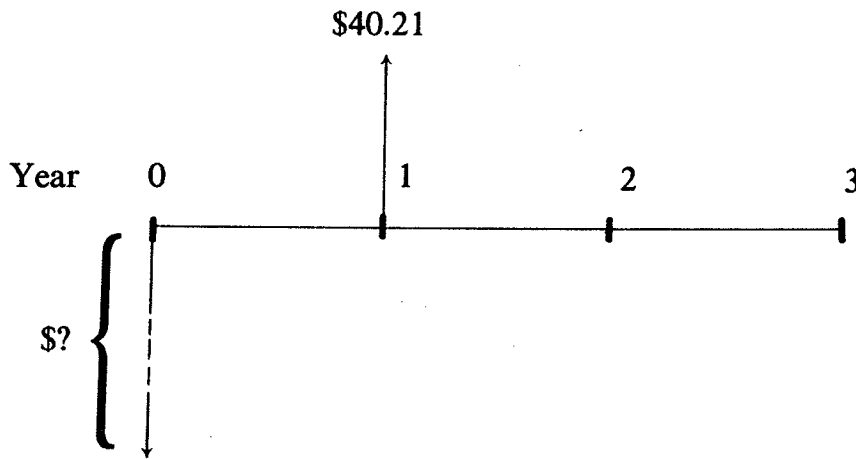
TABLE 2-2

	Year 2	Year 3	Sum
Cash Payment	\$40.21	\$40.21	
Discount Factor	1/1.10	1/(1.10) <sup>2</sup>	
Discounted Value	\$36.56	\$33.23	69.79

Figure 2-3 shows that cash flow chart after another year goes by and only one Gum Bidy remains.

89. The year one, \$40.21 Gum Bidy is like having \$36.56 in the bank now because \$36.56 would grow to \$40.21 in one year at a 10% rate of interest. The year two Gum Bidy is like having \$33.23 in the bank now because that \$33.23 would grow to \$36.56 in one year and \$40.21 in two years. The year three Gum Bidy is like having \$30.21 in the bank now because that \$30.21 would grow to \$33.23 in one year, \$36.56 in two years, and \$40.21 in three years. The sum of \$36.56, \$33.23, and \$30.21 is \$100.

FIGURE 2-3



At that point the investment is worth only \$36.56, as Table 2-3 illustrates.

TABLE 2-3

	Year 3
Cash Payment	\$40.21
Discount Factor	1/1.10
Discounted Value	\$36.56

After year three, the Fabricator is worthless.

Overall, the outstanding principal in the Fabricator declines over the three years from \$100 to \$69.79 to \$36.56 to \$0. Although the Gum Biddies give a constant cash flow, the decline is slower than pro rata in the first two years and faster than pro rata in the last year. Figure 2-4 graphs economic and straight-line decline for the Fabricator and Table 2-4 shows the graphed figures.

Adjusted  
Basis

FIGURE 2-4

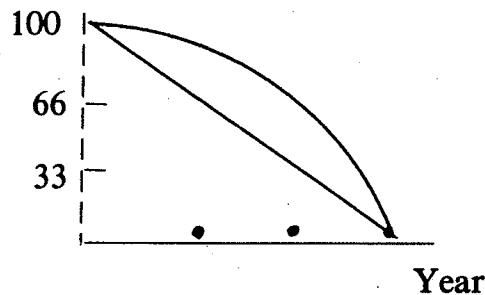


TABLE 2-4  
COMPARING DECLINING VALUES

Economic Depreciation (\$)	Straight Line Depreciation (\$)
30.21	33.33
33.23	33.33
36.56	33.33

In any year, the investor withdraws the closest Gum Bidy from the Fabricator investment. The closest Gum Bidy is the most valuable because it has the smallest discount. The withdrawal and disappearance of the most valuable Gum Bidy might imply that the early years have the larger-than-pro-rata depreciation deductions.<sup>90</sup> In any year, however, the remaining Gum Biddies draw closer and become more valuable. The increase in their value diminishes the loss in the Fabricator as a whole. Under the assumption that annual cash flows are constant, the decline in value is equal to the discounted present value of the most remote Gum Bidy.<sup>91</sup>

To identify the income from the Fabricator, one needs to allow depreciation deductions that match the decline in the Fabricator's "out-

90. Professor Kahn argues for an accelerated schedule of depreciation by arguing in effect that it is the first Gum Bidy in line that disappears in any year, so that one should allow the present value of the earliest and most valuable remaining Gum Bidy as the depreciation deduction for the Fabricator in any year. He admits that the loss in value of the Fabricator is less than the value of the earliest Gum Bidy, but he argues that diminishing loss due to the remaining Gum Biddies drawing closer and more valuable is in the nature of unrealized appreciation that is not taxable under the fundamental realization principal. Kahn, *supra* note 31, at 1.

The primary objection to Kahn's depreciation schedules is that they do not identify the interest-like income from the Fabricator. As Part III(D), *infra* notes 104-13 and accompanying text, explains, imposing tax based on accelerated schedules undertaxes depreciable property vis-a-vis other investments and leads to resource misallocation, premium returns for high-bracket taxpayers, or some combination of both.

As a matter of tax doctrine, one need not stretch the realization convention to reach such an inappropriate result. Unrealized appreciation is a rule of administrative convenience, not a sacred icon that must be carved out of any transaction and preserved. One could disaggregate many receipts into a tax-recognized loss and an untaxed gain, if one worked hard enough, but why do it? Unrealized appreciation is at best a shield to prevent tax on gains in value above costs, not a sword to justify over-deducting unexpired costs.

Unrealized appreciation comes from fluctuations in market value and changes in expectations; economic depreciation requires neither market fluctuations nor changed expectations. Expiration of the discount—the Gum Biddies moving closer—is different from market fluctuations that yield unrealized appreciation. Accrued interest or discount expiration is different from changes in value due to changes in expectations. For example, I.R.C. § 1274 (1988) imposes tax on imputed but un-received interest even for a cash method "lender." The Code section is perfectly compatible with unrealized appreciation because earned interest is different from unrealized appreciation. *See also infra* notes 99-103 and accompanying text (economic depreciation does not entail taxing unrealized appreciation). In any event, the doctrinal arguments over unrealized appreciation seem less important than the need to identify the income from the property and impose a neutral tax.

91. The difference between a three-Gum-Biddy asset and a two-Gum-Biddy asset (Figure 2-1 and Figure 2-2, respectively), or a two-Gum-Biddy asset and a one-Gum-Biddy asset (Figure 2-2 and Figure 2-3, respectively), is the disappearance of the furthest-removed Gum Bidy.



standing principal." With such depreciation deductions, the adjusted basis of the Fabricator would equal the "outstanding principal" of the Fabricator. The "outstanding principal" of the investment would be hard money, undeducted amounts. Not coincidentally, the outstanding principal declines in a pattern like that on the constant-payment loan amortization schedules that a home owner faces on a home mortgage. To the investor, the Fabricator is like a 10% mortgage is to the bank: the Fabricator gives a 10% return on capital invested and still outstanding.

Column 1 of Table 2-5 shows the outstanding principals of the Fabricator. Column 2 shows the three \$40.21 constant cash flows from the Fabricator. Column 3 shows the amount of each cash flow that represents recovery of capital—like the withdrawal from the savings account—under economic depreciation. The reduction in the outstanding principal in column 3 is the decline in net present value, using a 10% discount rate. Under economic depreciation, that decline is the permissible depreciation deduction. Subtracting economic depreciation, column 3, from the cash flows, column 2, yields taxable income, column 4. The taxable income is 10% of the outstanding principal, column 1, of the property.

TABLE 2-5  
ECONOMIC DEPRECIATION WITH THREE-YEAR CONSTANT  
CASH FLOWS PRETAX RETURN OF 10%

Period	(1) Outstanding Principal at Beginning of Period [Prior (1) - (3)] (\$)	(2) Cash Receipt (\$)	(3) Recovery of Capital (Depreciation) (\$)	(4) Taxable Income { 10% of (1), or [(2) - (3)] } (\$)
1	100.00	40.21	30.21	10.00
2	69.79	40.21	33.23	6.98
3	36.56	40.21	36.56	3.66
4	0			

Imposing tax on the income that economic depreciation identifies, at whatever rate, reduces the income from the property by exactly what the statutory tax rates seem to have intended. Tables 2-5A, 2-5B, and 2-5C continue Table 2-5 and show how three different tax rates affect the Fabricator. In each case the post-tax rate of return from the Gum Bidy is reduced by the statutory tax rate.

Table 2-5A uses a 25% tax rate. The taxable income figures, at a 10% rate of return, come from Table 2-5. The 25% tax is subtracted

from pretax cash<sup>92</sup> to yield post-tax cash flows. Last, column 8A shows the discounted present value of the post-tax cash flows at 7.5%.

TABLE 2-5A  
25% TAX ON INCOME WITH ECONOMIC DEPRECIATION  
POST-TAX RETURN OF 7.5%

Period	(4) Taxable Income (\$)	(5A) Tax @ 25% (\$)	(6) Pretax Cash (2) (\$)	(7A) Post-tax Cash [(6) - (5A)] (\$)	(8A) NPV @ 7.5% (\$)
1	10.00	2.50	40.21	37.71	35.08
2	6.98	1.75	40.21	38.46	33.28
3	3.66	0.91	40.21	39.30	31.64
				SUM	100.00

Column 8A shows that the post-tax return from the Fabricator is 7.5%.<sup>93</sup> The net present value of the after-tax cash flows at 7.5% is \$100—exactly the amount the investor paid for the Fabricator. Thus, the Fabricator investment is like a base line, 7.5% return investment to which one compares the Gum Bidy Fabricator under the concept of net present value. The income tax has reduced the interest-like return from the Fabricator from 10.0% to 7.5%—exactly what a 25% tax rate should accomplish.

Different tax rates will reduce the income from the Fabricator by different amounts, but in every case the reduction corresponds to the actual tax rate. For example, Table 2-5B has the same format as Table 2-5A but uses a 33% tax rate.<sup>94</sup> Column 8B shows that the after-tax rate of return is 6.7%, exactly what a 33% tax rate should accomplish.

92. See Table 2-5A, col. 6A, which is the same as Table 2-5, col. 2.

93. One can show with a table like Table 2-5 that net present value at 7.5% means an interest-like return of 7.5%.

Period	(1) Outstanding Principal at Beginning of Period [Prior (1) - (3)] (\$)	(2) After-tax Cash Receipt (Table 2-5A, column (7A)) (\$)	(3) Recovery of Capital (Depreciation) (\$)	(4) Taxable Income {7.5% of (1), and [(2) - (3)]} (\$)
1	100.00	37.71	30.21	7.50
2	69.79	38.47	33.23	5.24
3	36.56	39.30	36.56	2.74
4	0			

94. The 33% tax bracket is the highest rate on individuals, see *supra* note 38 and accompanying text, and is just below the highest rate for corporations, 34%. I.R.C. § 11 (1988).

**TABLE 2-5B**  
**33% TAX ON INCOME WITH ECONOMIC DEPRECIATION**  
**POST-TAX RETURN OF 6.7%**

Period	(4) Taxable Income (\$)	(5B) Tax @ 33% (\$)	(6) Pretax Cash (2) (\$)	(7B) Post-tax Cash [(6) - (5B)] (\$)	(8B) NPV @ 6.7% (\$)
1	10.00	3.30	40.21	36.91	34.59
2	6.98	2.30	40.21	37.91	33.30
3	3.66	1.21	40.21	39.00	32.11
				SUM	100.00

Table 2-5C is like the prior two tables, but uses a now-extinct 50% tax rate. Column 8C shows that the after-tax rate of return is 5%, exactly what a 50% tax rate should accomplish.

**TABLE 2-5C**  
**50% TAX ON INCOME WITH ECONOMIC DEPRECIATION**  
**POST-TAX RETURN OF 5%**

Period	(4) Taxable Income (\$)	(5C) Tax @ 50% (\$)	(6) Pretax Cash (2) (\$)	(7C) Post-tax Cash [(6) - (5C)] (\$)	(8C) NPV @ 5% (\$)
1	10.00	5.00	40.21	35.21	33.53
2	6.98	3.49	40.21	36.72	33.31
3	3.66	1.83	40.21	38.38	33.16
				SUM	100.00

Thus, for all three tax rates, the post-tax rate is consistent with what the nominal rate seems to require.

Within a reasonably effective income tax, economic depreciation is attractive because it makes the tax system neutral—a level playing field—in several senses. Economic depreciation produces taxable income that is conceptually the same as the interest on a savings account or income from a perpetuity. Thus, it produces tax neutrality among assets subject to a true income tax.

Economic depreciation, moreover, makes the purchase price of the Fabricator independent of the tax rate if the tax system is reasonably effective. In a reasonably effective income tax, each investor's discount rate equals the market interest rate less the investor's nominal tax rate. Most investments are like savings accounts—tax reduces the return explicitly by the statutory rate—and the market fully digests any tax-fa-

vored investments such that their returns drop to normal after-tax returns. For all three tax rates applied to Table 2-5, discounting the various after-tax returns by the normal after-tax discount rate means that the taxpayer would be willing to pay exactly \$100 for the Fabricator. No taxpayer is willing to bid the Fabricator away from the best and most efficient user solely because of the interference of tax.

Economic depreciation also fits with the ideal underlying the Cary Brown thesis that one should earn investment income only from post-tax, hard money amounts. Adjusted basis, the amount the investor has not taken yet as a depreciation deduction, generally represents post-tax investment in the property. If the adjusted basis is equal to the diminished outstanding principal of the property, then one can attribute all future income to the post-tax adjusted basis. Even if soft money investing is equivalent to exempting future income, expired costs generate no future income.

## 2. *Straight Line Depreciation*

Straight line depreciation equals economic depreciation for some investments with cash flows that trail off over time. But straight line depreciation is too accelerated for investments with constant cash flows. Straight line depreciation means that the total cost of the machine is prorated across the useful life so that annual depreciation deductions are equal—\$33.33 per year for a \$100 machine with a three-year life. Traditional accounting would write off the \$100 cost of the Gum Bidy machine under the straight line method, especially because the annual returns from the use of the machine are equal.<sup>95</sup> But straight line depreciation understates the income from an investment with a constant return, the very type of investment to which accountants would be most likely to apply straight line methods.

As Table 2-5 shows, the \$100 Gum Bidy Fabricator giving \$40.21 per year gave a constant 10% return on "outstanding principal." But straight line depreciation generates an income or profit amount that starts at 6.9% of the outstanding principal and rises to 20.6% of the outstanding principal.

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95. See, e.g., AM. INST. CERTIFIED PUB. ACCOUNTANTS, ACCOUNTING TRENDS AND TECHNIQUES 268 (39th ed. 1985) (567 of 600 surveyed companies used straight line method in 1984); INTANGIBLE ASSETS, APB Opinion No. 17, ¶ 30 (Accounting Principles Bd. 1970), reprinted in 2 AM. INST. OF CERTIFIED PUB. ACCOUNTANTS, *supra* note 31, at 6661 (apply straight line method of amortization—equal annual amounts—for intangible assets unless company demonstrates that another systematic method is more appropriate).

TABLE 2-6  
STRAIGHT LINE DEPRECIATION WITH THREE-YEAR  
CONSTANT CASH FLOWS

Period	(1) Outstanding Principal at Beginning of Period [Prior (1) - (3)] (\$)	(2) Cash Receipt (\$)	(3) Recovery of Capital (Depreciation) (\$)	(4) Taxable Income [(2) - (3)] (\$)	(5) (4) as % of (1) (%)
1	100.00	40.21	33.33	6.88	6.9
2	66.67	40.21	33.33	6.88	10.3
3	33.33	40.21	33.33	6.88	20.6
4	0				

Straight line depreciation identifies a constant yearly income but only by showing an ever-increasing rate of return. But if invested capital creates this income, the income is more plausibly a constant rate of return on a decreasing investment. If one views the Fabricator as a 10% investment throughout, then it has an outstanding principal or invested capital of \$100, \$69.79, \$36.56, and \$0 in years one, two, three, and four, respectively. Allowing depreciation to adjust basis from \$100 to \$66.67 to \$33.33 allows investors to deduct amounts that still generate income.

Straight line depreciation, however, equals economic depreciation for some patterns of cash flows. The theory underlying economic depreciation is perfectly compatible with depreciation schedules faster than constant-payment loan amortization schedules if the cash flows from the asset decline as the asset ages.

Take, for example, the pattern of cash flows shown in Table 2-7. Given a 10% discount rate, the asset is still worth \$100 but the investment declines in value from \$100 to \$66.67 to \$33.33 to \$0 over a three-year period, i.e., straight line depreciation. The cash receipts are still equal to 10% of adjusted basis plus recovery of basis. But with the new fact pattern, the depreciation schedule compatible with economic depreciation is straight line, not the slower loan amortization schedule that one uses when cash flows are constant. The logic of Table 2-7 is the same as the logic of Table 2-5. Expanding on the logic of Tables 2-5A, 2-5B, and 2-5C, we could build tables showing that a statutory tax rate on the taxable income would reduce investment return exactly by what the statutory rate implies.

TABLE 2-7  
STRAIGHT LINE DEPRECIATION IDENTIFIES 10% RETURN

Period	(1) Outstanding Principal at Beginning of Period [Prior (1) - (3)] (\$)	(2) Cash Receipt (\$)	(3) Recovery of Capital (Depreciation) (\$)	(4) Taxable Income {10% of (1), or [(2) - (3)]} (\$)
1	100.00	43.33	33.33	10.00
2	66.67	40.00	33.33	6.67
3	33.33	36.67	33.33	3.33
4	0			

Cash flows that trail off like those for the investment in Table 2-7 are not implausible. Assets like the golden goose, which gives off solid gold eggs of constant weight and fashion for a constant cost, are rare. Most machines require increasingly more maintenance or repairs in the years before they expire. Technological improvements in newer and competing machines will tend to drive down the sale price of Gum Biddies. Further, even Gum Biddies might fall from fashion in the grand cycle of things. Any of these factors can make net cash flows tail off.

### 3. Other Schedules

With somewhat less plausibility, we can construct a cash flow consistent with double declining balance methods.<sup>96</sup>

TABLE 2-8  
DOUBLE DECLINING BALANCE DEPRECIATION IDENTIFIES  
10% RETURN

Period	(1) Outstanding Principal at Beginning of Period [Prior (1) - (3)] (\$)	(2) Cash Receipt (\$)	(3) Recovery of Capital (Depreciation) (\$)	(4) Taxable Income {10% of (1), or [(2) - (3)]} (\$)
1	100.00	76.67	66.67	10.00
2	33.33	20.00	16.67	3.33
3	16.67	18.33	16.67	1.66
4	0			

96. See *infra* note 104 (describing double declining depreciation and how it relates to depreciation that current law allows).

The pattern of cash flows in Table 2-8, column 2, is not impossible but is probably not very common, either.

If cash flows from the asset rise as time goes on—for instance, if real estate rents rise as old leases expire in growing, more popular neighborhoods—then the identified outstanding principal will drop even more slowly over time than the outstanding principal of the constant-payment annuity.

### *C. Unrealized Appreciation and Extraordinary Returns*

#### *1. Identifying Extraordinary Internal Rates of Return*

Samuelson depreciation has an internal logic that will identify the “outstanding principal” and income even when there are extraordinary pretax returns from the property. Samuelson depreciation works for returns above prevailing rates, just as the Cary Brown thesis does. With a pretax return equal to the market rate available throughout the economy (10% assumed here), Samuelson depreciation will give an adjusted basis equal at any point to the fair market value of the machine, that is, the present value of the remaining cash flows at going interest rates. For extraordinary returns, the adjusted basis no longer will equal fair market value. Others, able to get just 10% elsewhere, would be willing to pay far more than the adjusted basis for the property. But still Samuelson depreciation will reduce returns by the statutory rate, making tax neutral among taxpayers and taxable assets.

Table 2-9 follows the same logic as Tables 2-5 and 2-7 except that the pretax cash flows of \$75.00, \$57.50, and \$82.50 were constructed to give a 50% pretax internal rate of return when the investor purchases the investment for \$100. In the first year, the investment produces a 50% profit, \$50, on the \$100 outstanding principal that was paid for the property, plus \$25 recovery of the investment. The \$25 recovery of the investment is the depreciation deduction. On recovering the \$25, the investor has only \$75 left as the outstanding principal in the Fabricator. The next \$57.50 is a 50% profit, \$37.50, on the \$75 outstanding principal plus a \$20 recovery of capital. The final cash flow of \$82.50 gives a 50% profit on the final adjusted basis of \$55.00 plus recovery of the last \$55 of the investment.

TABLE 2-9  
ECONOMIC DEPRECIATION WITH IRREGULAR CASH FLOWS  
PRETAX RETURN OF 50%

Period	(1) Outstanding Principal at Beginning of Period [Prior (1) - (3)] (\$)	(2) Cash Receipt (\$)	(3) Recovery of Capital (Depreciation) (\$)	(4) Taxable Income {50% of (1), or [(2) - (3)]} (\$)
1	100.00	75.00	25.00	50.00
2	75.00	57.50	20.00	37.50
3	55.00	82.50	55.00	27.50
4	0			

The depreciation schedule of \$25.00, \$20.00, and \$55.00 looks highly unconventional. But that schedule keeps the adjusted basis of the property equal to the outstanding principal that generates the 50% income and it identifies the income from the property, earned at the 50% rate, and taxes it. As Tables 2-9A, 2-9B, and 2-9C show, this depreciation schedule reduces returns exactly by the statutory tax rate. Economic depreciation schedules reduce the after-tax cash flows from the Fabricator so that the after-tax return rate from the Fabricator is equal to the 50% income from the Fabricator less tax at the statutory rate.

TABLE 2-9A  
25% TAX ON 50% INCOME WITH ECONOMIC  
DEPRECIATION POST-TAX RETURN OF 37.5%

Period	(4) Taxable Income (\$)	(5A) Tax @ 25% (\$)	(6) Pretax Cash (2) (\$)	(7A) Post-tax Cash [(6) - (5A)] (\$)	(8A) NPV @ 37.5% (\$)
1	50.00	12.50	75.00	62.50	45.45
2	37.50	9.38	57.50	48.12	25.45
3	27.50	6.88	82.50	75.62	29.10
				SUM	100.00



TABLE 2-9B  
33% TAX ON 50% INCOME WITH ECONOMIC  
DEPRECIATION POST-TAX RETURN OF 33.5%

Period	(4) Taxable Income (\$)	(5B) Tax @ 33% (\$)	(6) Pretax Cash (2) (\$)	(7B) Post-tax Cash [(6) - (5B)] (\$)	(8B) NPV @ 33.5% (\$)
1	50.00	16.50	75.00	58.50	43.82
2	37.50	12.38	57.50	45.12	25.32
3	27.50	9.08	82.50	73.42	30.86
				SUM	100.00

TABLE 2-9C  
50% TAX ON 50% INCOME WITH ECONOMIC  
DEPRECIATION POST-TAX RETURN OF 25%

Period	(4) Taxable Income (\$)	(5C) Tax @ 50% (\$)	(6) Pretax Cash (2) (\$)	(7C) Post-tax Cash [(6) - (5C)] (\$)	(8C) NPV @ 25% (\$)
1	50.00	25.00	75.00	50.00	40.00
2	37.50	18.75	57.50	38.75	24.80
3	27.50	13.75	82.50	68.75	35.20
				SUM	100.00

The pattern of depreciation under the assumptions in Table 2-9, using 50% returns, was by happenstance faster and more valuable to the taxpayer than the depreciation on the 10%-return, constant-payment Fabricator.<sup>97</sup> But the key to the pattern of depreciation is whether cash flows rise or fall, rather than the return rate. Cash flows that are back-end loaded yield economic depreciation schedules that are slower than even constant-payment loan amortization schedules. More accelerated schedules require cash flows that are front-end loaded.

High rates of return probably are associated more closely with the slower depreciation schedules. If high cash flows were expected, the seller plausibly would have charged more to drive down the rate of return; unexpected high cash flows, that the seller cannot capture in the sale price, tend to occur in more distant years. But there is no intrinsic reason why a property with a 50% return has to yield a less generous

97. The depreciation deductions in Table 2-9, col. 3—\$25, \$20, and \$55 over the three years—have a net present value at 10% equal to \$80.58. The depreciation deductions in Table 2-7, col. 3—\$30.21, \$33.23, and \$36.56—have a net present value at 10% equal to \$82.39.

depreciation schedule than a property with a 10% return. One can construct cash flows that yield a return of 50% and depreciate faster, slower, or exactly the same as the pattern on the 10%, three-year, constant-payment annuity.<sup>98</sup>

## 2. *Must One Tax Unrealized Appreciation?*

With a concept of a high rate of return, a write-up in the asset or investment to its fair market value is not always necessary to identify the interest-like or crop-like income from the property.<sup>99</sup> A set of cash flows with a 50% internal rate of return probably involves unrealized appreciation.<sup>100</sup> In an economy that generally gives only a 10% rate of return, an outsider will be willing to pay more for an investment giving a 50% rate of return.<sup>101</sup> Yet the economic depreciation schedules for high rates of return, developed in the last section,<sup>102</sup> neither tax the unrealized appreciation nor increase the adjusted basis of the property above the property's original cost. If we can use the concept of premium or extraordinary returns for those cash flows, then we can identify the true, interest-like income from the property and reduce it by the statutory rate without increasing the basis above original cost. We can explain the extraordinary cash flows in terms of an extraordinary return without assuming an outstanding principal and adjusted basis that climb above the original cost.

98. The following chart shows cash flows generating a 50% return on a depreciation schedule and outstanding principal that is faster than, exactly the same as, and slower than the one for the 10% annuity. In each case, the cash flow gives 50% return on the outstanding principal (cols. 1A, 2A, and 3A) plus a portion of the outstanding principal to the amount shown in the next lower row.

Period	Faster Schedule		10% Annuity Schedule		Slower Schedule	
	(1A) Outstanding Principal (\$)	(1B) Cash Flow (\$)	(2A) Outstanding Principal (\$)	(2B) Cash Flow (\$)	(3A) Outstanding Principal (\$)	(3B) Cash Flow (\$)
1	100.00	130.00	100.00	80.21	100.00	52.00
2	20.00	20.00	69.79	68.11	98.00	51.00
3	10.00	15.00	36.56	54.84	96.00	144.00
4	0		0		0	

99. Hall argues that neutral depreciation requires taxation of unrealized capital gain. Hall, *Tax Treatment of Depreciation, Capital Gains and Interest in an Inflationary Economy*, in *DEPRECIATION, INFLATION AND TAXATION OF INCOME FROM CAPITAL* 163-65 (C. Hulten ed. 1981). That argument makes sense only if we must assume that every investment gives only the prevailing interest rate at any period.

100. An extraordinary return may not entail a high value for the property. Perhaps no one foresaw what was going to happen until it happened. Perhaps extraordinary risks or special noxiousness offset the benefit. Perhaps the owner has some extraordinary skill in exploiting the Fabricator that can be used in no other way and no other owner has the same skill.

101. The cash flows in Table 2-9, at the 6.7% discount rate that a 33% tax bracket investor faces, are worth \$188.71, not \$100.  $\$75/1.067 + \$57.50/(1.067)^2 + \$82.50/(1.067)^3 = \$188.71$ . Even after a year and the disappearance of the big first cash flow, the investment would be worth \$126—more than the \$100 initial cost.

102. See Tables 2-9, 2-9A, 2-9B, 2-9C.

In common language, we would comfortably describe an investment of \$100 as giving a high rate of return if the cash flows are high. We do not feel the need, in our ordinary language, to "normalize returns" and write up the amount invested to \$189 or \$126 or whatever the present value of remaining cash flows is at normal market interest rates. For perpetuities, we commonly analyze an investment as giving an extraordinary return rather than increasing in value. If crop land produces a crop far more valuable than the old crop, for instance, then we say that the land is a constant investment and the crop is all income at a new, higher rate, even though the land is now far more valuable than it was at the time of purchase. Just as we can say that the crop is income at an extraordinary rate on a constant investment of land or that interest is at a high on a constant savings account, so we can say for depreciable property that the amount invested gives a high rate of return. In sum, the hard money principle and the income concept associated with it do not necessarily require that we tax increases in market value as they accrue.<sup>103</sup>

#### *D. Too-Rapid Methods*

Depreciation methods that accelerate deductions faster than economic depreciation will identify neither the outstanding principal nor the income from the investment. Applying the statutory rate to the accelerated depreciation schedule will yield less tax for the government than the statutory rate implies. When the effective tax is lower than the statutory rate, high-bracket taxpayers will outbid low-bracket taxpayers for property, will receive returns at less than the statutory tax rate, or will benefit from some combination of both. Though in a manner less drastic than expensing, accelerated depreciation, too, will allocate resources inefficiently to less profitable activities, will cause high-bracket investors to get high, windfall, after-tax returns, or will yield some combination of both.

For instance, look at allowable depreciation schedules under current

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103. Identifying the internal return from an investment requires, however, that we sometimes impute income at the internal rate because the cash flows are not high enough to cover all the interest-like income. If an investment has high future cash flows, but current cash flows are below the internal rate, it is extraordinarily difficult to identify and tax the internal rate of return except by accruing interest at the internal rate of return. Cf. I.R.C. § 1274 (1988) (accruing "original interest discount" even for cash method taxpayer, albeit at risk-free standard interest rate). Taxing imputed interest may be necessary even for investments that have no appreciation or high or unexpected returns. Thus, identifying crop-like or interest-like income commonly will require taxing non-receipts, even if it does not require taxing unanticipated increases in value.

One can illustrate the difference between taxing the internal return, although not received, and taxing the unrealized appreciation by assuming an investment of \$100 that gives a cash return of \$225 in two years. The internal rate of return on the investment is 50% and taxing the return would involve taxing \$50 in year one and \$75 in year two. But at a 10% discount rate, \$225 has a present value of \$185.95 and the investor has an immediate, unrealized appreciation of \$85.95. If the Code taxes unrealized appreciation immediately, then only the 10% interest on the present value remains for the Code to tax at the end of year one and year two—\$18.60 and \$20.45, respectively.

law<sup>104</sup> as it applies to our three-year Gum Bidy with a constant cash flow of \$40.21.

TABLE 2-10  
DOUBLE DECLINING BALANCE DEPRECIATION WITH  
CONSTANT CASH FLOWS

Period	(1) Outstanding Principal at Beginning of Period [Prior (1) - (3)] (\$)	(2) Cash Receipt (\$)	(3) Recovery of Capital (Depreciation) (\$)	(4) Taxable Income [(2) - (3)] (\$)	(5) (4) as % of (1) (%)
0	100.00	0	33.33	(33.33)	-33
1	66.67	40.21	41.67	(1.46)	-2.2
2	25.00	40.21	16.67	23.54	94
3	8.33	40.21	8.33	31.88	383
4	0				

If the function of depreciation is to identify income from invested capital, then Table 2-10 shows that depreciation schedules under current law fail their function. The adjusted basis figures in column 1 do not explain the column 4 income figures and, vice versa, the column 4 income is not a return from any amount of invested capital that column 1 identifies. Why does income from the investment increase when the amount invested goes down? Why does income jump from negative 33% to positive 383% for an investment with a constant return? Why is the return on investment identified as negative in the first two years, when overall the investment is known to be profitable? Why, if the investment was rational, does column 1 treat a third of the purchase price as worthless as soon as the investor makes the investment? Column 1 does not identify correctly the hard money investment that generates the cash flow returns.

Taxing only the income identified in column 4 reduces pretax return by less than the statutory tax rate. Tables 2-10A (25% statutory tax

104. I.R.C. § 168(b)(1) (1988) provides for double declining balance depreciation switching to straight line when the latter method yields a larger allowance, and I.R.C. § 168(d) (1988) provides for a midyear convention. (The Code removes the midyear convention if the taxpayer acquires 40% or more of his or her depreciable property in the last quarter of the year.) The double declining balance method first finds a fraction by taking the straight line fraction (one divided by tax life) and then doubling it (hence "double declining"). That fraction becomes a constant fraction multiplied by an ever-declining adjusted basis (hence "declining balance") to calculate the annual depreciation. For a three-year asset, the first year under double declining balance is twice  $1/3-2/3$  or 66.67%—and the method switches to straight line (one-sixth each year) for the final two years. A midyear convention shifts back one-half of each year's depreciation by one year. One-half of 66.67% of basis is taken in the year of investment—year zero in Table 2-10. The \$41.67 depreciation in year two (Table 2-10, col. 4, row 2) is the other one-half of \$66.67 plus one-half of the next year's  $1/6$ .

rate) and 2-10B (50% statutory tax rate) continue Table 2-10 and show how different tax rates affect the return. Column 8A shows that the after-tax return from the investment is 8.5% because the present value of the after-tax cash flows at 8.5% is equal to the \$100 the investor paid for the investment. A 25% rate tax should reduce return to 75% of the pretax rate—10% to 7.5% here—but accelerated depreciation reduces the after-tax return to only 8.55%. Tax reduces the return by only 15%, not the 25% statutory rate.<sup>105</sup>

**TABLE 2-10A**  
**25% TAX WITH DOUBLE DECLINING BALANCE**  
**DEPRECIATION PURCHASE PRICE OF \$100,**  
**EFFECTIVE TAX OF 15%**

Period	(4) Taxable Income  (\$)	(5A) Tax @ 25%  (\$)	(6) Pretax Cash (2)  (\$)	(7A) Post-tax Cash [(6) - (5A)]  (\$)	(8A) NPV @ 8.55%  (\$)
0	(33.33)	(8.33)	0	8.33	8.33
1	(1.46)	(0.37)	40.21	40.58	37.38
2	23.54	5.89	40.21	34.32	29.13
3	31.88	7.97	40.21	32.24	<u>25.21</u>
				SUM	<u>100.05</u>

Table 2-10B uses a 50% tax bracket. The table illustrates that accelerated depreciation consistently reduces the post-tax return by less than the statutory rate. The after-tax rate of return is 6.63%. This rate represents only a 34% reduction from the pretax 10% return, whereas a 50% tax should reduce a pretax 10% return by half, or 5%.

105. The effective tax rate is equal to the pretax rate of return (10%) minus the post-tax rate of return (8.55%), the result of which is expressed as a fraction of the pretax rate of return:  $(10\% - 8.55\%) / 10\%$ . See *supra* note 76.

TABLE 2-10B  
50% TAX WITH DOUBLE DECLINING BALANCE  
DEPRECIATION PURCHASE PRICE OF \$100,  
EFFECTIVE TAX OF 34%

Period	(4) Taxable Income  (\$)	(5B) Tax @ 50%  (\$)	(6) Pretax Cash (2)  (\$)	(7B) Post-tax Cash [(6) - (5B)]  (\$)	(8B) NPV @ 6.63%  (\$)
0	(33.33)	(16.67)	0	16.67	16.67
1	(1.46)	(0.73)	40.21	40.94	38.40
2	23.54	11.77	40.21	28.44	25.01
3	31.88	15.94	40.21	24.27	20.02
			SUM		100.10

In sum, if investors continue to pay only \$100 even with accelerated depreciation and ignore the tax advantage in their purchase price, then they will reduce their effective tax rates from 25% to 15%,<sup>106</sup> 33% to 20%, and 50% to 33.7%.<sup>107</sup>

A purchaser paying statutory tax rates on alternative investments would be willing to pay more than \$100 for the investment. A taxpayer in the 50% bracket, for instance, could expect to get only a 5% after-tax return from other fully-taxed investments when the prevailing interest rate is 10%. Using 5% as a discount rate, the cash flows available from the accelerated depreciation investment are worth more than \$100.<sup>108</sup> Moreover, a pyramiding or feedback effect occurs. If investors pay more than \$100 for the investment, then their basis and depreciation deductions go up. As depreciation deductions increase, the value of the investment increases and causes depreciation deductions to rise even further.<sup>109</sup> Considering the feedback, an investor in a 50% tax bracket and with a 5% discount rate would pay \$104.61 for the property. Table 2-11 uses a discount rate of 5% and takes feedback into account to show the value of the investment.

106. Table 2-10A.

107. Table 2-10B.

108. They are worth \$102.32. See Table 2-10B, col. 7B.

109. The purchase price for property,  $P$ , would be equal to the present value of the after-tax cash flows, computed using depreciation with  $P$  as the depreciable basis.

$$P = \sum_{j=1}^n \frac{CF_j}{(1+i)^j} - \sum_{j=1}^n \frac{T[CF_j - DEP_j(\$1)P]}{(1+i)^j}$$

Under this formula,  $T$  is the tax rate,  $i$  is the normal after-tax discount rate, using fair market value interest times  $1 - T$ ,  $CF$  is the pretax cash flow,  $DEP$  (\$1) is the depreciation deduction for \$1 basis, and  $j$  is the time period.

Solving for  $P$  and rearranging some terms, the formula becomes:

$$P = \left[ (1 - T) \sum_{j=1}^n \frac{CF_j}{(1+i)^j} \right] / \left\{ 1 - \left[ T \sum_{j=1}^n \frac{DEP_j(\$1)}{(1+i)^j} \right] \right\}$$

**TABLE 2-11**  
**PURCHASE PRICE GOES TO \$104.61 WITH 5% DISCOUNT**  
**RATE (50% TAX WITH DOUBLE DECLINING**  
**BALANCE DEPRECIATION)**

Period	(1) Outstanding Principal at Beginning of Period [Prior (1) - (3)] (\$)	(2) Cash Receipt (\$)	(3) Recovery of Capital (Depreciation) (\$)	(4) Taxable Income [(2) - (3)] (\$)	(5) Tax @ 50% (\$)	(7) Post-tax Cash [(2) - (5)] (\$)	(8) NPV @ 5% (\$)
0	104.61	0	34.87	(34.87)	(17.43)	17.43	17.43
1	69.74	40.21	43.59	(3.38)	(1.69)	41.90	39.90
2	26.15	40.21	17.43	22.78	11.39	28.82	26.14
3	8.72	40.21	8.72	31.49	15.75	24.46	21.13
4	0					SUM	104.61

Column 8 verifies that the rate of return from the investment is 5% when one purchases the investment for \$104.61.

When allowable depreciation is faster than economic depreciation, purchasers in higher brackets are willing to pay more for the property than lower bracket taxpayers. Table 2-12 shows the purchase price that taxpayers in different brackets would pay. One could construct a table like Table 2-11 for each price, and verify that the price gives the taxpayer his or her "normal" discount rate, i.e. 10% less tax at statutory rates.

**TABLE 2-12**  
**THE EFFECT OF ACCELERATED DEPRECIATION**

Nominal Tax Bracket (%)	Price (Assuming normal, statutory post-tax discount rate) (\$)
50	104.61
33	103.00
25	102.26
0	100.00

With accelerated depreciation, the value of the investment is no longer the same for each investor. Higher bracket taxpayers are willing to pay more than lower bracket taxpayers are and both will outbid tax-exempt investors, for whom the investment is still worth just \$100.

For short-term assets, like those in manageable hypotheticals, a quite dramatic difference in tax rate will have only a subtle difference in purchase price—as Table 2-12 illustrates for three-year assets. Tax rates will have a far more dramatic effect on price for long-term assets. The

exempt income, then we could not maintain a tax on income from any source derived so long as even one source is tax exempt. Section 265(a)(2) of the Code disallows the deduction on indebtedness incurred to purchase or carry tax-exempt municipal bonds. In *Denman v. Slayton*,<sup>120</sup> the Supreme Court upheld the constitutionality of section 265(a)(2), and stated:

[If the interest cost of tax-exempt income were deductible as the taxpayer in this case argues, then *A*, a taxpayer] with an income of \$10,000 from nonexempt securities [or salary], by the simple expedient of purchasing exempt ones with borrowed funds and paying \$10,000 interest thereon, would escape all taxation upon receipts from both sources. It was proper to make provision to prevent such a possibility. The classification complained of is not arbitrary, makes no improper discrimination, does not result in defeating any guaranteed exemption, and was within the power of Congress.<sup>121</sup>

Absent section 265(a)(2), the taxpayer would have had a "sheltering" deduction that could be used against income from any source. The interest deduction would just transport the exemption privilege from the favored source to all income.

Section 265 of the Code, upheld in *Denman*, removes the sheltering deduction by denying a deduction for interest incurred in acquiring or carrying tax-exempt income. But the language of section 265 presumably does not affect interest incurred to purchase expensed investments. The language of section 265 as to costs of income "wholly exempt from taxes" presumably does not apply to costs of income that are effectively tax-exempt because of the prior expensing of the investment. But the advantage of deducting interest incurred to acquire expensed investments is like the deductions that section 265 targets.

One can show the equivalence of debt-financed expensing and debt-financed investing.<sup>122</sup> Assume, for example, that a taxpayer subject to a constant tax rate of 25% borrows \$100,000 for the purpose of purchasing some expensed investment. The debt of \$100,000 will support a gross investment of \$133,333. Deducting \$133,333 will provide tax savings of \$33,333 (25% of \$133,333) and the cost of the \$133,333 investment will be only \$100,000, the amount that the taxpayer borrowed.<sup>123</sup> The tax-generated advantage of debt-financed expensing investments is that a

120. 282 U.S. 514 (1931).

121. *Id.* at 519-20. The Court assumed that taxing income from municipal bonds would not be constitutional. *Id.* Thus, it viewed the disallowance of interest under § 265(a)(2) as consistent with the exemption of the income.

122. The following passages are condensed from Johnson, *Tax Shelter Gain: The Mismatch of Debt and Supply Side Depreciation*, 61 TEX. L. REV. 1013, 1029-31 (1983).

123. More generally, if  $B$  is the amount borrowed and  $m$  is the tax rate, then an investment of  $B/(1 - m)$  will cost  $B$  after tax. If the taxpayer makes an expensed investment of  $B/(1 - m)$ , he or she saves tax of  $m[B/(1 - m)]$  and the after-tax cost for the investment is  $B$ .  $[B/(1 - m)] - m[B/(1 - m)] = B(1 - m)/(1 - m) = B$ .

The initial calculation of the gross investment that borrowing  $B$  can support runs in the opposite direction of the proof that the after-tax cost of a gross investment of  $B/(1 - m)$  is  $B$ . If  $X$  is the



gross investment of \$133,333 earns returns, whereas the taxpayer must pay interest only on the borrowed \$100,000.

Table 3-1 shows the effect of tax on debt-financed expensing for various rates of return. In each case, the mismatch of debt and expensed investment produces a negative tax; tax improves the investment from its pretax position. The negative tax in each case equals the tax savings from deducting interest. Assuming a 10% interest rate, 25% tax rate, and \$100,000 borrowing, the negative tax is always \$2500. Deducting \$10,000 interest in a 25% tax bracket also saves \$2500.

Table 3-1 covers a range of situations. Sometimes the negative tax turns a pretax loss or break-even investment into a post-tax gain, sometimes the negative tax increases the pretax gain, and sometimes the negative tax just reduces the pretax loss.

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unknown gross investment, then  $X$  less the tax saved equals  $B$ , the after-tax cost. Thus,  $X - mX = B$ . Solving for  $X$ , the gross investment is  $B(1 - m)$ .

**TABLE 3-1**  
**PRETAX TO POST-TAX FOR DEBT-FINANCED EXPENSED**  
**INVESTMENT \$2500 NEGATIVE TAX (25% TAX**  
**RATE, 10% INTEREST, \$100,000**  
**BORROWED)**

A. 6% Return (10% interest): Loss to loss

1. Investment absent tax: \$100,000	6. Investment with expensing (25% tax): \$133,333
2. 6% return on 1. \$6,000	7. 6% return on 6. \$8,000
3. Borrowing (\$100,000)	
4. 10% interest on 3 <u>(10,000)</u>	8. Taxable profit <u>(2,000)</u> (7. minus 4.)
	9. Tax savings (paid) @ 25% 500
5. Pretax profit (loss) (\$4,000)	10. Post-tax profit <u>(1,500)</u>
Negative tax (difference between pre- and post-tax profit): <u>+\$2,500</u>	

B. 8% Return: Loss to gain.

1. Investment absent tax: \$100,000	6. Investment with expensing (25% tax): \$133,333
2. 8% return on 1. \$8,000	7. 8% return on 6. \$10,667
3. Borrowing (\$100,000)	
4. 10% interest on 3 <u>(10,000)</u>	8. Taxable profit <u>(\$667)</u>
	9. Tax savings (paid) @ 25% 167
5. Pretax profit (loss) (\$2,000)	10. Post-tax profit <u>(\$500)</u>
Negative tax: <u>+\$2,500</u>	

C. 10% Return: Breakeven to gain.

1. Investment absent tax: \$100,000	6. Investment with expensing (25% tax): \$133,333
2. 10% return on 1. \$10,000	7. 10% return on 6. \$13,333
3. Borrowing	
4. 10% interest <u>(10,000)</u>	8. Taxable profit \$3,333
	9. Tax savings (paid) @ 25% <u>(833)</u>
5. Pretax profit (loss) 0	10. Post-tax profit <u>\$2,500</u>
Negative tax <u>+\$2,500</u>	

D. 12% Return: Gain to gain.

1. Investment absent tax: \$100,000	6. Investment with expensing (25% tax): \$133,333
2. 12% return on 1. \$12,000	7. 12% return on 6. \$16,000
3. Borrowing	
4. 10% interest <u>(10,000)</u>	8. Taxable profit 6,000
	9. Tax savings (paid) @ 25% <u>(1,500)</u>
(loss)	10. Post-tax profit <u>\$4,500</u>
5. Pretax profit (loss) \$2,000	
Negative tax: <u>+\$2,500</u>	

One can generalize the results further. In each case of debt-financed expensing, the mismatch of debt and expensing improves the pretax situa-

tion by a negative tax equal in amount to deducting interest.<sup>124</sup>

The identity between the negative tax generated by debt-financed investing in expensed investments and the tax saved by the interest deduction means that denying the interest deductions would offset the negative tax and negate the impact of tax. In the hypothetical, denying the interest deduction would cost \$2500, 25% of \$10,000, which is the exact amount of the negative tax benefit. Thus, one can argue that the interest payments on debt used to purchase or carry expensed investments should not be deductible.

Other remedies also would eliminate the negative tax. The negative tax would not arise if the investor could not expense the \$100,000 investment—the gross investment then could not go up to \$133,333. The negative tax also would not arise if basis did not include the borrowing or if borrowed amounts were included in income. Given the remedies, one can attribute the negative tax to the confluence of three factors: investors can expense investments; the expensed investments extend to obligations that the investor will pay only in the future; and the interest payments on such obligations are deductible. It is the mismatch of the factors and not the existence of only one factor that is responsible for the negative tax.<sup>125</sup>

Liquidating the expensed investment and repaying the debt does not alter the negative tax. One can assume, from the definition of a 6%, 8%, 10%, or 12% return,<sup>126</sup> that the investment returns the invested principal of \$133,333. On liquidation, the \$133,333 is subject to full tax because the taxpayer has deducted the basis and has no basis to use against the liquidation proceeds. A 25% tax reduces the proceeds to \$100,000, which goes to pay what the taxpayer borrowed. The investor receives no net benefit and incurs no out-of-pocket costs on the liquidation.<sup>127</sup>

In real investments, especially in depreciable property, the investor liquidates the investment over the life of the property. Each receipt from

124. The pretax position (Table 3-1, lines 1-5) is  $Br - Bi$ , where  $B$  is the amount borrowed,  $r$  the rate of return on the investment, and  $i$  the interest rate. With expensing, one may expand the investment to  $B/(1 - m)$ , given the tax reimbursement. See *supra* note 123. The taxable income is the return on the expanded investment less interest, or  $[B/(1 - m)]r - Bi$ . See Table 3-1, lines 6-8. After paying tax at rate  $m$ , the taxpayer gets to keep  $Br - Bi + Bim$ , see Table 3-1, line 10, because  $(1 - m)[\{Br/(1 - m)\} - Bi] = Br - (1 - m)Bi = Br - Bi + Bim$ . The difference between the pretax position ( $Br - Bi$ ) and post-tax position ( $Br - Bi + Bim$ ) is  $Br - Bi - (Br - Bi + Bim)$ , or  $Bim$ .  $Bim$  is the same as the tax saved at tax rate  $m$  by deducting interest on borrowing  $B$  at rate  $i$ .

125. Helpfully, Bradford has labelled the mismatch a consumption tax treatment of investment and income or an accretion tax treatment of borrowing. Bradford, *The Economics of Tax Policy Toward Savings*, in *THE GOVERNMENT AND CAPITAL FORMATION* 42-50 (G. Von Furstenberg ed. 1980). Under a consumption tax, investments are expensable and investment returns are exempt. A consumption tax, however, would tax borrowed proceeds or would not allow an interest deduction.

126. If the investment does not return the principal in full, the return rate would decrease, possibly even below zero. One can describe any investment as returning the investment principal if one adjusts the return rate appropriately.

127. More generally, the investment returns a principal of  $B/(1 - m)$  on liquidation. The taxpayer pays tax at rate  $m$  on the proceeds, so  $B/(1 - m) - m[B/(1 - m)] = (1 - m)[B/(1 - m)] = B$ . The investor repays  $B$  to the lender.

the investment consists of both profit and a return of the original investment. Similarly, loan payments include both interest and debt principal.

But the shrinkage of the outstanding principal of the loan and investment does not destroy the value of the simple model, it just means that part of the debt is outstanding for a shorter period and the other part is outstanding for a longer period. Both the loan and investment at the outset and the liquidation and repayment at the end are wash transactions. The annual negative tax identifiable with the deduction of interest is accordingly the only thing that makes any difference to the taxpayer's overall economic position.

The mismatch between the tax treatment of indebtedness and the tax treatment of expensed investments is like the mismatch that would occur if taxpayers could deduct interest incurred to carry tax-exempt bonds. Assume that an investor borrows \$100,000 at a 10% interest rate, buys \$100,000 of tax-exempt municipal bonds, and, ignoring section 265 of the Code, deducts the interest. If the taxpayer could deduct the \$10,000 interest incurred to generate the tax-exempt income, then the only impact of tax would be the \$2500 tax savings from deducting the \$10,000 interest. Table 3-2 imitates the format of Table 3-1 but adds the \$2500 tax savings to the pretax situation.

TABLE 3-2  
 NEGATIVE TAX FOR DEBT-FINANCED EXEMPT  
 INVESTMENT (§ 265 REPEALED) \$2500  
 NEGATIVE TAX (25% TAX RATE, 10%  
 INTEREST, \$100,000 BORROWED)

A. 6% Return (10% interest): Loss to loss.

1.	Tax exempt return at 6%	\$6,000
2.	10% interest	(10,000)
3.	Pretax profit (loss)	(4,000)
4.	Net taxable income (2.) (\$10,000)	
5.	Negative tax: Tax savings on 4. @ 25%	+ 2,500
6.	Post tax profit (loss)	(1,500)

B. 8% Return (10% interest): Loss to gain.

1.	Tax exempt return at 8%	\$8,000
2.	10% interest	(10,000)
3.	Pretax profit (loss)	(2,000)
4.	Net taxable income (2.) (\$10,000)	
5.	Negative tax: Tax savings on 4. @ 25%	+ 2,500
6.	Post tax profit (loss)	\$500

C. 10% Return (10% interest): Breakeven to gain.

1.	Tax exempt return at 10%	\$10,000
2.	10% interest	(10,000)
3.	Pretax profit (loss)	0
4.	Net taxable income (2.) (\$10,000)	
5.	Negative tax: Tax savings on 4. @ 25%	+ 2,500
6.	Post tax profit (loss)	\$2,500

D. 12% Return (10% interest): Gain to gain.

1.	Tax exempt return at 12%	\$12,000
2.	10% interest	(10,000)
3.	Pretax profit (loss)	\$2,000
4.	Net taxable income (2.) (\$10,000)	
5.	Negative tax: Tax savings on 4. @ 25%	+ 2,500
6.	Post tax profit (loss)	\$4,500

In conclusion, a mismatch between deductible interest and expensed investments is like the mismatch between deductible interest and tax-exempt income that section 265 targets.

*B. Accelerated Depreciation*

Negative tax arises not only when the Code mismatches debt with expensed investments but also when the Code mismatches debt with an investment deducted before it has lost value. For example, assume that a taxpayer purchases a \$1000 Gum Bidy Fabricator that generates a constant 10% return after expenses for ten years, or \$163 per year. The

investor finances the purchase fully by a ten-year, constant-payment note bearing 10% interest. The constant payment on the note also must be \$163 to give the lender a 10% annual return and repay the outstanding principal.

The taxpayer has committed all of the resources from the asset to repay the loan, but economically the taxpayer has a wash—neither gain nor loss at any point. If the tax accounts are to follow the economic reality then the depreciation schedule for the Gum Bidy must follow the very slow schedule by which loan amortizing occurs.

TABLE 3-3

	(1) Outstanding Principal (\$1000 start reduce by (4)) (\$)	(2) Cash from Gum Bidy & also pay on note (\$)	(3) Interest (@ 10% of (1)) (\$)	(4) Repayment principal (remainder (2) & (3)) (\$)	(5) Depreciation deduction net to zero (\$)
1	1000	163	(100)	63	63
2	937	163	(94)	69	69
3	868	163	(87)	76	76
4	792	163	(79)	84	84
5	709	163	(71)	92	92
6	617	163	(62)	101	101
7	516	163	(52)	111	111
8	405	163	(41)	122	122
9	282	163	(28)	135	135
10	148	163	(15)	148	148
	0				

The debt and the depreciable asset are identical assets in the hypothetical—both give the same return on the same effective outstanding principal. For tax purposes, they should offset each other. We do not always think of real assets like the Gum Bidy as having an outstanding principal like debt or a savings account, but once one identifies the asset as similar to the liability, then the use of the term outstanding principal for the Gum Bidy becomes natural. In any event, if interest is deductible, then the depreciation deductions on the Gum Bidy should follow the decline in the outstanding principal on the liability. The traditional treatment of debt is consistent only with the economic depreciation of the Gum Bidy.

Depreciation deductions greater than the decline in principal would make the tax accounts misdescribe the economic wash in every year. The debt-financed purchase of the Gum Bidy would generate tax losses, without real losses, in the earlier and more valuable years. Even straight line depreciation of \$100 per year (\$1000 basis divided by ten years) would lead to sheltering deductions in the earliest five years because depreciation deductions of \$63, \$69, \$76, \$84, and \$92 for those first five

years are sufficient to describe the economic wash. Deductions without economic losses are the source of negative taxes.

An example like the Gum Bidy—debt payments and asset returns perfectly offset each other in every year—would be unusual, but the results can be generalized. One can analyze any cash flow from any depreciable property as a cash flow from a bond or savings account, even if the cash flow is uneven. Income from the depreciable property is like interest on debt. Cash from the depreciable property consists in part of the interest-like return from the property and in part of a recovery of capital that is like a withdrawal from a savings account.<sup>128</sup> Finding the outstanding principal of the property that is symmetrical to the liability for debt-financed investments, and allowing a deduction only for the decline in the principal, is economic or Samuelson depreciation.<sup>129</sup>

One remedy, directed only at tax shelters or the negative tax—but not to the reduction of effective rates on equity-financed investment income—would be to disallow interest deductions. While the remedy to prevent negative tax for expensed investments would be to disallow all interest deductions, the remedy for accelerated depreciation would be to disallow only a part of the interest deductions. The amount of interest allowable would depend on the rate of depreciation. In the simple wash transaction, the remedy would limit the interest deductions to the cash flows from the Gum Bidy Fabricator that accelerated depreciation does not offset. Limitations preventing negative tax, moreover, need not match income and deductions in every period as long as the discounted value of the deductions does not exceed the discounted value of the tax on income.<sup>130</sup>

## V. EXPENSING FALLACIES

The Cary Brown thesis emphasizes the importance of the hard

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128. See *supra* note 85 and accompanying text.

129. See *supra* notes 76-103 and accompanying text.

130. Cf. Johnson, *Silk Purses from a Sow's Ear: Cost Free Liabilities Under the Income Tax*, 3 AM. J. TAX POL'Y 231, 239, 260-61 (1984) (arguing that taxpayers should deduct liabilities for business expenses only as paid, but shows that deducting discounted present value of expense, using post-tax interest rates, gives equal remedy).

An alternative remedy to prevent negative tax but retain tax relief on real investment would allow the taxpayer in debt-financed property to deduct no more than the sum of the payments made on the liability. The adjusted basis of the property consistently should equal or exceed the outstanding principal on the debt incurred to finance it. A limit or ceiling on depreciation for outstanding debt would allow taxpayers to deduct a cash down payment under an accelerated schedule, and might even allow taxpayers to expense invested cash, but the limit would prevent negative tax and sheltering outside income. McMahon, *Reforming Cost Recovery Allowances for Debt Financed Depreciable Property*, 29 ST. LOUIS U.L.J. 1029, 1105 (1985).

Note that this limit would not work appropriately when the return from the property is lower than the interest rate. Even with offsetting cash flows in early years, a rate of return on property lower than the interest rate on debt means that the taxpayer recovers more basis from the property than he or she repays on the loan's outstanding principal. But one can eliminate this problem by presuming at the start that all rational investments have a return rate higher than the interest incurred to acquire them.

money principle and it is a pillar of modern tax economics, but Congress and the courts have not incorporated it yet into their decisions in the statutes or case law concerning capitalization and depreciation. Generations of tax specialists have been educated ignorant of the thesis but still confident of their ability to weigh capitalization questions, and decisions made in ignorance of the thesis have become part of the law. The law tends to enshrine even mistaken judgments; both Congress and the courts reach decisions using prior decisions—even minor and mistaken decisions—as the definition of a reasonable norm. The status quo, however fragile its rationale, always has an attraction as a practical, reasonable compromise<sup>131</sup> and tax law thus tends to be a ratchet wheel in which contractions of the tax base are hard to fix.<sup>132</sup> Congress and the courts have ignored the importance of capitalizing investment expenditures.

### A. *The Steady State Fallacy*

#### 1. *The Argument Presented*

One of the most common arguments trivializing capitalization is the “steady state” fallacy, a theory that capitalization questions make no significant difference in the amount of tax revenue collected from a stable, mature company. The fallacy has been extraordinarily important historically; even some of the very best judges and commentators on the law seem to have internalized it. The argument states that after some transition period the deductions that a firm takes will be the same, whether it has expensed its investments or capitalized its investments, as long as the level of its investments and the tax rates remain the same. Thus, within a large scope, capitalization is considered to make no difference.

One respected commentator has made the steady state argument as follows:

If one looks to a single purchase of a capital asset it is clear that expensing the purchase price distorts income to some extent . . . . If, however, the taxpayer has a number of capital assets, which he replaces regularly, expensing the purchase price of those assets may lead to approximately the same deductions as capitalization and depreciation. Thus a taxpayer whose business requires the use of ten widgets, each costing \$100 and having a useful life of five years, would, if he capitalized the purchase price of the widgets, take depreciation of \$200 per year. This is the same amount as the purchase price of two widgets, the number that would, on the average, have to be replaced each year. In this example, expensing the purchase price of the widgets leads to the same deduction as capitalization, so long as the number and cost of the widgets remains con-

131. See Clark, *Morphogenesis of Subchapter C: An Essay in Statutory Evolution and Reform*, 87 YALE L.J. 90 (1977), for a lovely argument that even congressionally enacted tax systems just grow, as opposed to being engineered.

132. See Brannon, *Tax Loopholes as Original Sin*, 37 TAX NOTES 841 (1987) (discussing difficulty of contracting tax benefits).



stant . . . .<sup>133</sup>

If capitalizing investments has no effect on revenue in important cases, then the bookkeeping effort of allocating costs to some kind of basis account and keeping track of depreciation over the years is not worthwhile. As Judge Posner stated:

[T]he taxable income of the author or publisher who is in a steady state (that is, whose output is neither increasing nor decreasing) will be at least approximately the same whether his costs are expensed or capitalized. Not the same on each given book—on each book, expenses and receipts will be systematically mismatched—but the same on average. Under these conditions the benefits of capitalization are unlikely to exceed the accounting and other administrative costs entailed in capitalization.<sup>134</sup>

Or, as Professor Popkin stated:

If the rationale for capitalizing costs is to clearly reflect income, then it will not always be worth the effort to capitalize every outlay with a savings feature. When expenditures for certain items recur often, the difference between expensing and capitalization-with-depreciation may not be great, because net taxable income will be similar in either case. This is especially true if the expenditures are small. For example, the deduction of \$1,000 each year for an asset with a ten year life will, beginning ten years after the purchases commence, equal straight line depreciation deductions.<sup>135</sup>

To illustrate the steady state argument, assume two firms that must buy a \$1000 Gum Biddy Fabricator each year to remain in business. Both firms must replace a Fabricator after five years and keep five Fabricators in running order at any time. Both firms start operations in the same year, but one firm expenses its Fabricator investments while the other firm properly depreciates the cost of the Fabricator under economic depreciation. Assume that economic depreciation requires a pro rata deduction of \$200 per year over five years. The deductions start a year after purchase when the Fabricator has declined in value by \$200. Table 4-1 compares the two firms' deductions for the first seven years and first seven machines, assuming the two firms invest equal amounts. Each row for the depreciating firm and each column for the expensing firm represent the purchase of a new \$1000 Fabricator.

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133. Gunn, *The Requirement That a Capital Expenditure Create or Enhance an Asset*, 15 B.C. INDUS. & COM. L. REV. 443, 455 (1974) (footnotes omitted). Gunn notes that his \$200 depreciation figure represents straight line depreciation and assumes no salvage value. *Id.* at 455 n.53; see also Lee, *Start-Up Costs, Section 195, and Clear Reflection of Income: A Tale of Talismans, Tacked-On Tax Reform, and a Touch of Basics*, 6 VA. TAX REV. 1, 18-20 (1986).

134. *Encyclopaedia Britannica v. Commissioner*, 685 F.2d 212, 215 (7th Cir. 1982) (Posner, J.).

135. W. POPKIN, *INTRODUCTION TO FEDERAL INCOME TAXATION* 387 (1987).

TABLE 4-1  
DEDUCTIONS FOR EXPENSING FIRM AND FIVE-YEAR  
DEPRECIATING FIRM COMPARED \$1000 GUM  
BIDDY PURCHASED ANNUALLY

	year 0 (start)	year 1	year 2	year 3	year 4	year 5	year 6
(a) Expensing Firm	\$1000	\$1000	\$1000	\$1000	\$1000	\$1000	\$1000
(b) Depreciation under 5 year straight line	—	\$200	\$200	\$200	\$200	\$200	—
	—	—	\$200	\$200	\$200	\$200	\$200
	—	—	—	\$200	\$200	\$200	\$200
	—	—	—	—	\$200	\$200	\$200
	—	—	—	—	—	\$200	\$200
	—	—	—	—	—	—	\$200
Total: Depreciating Firm	0	\$200	\$400	\$600	\$800	\$1000	\$1000

The steady state argument concedes that a difference between expensing and the five-year depreciation exists during the transition years—years zero through five in Table 4-1. It takes several years for the depreciation deductions from prior years' purchases to build up so that the depreciating firm gets the same \$1000 per year that the expensing firm gets. Similarly, expensing will give larger deductions, the steady state argument concedes, when the firm is expanding the number of Gum Biddy Fabricators that it is buying. Start-up and expansion years may be important cases. Still, once the firm survives the year five transition, the argument holds that the deductions will be identical, \$1000 in Table 4-1, whether the taxpayer expenses investments or capitalizes and amortizes them. In the sixth year, for example, the expensing firm deducts \$1000 from the purchase of its seventh machine. The depreciating firm will also deduct \$1000 in the sixth year—the total of the deductions from the second to sixth machines purchased in the prior years.

## 2. *Rebuttal*

The difficulty with the steady state argument and with Table 4-1 is the assumption that the amount of the investment will be the same for both the expensing and depreciating firm. In reality, expensing—the soft money privilege—reduces the after-tax burden of investing and allows a larger investment at the same after-tax burden. Thus, the unanswered question in presentations like Table 4-1 is why the two firms would make the same investment even though those investments have wildly different after-tax costs. Why are we comparing two firms as if they had the same investments when they had very different costs for those investments?

A better assumption would make the investment sensitive to the tax on the investment. Assuming tax-sensitive investing, the Cary Brown thesis shows that expensing investments is like exempting investment income. If we assume, as the Cary Brown thesis does, that an investment is sensitive to the tax on the investment, then an expensing firm in a 50%

bracket can buy twice as many Fabricators at the same after-tax cost. An expensing firm in a 33% tax bracket can make investments of 150% of what the depreciating firm can make for the same after-tax cost.<sup>136</sup> If we have two mature Gum Bidly firms in a 50% bracket, one that has expensed its investments and another that has capitalized such costs and deducted them as the Fabricators declined in value, we could expect the expensing firm to be twice as large as the firm that has capitalized investments. The expensing company should be making investments of \$2000 per year, not \$1000. For two mature firms in a 33% bracket, the expensing firm should be 150% larger than the depreciating firm.

The steady state argument is not wrong as a matter of internal logic, it just assumes away the advantage. Assuming the capitalizing and expensing firms are the same size and making the same investments assumes away the advantage of expensing. The benefit of soft money investing comes when the investment occurs. The steady state argument treats the early investments as "transition" years but considers the results from those transition years to have no effect on the mature, "steady state" years. Good magicians really do not make handkerchiefs disappear, they just divert the attention of the audience while they stuff the handkerchief up their sleeve. So, too, the steady state argument just diverts attention from the reason, in the investing years, that makes expensing so valuable. Similarly, the Cary Brown thesis does not address the situation in which the expensing and depreciating firm are the same size. It just explains why that assumption is unrealistic. Capitalizing, in any event, is not a trivial issue as the steady state thesis implies; it is as important as taxing the profit from the investment.

### 3. *Why Is the Error So Common?*

The steady state fallacy arises too often to be an isolated error.<sup>137</sup> With only slight overstatement, one must support the fallacy in order to be a leading authority on tax accounting issues.<sup>138</sup> The fallacy, therefore, is consistent with perspectives common within the tax culture.

One plausible thesis is that the "matching" or "fair sample" goal of

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136. In general, an expensed investment can be  $1/(1 - m)$  times larger than a capitalized investment for same after-tax burden, where  $m$  is the tax rate at which the expensed investment is deducted. See *supra* notes 39, 58.

137. See, e.g., *supra* notes 133-35 and accompanying text and *infra* notes 138, 155, 175 and accompanying text.

138. *Id.*; see also Cohen, *Accounting for Taxes, Finance and Regulatory Purposes—Are Variations Necessary?*, 44 TAXES 780, 782 (1966) (timing differences between tax and financial accounting are temporary and net income will be identical over life of business) (author was IRS Commissioner at the time); Graham, *An Analysis of Accounting Provisions*, in 2 TAX REVISION COMPENDIUM 1175, 1176-77 (Comm. Print 1959) (compendium of papers submitted to House Comm. on Ways and Means in connection with panel discussion on broadening tax base) (For provisions that are merely matter of timing, "ordinarily there is no material permanent effect on total taxable income or on the long-run taxable income of single taxpayers."); Schapiro, *Tax Accounting for Prepaid Income and Reserves for Future Expenses*, in 2 TAX REVISION COMPENDIUM, *supra*, at 1133, 1133-34 ("Over the life of a business, the aggregate net income will be the same . . .").

classical accounting invites the fallacy. Capitalizing in nontax financial accounting is one of the techniques by which accountants match costs to related income. The purpose of the matching is to create an income figure that represents a fair cross section or sample of the ongoing enterprise. Accountants express skepticism that it is possible to compute exact or true income for an ongoing enterprise. Termination is the proof of all income.<sup>139</sup> Accountants would, if they could, wait until the enterprise ends to compute true profit. Users, however, need periodic reports. Those reports can reflect income accurately only when they fairly represent the results that would occur on a totalling at completion of the enterprise. Thus, when Popkin says that "it will not always be worth the effort to capitalize every outlay with a savings feature" to clearly reflect income,<sup>140</sup> he seems to be thinking of true income as a "fair sampling" of an ongoing enterprise. He certainly is not thinking of income as an interest-like return on an after-tax investment.

Another plausible thesis is that legal thinkers presume, as a matter of ideology, that pretax income is independent of the tax itself. We resolve disputes about tax owed by looking at the pretax accounting reality or commercial substance. Transactions that have meaning only for tax reasons are illegitimate foundations for resolving tax disputes;<sup>141</sup> one should impose tax on events with real life pretax substance. There is an illegitimacy about peeking at the bottom line to resolve disputes about taxable income.<sup>142</sup> The Cary Brown thesis illustrates, by contrast, that the amount of the investment must increase when tax is avoided on investment. Its violation of the norm that taxable income should be independent of tax itself may explain partially why the thesis comes so late in tax history.

One can see the presumed independence of pretax events and also time blindness in the way that financial accounting misanalyzes soft money investing. Financial accounting standards do not allow account-

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139. S. GILMAN, ACCOUNTING CONCEPTS OF INCOME 66-88 (1939); De Capriles, *Modern Financial Accounting* (pt. 1), 37 N.Y.U. L. REV. 1001, 1015-18 (1962); cf. Mills, *An Evaluation of the Accounting Provisions of the Internal Revenue Code of 1954*, in 2 TAX REVISION COMPENDIUM, *supra* note 138, at 1161, 1164. The Financial Accounting Standard Board (FASB), the current authority for accounting, says that income derived by matching may be of use to "estimate 'earning power' or other amounts [that users] perceive as 'representative' of long-term earning ability of an enterprise," but the FASB also argues that the accounting report itself should not determine earning ability but, rather, should serve only to provide material that one can analyze to determine earning ability. OBJECTIVES OF FINANCIAL REPORTING BY BUSINESS ENTERPRISES, Statement of Financial Accounting Concepts No. 1, ¶¶ 47-48 (Fin. Accounting Standards Bd. 1980).

140. See *supra* text accompanying note 135.

141. Cf., e.g., *Knetsch v. United States*, 364 U.S. 361 (1960) (transactions without pretax commercial meaning need not be respected by IRS for tax purposes); *Gregory v. Helvering*, 293 U.S. 465 (1935). Note, also, the use of the not-for-profit doctrine as a weapon against tax shelters in *Barnard v. Commissioner*, 731 F.2d 230 (4th Cir. 1984); *Rose v. Commissioner*, 88 T.C. 386 (1987).

142. *Alice Phelan Sullivan Corp. v. United States*, 381 F.2d 399 (1967) (reversing prior rule that taxpayer could choose year of income according to tax rates and, hence, choose tax payable); *Honodel v. Commissioner*, 76 T.C. 353 (1981) (taxpayer cannot use ending date of tax sheltering benefits as ending date of depreciation life).

ants to acknowledge the value of expensing and accelerated depreciation in a firm's financial statements. Accelerated tax deductions in early years are presumed to be offset perfectly by the smaller deductions in later years. Therefore, any tax savings attributable to the excess deductions do not count. Instead of passing through as higher after-tax earnings, the excess deductions are stated as a liability to be drawn down when the smaller deductions require greater tax.<sup>143</sup> Because it is not even permissible under financial accounting standards to look at when the taxpayer pays taxes,<sup>144</sup> it is easy to understand how accountants could misunderstand the true values represented by soft money investing.

If a conflict exists between the notion of income as a "fair sample" and the notion of income as unaffected by tax and the hard money ideal, then the hard money ideal must govern. The steady state fallacy is part of traditional accounting's blindness to time values. Traditional accounting<sup>145</sup> and traditional tax economics,<sup>146</sup> even on quite sophisticated levels, have been highly insensitive to time value of money issues. The Cary Brown and Samuelson theses are important in part as correctives to the time-blindness of the traditional analysis.

### B. Historical Examples of Trivializing Capitalization

The steady state argument, in any event, has been important historically. To take just a few examples, it appears in the enactment of section 174, allowing expensing of research and experimental investments,<sup>147</sup> in the treatment of prepaid expenses,<sup>148</sup> in the special deductibility of "repairs" that are also investments,<sup>149</sup> and in expensing for farm expenditures.<sup>150</sup>

143. ACCOUNTING FOR INCOME TAXES, Statement of Financial Accounting Concepts No. 96 (Fin. Accounting Standards Bd. 1987). The decision to set up deferred taxes as a liability arises from a perspective that taxes follow income and that only financial accounting knows what income is. Excise or property taxes independent of income are treated more rationally as detriments to the firm when owed and paid.

144. One can find some suggestion of at least discounting future taxes on any one asset to reflect the fact that the taxpayer will pay them in the future in Clowery, Outslay & Wheeler, *The Debate on Computing Corporate Tax Rates—An Accounting View*, 30 TAX NOTES 991 (1986), but even discounting does not reflect the feedback by which tax reductions increase invested amounts and basis and thereby further reduce taxable income.

145. Critics of the time blindness of the matching principle and traditional nontax accounting include J. BONRIGHT, THE VALUATION OF PROPERTY 903-04 (1937) (Accrual accounting artificially converts what is actually a highly irregular flow of cash into a standard flow called "net income."); T. FIFLIS & H. KRIPKE, ACCOUNTING FOR BUSINESS LAWYERS; TEACHING MATERIALS 784 (3d ed. 1984) (net cash receipts and disbursements method is more accurate than accrual, which is merely rough approximation of average net cash flow); Kripke, *Bicentennial Paper: A Search for a Meaningful Securities Disclosure Policy*, 31 BUS. LAW. 293, 296-303 (1975).

146. See, e.g., H. SIMONS, PERSONAL INCOME TAX 168-69 (1938) (arguing that no serious inequities arise in postponing tax so long as Code taxes gain ultimately).

147. See *infra* notes 151-61 and accompanying text.

148. See *infra* notes 162-98 and accompanying text.

149. See *infra* notes 199-220 and accompanying text.

150. See *infra* notes 211-43 and accompanying text.

### 1. Section 174 Enactment

The steady state fallacy was extraordinarily important in the adoption in 1954 of section 174, which allowed taxpayers to expense investments in research and experimentation. Prior to 1954, the courts had insisted fairly consistently that taxpayers should capitalize investments in research and development.<sup>151</sup> Taxpayers would deduct these costs on abandoning the project or would spread deductions over the life of the capitalized patents or products.<sup>152</sup> The Internal Revenue Service was less consistent before 1954. An early regulation, abandoned only because the courts insisted on capitalizing, had allowed taxpayers to expense research and development costs.<sup>153</sup> The IRS sometimes allowed expensing, notwithstanding its court victories, on the ground that expensing was an accounting method that the taxpayer had maintained consistently.<sup>154</sup>

In 1952, John Dunlap, the Commissioner of the IRS at that time, testified before the Joint Committee on Taxation that the policy of the IRS was to allow deduction of research costs where the taxpayer had adopted a practice of expensing under an established, consistently applied accounting method. Arguing that, with consistency, expensing would have no material effect on revenue, he stated, "Over a period of years the deduction of such items as expenditures are made does not appear to create a materially different tax result from the capitalization of all such items and the later allowance . . . of depreciation on successful ones."<sup>155</sup>

Consistency of accounting methods is a fundamental principle of nontax accounting<sup>156</sup> and tax accounting long has required<sup>157</sup> and respected<sup>158</sup> consistency between years. But Commissioner Dunlap's

151. See, e.g., *Hart-Bartlett-Sturtevant Grain Co. v. Commissioner*, 182 F.2d 153, 156 (8th Cir. 1950) ("[I]t has been consistently held that experimental and research costs for new processes, formulae or patents are capital expenditures."); *Claude Neon Lights v. Commissioner*, 35 B.T.A. 424 (1937); see also Alexander, *Research and Experimental Expenditures Under the 1954 Code*, 10 TAX L. REV. 549, 549-52 (1955). The major exceptions to the consistent capital expenditure treatment were judicial attempts to prevent taxpayers from benefitting from double deduction for costs they already had expensed in years closed by the statute of limitations. *Id.*

152. Alexander, *supra* note 151, at 551.

153. Treas. Reg. No. 65, art. 168 (1924) (T22.17:65) (disapproved by *Gilliam Mfg. Co. v. Commissioner*, 1 B.T.A. 967, 970 (1925), and deleted from its successor, Treas. Reg. No. 69, art. 168 (1926) (T22.17:69)) (both regulations on permanent file with the *University of Illinois Law Review*).

154. See Miller, *Research and Development Costs*, 7 N.Y.U. INST. ON FED. TAX 134, 136 (1949) (IRS will "probably defer to consistency, apparently recognizing that over several years any tax advantages of one year will ordinarily wash out in a following year.").

155. 2 *General Revenue Revision: Hearings Before the Comm. on Ways and Means*, 83d Cong., 1st Sess. 956 (1953) [hereinafter *General Revenue Revision*] (excerpted Apr. 4, 1952, statement of John Dunlap, Commissioner of the IRS, before Jt. Comm. on Taxation).

156. Auditing agents must express an opinion on whether accounting principles have been "consistently observed in the current period in relation to the preceding period." AM. INST. OF CERTIFIED PUB. ACCOUNTANTS, PROFESSIONAL STANDARDS §§ 150.02, 420.01-.20 (1989).

157. Starting with Treas. Reg. No. 69, art. 23 (1926) (T22.17:69) (on permanent file with the *University of Illinois Law Review*), a taxpayer has had to obtain the permission of the Commissioner to change accounting methods.

158. Treas. Reg. § 1.446-1(a)(2) (as amended in 1987) provides that generally accepted account-

consistency argument is just a variation on the steady state argument and is no less fallacious because of its age and standing.<sup>159</sup> The Commissioner of the Internal Revenue Service has the role of guardian of the public revenue, and if the commissioner testifies that expensing has no material revenue effect, then no taxpayer is going to object.<sup>160</sup> Those arguing in favor of expensing raised Commissioner Dunlap's earlier testimony repeatedly during the hearings leading to the adoption of section 174 in the 1954 Code.<sup>161</sup> One can construct other justifications for section 174 after the fact, but as a matter of history the steady state fallacy best explains its adoption.

## 2. *Prepaid Expenses*

Under what Bittker optimistically calls the "prevailing and better view,"<sup>162</sup> prepaid expenses are investments and capital expenditures. Under sound tax principles, prepaid expenses are deductible only over the years in which the investor uses the asset. As one court stated:

Advance rentals generally are deductible only in the taxable year for which they are paid or are spread ratably over the taxable years for which [they are] paid, whether the taxpayer keeps his books and reports his income on the cash receipts and disbursements basis of accounting or an accrual basis. . . . [A]n advance payment of rent is in the nature of a capital investment.<sup>163</sup>

Nontax financial accounting also treats prepaid expenses as an asset.<sup>164</sup>

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ing principles, if consistently applied, "ordinarily" will be respected for tax purposes, "provided all items . . . are treated consistently from year to year." See S. GERTZMAN, *FEDERAL TAX ACCOUNTING* ¶ 2.02(1)(d) (1988) (collecting authorities emphasizing importance of consistency). *But see* Thor Power Tool Co. v. Commissioner, 439 U.S. 522, 538-39 (1979) (emphasizing "ordinarily" and then overriding consistency).

159. One arguably can distinguish consistency in nontax accounting from consistency in tax accounting. Nontax accounting shows trend lines comparing a number of years in order to give a basis for projections into the future. Tax, by contrast, is imposed on nonrecurring windfalls that one cannot compare or project to any other year. The Cary Brown thesis, moreover, depends on reinvesting tax savings and no comparable concept appears to exist in nontax accounting.

160. Not only did Dunlap make the argument, but Donald Alexander, a then future IRS Commissioner, extolled the argument in Alexander, *supra* note 151, at 550 (expensing is "farsighted"). The American Federation of Labor opposed the § 174 deduction for capital expenditures, 2 *General Revenue Revision*, *supra* note 155, at 958, but, as Alexander points out, the federation is not a taxpayer because it is a tax-exempt organization. Alexander, *supra* note 151, at 549 n.2.

161. See 2 *General Revenue Revision*, *supra* note 155, at 940, 945, 955 (statements of National Machine Tool Builders Association, Chamber of Commerce of United States, and Western Union Telegraph Co., respectively).

162. 4 B. BITTKER, *FEDERAL TAXATION OF INCOME, ESTATES AND GIFTS* ¶ 105.2.5, at 105-45 (1981).

163. *Williamson v. Commissioner*, 37 T.C. 941, 943 (1962) (citations omitted); see also *Commissioner v. Boylston Market Ass'n*, 131 F.2d 966 (1st Cir. 1942) (prepaid insurance); *Blitzer v. United States*, 684 F.2d 874, 894 (Ct. Cl. 1982) (prepaid services).

164. D. KIESO & J. WEYGANDT, *INTERMEDIATE ACCOUNTING* 72 (4th ed. 1983) (prepaid expense is "asset on hand at the end of the year"); see also *ELEMENTS OF FINANCIAL STATEMENTS OF BUSINESS ENTERPRISES*, Statement of Financial Accounting Concepts No. 3, ¶ 113 (Fin. Accounting Standards Bd. 1980) [hereinafter *STATEMENT NO. 3*] (prepayments are "unamortized costs of rights to receive a service or use of a resource").

Prepaid expenses are easy examples of capital expenditures because the context establishes that the costs have future value. When we label an expenditure a prepayment or advanced expense, we know that there is a future period for which the expense is no longer in advance. Before taxpayers receive goods or services for which they have paid, there is a contract or understanding that they will get full value for their money. When taxpayers do not consume delivered goods immediately, they have unused tangible supplies on hand. These goods have value prior to use or taxpayers would not have bought them. After the parties perform the contract and use the goods, a future value and an investment may or may not be present, but that question remains a separate issue. Capitalizing the expenditures until use is the easy part of the question. Taxpayers have a savings account or investment, at least until they receive and use their purchase, and they should have a hard money basis until then as well.

Taxpayers should capitalize prepayments even when they may expense the costs once the costs cease to be prepayments. One may expense advertising, for instance, but the courts nonetheless have required taxpayers to capitalize expenditures to pay for future advertising and limit the "advertising" deduction to the portion of the contract price that pays for advertising service that actually occurred during the tax year.<sup>165</sup>

Similarly, section 263(c) of the Code authorizes expensing for costs incurred in drilling oil and gas wells.<sup>166</sup> The key to eligibility under section 263(c) is that the costs must be nonsalvageable if the well turns dry.<sup>167</sup> But although nonsalvageable costs put into the ground have no continuing value under section 263(c), the costs of prepaid services and supplies are still above ground. The costs of unconsumed supplies and unperformed services must have continuing value until put into the ground or the taxpayer would not have paid for them.

Prepaid expenses for rent, insurance, or undelivered supplies are intangible assets unlike, for example, machines or buildings. But for both tax and accounting purposes, an "asset," the cost of which a taxpayer must capitalize, means only that the costs have value at the end of the year because one expects them to generate future benefits. An asset does not have to be tangible.<sup>168</sup> One capitalizes capital expenditures not because of some permanent special status that makes them different from mere expense, but simply because they are costs that create future income. Intangible costs that provide future income and deteriorate over

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165. *Levin v. Commissioner*, 21 T.C. 996, *aff'd*, 219 F.2d 588 (3d Cir. 1955).

166. I.R.C. § 263(c) (1988).

167. *Harper Oil Co. v. United States*, 425 F.2d 1335 (10th Cir. 1970) (Blackmun, J.) (drilling casings held not intangible drilling cost); *Standard Oil Co. v. Commissioner*, 77 T.C. 349 (1981) (accord); *Exxon Corp. v. United States*, 547 F.2d 548 (Ct. Cl. 1977) (construction of offshore platforms held not intangible drilling cost).

168. For nontax accounting, see STATEMENT NO. 3, *supra* note 164, ¶¶ 19, 20, 104 (essence of accounting "asset" is future economic benefit; tangibility is not required).



time are property because they have future value and even though they are intangible.<sup>169</sup> Prepaid business expenses are investments like a savings account because they generate future income. When alternative investments must be made with hard money, it makes little sense to exempt the income that prepaid expenses generate by allowing taxpayers to make a soft money investment.

Nonetheless, the courts have been surprisingly generous in allowing expensing of prepayments. The Ninth Circuit, for instance, has allowed the immediate deduction of even large amounts of prepaid expenses that fit under its *Zaninovich*, or "one year," rule.<sup>170</sup> In *Zaninovich v. Commissioner*,<sup>171</sup> a taxpayer paid a year's rent on farm land in December. The Service argued that the taxpayer should capitalize the rent and that eleven-twelfths of the rent paid was deductible only in the following year. The Ninth Circuit held that the entire rent was deductible on payment, saying that an expenditure is not a capital expenditure for tax purposes unless it creates an asset having a useful life substantially in excess of one year. The court claimed that the one-year rule "segreat[ed] from all business costs those which cannot possibly be considered capital in nature because of their transitory utility to the taxpayer."<sup>172</sup>

The Ninth Circuit, in *Zaninovich*, thought that capitalization was just "pointless complexity"<sup>173</sup> and that the Internal Revenue Service was asking for "an inconsequential change in the timing of deductions."<sup>174</sup> The court stated:

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169. *Central Bank Block Ass'n v. Commissioner*, 19 B.T.A. 1183, 1185 (1930) (broker's fee for lease held "property of a sort" because it was "acquisition of something from which income will be derived in the future"), *aff'd*, 57 F.2d 5 (5th Cir. 1932); *Lovejoy v. Commissioner*, 18 B.T.A. 1179, 1182 (1930) (up front loan charges held "property of a sort" because cost exhausted proportionately over period of years); *see also Central Texas Sav. & Loan Ass'n v. United States*, 731 F.2d 1182 (5th Cir. 1984) (costs of investigating and getting permission to open bank branches held intangible asset of having branches); *Blitzer v. United States*, 684 F.2d 874, 894 (Ct. Cl. 1982) (court held that prepaid services are intangible asset).

But in *Waldheim Realty & Inv. Co. v. Commissioner*, 245 F.2d 823, 825 (8th Cir. 1957), the Eighth Circuit held that taxpayers could deduct prepaid insurance premiums in full when paid because the payments were for "expenses" and "not a [depreciable] capital asset" like plant or machinery. "The amortization statutes," the court said, "apply to capital assets and should not be stretched to items which do not fall in the capital asset category." *Id.* at 825; *see also Cravens v. Commissioner*, 272 F.2d 895, 899 (10th Cir. 1959) (undelivered cattle feed) ("This [advance] payment was not for an addition, a betterment, or an advantage of a permanent character but for the day by day supply of food without which the herd could not survive.").

170. *Zaninovich v. Commissioner*, 616 F.2d 429 (9th Cir. 1980); *see also Commissioner v. Van Raden*, 650 F.2d 1046, 1050 n.7 (9th Cir. 1981) (slightly over one year's worth of undelivered cattle feed paid for in December). In *NCNB Corp. v. United States*, 684 F.2d 285, 288-89 (4th Cir. 1982), the Fourth Circuit disowned the one-year rule in order to allow taxpayers to expense business expansion costs with a life of more than one year. In *Hillsboro Nat'l Bank v. Commissioner*, 460 U.S. 370, 384-85 (1983), the Supreme Court cited *Zaninovich* as if it were a one-month rule, assuming that it would make one month's rent deductible in full when paid on December 15, but the court's suppositional citation to a 30-day rule is not a strong endorsement.

171. 616 F.2d at 429.

172. *Id.* at 432 (quoting *Jack's Cookie Co. v. United States*, 597 F.2d 395, 405 (4th Cir.) (court, however, denied deduction of following year's rent), *cert. denied*, 444 U.S. 899 (1979)).

173. *Id.* at 432.

174. *Id.* at 433.

Under the prorated deduction system [that the Commissioner urges,] the taxpayers here could only deduct one-twelfth of their rental payment in 1973. In every year thereafter except for the last year of the lease, however, the taxpayers would be permitted to deduct one-twelfth for the current payment and eleven-twelfths for rental payment . . . precisely as they would have done under [the one year expensing rule], in every year of the lease term except the first and last.<sup>175</sup>

The *Zaninovich* rule is a product of the steady state fallacy. The Ninth Circuit would not and could not have adopted its one-year rule if it had understood the Cary Brown thesis. The herbal rollover expenses, for instance, have an expected useful life of less than a year<sup>176</sup> and yet it is difficult to see why the Code should exempt the return from herbal rollovers and similar short-term investments from tax.<sup>177</sup> Within a system that generally capitalizes investments, even one-year rollovers should be capitalized.

The *Zaninovich* court said that its rule had "the overriding advantage . . . of ease of application."<sup>178</sup> In fact, the rule makes tax less administrable because it abandons a perfectly clear line that good theory provides—year end—in favor of a harder-to-apply line—one year hence. Good theory would ask whether prepaid costs have expired by the close of the taxable year. If any costs still have income-generating value, then they should remain undeducted. But *Zaninovich* requires determining whether the costs will have value a year hence and that requires hard work, speculation, or some combination of the two.

Both *Zaninovich* and good accounting make some slippage allowance for costs that cross their respective lines in insubstantial ways. Immaterial or de minimis amounts may be expensed.<sup>179</sup> The Ninth Circuit has allowed expensing for costs that had value even beyond a year hence because it viewed the violation as de minimis.<sup>180</sup> Thus, the difference

175. *Id.*; see also *United States v. Catto*, 384 U.S. 102, 111 (1966) (arguing that expensing of farming costs affected "only" the timing of the deductions and did not distort income seriously).

176. See *supra* notes 27-43 and accompanying text.

177. The Code has tended to work against short-term investing as unworthy "speculation." Cf. JOINT COMMITTEE ON TAXATION, 94TH CONG., 2D SESS. GENERAL EXPLANATION OF THE TAX REFORM ACT OF 1976, at 426-27 (Comm. Print 1976), reprinted in 2 1976-3 C.B. 438-39 (explaining increase in capital gain holding period).

178. *Zaninovich*, 616 F.2d at 432.

179. See, e.g., *Hillsboro Nat'l Bank v. Commissioner*, 460 U.S. 370, 384 n.17 (1983) ("[T]he desire to save taxpayers the burden of careful allocation of relatively small expenditures favors the allowance of the entire deduction in a single year of some business expenditures attributable to operations after the close of the taxable year."); cf. I.R.C. § 132(e)(1) (1988) (One may exclude from income de minimis fringe benefits, "the value of which is . . . so small as to make accounting for it unreasonable or administratively impracticable.").

For a discussion of materiality under nontax accounting, see QUALITATIVE CHARACTERISTICS OF ACCOUNTING INFORMATION, Statement of Financial Accounting Concepts No. 2, ¶¶ 123-132, 161-170 (Fin. Accounting Standards Bd. 1980) (material items for financial reporting are those "large enough for users of the information to be influenced by it").

180. See, e.g., *Commissioner v. Van Raden*, 650 F.2d 1046, 1050 n.7 (9th Cir. 1981) (court held that substantially all costs were used up within time not substantially beyond end of tax year). The

between *Zaninovich* and good tax principles is simply which formal line to try to defend. In practice, *Zaninovich* undoubtedly will tolerate even greater slippage across its border than a year-end line would tolerate because the *Zaninovich* line is less enforceable. One cannot know about the future so it is difficult to discipline taxpayers for making overly self-serving claims about the future. *Zaninovich* does not distinguish between expired costs and investments, it just allows taxpayers to deduct next year's expenses this year.

The Tax Court has rejected the one-year rule<sup>181</sup> but it has nonetheless adopted a rule that, after a fandango, allows cash method taxpayers to expense prepayments. Under Tax Court doctrine, a nonrefundable prepayment is deductible immediately by a cash method taxpayer, even if it is too large to be a de minimis or immaterial amount, so long as the payer and the payee had some opportunity to bargain over the timing of payment.<sup>182</sup>

The Tax Court applies a tripartite test, the form of which was adopted from the IRS,<sup>183</sup> that asks: (1) whether the prepayment is a deposit; (2) whether the prepayment served a business purpose; and (3) whether the prepayment "substantially distorted income." Each of the three tests is easy to pass. Any payment passes the "deposit" test as long as it is not refundable at the taxpayer's instigation.<sup>184</sup> Any prepayment that arises from some bargaining situation passes the "business purpose" test because the Tax Court presumes that the taxpayer might have achieved some business advantage in bargaining for the advancement.<sup>185</sup> A payment made voluntarily before due—a unilateral advance payment—does not, however, satisfy the test because the prepayment could not evoke any quid pro quo from the recipient.<sup>186</sup> The Tax Court pur-

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next court will have to decide whether something is substantially within the "substantially all substantially after the taxable year" standard.

181. *Sorrell v. Commissioner*, 53 T.C.M. (CCH) 1362 (1987); *Grynberg v. Commissioner*, 83 T.C. 255, 266-68 (1984) (next year's expenses may not be deducted this year).

182. *Keller v. Commissioner*, 79 T.C. 7, 28 (1979) (business purpose satisfies the distortion of income test), *aff'd*, 725 F.2d 1173 (8th Cir. 1984); *Van Raden v. Commissioner*, 71 T.C. 1083, 1105-06 (1979), *aff'd on other grounds*, 650 F.2d 1046 (9th Cir. 1981).

183. Rev. Rul. 79-229, 1979-2 C.B. 210; Rev. Rul. 75-152, 1975-1 C.B. 144 (prepaid cattle feed).

184. *Keller*, 79 T.C. at 31, 42 (prepayment was nondeductible deposit because taxpayer had right to terminate drilling contract and receive refund of prepaid amounts). Compare *Shenk v. Commissioner*, 686 F.2d 315, 319 (5th Cir. 1982) (payment was nondeductible deposit where taxpayer retained unilateral power to apply fertilizer payment to entirely different products far into future) with *Keller*, 79 T.C. at 42 (although taxpayer retained power to cancel drilling and apply drilling payment to another well, payment deductible because payment was still for drilling).

185. *Packard v. Commissioner*, 85 T.C. 397, 428 (1985) (prepaid cattle feed). The courts are loath to override businesspersons' judgments, and they give every benefit of the doubt. See *id.* at 430; *Clement v. United States*, 580 F.2d 422, 429 (Ct. Cl. 1978), *cert. denied*, 440 U.S. 907 (1979). Taxpayers have argued successfully that there was a business purpose in prepurchasing supplies at the one time within a period of months when prices were the highest, that is, just before the end of the year. *Van Raden*, 71 T.C. at 1116 (Wilbur, J., dissenting); cf. *Packard*, 85 T.C. at 429 (purchase at lowest price not "primary purpose").

186. *Grynberg v. Commissioner*, 83 T.C. 255, 268 (1984) (oil and gas lease); *Bonaire Dev. Co. v. Commissioner*, 76 T.C. 789, 795 (1981) (management fees), *aff'd*, 679 F.2d 159 (9th Cir. 1982).

ports to use the third leg, the "material distortion" test, as an independent test.<sup>187</sup> But it then declares the test satisfied if the prepayment meets the court's business purpose test.<sup>188</sup> Because the requirement of a substantial legitimate business purpose is in turn satisfied if the taxpayer might expect a quid pro quo for the prepayment because of bargaining, the Tax Court rule, without the fandango, is simply that a cash method taxpayer may expense a negotiated, nonrefundable prepayment.<sup>189</sup>

The Tax Court does capitalize prepaid services, however, and also capitalizes what it calls "period" costs such as prepaid rent, insurance, and interest. " 'Period costs,' " the Tax Court has stated, "are easily allocable to more than one year by the mere process of dividing the total cost by the total number of months over which its useful life extends." On the other hand, the court states, "[Product costs, such as cattle feed or oil drilling supplies must] be specifically accounted for because the rate of consumption does not rest solely upon the passage of time."<sup>190</sup> In other words, one can spread period costs over the years just with paper, for supplies one must go out into the barn and look to see what asset is left. Distinguishing between period and production costs does not explain prepaid services, however, which the Tax Court continues to require taxpayers to capitalize.<sup>191</sup> One might have expected a court to reverse the advantage, moreover, and treat tangible things like supplies as assets but not intangible things like prepaid rent or insurance.<sup>192</sup> In any event, because both the period and production costs are investments, distinguishing between period and production costs is an ad hoc rationale allowing expensing of costs that the taxpayer should have capitalized.

Having adopted such a rule allowing deduction of prepaid product costs, the Tax Court becomes professionally blind to what it otherwise would consider a paradigm of material distortion of income in other con-

187. Compare *Keller*, 79 T.C. at 36-40, 57 (over dissent by Goffe, J., court holds that § 446(b) applicable to prepaid intangible drilling costs) and *Van Raden*, 71 T.C. at 1102, 1110 (§ 446(b) is applicable to farm expenses) with *Frysinger v. Commissioner*, 645 F.2d 523 (5th Cir. 1981) (§ 446(b) inapplicable to farm expenses).

188. *Keller*, 79 T.C. at 28 (business purpose satisfies the distortion of income test); *Van Raden*, 71 T.C. at 1105-06 (same).

189. "A cash basis taxpayer's income is clearly reflected if he deducts an expense in the same year as he pays for, and receives, his bargained for benefits, because the transaction is closed at that point." *Keller*, 79 T.C. at 43. That statement is either a tautology, assuming rather than proving that the expenditure is an expense, or it is an error. When a cash-method taxpayer pays for a building or buys stock, he or she has made an investment and cannot deduct the investment even though the transaction is closed.

190. *Keller*, 79 T.C. at 41 (drilling costs); *Van Raden*, 71 T.C. at 1108 (cattle feed).

191. *Kimmelman v. Commissioner*, 72 T.C. 294, 304 (1979); *Maple v. Commissioner*, 27 T.C.M. (CCH) 944, 953 (1968); *Basset v. Commissioner*, 26 T.C. 619 (1956); *Levin v. Commissioner*, 21 T.C. 996 (1954), *aff'd*, 219 F.2d 588 (3d Cir. 1955); *Syracuse Washing Mach. Corp. v. Commissioner*, 17 B.T.A. 11, 16 (1929); *Farming Corp. v. Commissioner*, 11 B.T.A. 1413, 1415-16 (1928).

192. Cf. *NCNB Corp. v. United States*, 684 F.2d 285 (4th Cir. 1982) (en banc) (capitalization impossible without distinct, separate asset). One should capitalize both tangible and intangible assets, however. See *supra* note 169 and accompanying text.

texts.<sup>193</sup> In *Packard v. Commissioner*,<sup>194</sup> for instance, a taxpayer in the electronics business wrote checks for \$341,000 for prepaid cattle feed on December 23 to shelter an unusual liquidation gain from the same tax year. The enterprise was a one-time operation that had neither cattle nor feed by year end. Still, the court found no material distortion in a transaction it recast under step transaction analysis for other purposes, deferring uncritically to the testimony of the manager as to business purpose.<sup>195</sup>

Prepaid expenditures may be extraordinarily large. In *Haynes v. Commissioner*,<sup>196</sup> the Tax Court allowed a cattle-feeding partnership with 432 limited partners to deduct \$7.3 million worth of prepaid feed that it bought in its first short fiscal year—the twenty-five days between December 6 and December 31. The minor bit of bookkeeping in capitalizing that \$7.3 million investment would have been well worthwhile because deferring the expense would have meant identifying the income from an investment of a very large size. The cases allowing immediate deduction of massive prepaid expenses have been bootstrapped into far reaching impact.

Since 1976, Congress increasingly has intervened to require taxpayers to capitalize prepayments, especially in tax shelters. Congress has set up a number of complicated barriers to prevent outside investors from deducting prepayments but largely has allowed active insiders to keep their common law rights.<sup>197</sup> The legislation, often mean-spirited protectionism, overrides the judicial matrix. Congress has protected insiders from the onslaught of outside capital while preserving the soft money privilege for insiders even though outside capital is usually necessary to make tax incentives give any value to the public at large.<sup>198</sup> The judicial

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193. See, e.g., *Goldstein v. Commissioner*, 364 F.2d 734, 738 (2d Cir. 1966) (holding that interest transaction was sham, in part because purpose of transaction was "solely an attempt to secure a deduction from sweepstakes winnings") (emphasis deleted); *Resnik v. Commissioner*, 66 T.C. 74, 81 (1976) (four years' interest paid in one-day tax year), *aff'd*, 555 F.2d 634 (7th Cir. 1977).

194. 85 T.C. 397, 414-15, 432 (1985).

195. The court said that it did not have to inquire into the taxpayer's income situation because such facts were on the partner, rather than the partnership, level. *Id.* at 432. Logically, that statement means that a taxpayer could avoid embarrassing factors in a clear reflection of income test, just by undertaking the transaction through a partnership.

196. 38 T.C.M. (CCH) 950 (1979).

197. The Tax Reform Act of 1976 enacted I.R.C. § 464 (1988) (requiring farm syndicates to defer prepaid farm supplies until consumed and to capitalize poultry purchases) and I.R.C. § 447 (1988) (requiring "agribusiness" to go on accrual method, but not requiring inventorying). The Tax Reform Act of 1984 added I.R.C. § 461(i) (1988) (now requiring tax shelters to defer prepaid expenses until economic performance, e.g., delivery of supplies or services). The Tax Reform Act of 1986 added I.R.C. § 469 (1988) (allowing taxpayers to use losses from passive activities only against gains for passive activities and restricting sheltering of portfolio income and business or salary income), I.R.C. § 464(f) (1988) (restricting deduction by non-full-time farmers of prepaid farm expenses that exceed 50% of their other farm expenses). I.R.C. § 263A (1988) (uniform capitalization rules) also distinguishes between outsiders and insiders for farm expenses. I.R.C. § 461(g) (1988) (interest identified as prepaid) and I.R.C. § 461(h) (1988) (accrual of prepayments) do not distinguish between outsiders' shelters and insiders', although I.R.C. § 461(h)(3)(A)(iii) (1988) allows a special eight-and-one-half month window for prepayments if the taxpayer satisfies "consistency."

198. See *Tax Reform (Invited Panelists): Panel Discussions Before the Comm. on Ways and*

rules with their generosity toward expensing, in any event, survive outside of the reach of the overrides. Even when the legislative overrides return to hard money investing, one wonders why the tax law must be so complicated to accomplish such a clearly correct and easy result, i.e., capitalizing prepayments in the first place.

### 3. *Repairs*

The Treasury regulations provide that repairs are immediately deductible as expenses: "The cost of incidental repairs which neither materially add to the value of the property nor appreciably prolong its life, but keep it in an ordinarily efficient operating condition, may be deducted as an expense."<sup>199</sup> Improvements and repairs in the nature of replacements that either add to the value of the property or appreciably prolong its life, however, are capitalized.<sup>200</sup> These regulations were promulgated under the original 1913 Act<sup>201</sup> and derive from a Supreme Court decision concerning the Civil War income tax.<sup>202</sup>

Commentators have used the steady state fallacy to justify expensing minor repairs, even if these investments generate income beyond the year. As one commentator states:

Practically, the charge to revenue of such maintenance costs is not determined so much by their nature, as by the fact that their recurrence is so reasonably constant that, though the revenue of one year bears the cost of minor repairs that continue to be useful for several years, this is compensated by the enjoyment of earlier repairs of the same sort. So long as the repairs do not vary far from the norm, the principle at least may be justified as one of necessity and convenience; it would not be possible to capitalize everything and *the same ultimate effect is produced*.<sup>203</sup>

Small investments at some point become so de minimis that the social value of taxing the income they produce is not worth the bookkeeping effort of capitalizing the investments.<sup>204</sup> But the steady state fallacy as-

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*Means*, 94th Cong., 1st Sess. 59 (1975) (statement of Borris I. Bittker, Professor, Yale Law School, criticizing "internal tariffs" from differential tax treatment of outsiders and insiders in the Treasury's 1975 limitation on artificial accounting losses proposal). Limiting the tax benefits to real farmers cannot prevent all movement of capital. Farmers can borrow more or invest less outside the farm and former outsiders can become real mud-on-their-boots-type farmers. Preserving farm tax benefits, moreover, might be intended just to give premium returns to good folk, rather than to lower required pretax profits and accomplish some public good. Finally, the privilege may be better if it has no effect. See *supra* text accompanying notes 70-75.

199. Treas. Reg. § 1.162-4 (1958).

200. *Id.*; Treas. Reg. § 1.263(a)-1(a)(2)(b) (as amended in 1987).

201. Treas. Reg. No. 33, art. 131 (1914) (T22.17:33) (on permanent file with the *University of Illinois Law Review*).

202. *Grant v. Hartford & N.H.R.R.*, 93 U.S. 225, 227 (1876) (taxpayer may deduct repair expense "required to keep the property up to its usual condition proper for operation") (allowing taxpayer to expense replacement railroad bridge).

203. Note, *Income Tax Accounting: Business Expense or Capital Outlay?*, 47 HARV. L. REV. 669, 670-71 (1934) (emphasis added and footnote deleted).

204. See *supra* note 179 (discussing definition of de minimis).

sumes that the ultimate effect is always the same and does not help identify when capitalizing is appropriate.

The repair doctrine has allowed even quite large investments to be expensed on the ground that they merely return the taxpayer to some prior status quo. A recurring pattern is that some event threatens or causes a decline in the value of the taxpayer's property. The taxpayer, therefore, incurs an expenditure to defend against the event or to undo its damage. The expenditure is significant enough to be capitalized, considering the bookkeeping effort, and long lived enough to be clearly an investment in other contexts. Courts, nonetheless, have held that the expenditure is an expense because it is a repair that does not improve the taxpayer's condition.

In *Plainfield-Union Water Co. v. Commissioner*,<sup>205</sup> for example, the taxpayer's water mains clogged because of "tuberculating" and the taxpayer cleaned the pipes and lined them with concrete to prevent them from tuberculating again.<sup>206</sup> In holding that the taxpayer could expense the investment, the court stated:

[The government] contends that the value of the pipe to [the taxpayer] was materially increased by the expenditure. . . . But any properly performed repair adds value as compared with the situation existing immediately prior to that repair. The proper test is whether the expenditure materially enhances the value, use, life expectancy, strength or capacity as compared with the status of the asset prior to the condition necessitating the expenditure. Comparing the period before tuberculation and after expenditure, we see that the [value,] useful life, [strength, or capacity] of the [water] main was not increased by the cleaning and lining . . . .<sup>207</sup>

*Plainfield-Union* is consistent with a number of other decisions allowing expensing for corrective or protective investments.<sup>208</sup>

At the extreme, the corrective nature of some of the investments looks a bit strained. In *United States v. Times-Mirror Co.*,<sup>209</sup> the court allowed a newspaper to expense the cost of microfilming its morgue of back newspaper issues on the argument that the microfilming protected the morgue against possible Chinese bombing of Los Angeles during the Korean War.<sup>210</sup> Microfilming now looks like a reasonable investment for a newspaper, quite apart from the Communist bombing threat.

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205. 39 T.C. 333 (1962).

206. *Id.* at 335.

207. *Id.* at 338.

208. *United States v. Times-Mirror Co.*, 231 F.2d 876, 879-80 (9th Cir. 1956) (with dissent); *Zimmern v. Commissioner*, 28 F.2d 769 (5th Cir. 1928) (restoring sunken barge); *Oberman Mfg. Co. v. Commissioner*, 47 T.C. 471, 482-83 (1967) (structural change to leaky roof); *Midland Empire Packing Co. v. Commissioner*, 14 T.C. 635, 642 (1950) (oil-proofing basement); *American Bemberg Corp. v. Commissioner*, 10 T.C. 361, 375-78 (1948) (with dissent) (repair of underpinnings to prevent building from collapsing), *aff'd per curiam*, 177 F.2d 200 (6th Cir. 1949); *Illinois Merchants Trust Co. v. Commissioner*, 4 B.T.A. 103, 107 (1926) (repair of building underpinnings).

209. 231 F.2d 876 (9th Cir. 1956).

210. *Id.* at 879-80.

Not all courts are sympathetic to the "repair" argument. Some courts require taxpayers to capitalize involuntary expenditures<sup>211</sup> as well as expenditures undertaken to defend property from damage.<sup>212</sup> Some courts insist on measuring the improvement from the condition of the property after the decline. In *Connally Realty Co. v. Commissioner*,<sup>213</sup> the city changed the level of the street in front of the taxpayer's building, requiring the taxpayer to alter the entrance to its building. In holding that the taxpayer's costs were capital expenditures, the court stated, "If [the expenditures] do not make the property worth more . . . than before the change of conditions which required the alterations, they make it worth more than it would be without the alterations."<sup>214</sup> Another court has said wisely that "irrespective of the particular occasion which necessitated the improvement, [a cost should be capitalized when] its result was to benefit the [taxpayer] and its property for a period substantially longer than the year the work was done."<sup>215</sup>

The doctrine allowing taxpayers to expense significant, long-lived investments because they return the taxpayer to some prior condition is hard to reconcile with the general capitalization of investments. Suppose a taxpayer has a choice between buying a new tugboat for \$100,000 or raising and restoring a sunken tugboat for \$110,000. Assume that the subsequent life and utility of the old and new boats would be the same. In the absence of tax, the taxpayer should purchase the new boat. But if the taxpayer can expense the cost of raising and restoring the sunken boat,<sup>216</sup> as opposed to capitalizing the cost of purchasing the new boat, then the taxpayer has a tax incentive to make the inferior investment in the old tug.

As a matter of tax theory, a taxpayer should be able to deduct the

211. *Teitelbaum v. Commissioner*, 294 F.2d 541, 544 (7th Cir. 1961) (conversion from DC to AC electrical current ordered by city); *Woolrich Woolen Mills v. United States*, 289 F.2d 444 (3d Cir. 1961) (antipollution system added to taxpayer's plant after state threats of injunction); *RKO Theaters, Inc. v. United States*, 163 F. Supp. 598 (Ct. Cl. 1958) (fire exits ordered by state); *Mt. Morris Drive-In Theater Co. v. Commissioner*, 25 T.C. 272, 274 (1955) (with dissent) (drainage system installed under threat of litigation by downgrade landowner), *aff'd per curiam*, 238 F.2d 85 (6th Cir. 1956) (with dissent); *Trenton-New Brunswick Theatre Co. v. Commissioner*, 13 T.C.M. (CCH) 550 (1954) (fire passageway built under orders of the city building inspector); *Hotel Sulgrave v. Commissioner*, 21 T.C. 619, 621 (1954) (sprinkler system ordered by city); *International Bldg. Co. v. Commissioner*, 21 B.T.A. 617, 621 (1930) (safety features on elevator); *Bonwit Teller v. Commissioner*, 17 B.T.A. 1019, 1027 (1929) (coal to oil furnace).

212. *See* Rev. Rul. 77-478, 1977-2 C.B. 81 (major construction to protect railroad track embankment from water damage); Rev. Rul. 60-386, 1960-2 C.B. 107 (sea wall dikes and drainage system built to protect against damage from sea after land subsided); Rev. Rul. 79, 1953 C.B. 41 (costs in constructing protective barrier and moving houses to prevent storm losses to property abutting Great Lakes); *cf.* *Bloomfield S.S. Co. v. Commissioner*, 33 T.C. 75 (1959) (cost of making newly purchased ships seaworthy), *aff'd*, 285 F.2d 431 (5th Cir. 1961).

213. 81 F.2d 221 (5th Cir. 1936).

214. *Id.* at 222; *see also* *Woodside Cotton Mills Co. v. Commissioner*, 13 B.T.A. 266, 269 (1928) (long-lived cost capitalized irrespective of particular occasion necessitating the cost).

215. *Woodside Cotton Mills Co.*, 13 B.T.A. at 269 (improvement to public access motivated by need to recruit employees).

216. *Zimmern v. Commissioner*, 28 F.2d 769 (5th Cir. 1928).



cost of damaged property to bring the adjusted basis of the property down to its fair market value. The outstanding principal of the property has disappeared in part. Loss in value due to a casualty is deductible immediately under current law, even if the taxpayer holds on to the damaged property.<sup>217</sup> Repairs are at least evidence of the loss of value<sup>218</sup> and plausibly courts are using the repair doctrine as a proxy to measure the deductible loss. Provided the old basis is in fact deductible, deducting repair costs as a proxy for deducting losses does no harm.

Repairs are also sometimes small enough that they fit within a de minimis rule. Regular or annual repairs may expire by year end and generate no future income. If so, then taxpayers should expense those repair costs under normal capitalization rules. Even major repairs commonly generate returns over a life that is shorter than the life of the property they affect.<sup>219</sup> Still, once one makes proper allowance for the taxpayer's loss of prior investment, for de minimis costs, and for the life of the repair, no place remains for a special rule allowing taxpayers to expense investments that they should capitalize just because the investments are repairs.<sup>220</sup>

#### 4. *Origin of Farm Investment Expensing*

The ability to expense investment-like farming expenditures, like the herbal rollover,<sup>221</sup> first arose under Treasury regulations issued in 1915.<sup>222</sup> These early regulations did not explain their rationale, so their historical purpose is a matter of speculation. But the most plausible theory is that the drafters in 1915 simply thought that the issue did not matter.

In *United States v. Catto*,<sup>223</sup> the Supreme Court upheld the expensing of farm investments and suggested that expensing is one of the side

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217. Treas. Reg. § 1.165-7 (as amended in 1977).

218. Treas. Reg. § 1.165-7(a)(2)(ii) (as amended in 1977).

219. M. CHIRELSTEIN, *supra* note 5, ¶¶ 6.02(a), (b), at 103-07; *cf.* Moss v. Commissioner, 831 F.2d 833, 842 (9th Cir. 1987) (finding it anomalous to depreciate expenses over 30 years of building because taxpayer incurred those expenses in replacing three- to five-year assets).

220. Although it originated as a judicial rule, the Internal Revenue Code has used the repair fallacy as an exception to various capitalization reform provisions. For instance, I.R.C. § 464 (1988), enacted in 1976, generally requires farming syndicates to capitalize their prepaid supplies but gives an exception allowing them to expense their investments if the supplies replace supplies lost "on account of fire, storm, flood or other casualty or on account of disease or drought." Similarly, I.R.C. § 263A(d) (1988), enacted in 1986, generally requires capitalizing the costs of raising crops or animals that take more than two years to mature to marketability but grants an exception for replanting crops lost or damaged by freeze, temperatures, disease, drought, pests, or casualty. Absent the repair fallacy, the right remedy would allow the taxpayer to deduct the unrecovered basis in the lost crops and then treat the new investment just like any other. Because of the generous expensing of farming expenditures, however, the farmer taxpayers usually have no unrecovered basis to deduct under the right theoretical remedy.

221. See *supra* notes 27-40 and accompanying text.

222. T.D. 2153, 17 Treas. Dec. Int. Rev. 101 (1915) (amended by T.D. 2665, 20 Treas. Dec. Int. Rev. 45 (1918), incorporated in Treas. Reg. No. 33, art. 4 (1918) (T22.17:33 rev.) (on permanent file with the *University of Illinois Law Review*)).

223. 384 U.S. 102 (1966).

effects of a simple cash method of accounting.<sup>224</sup> One cannot push that explanation very far, however. The original income tax act required a strict cash method<sup>225</sup> and yet it clearly required taxpayers to capitalize investment costs when capitalization was thought important.<sup>226</sup> Cash method taxpayers have to capitalize investments,<sup>227</sup> so the cash method allows the "simplicity" of expensing only if one first has concluded that the expenditure is not an investment at all. Moreover, accrual method farmers are allowed to relax inventory methods, in part to catch up with cash method farmers.<sup>228</sup> While it is a worthy purpose to prevent a sharp distinction between cash and accrual methods,<sup>229</sup> if the Code relaxes the distinction between the cash and accrual methods, then the cash method ceases to explain the privilege of expensing investments.

The Supreme Court also speculated in *Catto* that the ability to expense farm investments arose because accounting was a primitive discipline when the Treasury Department first issued the regulations in 1915.<sup>230</sup> But accounting authorities contemporaneous with the 1915 regulations were quite willing to capitalize costs. A 1917 Federal Reserve Board proposal for uniform accounting, for example, required taxpayers to capitalize research and experimental investments, which are expensed under the present Code.<sup>231</sup> Case law of the period, moreover, indicates that the courts, if left to their own devices, would have taken the non-primitive course of requiring taxpayers to capitalize farm expenditures that the regulations allowed them to expense.<sup>232</sup>

Arguably, it was not accounting, but farmers, that the early regulations considered primitive. As one commentator argues:

[T]here was undoubtedly some notion that the average farm did not represent the type of investment or financial acumen usually found

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224. *Id.* at 111 n.15; accord Schapiro, *Prepayments and Distortion of Income Under Cash Method Tax Accounting*, 30 TAX L. REV. 117, 152 (1975).

225. The Senate Finance Committee struck "accrued" and "incurred" from the House bill's allowance of deductions for interest, taxes, and business expenses and inserted "paid" instead. J. SEIDMAN, LEGISLATIVE HISTORY OF FEDERAL INCOME TAX LAWS 1938-1861, at 992-94 (1938); see Hahn, *Methods of Accounting: Their Role in the Federal Income Tax Law*, 1960 WASH. U.L.Q. 1, 16 n.97.

226. Act of Oct. 3, 1913, Pub. L. No. 16, § 2, 38 Stat. 114, 166-81 (allowing depreciation deduction). Depreciation inherently requires prior capitalization of the costs.

227. I.R.C. § 263 (1988).

228. Rev. Rul. 79-102, 1979-1 C.B. 184 (accrual method taxpayers do not need to inventory costs of growing crops).

229. See Allington & Bravenec, *Some Problems of Accrual Method Farmers*, 31 TAX LAW. 781, 793 (1978); Davenport, *A Bountiful Tax Harvest*, 48 TEX. L. REV. 1, 2 (1969).

230. See *United States v. Catto*, 384 U.S. 102, 110 n.13 (1966); Davenport, *supra* note 229, at 2.

231. *Uniform Accounts*, 3 Fed. Res. Bull. 270, 277 (1917) (tentative proposal). Under "modern" accounting, research and experimental costs are expensed. ACCOUNTING FOR RESEARCH AND DEVELOPMENT COSTS, Statement of Financial Accounting Standards No. 2 (Fin. Accounting Standards Bd. 1974) (criticized in Bierman & Dukes, *Accounting for Research and Development Costs*, J. ACCT., Apr. 1975, at 48).

232. Davenport, *supra* note 229, at 3 (citing *Hooper v. Commissioner*, 8 B.T.A. 397 (1927) (determining depreciation deductions for vineyards)); cf. *Ribbon Cliff Fruit Co. v. Commissioner*, 12 B.T.A. 13 (1928) (depreciation for accrual method farmer).

in other business operations. To ask that expensive accounting techniques be employed would not only have overburdened the investment, but would also have overtaxed the farmer's financial management capacity. In a sense, farms were just not considered businesses.<sup>233</sup>

But accountants at the time were telling farmers that inventorying was part of computing real income.<sup>234</sup> One should not make too much of the special status of farmers, in any event. Treasury regulations dating from the same period also allowed soft money investing by permitting taxpayers to expense oil drilling costs<sup>235</sup> and research and development costs.<sup>236</sup> Finally, under roughly contemporaneous regulations, any taxpayer, sophisticated or unsophisticated, could expense farm costs just by buying into a farm investment.<sup>237</sup>

The most plausible explanation for the origin of farm investment expensing is that no one thought that the issue was important. Without making too much of the issue, Cary Brown did not discover the thesis until 1948, so that regulatory drafters before that time could not draw upon its conclusions. The drafters, like the Supreme Court in *Catto*, plausibly thought that "no serious distortion of taxable income was introduced" by expensing because expensing "affected only the timing of deductions."<sup>238</sup> That attitude trivializes the importance of capitalization in an income tax. But the attitude trivializing capitalization is common. "Mere" timing is as important as the subsequent taxability of the income.<sup>239</sup>

Nonfarmers now face high barriers that Congress intended to prevent their access to the herbal rollover. Since 1976, Congress has enacted a complicated series of antishelter overrides<sup>240</sup> to protect traditional

233. Davenport, *supra* note 229, at 2; see also *Catto*, 384 U.S. at 110 n.13.

234. J. BEXELL, *FARM ACCOUNTING AND BUSINESS METHOD: A TEXT-BOOK FOR STUDENTS IN AGRICULTURE AND A MANUAL FOR HOME-STUDY 14-15*, 39 (1911) (former dean, School of Commerce, Oregon Agricultural College).

235. T.D. 2447, 19 Treas. Dec. Int. Rev. 31 (1917) (issued in connection with Revenue Act of Sept. 8, 1916, ch. 463, 39 Stat. 756).

236. Treas. Reg. No. 65, art. 168 (1924) (T22.17:65) (disapproved by *Gilliam Mfg. Co. v. Commissioner*, 1 B.T.A. 967, 970 (1925), and deleted from its successor, Treas. Reg. No. 69, art. 168 (1926) (T22.17:69)) (both regulations on permanent file with the *University of Illinois Law Review*).

237. Treas. Reg. No. 45, art. 38 (1919) (T22.17:38) (as amended Treas. Reg. § 1.61-4(d) (1960)) (on permanent file with the *University of Illinois Law Review*). The court in *Maple Leaf Farms v. Commissioner*, 64 T.C. 438, 448 (1975), allowed nonfarmers to benefit from farm investment expensing if they received production-based rent or participated materially in farming, but statutes now limit the opinion. See *infra* note 242 and accompanying text.

238. *United States v. Catto*, 384 U.S. 102, 111 (1966).

239. See *supra* text accompanying notes 20-75.

240. I.R.C. §§ 263A(d)(1)(B), (d)(3)(B) (1988) (enacted by the Tax Reform Act of 1986) (denying shelters and agribusiness exemption from "full absorption" capitalization rules); I.R.C. § 278(b)(1) (1982), *repealed* by Tax Reform Act of 1986, § 803(b)(6), 100 Stat. 2356 (agribusiness required to capitalize costs before first marketable crop); I.R.C. § 447(b) (1988) (enacted by the Tax Reform Act of 1976); I.R.C. § 469 (1988) (enacted by the Tax Reform Act of 1986) (losses from passive activities may not shelter income from salary or active businesses or portfolio investments until taxpayer stops activity). Section 464(a), added by the Tax Reform Act of 1976, § 461(i)(1), added by the Tax Reform Act of 1984, and § 91(a) and § 801(b), amended by the Tax Reform Act of

farmers "from the onslaught of outside capital."<sup>241</sup> But farmers, at least real farmers with mud on their boots, are exempt from these barriers and still can expense farm costs that look very much like investments.<sup>242</sup> As noted, limiting the value of expensing to insiders plausibly undercuts whatever benefit the public might get from the expensing.<sup>243</sup>

## VI. CONCLUSION

Much of our tax law governing the deduction of investments costs evolved in an atmosphere that was different from our own. Traditional tax accounting and tax law attitudes believed that investment deduction issues were "mere" timing questions and systematically underestimated the importance of timing in tax. Judgments were weighed and decided with too light a weight on the side of maintaining hard money investments. Tax commentators were trained to underestimate time value of money questions and they continue to make statements that trivialize the importance of the issues. Legal doctrines arose, and by inertia and stare decisis have remained, that could evolve only in an atmosphere trivializing the need to maintain a hard money ideal.

The world of economics is different now. The Cary Brown and Samuelson depreciation theses have led to a greater understanding of the time value of money. To identify and tax the real return from the investment, we must identify the outstanding principal that is generating the income and ensure that the outstanding principal remains as post-tax, undeducted, hard money amounts.

The hard money ideal requires taxpayers to make and continue investments only from taxed amounts. That ideal is part of the deep structure of our income tax system. The hard money ideal merely takes our consensus understanding of income—i.e., interest from savings accounts and crops from land—and applies it to other investments. Only hard money investing, moreover, is consistent with our treatment of debt-financed investments. Violating the hard money ideal means that high-bracket investors bid away investments from low-bracket investors merely because of tax. Soft money investing combined with debt means a tax shelter for ordinary consumption.

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1986, restrict deductions of prepaid farm supplies by tax shelters but do not affect the herbal rollover if the supplies are delivered and in the ground by year end. I.R.C. §§ 91(a), 461(i)(1), 464(a), 801(b) (1988).

241. 2 *Tax Reform (Administration and Public Witnesses): Public Hearings Before the Comm. on Ways and Means*, 94th Cong., 1st Sess. 1387 (1975) (statement of Rep. Al Ullman, Chairman, House Comm. on Ways & Means).

242. I.R.C. §§ 263A(d)(1), (d)(3) (1988) (exempting nonshelter farming business from capitalization); I.R.C. §§ 447(a), (c) (1988) (exempting individuals and family corporations from accrual rules); I.R.C. § 461(i)(4) (1988) (exempting farmers from prepaid expense rules); I.R.C. §§ 464(c)(2), (f)(3) (1988) (exempting active farmers and farm-related taxpayers from rules deferring deductions until use of supplies); I.R.C. § 469(c)(1)(B) (1988) (exempting individual from passive loss limitations on activity in which individual materially participates).

243. See *supra* notes 170-75, 198 and accompanying text.

The hard money ideal is a guide for both Congress and the courts. It leads to an understanding of what a level playing field is, that is, how one can bring our tax treatment of investments into line with a common ideal. It helps explain what we truly mean by income and an income tax. Congress and the courts should view departures from the ideal with skepticism, even hostility.