



January 1999

Demystifying Tax Deferral

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Recommended Citation

Christopher H. Hanna, *Demystifying Tax Deferral*, 52 SMU L. REV. 383 (1999)
<https://scholar.smu.edu/smulr/vol52/iss2/5>

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DEMYSTIFYING TAX DEFERRAL

Christopher H. Hanna*

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* Associate Professor of Law, Southern Methodist University; Visiting Associate Professor of Law, University of Texas (Spring 1999). I would like to thank Professor Daniel Halperin for his many great comments on several drafts of the Article. I would also like to thank Professors Reuven Avi-Yonah, Calvin Johnson, and Alvin Warren for their extremely helpful comments on an early draft of this Article. I also thank my research assistants, Nuri Al-Tabatabaie, Jonathan Blacker, Scott Parel, and Charles Thompson, for their research assistance. I wish to emphasize that any errors or omissions are solely my responsibility. Finally, I would like to thank the William Hawley Atwell Fund for Faculty Excellence for its research grant.

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I. INTRODUCTION

ISSUES relating to tax deferral and time value of money are probably the most important areas of tax study for several reasons.¹ First, they cut across all areas of tax law, whether one is focusing on individual income tax, international tax, corporate tax, partnership tax, or any other area. Second, they are the keys to understanding how to properly tax financial instruments, including derivatives.² Finally, tax deferral and time value of money issues are important in understanding the differences among the numerous flat tax and consumption tax proposals that have been introduced in the United States the last few years.³

My research has led me to conclude that the key to understanding tax deferral and corresponding time value of money issues is to have a thorough understanding of the Cary Brown model, sometimes called the MIT model. This model was discovered by Massachusetts Institute of Technology economics professor E. Cary Brown and was published by him in 1948 as a chapter in a small book.⁴ The model generally holds that immediately deducting the cost of an asset is equivalent to excluding from

1. See, e.g., William D. Andrews, *The Achilles' Heel of the Comprehensive Income Tax*, in *NEW DIRECTIONS IN FEDERAL TAX POLICY FOR THE 1980s* 278, 280 (Charles E. Walker & Mark A. Bloomfield eds., 1983) ("Deferral of gain is not as serious as outright exemption, but it is the next best thing, as sophisticated taxpayers and their counsel are now well aware. Deferral for a generation, in a 6% world, is tantamount to three-fourths exemption. In a 12% world, it is tantamount to fifteen-sixteenths exemption."); Daniel I. Halperin, *Interest in Disguise: Taxing the "Time Value of Money,"* 95 *YALE L.J.* 506, 506 (1986) ("Questions of timing—such as the correct period for reporting income or claiming deductions—present some of the most critical and vexing issues in the design of an income tax."); Stephen B. Land, *Defeating Deferral: A Proposal for Retrospective Taxation*, 52 *TAX L. REV.* 45, 46 (1996) ("The next best thing to not paying tax is putting it off. This principle, more than any other, has motivated tax planning over the years.")

2. See, e.g., David A. Weisbach, *Tax Responses to Financial Contract Innovation*, 50 *TAX L. REV.* 491, 492 (1995) ("Changing from a realization-based income tax to another system may be the only complete solution to problems raised by financial innovation."); Deborah H. Schenk, *Taxation of Equity Derivatives: A Partial Integration Proposal*, 50 *TAX L. REV.* 571, 572 n.1 (1995) ("In a pure accrual system that did not distinguish among income sources, financial instruments would pose little threat."); Daniel Shaviro, *Risk-Based Rules and the Taxation of Capital Income*, 50 *TAX L. REV.* 643, 651-52 (1995) ("The workability of a tax regime for capital income that, in so many respects, uses risk-based rules recently has come under severe and widely recognized challenge. This challenge has resulted from the recent development of a broad array of new, widely marketed financial products, commonly called derivatives."); Jeff Strnad, *Taxing New Financial Products: A Conceptual Framework*, 46 *STAN. L. REV.* 569 (1994) (describing different frameworks for taxing financial instruments with the focus overwhelmingly on timing issues).

3. See *infra* note 10.

4. See E. Cary Brown, *Business-Income Taxation and Investment Incentives*, in *INCOME, EMPLOYMENT AND PUBLIC POLICY: ESSAYS IN HONOR OF ALVIN H. HANSEN* 300, 302-14 (1948), *reprinted in* *AM. ECON. ASSN., READINGS IN THE ECONOMICS OF TAXATION* 525-37 (Richard A. Musgrave & Carl S. Shoup eds., 1959).

gross income the future annual return of the asset. Although a number of leading commentators have expressed the model in slightly different words,⁵ the focus and confusion has always been on the concept of excluding the future annual return (or future investment income) of the asset from gross income. I believe that one aspect of Professor Brown's model has been almost completely ignored in the tax literature. He discusses the "partnership" that takes place between the taxpayer and the government in a tax deferral situation.⁶ Understanding this partnership analogy removes much of the mystery surrounding tax deferral and, as a result, will be referred to numerous times in this article. Equally important, the partnership analogy clearly demonstrates the idea of excluding the future annual return of the asset from gross income, which, as previ-

5. See, e.g., William D. Andrews, *A Consumption-Type or Cash Flow Personal Income Tax*, 87 HARV. L. REV. 1113, 1126 (1974) ("[W]here rates are constant, deferring the tax is the equivalent of imposing the tax initially, but exempting any subsequent profit due to continued investment of what is left after payment of the tax."); Martin D. Ginsburg, *Teaching Tax Law After Tax Reform*, 65 WASH. L. REV. 595, 604 (1990) ("Assuming stability of tax rates and investment yields, deduction at initiation of the cost of an investment is the equivalent of excluding from gross income the taxpayer's future annual return on her investment."); MICHAEL J. GRAETZ & DEBORAH H. SCHENK, *FEDERAL INCOME TAXATION: PRINCIPLES AND POLICIES* 304 (3d ed. 1995) ("The tax savings that occur when the cost of an investment is immediately deductible, under certain conditions, can be described as equivalent to disallowing the deduction initially but exempting from tax the income from the investment."); Jane C. Gravelle, *The Economics of Taxing Capital Income in Tax Conversations: A Guide to the Key Issues in the Tax Reform Debate* 223, 241 (Richard Krever ed., 1997) ("Early on, it was recognized, for example, that deducting the cost of an investment when purchased eliminated any tax on the investment."); Daniel I. Halperin, *The Time Value of Money—1984*, 23 TAX NOTES 751, 752 (1984) ("The concept that deferral is equivalent to immediate taxation accompanied by the avoidance of tax on the continued investment of the after-tax earnings . . ."); Calvin H. Johnson, *Soft Money Investing Under the Income Tax*, 1989 U. ILL. L. REV. 1019, 1022 ("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."); Richard A. Musgrave, *Clarifying Tax Reform*, 70 TAX NOTES 731, 735 (1996) ("By allowing immediate deduction of the investment cost against other income, the government in effect renders an interest-free loan to the investor. In the course of continuous reinvestment, this loan will generate an income stream the present value of which, after tax, equals the tax on the normal return on the initial investment."); CARL S. SHOUP, *PUBLIC FINANCE* 302 n.20 (1969) ("The fact that completely accelerated depreciation, when coupled with complete loss offset, is equivalent to exemption of net return from the asset, under an income tax, was discovered by E. Cary Brown."); Gene Steuerle, *Zero Tax Rates on Returns to New Investment & Learning*, 72 TAX NOTES 1311, 1311 (1996) ("If tax rates are constant throughout time—admittedly a strong assumption—pure *ex ante* and pure *ex post* taxes leave the taxpayer in exactly the same position when all is said and done."); Alvin C. Warren, Jr., *Accelerated Capital Recovery, Debt, and Tax Arbitrage*, 38 TAX LAW. 549, 551 (1985) ("An immediate deduction for the cost of a capital asset, which is often called expensing, can produce the same results as exempting the income produced by the asset under certain conditions . . .").

6. The partnership analogy has been touched on by several leading commentators but has not been explored in great detail. See, e.g., WILLIAM D. ANDREWS, *BASIC FEDERAL INCOME TAXATION* 260-62 (4th ed. 1991); Noel B. Cunningham, *The Taxation of Capital Income and the Choice of Tax Base*, 52 TAX L. REV. 17, 25 (1996); Mary Louise Fellows, *A Comprehensive Attack on Tax Deferral*, 88 MICH. L. REV. 722, 749 n.63 (1990); Johnson, *supra* note 5, at 1027-30; Land, *supra* note 1, at 83-84; Charles E. McLure, Jr. & George R. Zodrow, *The Economic Case for Foreign Tax Credits for Cash Flow Taxes*, 51 NAT'L TAX J. 1, 5-6 (1998); MYRON S. SCHOLES & MARK A. WOLFSON, *TAXES AND BUSINESS STRATEGY: A PLANNING APPROACH* ch. 3 (1992); STANLEY S. SURREY, *PATHWAYS TO TAX REFORM* 124, 323 n.5, 324 n.7 (1973).

ously stated, has created a tremendous amount of confusion over the years. In fact, it is difficult to see how one can understand the concept of expensing being equivalent to exclusion without fully understanding the partnership analogy of the Cary Brown model.

The Cary Brown model became known in the American tax law literature primarily because of professors Stanley Surrey and William Andrews of Harvard Law School.⁷ Professor Surrey made the United States government aware of tax deferral and time value of money issues during his tenure as Assistant Secretary of the Treasury for Tax Policy from 1961 to 1969. Professor Andrews wrote a brilliant tax article in 1974 focusing on the consumption tax and discussing the Cary Brown model in great detail.⁸

The Cary Brown model will be discussed in five different situations. The first situation demonstrates the Cary Brown model in its most basic form—that of an immediate deduction, often referred to as expensing. The next three situations demonstrate further applications of the model in situations unfamiliar to many people, focusing on the income side, as opposed to the deduction side, and demonstrating the wide-ranging applicability of the model. The last situation, involving unrealized appreciation, is a variation on the basic model and yields some interesting results. It should be noted that this Article focuses solely on tax deferral, meaning either deferral of income or acceleration of a deduction. So, for example, unrealized appreciation in property will be discussed in detail while unrealized depreciation in property will not be discussed at all.

II. IMMEDIATE DEDUCTION

A. INTRODUCTION

Assume an individual, T, has \$10,000 of gross income, which could be salary, interest, dividends, or rent. Regardless of the source, it is gross income, and the individual must pay taxes on it. Unless otherwise stated (which will occur later), we will assume a tax rate of 40%, taxes are due immediately (so ignore withholding and estimated tax payments), and the taxpayer's pre-tax rate of return on investments and borrowings is 10%.⁹

7. See, e.g., Stanley S. Surrey, *The Tax Reform Act of 1969—Tax Deferral and Tax Shelters*, 12 B.C. INDUS. & COM. L. REV. 307 (1971); SURREY, *supra* note 6, ch. 4, app. to ch. 4; Andrews, *supra* note 5, at 1113.

8. See Andrews, *supra* note 5, at 1123-28.

9. See GRAETZ & SCHENK, *supra* note 5, at 306-07 (describing in detail the conditions that must exist when applying the Cary Brown model, which include: (1) constant tax rates; (2) constant interest rates; (3) expensing produces an immediate tax savings equal to the taxpayer's marginal rate multiplied by the expensed amount; (4) taxpayers are concerned only with their after-tax position; (5) the ratio of borrowing to after-tax investment is the same under a yield exemption and an immediate deduction; and (6) the system is closed); Michael J. Graetz, *Implementing a Progressive Consumption Tax*, 92 HARV. L. REV. 1575 (1979); Johnson, *supra* note 5, at 1031-36; RICHARD A. MUSGRAVE, *THE THEORY OF PUBLIC FINANCE* 262-67 (1959); SHOUP, *supra* note 5, at 266-69; Warren, *supra* note 5, at 552 n.12.

Assume that individual T has three investment options with the money. Under the first option, T can invest in a tax-exempt bond (when T receives the interest on the bond, the interest is not included in gross income). The second option is to invest in a regular taxable bond (the interest received on the bond is included in T's gross income). The third option is a little different. Under this option, the cost of the bond is immediately deductible, but the interest is fully taxable.

Table 1 demonstrates the results under each of the three options. Under the first two options, T must pay \$4,000 in taxes immediately to the government, thereby having only \$6,000 to invest. Under the third option, T must pay \$4,000 in taxes when the bond matures, thereby having \$10,000 to invest at the outset.

TABLE 1

	Tax-Exempt Bond	Taxable Bond	Deductible Taxable Bond
Gross Income	\$10,000	\$10,000	\$10,000
Deductions	\$ 0	\$ 0	\$10,000
Taxes (40%)	\$ 4,000	\$ 4,000	\$ 0
Cash to Invest	\$ 6,000	\$ 6,000	\$10,000
Return at 10%	\$ 600	\$ 600	\$ 1,000
Taxes (40%)	Exempt	\$ 240	\$ 400
Net Return	\$ 600	\$ 360	\$ 600

Compare options one and three in Table 1. The bottom-line results are identical for options one and three. Immediately deducting the cost of an asset and taxing the return on the asset (option three) is equivalent to allowing no immediate deduction but exempting from gross income the future annual return on the asset (option one). This is probably the clearest demonstration of the Cary Brown model. The equivalence between options one and three has been recognized by, among others, the Kemp Commission in 1996, in trying to decide whether to allow an immediate deduction of an asset or to exempt the gross income from the asset.¹⁰

10. See National Comm'n on Econ. Growth and Tax Reform, *Unleashing America's Potential*, reproduced in 70 TAX NOTES 413, 425 (1996) ("In order to end these biases [against work, saving, and investment], the tax system must either *let savers deduct their saving or exclude the returns on the saving from their taxable income*. It must *end double-taxation of businesses and their owners and permit expensing of investment outlays*."); see also John S. Nolan, *Erwin N. Griswold Lecture: The Merit of an Income Tax Versus a Consumption Tax*, 12 AM. J. TAX POL'Y 207, 208 (1995) ("The key to understanding the basic equivalence of these two systems [the Nunn-Domenici USA Tax and the Armeij flat tax] as being solely taxes on consumption is that the *economic effect* of not taxing an amount received, but taxing the investment returns on that amount, as in the USA Tax, is exactly the same as taxing the amount received but not taxing the investment returns, as in the Armeij flat tax."); Martin D. Ginsburg, *Taxing the Components of Income: A U.S. Perspective*, 86 GEO. L.J. 123, 132 (1997) (questioning whether the legislative sponsors of the USA Tax and the Armeij flat tax understand the equivalence described by the Cary Brown model). As to the flat tax and the USA Tax, see ROBERT E. HALL & ALVIN RABUSHKA, *THE FLAT TAX* (2d ed. 1995), reprinted in 68 TAX NOTES 1 (Special Supp.) (August 4,

This example can be generalized algebraically. In the case of option one, there is no deduction for the cost of the bond, the interest on the bond is tax-exempt, and an amount A of income is reduced by tax t such that $A(1 - t)$ may be invested. At an annual rate of return r , $A(1 - t)$ invested will earn $rA(1 - t)$ per year, which will not be subject to tax. The taxpayer's net annual after-tax position each year will be:

$$rA(1 - t).$$

In the case of option two, there is no deduction for the cost of the bond, the interest on the bond is taxable, and an amount A of income is reduced by tax t such that $A(1 - t)$ may be invested. At an annual rate of return r , $A(1 - t)$ invested will earn $rA(1 - t)$ per year, which will be subject to tax at rate t , equaling tax each year of $trA(1 - t)$. The taxpayer's net annual after-tax position each year will be:

$$rA(1 - t) - trA(1 - t), \text{ which equals } rA(1 - t)(1 - t).$$

In the case of option three, there is an immediate deduction for the cost of the bond, the interest on the bond is taxable, and an amount A of income is not reduced by tax t such that A may be invested. At an annual rate of return r , A invested will earn rA per year, which will be subject to tax at rate t , equaling tax each year of trA . The taxpayer's net annual after-tax position each year will be:

$$rA - trA, \text{ which equals } rA(1 - t).$$

This is equal to the taxpayer's net annual after-tax position when no deduction is allowed for the cost of the bond but the interest on the bond is exempt from tax.¹¹

B. PARTNERSHIP ANALOGY

How would Cary Brown describe option three? He would say that by immediately deducting the cost of an asset that will generate future income, the government is, in essence, entering into a partnership with the taxpayer.¹² In other words, by allowing the taxpayer to immediately deduct the cost of the bond, which will generate income in the future, the government is, in essence, contributing \$4,000 towards the purchase of the bond. The taxpayer is contributing \$6,000 towards the purchase of

1995), and *USA Tax System: Description and Explanation of the Unlimited Savings Allowance Income Tax System*, 66 TAX NOTES 1483 (Special Supp.) (1995).

11. Of course, the interest on the tax-exempt bond will, in all likelihood, be lower than the interest received from a regular taxable bond.

12. Professor Brown described the partnership as follows:

By paying the entrepreneur the tax on the asset's cost, the Government would literally be a partner in the firm. It would make a capital contribution on new investments at the same rate at which it shared in the future net receipts of the enterprise. The contribution would be made at the same time the investment was undertaken.

Brown, *supra* note 4, at 309-10.

the bond. They are, in a sense, a “partnership.” During the first year after purchase, the bond generates \$1,000 of interest income (it will do this each year until maturity). Of the \$1,000 of interest income, \$400 in taxes is paid to the government, and the taxpayer keeps \$600. Is this \$1,000 of interest income taxed though? The obvious answer seems to be “yes,” as the government receives \$400 of it. But the \$1,000 of interest income really is not taxed at all. The government put up 40% of the cost of the bond. Now it is simply receiving its 40% share of the return on the bond (or \$400) each year. The taxpayer put up 60% of the cost of the bond and is getting his 60% share of the return on the bond (or \$600) each year. If this is the final result, then in essence, the taxpayer is not taxed on the interest income. Therefore, immediate deduction is equivalent to excluding the return on the asset from gross income.

TABLE 2

	Contributions to the Partnership	Income of the Partnership
Taxpayer	\$ 6,000	\$ 600
Government	\$ 4,000	\$ 400
TOTAL	\$10,000	\$1,000

The taxpayer should be taxed by the government on his 60% share or \$600 of interest income (highlighted in Table 2), otherwise the income is excluded from gross income according to the Cary Brown model. The key is for the government to tax the taxpayer’s \$600 share of interest income if the government wants to prevent the time value of money benefit of tax deferral from taking place. If the taxpayer’s \$600 share of interest income is taxed at 40%, then the taxpayer pays \$240 in taxes, leaving the taxpayer with \$360 after taxes. This is equivalent to option two (the nondeductible taxable bond). The tax deferral benefit has been eliminated.¹³ It looks like the government is double-taxing the taxpayer, but in substance, it is not.

Under option three, when the bond matures, the taxpayer receives \$10,000 and has \$10,000 of gross income because the taxpayer’s basis in the bond is zero.¹⁴ At a 40% tax rate, the taxpayer will owe the government \$4,000 at maturity. This is, in essence, merely returning the portion the government originally invested with the taxpayer as a partnership. In other words, the partnership is terminated, the taxpayer receives his original contribution of \$6,000, and the government is returned its original contribution of \$4,000.

13. Of course, the government could have eliminated the tax deferral benefit by simply disallowing the initial expensing of the bond. But for purposes of this example, we are assuming that the cost of the bond can be expensed.

14. The basis is zero because the taxpayer initially deducted the entire cost of the bond.

TABLE 3

	Contributions to the Partnership	Income of the Partnership Each Year	Termination of the Partnership (Return of Contributions)
Taxpayer	\$ 6,000	\$ 600	\$ 6,000
Government	\$ 4,000	\$ 400	\$ 4,000
TOTAL	\$10,000	\$1,000	\$10,000

C. KEY STEPS IN THE PARTNERSHIP ANALOGY

A number of steps and conclusions can be drawn from Professor Brown's partnership analogy with respect to the above example:

1. The partnership is formed between the taxpayer and the government at the time tax deferral takes place, whether deferring income or accelerating a deduction. In the above example, tax deferral takes place at the time the bond is expensed.¹⁵ The taxpayer contributes to the partnership the amount expensed less the taxes saved by expensing. In the above example, the taxpayer's contribution to the partnership is \$10,000 (expensed amount) less \$4,000 (taxes saved by expensing), or \$6,000. The government contributes to the partnership the taxes saved by expensing. In the above example, it is \$10,000 (expensed amount) multiplied by 40% (tax rate), or \$4,000.

2. The profits of the partnership are allocated between the taxpayer and the government based on the tax rate in effect on the investment income generated by the partnership. Assuming a 40% tax rate, the profits of the partnership will be allocated 60% to the taxpayer and 40% to the government. This allocation ratio will not change from year to year (unless the tax rate on the investment income changes, in which case the allocation ratio will also change). Assuming constant tax rates, the allocation of profits is formally a tax; in essence, it is not. It is merely allocating the profits of the partnership between the two partners—the taxpayer and the government.

3. The government should collect its share of the profits (allocated under step two) at least annually to prevent an additional (or continuing) tax deferral situation from taking place.

4. The taxpayer should be allocated his share of the profits annually but does not need to collect it annually. If the taxpayer collects his share of the profits of the partnership annually, the government should tax the profits at that time. If the taxpayer leaves his share of the profits in the partnership, then the government can wait to tax the profits.¹⁶

15. Actually, tax deferral takes place when the taxes are owed to the government. This distinction becomes important, for example, when dealing with the interest charge rule with respect to certain large installment sales. See *infra* Part III (discussing installment sales).

16. We will see later that this fourth step is the key to the principle credited to Professors Daniel Halperin and Alvin Warren that, under certain conditions, there is no advan-

5. When the tax deferral period ends, the partnership is terminated, and both the taxpayer and the government should have their original contributions returned. In addition, the taxpayer should collect any profits of the partnership he has not previously collected (see step four), and the government should tax those profits.

TABLE 4

	Partnership Contributions (Step One)	Allocation of Income of the Partnership (Steps Two, Three, and Four)	Partnership Termination (Step Five)
Taxpayer	Deferred Income Less Taxes Deferred (A - At) equaling $A(1 - t)$	Income Times One Minus the Tax Rate (Ar - Art) equaling $rA(1 - t)$	Return of Contribution Plus Any Remaining Share of the Partnership Income Not Previously Collected
Government	Taxes Deferred (At)	Income Times Tax Rate (Art)	Return of Contribution
TOTAL	Deferred Income (A)	Income for the Year (Ar)	Contributions Plus Any Remaining Income of the Partnership

III. INSTALLMENT SALES

A. INTRODUCTION

The second situation is a very specific application of the Cary Brown model, and it also suggests various solutions to eliminating tax deferral that are not mark-to-market. Assume an individual owns land with a negligible basis and a fair market value of \$10,000. The individual has two options for selling the land. First is an all-cash sale of the land for \$10,000. The second option is to sell it to a buyer who will pay the sales price in two years—an installment sale. The buyer will also pay the seller 10% interest each year until the sales price is paid off.

Under option one (the all-cash sale), the seller will pay \$4,000 in taxes at the time of sale, leaving the seller with \$6,000. The seller can invest this amount at a 10% pre-tax rate of return. At the end of one year, the seller will have \$6,000, plus \$600 return, less \$240 in taxes, totaling \$6,360 (\$6,000 multiplied by 1.06). At the end of two years, the seller will have \$6,741.60 (\$6,000 multiplied by $(1.06)^2$).

If an individual makes an installment sale and reports the gain on the installment method, then the seller does not include the gain in gross income at the time of sale.¹⁷ The gain is deferred because the buyer has not

tage to tax deferral if the deferred amount increases by the after-tax rate of return. See *infra* Part V.A.

17. See I.R.C. § 453(a) (1994).

paid anything yet. At the end of the first year, the seller will receive \$1,000 of interest from the buyer (\$10,000 multiplied by 10%). The seller will pay \$400 in taxes, leaving the seller with \$600. At the end of year two, the seller will receive another \$1,000 in interest from the buyer plus \$10,000 of the sales price. The seller will also have invested the \$600 from year one. The seller will have, at the end of year two, \$7,236. Again, this is consistent with the Cary Brown model. Deferring the gain in an asset under the installment method is equivalent to exempting from gross income the future annual return on the recognized gain. What makes an installment sale interesting with respect to the Cary Brown model is that a realization event has taken place (the sale) between the time of appreciation in the property and the recognition of the appreciation as gain.

This example can be generalized algebraically. In the case of a cash sale in which tax is immediately imposed, an amount A of gain is reduced by tax t such that $A(1 - t)$ may be invested. At an annual rate of return r , $A(1 - t)$ invested will earn $rA(1 - t)$ per year, which will be subject to tax at rate t equaling tax each year of $trA(1 - t)$. The seller's net annual after-tax position each year will be:

$$rA(1 - t) - trA(1 - t), \text{ which equals } rA(1 - t)(1 - t).$$

In the case of an installment sale to which section 453 applies, the amount A of gain is not reduced by tax t . At an annual rate of return r , A invested will earn rA per year, which will be subject to tax at rate t , equaling tax each year of trA . The seller's net annual after-tax position will be:

$$rA - trA, \text{ which equals } rA(1 - t).$$

This is higher than the seller's net annual after-tax position when an all-cash sale is made and tax is immediately imposed. It is equal to the seller's net annual after-tax position when an all-cash sale is made, tax is immediately imposed, and the return of $rA(1 - t)$ is exempt from tax.

B. ATTACKING TAX DEFERRAL

In the mid-1980s, the U.S. government recognized the tax deferral that takes place in an installment sale and decided to do something about it.¹⁸

18. In 1984, the Treasury Department recognized the tax deferral benefit that sellers receive using the installment method but concluded, at that time, not to eliminate the benefit. See U.S. DEP'T OF THE TREAS., REPORT TO THE PRESIDENT, TAX REFORM FOR FAIRNESS, SIMPLICITY, AND ECONOMIC GROWTH 129 (1984). Treasury did not propose charging interest on the taxes being deferred through use of the installment method "because of the increased complexity and taxpayer perception problems that such an approach would create." *Id.* The report stated that "[m]ost taxpayers would not readily comprehend why they should pay interest on the deferred taxes when the taxes are only paid as installment payments are received." *Id.* One leading commentator was quoted as saying that Treasury's reasoning in not charging interest on the deferred taxes "makes no sense." See Lee A. Sheppard, *Ginsburg Discusses Taxing the Privilege of Tax Deferral in Installment Sales*, 27 TAX NOTES 457, 458 (1985). Congress, in the Tax Reform Act of 1986 and the Revenue Reconciliation Act of 1987, imposed an interest charge regime on certain sellers of property that use the installment method. See I.R.C. § 453A(c).

Let's focus on the first year after the sale. During that first year, the buyer pays \$1,000 of interest to the seller. By deferring the taxes on the gain of \$10,000, Cary Brown would describe the government as being in partnership with the seller—the government contributing \$4,000 and the seller contributing \$6,000 (step one). Of the \$1,000 in interest paid from buyer to seller the first year, \$400 of taxes is owed to the government. In essence, the partnership generates \$1,000 of interest income, which is allocated \$600 to the seller and \$400 to the government (step two). The government should collect this \$400 to prevent additional tax deferral from taking place (step three). In essence, the \$1,000 of interest income is not taxed.

TABLE 5

	Contributions to the Partnership	Income of the Partnership
Taxpayer	\$ 6,000	\$ 600
Government	\$ 4,000	\$ 400
TOTAL	\$10,000	\$1,000

The seller's portion of the \$1,000 is \$600, which is the seller's return from the partnership (step two). The government should collect tax of 40% on the seller's share if it wants to eliminate the time value of money benefit of tax deferral in an installment sale (step four). Consequently, the government should collect \$240 in taxes from the seller (40% multiplied by \$600). Therefore, the government should collect a total of \$640 (\$400 plus \$240) from the seller in the first year after the sale. It looks like the \$1,000 of interest income is double-taxed, but it really is not. The \$400 the government collects on the \$1,000 of interest income is actually the government's share of the profits of the partnership it has entered into with the taxpayer. The \$240 the government collects from the taxpayer is a tax on the taxpayer's share of the profits of the partnership. This procedure should be done again in year two. If so, at the end of year two, the seller will have \$6,741.60—the exact same result as if the seller made an all-cash sale.

What the U.S. government does is to charge interest on the taxes that are deferred by the installment method.¹⁹ The interest charge rules represent a congressional judgment that the seller can reasonably be thought of as owing the tax on the gain from the time of the installment sale and that the deferral of recognition is only a matter of legislative grace. In the case of the installment sale, at the end of the first year, the seller has

19. See I.R.C. § 453A(c). Under the interest charge method, the government is viewing tax deferral not as a partnership between the taxpayer and the government but rather as a non-interest bearing loan from the government to the taxpayer. See, e.g., Musgrave, *supra* note 5, at 735 (viewing tax deferral as an interest-free loan from the government to the investor); SURREY, *supra* note 6, at 120-25 (discussing both the partnership and the loan views of tax deferral).

deferred \$4,000 in taxes. Therefore, the U.S. government requires the seller to pay interest to the government—assuming a 10% interest rate, \$400 in interest is owed to the government (\$4,000 deferred taxes multiplied by 10% interest rate).²⁰ If the seller can deduct the interest, then this is really an out-of-pocket payment of only \$240 (\$400 interest payment minus \$160 tax savings), leaving the seller with \$360. This is the exact same result as taxing the seller on \$600 of the interest income, which results in \$240 in additional taxes, again leaving the seller with \$360. For individuals, however, the U.S. government maintains that the interest payment is not deductible, which actually makes the installment sale worse than an all-cash sale.²¹ The seller will be left with \$200 (\$600 minus \$400), which is an incorrect result.²²

Even though the U.S. government utilizes an interest charge method, Professor Brown's partnership analogy in describing tax deferral demonstrates the correct result and the impropriety of denying the seller's interest deduction. The purpose of the interest charge is to achieve parity, not to penalize. But apparently as a partial consolation, the interest charge rule only applies to installment sales over \$5 million. Or, alternatively, the \$5 million de minimis rule may be simply to confine the interest charge rule to large installment sales.

The interest charge method can be generalized algebraically. In the case of an installment sale to which section 453A(c) applies, the amount A of gain is not reduced by tax t . At an annual rate of return r , A invested will earn rA per year, which will be subject to tax at rate t equaling tax each year of trA . If interest r is charged on the deferred tax liability of tA , then the interest on deferred tax liability is rtA . The deduction of the interest on deferred tax liability will be $trAt$, leaving the seller with an interest burden of $rAt - trAt$, which equals $rAt(1 - t)$. The seller's net annual after-tax position will be:

$$rA(1 - t) - rAt(1 - t), \text{ which equals } rA(1 - t)(1 - t).$$

This is equal to the seller's net annual after-tax position when a cash sale is made and tax is immediately imposed.

20. There is a \$5 million de minimis rule, which is ignored for purposes of this example. See I.R.C. § 453A(c)(4). In addition, the interest rate on deferred tax liability used by the government is the federal short-term rate plus three percentage points. See I.R.C. § 453A(c)(2)(B).

21. See I.R.C. § 163(h)(1) (stating that personal interest is not deductible); Temp. Treas. Reg. § 1.163-9T(b)(2)(i) (1987) (stating that interest on deferred tax liability is treated as interest on a tax deficiency, which is treated as personal interest).

22. See, e.g., *Allen v. United States*, No. 98-1401, 1999 U.S. App. LEXIS 7591, at *13 (4th Cir. Apr. 20, 1999) (finding regulation § 1.163-9T to be a reasonable construction of I.R.C. § 163(h)); *Miller v. United States*, 65 F.3d 687, 691 (8th Cir. 1995) (concluding that regulation § 1.163-9T is valid as a permissible construction of the statute); *Redlark v. Commissioner*, 141 F.3d 936, 942 (9th Cir. 1997), (holding that regulation § 1.163-9T is valid), *rev'g* 106 T.C. 31 (1996)); *Stecher v. United States*, No. 97-WY-1892-AJ, 1998 U.S. Dist. LEXIS 10173, at *12 (D. Colo. June 1, 1998) (holding that regulation § 1.163-9T is a reasonable interpretation of Congressional intent). *But see, e.g., Kikalos v. Commissioner*, 75 T.C.M. (CCH) 1924, 1933 (1998) (holding that regulation § 1.163-9T is invalid).

If the seller cannot deduct the interest on deferred tax liability, then the seller's net annual after-tax position is $rA(1 - t) - rAt$. The seller is worse off by the amount of tax that would be saved by the deduction of the interest on the deferred tax liability.

The partnership analogy also demonstrates when the interest paid by the seller should be deducted. It should first be paid beginning in the year after sale and deducted in that year. The government, however, charges the interest at the end of the year of sale (and each subsequent year until the installment obligation is no longer outstanding). As a result, the interest is really an advance charge imposed by the government to prevent the time value of money benefit of tax deferral.²³ This is why no interest is charged in the year that the installment obligation is completely paid off and why the interest is not prorated for the year of sale.²⁴

C. VARYING TAX RATES

1. *Known Capital Gains Tax Rate*

What if the tax rate on the gain deferred by the installment method is different than the tax rate on the interest income generated by the installment obligation? Does the partnership analogy still hold? The answer formally is "yes," although substantively this is different than the Cary Brown model because the assumption of constant tax rates is changed. Assume the \$10,000 of gain that is deferred will be subject to a 28% capital gains tax rate when it is recognized in a later year.²⁵ The pre-tax rate of return is still 10%, but the tax rate on the interest income is 40%, i.e., the seller is in the 40% tax bracket each year.

Let us focus on the first year after the sale. During that first year, the buyer pays \$1,000 of interest to the seller. By deferring the taxes on the gain of \$10,000, Cary Brown would describe the government as being in partnership with the seller—the government contributes \$2,800, and the seller contributes \$7,200 (step one). Of the \$1,000 in interest paid from buyer to seller the first year, \$400 of taxes is owed to the government. The \$400 of taxes collected by the government is its share of the profits of the partnership that it entered into with the seller (steps two and three). The tax rate is in essence 28% (not 40%) on the entire transaction. The 40% tax rate on the interest income is the allocation percentage for the profits of the partnership (step two).

23. See Christopher H. Hanna & Samuel Olchyk, *Interest Under Section 453A(c): Is It or Isn't It?*, 56 TAX NOTES 1345, 1350 (1992) ("The interest on deferred tax liability [under section 453A(c)] computed at the close of the year of sale should be deductible in the following year, not in the year of sale. The reason is that the interest on deferred tax liability relates to the delay in paying tax on the gain through use of the installment method.").

24. See *id.*

25. See *Mostowy v. United States*, 966 F.2d 668, 671 (Fed. Cir. 1992) (taxpayers made a contract in 1985 but collected the payment in 1988; the tax rate in 1988 was used to determine the tax owed to the government even though the rate in 1985, the year of the contract, was lower because of the capital gains deduction).

TABLE 6

	Contributions to the Partnership	Income of the Partnership Each Year	Termination of the Partnership (Return of Contributions)
Taxpayer	\$ 7,200	\$ 600	\$ 7,200
Government	\$ 2,800	\$ 400	\$ 2,800
TOTAL	\$10,000	\$1,000	\$10,000

The seller's portion of the \$1,000 is \$600, which is the seller's portion of the profits from the partnership (step two). The government should collect tax of 28% on the seller's share if it wants to eliminate the time value of money benefit of tax deferral in an installment sale (step four). Again, the tax rate on the entire transaction is 28%. Consequently, the government should collect \$168 in taxes from the seller (\$600 multiplied by 28%) (step four). Therefore, the government should collect a total of \$568 (\$400 plus \$168) from the seller in year one, leaving the seller with \$432 (\$1,000 minus \$568). The \$400 the government collects on the \$1,000 of interest income is the government's share of the profits of the partnership it has entered into with the taxpayer. The \$168 the government collects from the taxpayer is a tax on the taxpayer's share of the profits of the partnership. This procedure should be done again in year two. If so, at the end of year two, the seller will have \$8,089.92, the exact same result as if the seller made an all-cash sale, and the capital gains tax rate at the time of sale was 28%.

The U.S. government uses an interest charge method with respect to certain large installment sales.²⁶ In the case of the installment sale, at the end of the first year, the seller has deferred \$2,800 in taxes. Therefore, the U.S. government requires the seller to pay interest to the government—assuming a 10% interest rate, \$280 in interest is owed the government (\$2,800 deferred taxes multiplied by 10% interest rate).²⁷ If the seller can deduct the interest, then this is really an out-of-pocket payment of only \$168 (\$280 interest payment minus \$112 tax savings). This is the exact same result as taxing the seller on \$600 of the interest income, which resulted in \$168 in additional taxes. As stated previously though, the interest represents an advance charge by the government for the seller's deferral of taxes through use of the installment method.

2. *Unknown Capital Gains Tax Rate*

What if the tax rate on the capital gain that is deferred by the installment method is not known? In other words, the rate in the year of sale is,

26. See I.R.C. § 453A(c) (1994).

27. There is a \$5 million de minimis rule, which is ignored for purposes of this example. See I.R.C. § 453A(c)(4). In addition, the interest rate on deferred tax liability used by the government is the federal short-term rate plus three percentage points. See I.R.C. § 453A(c)(2)(B).

for example, 20%, but may change in two years when the seller collects the sales price.²⁸ The government could simply use the appropriate capital gains rate in effect each year that the installment obligation is outstanding, as it does under section 453A(c). Alternatively, the government could wait until the end of the deferral period to eliminate the tax deferral benefit. The partnership analogy, slightly modified, still works in this latter case.

Let's focus on the first year after the sale. By deferring the taxes on the gain of \$10,000, Cary Brown would describe the government as being in partnership with the seller. The government contributes some unknown amount because the tax rate on the deferred capital gain is not known, and the seller contributes \$10,000 less the government's amount (step one). The contributions to the partnership still total \$10,000.

Of the \$1,000 in interest paid from buyer to seller the first year, \$400 of taxes is owed to the government. The \$400 of taxes collected by the government is its share of the profits of the partnership that it entered into with the seller (steps two and three). The tax rate is some unknown percentage on the entire transaction. The 40% tax rate on the interest income is the allocation percentage for the profits of the partnership (step two).

The seller's portion of the \$1,000 is \$600, which is the seller's portion of the profits from the partnership (step two). The government should collect tax of an unknown percentage on the seller's share (\$600) if it wants to eliminate the time value of money benefit of tax deferral in an installment sale (step four). The government can collect it at the end of the deferral period (step five) by *treating* the seller's share of the profits as staying in the partnership (step four).

In year two, the partnership generates \$1,060, which is allocated 60% to the seller and 40% to the government because that is the tax rate in effect on the investment income (step two).²⁹ The government collects \$424 (\$1,060 multiplied by 40%) (step three). At the end of year two, the seller collects the \$10,000 owed by the buyer. Let us assume that the tax rate in effect at the end of year two is 28% on the seller's capital gain. The government should tax the seller's share of the profits of the partnership, which is \$1,236 (\$600 from year one plus \$636 from year two). At a 28% tax rate, the tax owed to the government is \$346.08 (\$1,236 multiplied by 28%). The government will also receive its contribution to the partnership, which was originally unknown and now is determined to be \$2,800 (\$10,000 multiplied by 28%). The seller will have \$1,236 (share of the profits of the partnership) less \$346.08 (taxes on those profits) plus \$7,200 (share of his contribution to the partnership). The seller will have a total of \$8,089.92, the exact same result as if the seller made an all-cash

28. See, e.g., *Mostowy*, 966 F.2d at 671.

29. This \$1,060 would actually be derived by the \$1,000 of interest income paid by the buyer to the seller in year two and the \$60 of interest income earned by the seller from the \$600 retained from the previous year.

sale (subject to a 28% capital gains tax rate). In this case, it does not matter if the government taxes the taxpayer's share of the profits of the partnership annually (step four) or at the end of the deferral period (step five).

IV. DEFERRAL OF PREPAID INCOME³⁰

The interest charge rules are used in many situations today.³¹ It appears to be the U.S. government's preferred method for eliminating tax deferral. But it is only one of several methods.³² Another method is to impute income and tax the imputed income.³³ Under the imputed income method, the government, in a tax deferral situation involving prepaid service income of an accrual method taxpayer, currently imputes income at a pre-tax rate of return, which appears to be inaccurate.³⁴ The income should be imputed at an after-tax rate of return.³⁵

Assume on January 1, 1998, an accrual method automobile dealer receives \$1,000 for a service warranty contract that carries a term of two years. The automobile dealer pays to an unrelated third party \$1,000 to insure its obligations under the service warranty contract. In addition, assume the automobile dealer elects to use the service warranty income

30. The literature on the taxation of prepaid income is quite voluminous. See, e.g., Jeffrey P. Cantrell et al., *Notice 89-21 Crashes the Interest Rate Swap Party*, 45 TAX NOTES 337 (1989); Alan Gunn, *Matching of Costs and Revenues as a Goal of Tax Accounting*, 4 VA. TAX REV. 1 (1984); Laurie L. Malman, *Treatment of Prepaid Income—Clear Reflection of Income or Muddied Waters*, 37 TAX L. REV. 103 (1981); Robert H. Scarborough, *Payments in Advance of Performance*, 69 TAXES 798 (1991).

Generally, commentators are split on whether prepaid service income should be taxed on receipt by an accrual method taxpayer or whether the income should be deferred and included in gross income over the period of time in which the services will be rendered. See, e.g., Calvin H. Johnson, *The Illegitimate "Earned" Requirement in Tax and Nontax Accounting*, 50 TAX L. REV. 373, 379 (1995) (arguing that prepaid service income should be included in income upon receipt) [hereinafter Johnson, *The Illegitimate "Earned" Requirement*]; W. Eugene Seago & Debra Callihan, *Toward a Sound (Neutral) Tax Policy for Prepaid Income from Services*, 74 TAX NOTES 359, 360 (1997) (criticizing Professor Johnson and arguing that prepaid service income should be included in gross income over the life of the contract); Letter from Calvin H. Johnson, *The Roads Not Traveled: Professor Johnson Responds*, 74 TAX NOTES 367 (1997) (responding to Seago and Callihan's article).

For purposes of this Article, I assume that Revenue Procedure 92-98, 1992-2 C.B. 512, is valid in forcing inclusion of the prepayment in income and merely question whether the applicable federal rate (AFR) used by the Service is accurate.

31. See, e.g., I.R.C. §§ 167(g) (West Supp. 1998) (income forecast method for depreciation), 367 (outbound transfers of property), 453(l) (1994) (installment sales of timeshare and residential lots), 453A (large installment sales), 460 (West Supp. 1998) (long-term contracts), 668 (West Supp. 1998) (foreign trusts), 995(f) (1994) (domestic international sales corporations), and 1291 (West Supp. 1998) (passive foreign investment companies).

32. See Christopher H. Hanna, *The Virtual Reality of Eliminating Tax Deferral*, 12 AMER. J. TAX POL'Y 449, 460-507 (1995) (describing five different methods of eliminating tax deferral—interest charge method, imputed income method, immediate inclusion in income method, deposit method, and double inclusion in income method).

33. See *id.* at 481-90.

34. See, e.g., Daniel I. Halperin, *Assumption of Contingent Liabilities on Sale of a Business*, 2 FLA. TAX REV. 673, 695 n.59 (1996) (questioning the use of a pre-tax rate of return but acknowledging there is precedent for its use in section 468); Hanna, *supra* note 32, at 481-89 (questioning whether a pre-tax rate of return is appropriate).

35. See Halperin, *supra* note 34, at 695 n.59; Hanna, *supra* note 32, at 483-89.

method of accounting for its qualified payment amounts on service warranty contracts as prescribed in Revenue Procedure 97-38.³⁶ Under the revenue procedure and using an applicable federal rate (AFR) of 10%, the automobile dealer would include \$523.80 in income for the year of receipt and \$523.80 in the year following the year of receipt.³⁷ If the AFR is converted to an after-tax rate of return by multiplying the AFR by the automobile dealer's assumed tax rate of 40%, then 6% should be the rate at which the Service imputes income to the automobile dealer. Under the revenue procedure, this would result in the automobile dealer including \$514.60 in income for the year of receipt and \$514.60 in the year following the year of receipt. Which of these rates is accurate? The partnership analogy should easily resolve this issue.

TABLE 7

	Contributions to the Partnership	Income for the Year After Receipt	Termination of the Partnership
Taxpayer	\$300	\$30	\$300
Government	\$200	\$20	\$200
TOTAL	\$500	\$50	\$500

In the year of receipt, the automobile dealer must include half (\$500) of the prepaid amount in gross income pursuant to the revenue procedure.³⁸ Therefore, the remaining half of \$500 is deferred to the next year. This deferral of \$500 of income creates the partnership between the taxpayer and the government, with the taxpayer contributing \$300 to the partnership and the government contributing \$200 (step one). In the year after receipt, the partnership generates \$50 of income. The government taxes this at a 40% tax rate leaving \$30 for the taxpayer, which is, in

36. Rev. Proc. 97-38, 1997 I.R.B. LEXIS 243, modifying and superseding Rev. Proc. 92-98, 1992-2 C.B. 512. The Service issued the 1992 revenue procedure in response to the outcry from automobile dealers with respect to the issuance of Technical Advice Memorandum 92-18-004 (Jan. 23, 1992). See Lee A. Sheppard, *The Goldberg Variations, or: Giving Away the Store*, 58 TAX NOTES 530 (1993). A number of commentators wrote letters with respect to the technical advice memorandum and revenue procedure. See, e.g., Letter from James P. Holden, *Lee Sheppard's Grumpy Attack*, 58 TAX NOTES 1130 (1993); Letter from Sheldon S. Cohen, *In Defense of Lee Sheppard*, 58 TAX NOTES 1386 (1993); Letter from Milton Cerny, *Sheppard Variations*, 58 TAX NOTES 981 (1993); Letter from James P. Fuller, *In Defense of Fred Goldberg*, 58 TAX NOTES 1259 (1993); Letter from George K. Yin, *The Tax Administrator's Duty to Take Pro-Government Positions*, 58 TAX NOTES 1387 (1993).

37. These amounts are determined pursuant to a table provided in Revenue Procedure 97-38. Rev. Proc. 97-38, 1997 I.R.B. LEXIS 243, at *26. If the term of the service warranty contract is longer, then obviously the income inclusion each year would also change. For example, if the term is five years, then the amount that the automobile dealer would include in income each year would be \$239.80 using an applicable federal rate of 10%, and \$224 using an applicable federal rate of 6%.

38. See Rev. Proc. 97-38, 1997 I.R.B. LEXIS 243; see also Johnson, *The Illegitimate "Earned" Requirement*, *supra* note 30, at 383 n.39 (1995) (criticizing Revenue Procedure 92-98 in allowing deferral of prepaid income and forcing the government to be a creditor of the taxpayer).

substance, the allocation of the profits of the partnership (steps two and three). The \$30 allocated to the taxpayer should be taxed to prevent the time value of money benefit of tax deferral (steps four and five). Requiring the taxpayer to include \$30 in income in year two is equivalent to requiring the automobile dealer to include \$14.60 in year one (the year of receipt) and \$14.60 in year two, which are the imputed amounts using an *after-tax* rate of return of 6%.

If the pre-tax rate of return of 10% is used, then the automobile dealer must include imputed income of \$23.80 in year one and \$23.80 in year two. This is equivalent to requiring the automobile dealer to include \$50 in year two. As Table 7 demonstrates, this is too much. Fifty dollars represents the return for the entire partnership, including the government's portion of \$20, which the government already takes as its share as a partner in the partnership. Formally, the government takes its \$20 as a tax on the entire \$50. If the government were to then impute \$50 of income, it would be overtaxing the automobile dealer.

The imputed income method can be demonstrated algebraically. Focusing solely on the income side of the automobile dealer, the above example can be generalized algebraically using the following additional assumptions: (1) the deductions to the automobile dealer are disregarded, and (2) the option is to either include the prepaid service income on receipt or defer it until the end of the contract. In the case of *immediate recognition of income*, an amount A of income is reduced by tax t such that $A(1 - t)$ may be invested. At an annual rate of return r , $A(1 - t)$ invested will earn $rA(1 - t)$ per year, which will be subject to tax at rate t , equaling tax each year of $trA(1 - t)$. The automobile dealer's net annual after-tax position each year will be:

$$rA(1 - t) - trA(1 - t), \text{ which equals } rA(1 - t)(1 - t).$$

In the case of imputing interest income in which prepaid service income is recognized *at the end of the contract* (not over the life of the contract), an amount A of prepaid service income is not reduced by tax t at the time of receipt. At an annual rate of return r , A invested will earn rA per year, which will be subject to tax at rate t , equaling tax each year of trA . In addition, interest income is imputed each year in the amount of $rA(1 - t)$, which is an after-tax rate of return. This is subject to tax at rate t equaling tax each year of $trA(1 - t)$. The automobile dealer's net annual after-tax position will be:

$$rA(1 - t) - trA(1 - t), \text{ which equals } rA(1 - t)(1 - t).$$

This is equal to the automobile dealer's net annual after-tax position when immediate recognition of income is required and tax is immediately imposed.

If a pre-tax rate of return is used in imputing interest income in which prepaid service income is recognized at the end of the contract, the amount A of prepaid service income is not reduced by tax t at the time of

receipt. At an annual rate of return r , A invested will earn rA per year, which will be subject to tax at rate t , equaling tax each year of trA . In addition, interest income is imputed each year in the amount of rA , which is a pre-tax rate of return. This is subject to tax at rate t , equaling tax each year of trA . The automobile dealer's net annual after-tax position will be $rA(1 - t) - rAt$. The automobile dealer is worse off by the amount of tax that would be saved by only including imputed interest income at an after-tax rate of return.

Focusing on tax deferral through Professor Brown's partnership analogy demonstrates how to achieve the proper result in eliminating tax deferral, regardless of what method is used. If the interest charge method is used, the interest paid to the government should be deductible (unless the interest rate used is an after-tax rate of return). If the imputed income method is used, the proper rate in imputing income is an after-tax rate of return.³⁹

V. DEFERRED COMPENSATION

A. INTRODUCTION

It is important to demonstrate another very crucial principle with respect to tax deferral, which is credited to Professor Daniel Halperin⁴⁰ and advanced by Professor Alvin Warren.⁴¹ Assume that T has entered into a nonqualified deferred compensation arrangement with her employer. T has deferred \$10,000 of compensation that will be paid out in its entirety at the end of three years. As a result of the deferred compensation plan, T has deferred paying \$4,000 in taxes (40% multiplied by \$10,000 income). If the deferred income amount of \$10,000 increases by the after-tax rate of return of 6%, then there is no time value of money advantage to deferral. Assume that the employer is subject to tax on its earnings at a 40% tax rate (and T is also in the 40% tax bracket). As a result, T's deferred income amount will increase in value by a 6% after-tax rate of return each year. At the end of three years, T's deferred amount is \$11,910.16. If T receives the entire amount at the end of three years, T's income will be \$11,910.16, and T will owe taxes of \$4,764.06, leaving T with \$7,146.10.

39. See Halperin, *supra* note 34, at 695 n.59 (noting that although an after-tax rate of return is the proper result, converting the AFR into the taxpayer's after-tax rate of return may be too low because a taxpayer cannot borrow at the AFR).

40. See Daniel I. Halperin, *Interest in Disguise: Taxing the "Time Value of Money,"* 95 YALE L.J. 506 (1986). This Article is probably the leading article on tax deferral and time value of money. Professor Halperin writes that, with respect to nonqualified deferred compensation, "it is not essential to allow a deduction or require inclusion at any particular time. The timing can be flexible as long as the amount of the item is adjusted to achieve an equivalence in the present discounted value of the income or deduction." *Id.* at 523-24.

41. See Alvin C. Warren, Jr., *The Timing of Taxes*, 39 NAT'L TAX J. 499, 499 (1987) ("The present value to a taxpayer of a consistently defined tax will be the same whether the tax is deferred or accelerated, as long as the tax rate remains constant and the base of a deferred tax increases over time by the rate of return generally applicable to investment of proceeds available after payment of an accelerated tax.").

Another way of viewing the above example is that if T currently receives the compensation of \$10,000, T would have \$6,000 after taxes (\$10,000 income less \$4,000 taxes paid). T could then invest the money and earn an after-tax rate of return of 6% annually. At the end of three years, T would have \$7,146.10. This is the exact same amount as if T deferred the compensation for three years, and the deferred amount increased by a 6% after-tax rate of return each year. T has achieved no tax deferral benefit by deferring taxes on the original compensation of \$10,000. As a result, the example demonstrates that "deferral of income (or deductions) is not advantageous (or disadvantageous) to taxpayers if the deferred amount is increased by the after-income-tax rate of return" during the deferral period.⁴²

Can the Cary Brown model and partnership analogy illustrate this principle of tax deferral? The answer again is "yes." Because of the deferral that takes place as a result of the deferred compensation arrangement, Professor Brown would describe the government as being a partner with the taxpayer (step one). The government should be allocated (step two) and collect its share of the profits of the partnership each year (step three). Plus, either annually (step four) *or at the end of the deferral period* (step five), the government should tax the taxpayer's profits from the partnership to eliminate the time value of money benefit of tax deferral. In other words, when the deferral period is terminated, the taxpayer needs to end up with his contribution plus an *after-tax rate of return on his contribution* to the partnership (the government taxing the return). This is consistent with the five-step partnership analogy used throughout this Article. Professors Halperin and Klein have written that Professor Warren's advancement "may perhaps best be described as a 'mathematical trick.'"⁴³ While that may be true, Professor Warren's advancement is consistent with the partnership application of the Cary Brown model.⁴⁴

B. EMPLOYER IN THE SAME TAX BRACKET AS EMPLOYEE

Under the partnership analogy, because T has deferred \$10,000 of income, T is treated as contributing \$6,000 to the partnership, and the government is treated as contributing \$4,000 (step one). If the 10% pre-tax rate of return on the deferred compensation is taxed each year to the employer, then the \$1,000 of earnings in the first year, although actually taxed to the employer, is really earnings of the partnership between T and the government. T (and not the employer) is the one deferring income. As a result, T's share of the earnings is 60%, or \$600 in this case (step two). The government's share is 40%, or \$400 in this case (step

42. *Id.* at 501; *see also* Halperin, *supra* note 40, at 523-24.

43. Letter from Daniel I. Halperin & William A. Klein, *Accounting for Future Obligations—Once More*, 39 TAX NOTES 266 (1988).

44. *See* David G. Hartman, *Tax Policy and Foreign Direct Investment in the United States*, 37 NAT'L TAX J. 475 (1984) (applying the principle that, under certain conditions, there is no time value of money advantage to tax deferral if the deferred amount increases at the after-tax rate of return, in the international tax context).

two). The government collects its \$400 from the employer at the end of year one (step three). This is not really a tax but the government's share of profits from the partnership. The government generally does not care from whom it collects its share of the profits as long as the share is collected. In year two, the investment now of \$10,600 will generate \$1,060 of earnings to the employer, which can again be described as earnings of the partnership between T and the government. T's share of the earnings is \$636, and the government's share is \$424 (step two). The government collects its \$424 from the employer at the end of year two (step three). Again, the \$424 is not really a tax, but rather it is the government's share of profits from the partnership.

In year three, the investment now of \$11,236 will generate \$1,123.60 of earnings to the employer, which can again be described as earnings of the partnership between T and the government. T's share of the earnings is \$674.16, and the government's share is \$449.44 (step two). The government collects its \$449.44 from the employer at the end of year three (step three).

Also at the end of year three, T receives her deferred income of \$11,910.16, for which the employer is entitled to a deduction.⁴⁵ The deferred amount can be treated as \$1,910.16 of profits and \$10,000 return of contribution (step five). As to the \$1,910.16 of profits, it is all allocated to T, as the government has already been allocated its share of the profits on its contribution to the partnership (from the employer). T is taxable on her profit of \$1,910.16 (step five). Therefore, the government collects \$764.06 of T's share of the profits (\$1,910.16 of income multiplied by 40%). T is left with \$1,146.10. As to the return of the contributions, \$6,000 is returned to T and \$4,000 is returned to the government. Consequently, T receives a total of \$7,146.10, and the government receives \$4,764.06 of the total \$11,910.16.

T receives no time value of money benefit by deferring taxes on the compensation of \$10,000. The government is allocated (step two) and collects its share of the profits each year (step three) and taxes T's share of the profits when the partnership terminates at the end of three years (step five).⁴⁶ In other words, all five steps of the partnership analogy

45. See I.R.C. § 404(a)(5) (1994). The employer's deduction of \$11,910.16 at the time of payment does not appear to be relevant as to the employer for purposes of the partnership aspect of the Cary Brown model. It is the employee, T, who is deferring income. The employer has neither deferred income nor accelerated a deduction. The employer merely receives a deduction upon parting with cash of \$11,910.16.

46. One reviewer of this Article suggests an alternative way of viewing the partnership aspect of the Cary Brown model in this example. At the end of the first year, the government should collect tax on T's share of the earnings of the partnership. The amount of tax should be \$240 (\$600 multiplied by 40%). Because the government does not collect this amount at the end of year one, the amount is treated as credited to the government's interest in the partnership. Consequently, the government's interest is increased to \$4,240.

During year two, the partnership generates \$1,060 of income, of which the government's share is \$424 (\$1,060 multiplied by 40%), which is 10% of its interest of \$4,240. In year two, the government should collect tax on T's share of the earnings of the partnership. The amount of tax should be \$254.40. Because the government does not collect this amount at

eliminate the time value of money benefit of tax deferral.⁴⁷

C. EMPLOYER IN A DIFFERENT TAX BRACKET FROM EMPLOYEE

Can the partnership analogy be used if the employer and employee are in different tax brackets? Again, the answer is formally “yes,” but substantively this is different from the Cary Brown model because the assumption of constant tax rates is changed. Assume the employer is in the 20% tax bracket and earns a 10% pre-tax rate of return each year. The employee, T, is in the 40% tax bracket and earns a 10% pre-tax rate of return each year. If the 10% pre-tax rate of return on the deferred compensation is taxed each year to the employer, then the \$1,000 of earnings in the first year, although actually taxed to the employer, is really earnings of the partnership between T and the government. Again, it is T who is deferring income, not the employer. But this time, T and the government will share the earnings of the partnership each year on an 80% to 20% profit sharing ratio (step two). This is clearly advantageous to T because T has originally contributed 60% of the capital of the partnership but is allocated 80% of the earnings each year—clearly one reason why T would want to enter into this deferred compensation arrangement.⁴⁸ As a result, T’s share of the earnings is 80%, or \$800 in this case (step two). The government’s share is 20%, or \$200 (step two). The government collects its \$200 from the employer at the end of year one (step three). This is the government’s share of profits from the partnership. As long as the government collects its share of the profits, it does not care much or from whom the share is collected.⁴⁹

the end of year two, the amount is treated as credited to the government’s interest in the partnership. As a result, the government’s interest is increased to \$4,494.40.

During year three, the partnership generates \$1,123.60 of income, of which the government’s share is \$449.44 (\$1,123.60 multiplied by 40%), which is 10% of its interest of \$4,494.40. In year three, the government should collect tax on T’s share of the earnings of the partnership. The amount of tax should be \$269.66. When the partnership terminates at the end of year three, the government receives \$4,494.40 plus \$269.66, totaling \$4,764.06. The taxpayer receives \$7,146.10 (\$6,000 plus \$600, minus \$240, plus \$636, minus \$254.40, plus \$674.16, minus \$269.66). Under this alternative view, there is no advantage to tax deferral because the deferred tax is credited to the government’s interest in the partnership at the end of each year. As a result, the government earns the return on the deferred tax, not the taxpayer. The methodology in the text achieves the same numerical result as this alternative. The purpose of the methodology in the text is to demonstrate that it does not matter *when* the government taxes the taxpayer’s share of profits, either annually or at the end of the deferral period when the partnership terminates, because the time value of money benefit of tax deferral is eliminated in either case.

47. Steps four and five are, in essence, interchangeable. As demonstrated in the Article, the government can tax the taxpayer’s share of the profits annually or at the end of the deferral period.

48. In other words, assuming equal pre-tax returns, T will earn a higher after-tax rate of return by entering into this deferred compensation plan with her employer than if she immediately received the compensation and invested the after-tax proceeds on her own behalf.

49. In this example, the government would have preferred to collect its share of the profits from the employee if the employee’s tax rate were used to determine the profit sharing ratio. But that is not the case in a nonqualified, unfunded deferred compensation plan.

In year two, the investment now of \$10,800 will generate \$1,080 of earnings to the employer, which can again be described as earnings of the partnership between T and the government. T's share of the earnings is \$864, and the government's share is \$216 (step two). The government collects its \$216 from the employer at the end of year two (step three). The \$216 is the government's share of profits from the partnership.

In year three, the investment now of \$11,664 will generate \$1,166.40 of earnings to the employer. T's share of the "partnership" earnings is \$933.12, and the government's share is \$233.28 (step two). The government collects its \$233.28 from the employer at the end of year three (step three).

Also at the end of year three, T receives her deferred income of \$12,597.12, for which the employer is entitled to a deduction.⁵⁰ The deferred amount can be treated as \$2,597.12 of profits and \$10,000 return of contribution (step five). As to the \$2,597.12 of profits, it is all allocated to T, because the government has already been allocated its share of the profits on its contribution to the partnership (from the employer). T is taxed on her profit of \$2,597.12 (step five). Therefore, the government collects tax of \$1,038.85 on T's share of the profits (\$2,597.12 of income multiplied by 40%). T is left with \$1,558.27. As to the return of the contributions, \$6,000 is returned to T, and \$4,000 is returned to the government. Consequently, T receives a total of \$7,558.27, and the government receives \$5,038.85 of the total \$12,597.12.

It appears that T has received a time value of money benefit by deferring taxes on the compensation of \$10,000 even though T earned an after-tax rate of return on her contribution to the partnership. This is true even though all five steps of the partnership analogy have taken place. T's advantage is that she is able to earn a higher after-tax rate of return on her contribution to the partnership because the partnership generates a higher after-tax rate of return than T can earn individually.⁵¹ T's situation becomes closer to that of an employee participating in a qualified plan.⁵² In fact, if the earnings of the partnership each year are allocated

50. See I.R.C. § 404(a)(5) (1994). As stated previously, the employer's deduction does not appear to be relevant as to the partnership aspect of the Cary Brown model. It is the employee who is deferring income. The employer has neither deferred income nor accelerated a deduction but rather is merely receiving a deduction upon parting with cash of \$12,597.12. See *supra* note 45.

51. See Halperin, *supra* note 40, at 523 (noting that while an employee will also benefit from deferral if the employer can earn a higher pre-tax return than the employee, this is not a tax policy concern).

52. See Letter from Daniel I. Halperin, *More on Deferred Compensation from Prof. Halperin*, 64 TAX NOTES 1485, 1485 (1994) ("[T]he advantage of qualified plans can be described solely as *tax exemption for investment income*." In the case of nonqualified plans, the amounts contributed are taxed at the employer's tax rate. "In the case of a tax-exempt institution, the rate would be zero, the same as it is under a qualified plan. In the case of a taxable employer, however, at least one that does not have tax losses, the rate would be positive and fairly consistent with the employee's own rate.").

entirely to T, perhaps because the employer is tax-exempt⁵³ or has a net operating loss carry forward to eliminate any tax on the investment income, then T's situation becomes almost identical to that of a participant in a qualified plan.⁵⁴

D. COMPARISON OF NONQUALIFIED PLANS TO QUALIFIED PLANS

Professor Halperin has written on a number of occasions that the sole advantage of qualified plans relative to nonqualified plans from a tax deferral standpoint is that qualified plans provide exemption of the investment income and nonqualified plans do not.⁵⁵ As even Professor Halperin has acknowledged, there still seems to be a lot of confusion in the tax community regarding this concept.⁵⁶ Perhaps the partnership analogy can clear up the lack of understanding. Assume that T, in the 40% tax bracket, has entered into a deferred compensation arrangement with her employer that is part of a *qualified plan*. T has deferred \$10,000 of compensation that will be paid out in its entirety at the end of three years. As a result of the deferred compensation plan, T has deferred paying \$4,000 in taxes (40% multiplied by \$10,000 income). The employer receives a \$10,000 deduction upon contributing the money to the plan.⁵⁷ T, the employee, will not have income until the money is withdrawn (let us assume at the end of three years with no penalty).⁵⁸ T's deferred income will increase in value by a 10% pre-tax rate of return each year.⁵⁹ At the end of three years, the deferred amount is \$13,310. If T receives the entire amount at the end of three years, T's income is \$13,310. After taxes of \$5,324, T is left with \$7,986.

Under the partnership analogy, because T has deferred \$10,000 of income, T is treated as contributing \$6,000 to the partnership and the government is treated as contributing \$4,000 (step one). During the first year, the partnership earns \$1,000. Because this is a qualified plan, these earnings are not currently taxed.⁶⁰ Using the partnership analogy, all of the profits are allocated to T during the first year, and none are allocated to the government (step two). Because the government is not allocated any of the profits, it has nothing to collect from the partnership during the first year (step three). The government does nothing to prevent tax deferral during the first year. In other words, step one takes place, creat-

53. See I.R.C. § 457 (West Supp. 1998) (providing for deferred compensation plans of state and local governments and tax-exempt organizations).

54. See Halperin, *supra* note 40, at 539-50.

55. See *id.*; see also Halperin, *supra* note 52, at 1485.

56. See Halperin, *supra* note 52, at 1485 (questioning whether some tax advisors really understand the tax deferral advantage of qualified plans versus nonqualified plans).

57. See I.R.C. § 404(a) (West Supp. 1998). As stated previously with respect to non-qualified plans, the employer's deduction does not appear relevant as to the partnership aspect of the Cary Brown model. See *supra* note 45. The employer is neither deferring income nor accelerating a deduction. The employer has actually parted with cash of \$10,000 that it will not receive back.

58. See I.R.C. § 402(a) (1994).

59. See I.R.C. § 501(a).

60. See *id.*

ing the partnership between T and the government, steps two and three take place, but the profit sharing ratio of taxpayer to government is 100% to 0%. In addition, steps four and five do not take place because T does not collect her share of the profits for the government to tax (step four) and the partnership does not terminate (step five).

During the second year, the partnership earns \$1,100. Because this is a qualified plan, these earnings are not currently taxed. All of the profits are allocated to T during the second year, and none are allocated to the government (step two). Thus the government has nothing to collect from the partnership during the second year (step three). The government does nothing to prevent tax deferral during the second year. As in the first year, step one takes place, creating the partnership between T and the government, steps two and three take place, but the profit-sharing ratio is again 100% to 0%, and steps four and five do not take place.

During the third year, the partnership earns \$1,210, and the funds are distributed to T at the end of year three. Of the \$1,210 earned during year three, the government collects 40% of it, or \$484; this is not due to steps two and three, because all the year's profits are still allocated to T, but rather due to steps four and five. The partnership also returns the accumulated profits from the earlier years plus the capital contributions made by T and the government. T receives \$2,100 of accumulated profits, plus \$6,000 of capital contributions (step five). The accumulated profits of \$2,100 are taxed by the government (step five). At a 40% tax rate, T owes \$840. T will be left with \$726 (\$1,210 less \$484), plus \$1,260 (\$2,100 less \$840), plus T's capital contributions of \$6,000, which total \$7,986. The government receives \$484, plus \$840 of taxes on T's accumulated profits, plus \$4,000 of capital contributions. This totals \$5,324. The partnership analogy works again to describe the tax consequences of a qualified plan (see Table 8).

TABLE 8

	Contributions to the Partnership	Income of the Partnership Each Year	Termination of the Partnership After Three Years (Return of Contributions Plus Current Profits Less Taxes Plus Accumulated Profits Less Taxes)
Taxpayer	\$ 6,000	\$1,000 (year one); \$1,100 (year two); \$1,210 (year three)	\$ 7,986 (\$6,000 plus \$1,210 less \$484 taxes owed plus \$2,100 less \$840 of taxes)
Government	\$ 4,000	\$ 0 (each year)	\$ 5,324 (\$4,000 plus \$484 plus \$840 of taxes)
TOTAL	\$10,000	\$3,310	\$13,310

The partnership analogy shows the difference between a qualified plan and a nonqualified plan. In a qualified plan, the government is not allo-

cated any of the profits of the partnership. All of the profits are allocated to the taxpayer. The taxpayer leaves the profits in the partnership until termination of the partnership. At termination, the government finally taxes the taxpayer's profits of the partnership. In the nonqualified plan, the government collects its share of the profits each year. The taxpayer leaves his share of the profits in the partnership until termination of the partnership. The government taxes the taxpayer's profits of the partnership at termination.

The qualified plan example is also different from the previous situations that demonstrate the application of the Cary Brown model. For example, in the case of the immediate deduction of the taxable bond or an installment sale (with no interest charge), the government is allocated (step two) and collects its share of the profits of the partnership each year (step three). But the taxpayer is never taxed on his share of the partnership income (steps four and five never take place). As a result, immediately deducting the cost of an asset (or deferring the gain on an installment sale) is equivalent to excluding the future annual return of *the asset* from gross income, as described by the Cary Brown model. In the case of the deductible taxable bond, the asset is the bond and the income exclusion is the taxpayer's portion of the interest income received each year on the bond.⁶¹ In the case of an installment sale of property with a zero basis, the asset is the installment obligation and the income exclusion is the taxpayer's portion of the interest income received each year on the installment obligation.

In the qualified plan example, the government is not allocated any of the profits of the partnership each year (step two) and consequently does not collect its share of the profits of the partnership each year (step three). As a result, steps two and three take place, but the profit sharing ratio for the taxpayer to government is 100% to 0%. Steps four and five take place upon termination of the partnership, which does not happen in the Cary Brown model.

As a result, the qualified plan example is a demonstration that is equivalent to the Cary Brown model as to the original contribution to the plan and the return on the original contribution for the first year only. If the partnership is terminated immediately after one year, the government will, in substance, collect its share of the profits of the partnership, not through steps two and three, but rather through steps four and five. Under the Cary Brown model, the government collects its share of the profits of the partnership under steps two and three. If the time frame involved is only one year, then collecting taxes under steps four and five yields equivalent results to collecting taxes under steps two and three (assuming constant tax rates). But after the first year, when the government does not collect its tax because the partnership does not terminate, a dif-

61. See, e.g., SURREY, *supra* note 6, at 323 n.6.

ferent type of tax deferral situation takes place, as illustrated by the qualified plan example.

Under the qualified plan example, it is possible to analyze the allocation of 100% of the profits of the partnership to the taxpayer as creating an additional tax deferral situation. In other words, an additional step one of the partnership analogy takes place once a year is completed. All of the profits of the partnership of the completed year are allocated to the taxpayer, and the profits are left in the partnership. This situation is referred to as the Super Cary Brown model and is demonstrated in the following tables.

TABLE 9

	Contributions to the Partnership	Income of the Partnership	Termination of the Partnership After One Year (Return of Contributions Plus Accumulated Profits)
Taxpayer	\$ 6,000	\$1,000	\$ 6,600 (\$6,000 plus \$1,000 less \$400 of taxes)
Government	\$ 4,000	\$ 0	\$ 4,400 (\$4,000 plus \$400 of taxes)
TOTAL	\$10,000	\$1,000	\$11,000

Table 9 demonstrates the equivalent Cary Brown model as to the *original* contribution of \$10,000 to the qualified plan. But as stated earlier, an additional equivalent Cary Brown type of situation takes place each year when the government does not tax and collect the profits of the partnership through steps four and five. During the first year, the partnership generates \$1,000 in profits, which is all allocated to the taxpayer (step two). The government collects no share of the profits (step three). The government does not collect its \$400 tax on the \$1,000 of profits from the first year because it is not allocated any of the profits of the partnership (steps two and three), the taxpayer does not collect its share of the profits (step four does not take place), and the partnership does not terminate at the end of the first year (step five does not take place). By not collecting the tax on the profits, this is, in essence, an additional capital contribution to the partnership (or, alternatively, the creation of a second partnership at the beginning of year two). Therefore, Table 9 is not accurate *after the first year is completed* and the second year has commenced.

TABLE 10

	Contributions to the Partnership at the Beginning of Year Two	Income of the Partnership	Termination of the Partnership After Two Years (Return of Contributions Plus Accumulated Profits)
Taxpayer	\$ 6,600	\$1,100	\$ 7,260 (\$6,600 plus \$1,100 less taxes owed of \$440)
Government	\$ 4,400	\$ 0	\$ 4,840 (\$4,400 plus \$440)
TOTAL	\$11,000	\$1,100	\$12,100

Table 10 demonstrates the equivalent Cary Brown model as to the \$11,000 in the qualified plan. Again, an additional equivalent Cary Brown type of situation takes place each year when the government does not tax and collect the profits of the partnership through steps four and five. The partnership generates \$1,100 in profits during the second year, which is all allocated to the taxpayer (step two). The government collects no share of the profits (step three). The government does not collect its \$440 tax on the \$1,100 of profits from the second year because it is not allocated any of the profits of the partnership (steps two and three), the taxpayer does not collect his share of the profits (step four does not take place), and the partnership does not terminate immediately after the second year (step five does not take place). Essentially, by not collecting the tax on the profits, an additional capital contribution to the partnership is made (or, alternatively, the creation of a additional partnership at the beginning of year three). Therefore, Table 10 is not accurate *after the second year is completed* and the third year has commenced.

TABLE 11

	Contributions to the Partnership at the Beginning of Year Three	Income of the Partnership Each Year	Termination of the Partnership After Three Years (Return of Contributions Plus Accumulated Profits)
Taxpayer	\$ 7,260	\$1,210	\$ 7,986 (\$7,260 plus \$1,210 less \$484)
Government	\$ 4,840	\$ 0	\$ 5,324 (\$4,840 plus \$484)
TOTAL	\$12,100	\$1,210	\$13,310

Table 11 accurately demonstrates the results of a qualified plan if the distribution to T is made at the end of year three, which is the assumption in this example. The equivalent Cary Brown model applies to the \$12,100 that is in the qualified plan at the beginning of year three. At the end of year three, the government collects its tax on the profits of the partnership (\$484) and also collects its contribution to the partnership because the partnership is terminating (steps four and five). The taxpayer is allo-

cated his share of the profits for year three of \$1,210 and must pay taxes of \$484 on these profits; contributions of \$7,260 are also returned to the taxpayer. After taxes, the taxpayer is left with a total of \$7,986. Year three, in isolation, is an equivalent example of the Cary Brown model because the government collects its tax under steps four and five, which is equivalent to collecting its tax under steps two and three of the Cary Brown model. In essence, the taxpayer's share of the profits of the partnership in year three is never taxed, similar to an installment sale or expensing of an asset. The combination of all three years together is an example of the Super Cary Brown model.

VI. UNREALIZED APPRECIATION

A. REALIZATION DOCTRINE—INTRODUCTION

A complicated example of the Cary Brown model involves the realization doctrine. Many people may not realize the specific tax deferral that takes place, at least from a time value of money standpoint, with respect to unrealized appreciation in property. Assume an individual has \$10,000 of after-tax cash to invest. The individual has two investment options. The first is to invest in an undeveloped vacant piece of land costing \$10,000 (option one). The land is expected to and does increase in value each year by 10%. The second option is to invest in a fully developed piece of land that can be rented at 10% of its value each year—\$1,000 rent each year paid to the owner by the tenant (option two). Assume that the land in the second option will not increase in value. Also assume under either option that the taxpayer will sell the land at the end of three years.

Under option one, at the end of three years, the land will be worth \$13,310 (end of year one—\$11,000; end of year two—\$12,100). If the land is sold at the end of three years, the gain is \$3,310 (\$13,310 less \$10,000). The tax at 40% is \$1,324 (\$3,310 multiplied by 40%). Therefore, the individual is left with \$11,986 after taxes at the end of three years.

Under option two, at the end of the first year, the taxpayer will still have land worth \$10,000 plus rent of \$1,000. The rent is gross income, so \$400 of taxes must be paid at the end of year one. Therefore, the taxpayer has \$10,600 at the end of year one. In year two, the taxpayer receives another \$1,000 of rent and has investment income of \$60 from the rental income earned in year one. In year three, the taxpayer receives another \$1,000 of rent and has investment income of \$123.60 from the rental income earned in years one and two. At the end of year three, the taxpayer sells the land for \$10,000, resulting in no gain or loss. This leaves the taxpayer with \$11,910.16 after taxes. This is less than option one, even though the taxpayer is in the same economic position at the end of year three. Under both options, the taxpayer begins with \$10,000 cash, earns a 10% pre-tax rate of return each year on his investment, is subject to a 40% tax rate, invests in land, and closes out the investment at

the end of three years. The discrepancy in results between the two options is created by the realization doctrine, which defers taxation until a realization event takes place.⁶²

B. USING THE PARTNERSHIP ANALOGY

Can Professor Brown's partnership analogy accurately demonstrate the realization doctrine in the above example? The answer is "yes," although the realization doctrine adds an additional layer of complexity to the partnership model that was not present in the previous situations. The reason is that additional tax deferral takes place as the property continues to appreciate in value each year. In other words, the equivalent Cary Brown model applies to the original unrealized appreciation for the first year and will continue to apply to it in an additional capacity as long as it remains and is untaxed. But the equivalent Cary Brown model will also apply in an additional capacity as the property continues to appreciate in value. This continuous additional application of the equivalent Cary Brown model will occur as the property increases in value from year to year.

Returning to the appreciated property example, at the end of the first year, the land has appreciated in value to \$11,000. At this point, tax deferral takes place. The appreciation of \$1,000 in essence creates a partnership between the taxpayer and the government, with the taxpayer contributing \$600 and the government contributing \$400 (step one). During the second year, the partnership generates \$100 of investment income (\$1,000 of appreciation multiplied by 10% rate of return), which is allocated entirely to the taxpayer because, under the realization doctrine, the government does not tax mere appreciation in property (step two). The government does not collect its \$40 tax on the \$100 of profits from the second year because it is not allocated any of the profits of the partnership (steps two and three). Further, the taxpayer does not collect his share of the profits (step four does not take place), and the partnership does not terminate immediately after the second year (step five does not take place).

By not collecting the tax on the profits, the government has done nothing to prevent tax deferral in year two. Also, during the second year, the land appreciates another \$1,000. This is, in essence, an additional contribution of \$600 by the taxpayer to the partnership and an additional con-

62. See, e.g., David P. Hariton, *The Accrual of Interest on Derivative Investments: Where Do We Go From Here?*, 74 TAXES 1011, 1012 (1996) ("[S]o long as we continue under a realization system of tax accounting, it is not possible to achieve an equivalent tax treatment of economically equivalent financial investments."); David S. Miller, *Taxpayers' Ability to Avoid Tax Ownership: Current Law and Future Prospects*, 51 TAX LAW. 279, 333 (1998) ("Some argue that deferral through nonownership is a natural consequence of our realization-based tax system, and entirely consistent with the indefinite deferral enjoyed by owners of appreciated real estate and stock of corporations that never declare a dividend, such as Microsoft."); Schenk, *supra* note 2, at 631-35 (stating that once the realization principle is adopted, the tax burden is distributed unequally).

tribution of \$400 by the government to the partnership (a new step one takes place), bringing their total contributions to \$1,200 and \$800, respectively.

The taxpayer sells the property at the end of year three for \$13,310. During year three, the partnership generates \$210 of investment income, which is allocated entirely to the taxpayer because the government does not tax mere appreciation in property (step two). The government collects its \$124 tax on the \$310 of profits from the second and third years even though it was not allocated any of the profits of the partnership (steps two and three), but rather because the partnership terminated at the end of the third year (steps four and five take place). Also, during the third year, the land appreciates another \$1,000. Again, this is, in essence, an additional contribution of \$600 by the taxpayer to the partnership and an additional contribution of \$400 by the government to the partnership (a new step one takes place), bringing their total contributions to \$1,800 and \$1,200, respectively.

Because the land is sold for \$13,310 at the end of year three, the partnership is terminated, and the taxpayer receives \$10,000 as a return of basis. The taxpayer also receives \$1,800 as a return of his contribution to the partnership, plus \$310 as his share of the profits of the partnership, less the taxes of \$124 owed to the government. The government receives \$1,200 as a return of its contribution to the partnership, plus \$124 as its tax on the profits of the partnership. The taxpayer receives a total of \$11,986, and the government receives a total of \$1,324.

TABLE 12

	Contributions to the Partnership	Income for the Second Year	Income for the Third Year	Termination of the Partnership
Taxpayer	\$ 600 plus \$ 600 plus \$ 600	\$100	\$210	\$1,986 (\$1,800 plus \$310 less \$124 taxes)
Government	\$ 400 plus \$ 400 plus \$ 400	\$ 0	\$ 0	\$1,324 (\$1,200 plus \$124)
TOTAL	\$3,000	\$100	\$210	\$3,310

C. COMPARISON OF UNREALIZED APPRECIATION TO QUALIFIED PLANS

It should be apparent that unrealized appreciation (when isolated from the after-tax investment in the underlying property) is an example of the Super Cary Brown model. As demonstrated, qualified plans are also an example of the Super Cary Brown model. *As a result, assuming stable tax rates with no preferential treatment for capital gains, no fair market value basis at death rules, and stable investment yields, unrealized appreciation is equivalent to having a corresponding amount set aside in a qualified plan.* In other words, from a tax deferral standpoint and using the assumptions

previously stated, a taxpayer would be indifferent between having property with unrealized appreciation of, for example, \$1,000 and having \$1,000 set aside in a qualified plan.

An example will demonstrate the equivalence of unrealized appreciation and funds set aside in a qualified plan. Assume individual T receives \$30,000 salary from her employer. T contributes \$1,000 to a qualified plan. The qualified plan could be a traditional individual retirement account (IRA)⁶³ or a qualified cash or deferred arrangement plan (CODA or 401(k)).⁶⁴ The end result is that T will only have \$29,000 of taxable income for the year. The \$1,000 contributed to the qualified plan is either deducted from gross income (as with an IRA plan)⁶⁵ or excluded from gross income (as with a 401(k) plan).⁶⁶ In other words, the money in the qualified plan is comprised of pre-tax dollars. The \$1,000 in the qualified plan will grow to \$1,100 at the end of one year; \$1,210 at the end of two years; \$1,331 at the end of three years; and so on. It will continue to grow at a 10% pre-tax rate of return each year. At the end of x years, the fund will have $\$1,000(1 + r)^x$. When the money is distributed to T from the qualified plan, T will receive 60% of the total funds, and the government will receive 40% based on the application of the partnership analogy to the Super Cary Brown model.

Assume individual A receives \$29,000 in salary from his employer. A also owns undeveloped land. During the current year, the land has appreciated \$1,000 in value. A will only include \$29,000 in gross income. The \$1,000 of appreciation is not taxed because of the realization doctrine.⁶⁷ In other words, *the portion of the property* that represents the unrealized appreciation can be likened to \$1,000 of pre-tax dollars. This is, in some sense, similar to A receiving a \$30,000 salary but using \$1,000 of the salary to buy property for which the government allows an immediate deduction. If this were the case, A would have taxable income of \$29,000 and own property with a value of \$1,000 and a basis of zero. In other words, A owns property with an unrealized appreciation of \$1,000. This unrealized appreciation will increase to \$1,100 at the end of one year; \$1,210 at the end of two years; \$1,331 at the end of three years; and so on. It will continue to grow at a 10% pre-tax rate of return each year. At the end of x years, the amount of unrealized appreciation will be $\$1,000(1 + r)^x$. When A receives the money from this unrealized appreciation (by selling or otherwise disposing of the property in a taxable event), A will receive 60% of the total funds and the government will receive 40% based on the application of the partnership analogy to the Super Cary Brown model. Unrealized appreciation of \$1,000 is equivalent to \$1,000 set aside in a qualified plan.

63. See I.R.C. § 408 (West Supp. 1998).

64. See I.R.C. § 401(k).

65. See I.R.C. § 219.

66. See I.R.C. § 401(k).

67. See I.R.C. § 1001(a).

Of course, the funding of qualified plans and unrealized appreciation is completely different. A qualified plan is almost always funded with pre-tax dollars, whereas unrealized appreciation in property is, in almost all cases, achieved by using after-tax dollars.⁶⁸ But once the unrealized appreciation is generated, whether expected or not, then it is equivalent to funds set aside in a qualified plan.

In fact, it may be appropriate to isolate unrealized appreciation from the after-tax dollars used to purchase the underlying property for several reasons. When property is bought using after-tax dollars, tax deferral has not yet taken place. Once the property appreciates in value, then tax deferral takes place. In other words, the partnership between the taxpayer and the government is created once appreciation occurs. It is at this point (when appreciation occurs) that an analysis of the tax deferral benefit should be made and appropriate action, if any, should be taken to prevent deferral.

In addition, in terms of attacking tax deferral, the after-tax dollars invested in the appreciated property, in certain instances, may not be particularly relevant. For example, probably the most-discussed method for eliminating deferral with respect to unrealized appreciation is a mark-to-market approach. Under a mark-to-market approach, the after-tax investment in the property is ignored except for determining the beginning and ending bases of the property. Assume a taxpayer owns land that has appreciated \$1,000 during the year. Under a mark-to-market approach, the \$1,000 would be included in the taxpayer's gross income. It does not matter whether the taxpayer paid \$10,000 or \$1 million for the land. The end result is that \$1,000 is included in the taxpayer's gross income, and the basis in the property (whatever it may be) is increased by \$1,000.

It seems particularly appropriate to focus solely on the unrealized appreciation and ignore the after-tax dollars used to purchase the underlying property if the unrealized appreciation was due to labor or luck and not to a predictable rate of return.⁶⁹ For example, assume T owns land long thought essentially worthless, which has a negligible basis. A valuable mineral deposit is found nearby, immediately causing the value of T's land to rise to \$10,000. The appreciation of the land to \$10,000 is equivalent to having \$10,000 set aside in a qualified plan. They are both

68. It is possible that unrealized appreciation in property could be generated by pre-tax dollars. For example, section 179 allows an immediate deduction for certain types of personal depreciable property purchased for use in a trade or business. See I.R.C. § 179. But this type of property almost always depreciates in value and is purchased for the increased income stream it will generate for the business.

69. See, e.g., William M. Gentry & R. Glenn Hubbard, *Distributional Implications of Introducing a Broad-Based Consumption Tax*, in *TAX POLICY AND THE ECONOMY* 11, 1, 6-7 (James M. Poterba ed., 1997) (inframarginal returns are returns associated with rents to ideas, managerial skill, or market power); Alvin C. Warren, Jr., *How Much Capital Income Taxed Under an Income Tax is Exempt Under a Cash Flow Tax?*, 52 *TAX L. REV.* 1, 6 (1996) (distinguishing increased wealth arising from brilliance, hard work, and luck from above-normal return to capital investment); Cunningham, *supra* note 6, at 23 (arguing much of what is thought of as a return to capital is really a return to labor, luck, or ingenuity).

examples of the Super Cary Brown model. Assume the land's value continues to rise by 10% annually for three years. At the end of three years, T sells the land (still undeveloped) for \$13,310, resulting in \$13,310 of gain. T will have \$7,986 remaining after taxes, just as if T had set aside \$10,000 in a qualified plan for three years. If T receives preferential capital gains treatment on sale of the land,⁷⁰ or dies and the property's basis is stepped up to fair market value,⁷¹ the benefit of the unrealized appreciation can become greater than having a corresponding amount set aside in a qualified plan.⁷²

D. ATTACKING TAX DEFERRAL ON UNREALIZED APPRECIATION

One of the most discussed methods for eliminating tax deferral with respect to unrealized appreciation is the mark-to-market approach.⁷³ Under mark-to-market,⁷⁴ no partnership is ever created between the taxpayer and the government. In other words, step one of the partnership analogy never takes place. This is due to the fact that at the time the partnership would be created, the basis of the property is marked to fair market value, eliminating any gain in the property and thereby also elimi-

70. See I.R.C. §§ 1221 (West Supp. 1998), 1222, and 1(h).

71. I.R.C. § 1014.

72. See, e.g., Eric M. Engen & William G. Gale, *The Effects of Fundamental Tax Reform on Saving*, in ECONOMIC EFFECTS OF FUNDAMENTAL TAX REFORM 83, 87 (Henry J. Aaron & William G. Gale eds., 1996) (discussing the fact that assets that result in capital gains can sometimes provide more favorable tax advantages than assets held in retirement plans due to preferential tax treatment for capital gains and fair market value basis at death rules for capital assets).

73. There are other methods of eliminating tax deferral created by the realization doctrine. See, e.g., Alan J. Auerbach, *Retrospective Capital Gains Taxation*, 81 AMER. ECON. REV. 167 (1991) (discussing a proposal to charge interest on the tax deferred at the risk-free rate of return and to treat each asset as appreciating at the risk-free rate); David F. Bradford, *Fixing Realization Accounting: Symmetry, Consistency and Correctness in the Taxation of Financial Instruments*, 50 TAX L. REV. 731 (1995) (proposing a risk-free rate of return on property but also establishing a gain reference date at the time the investment is made and using that date to compute any interest charge); Noel B. Cunningham & Deborah H. Schenk, *Taxation Without Realization: A "Revolutionary" Approach to Ownership*, 47 TAX L. REV. 725 (1992) (proposing a guide-line rate of return using the risk-free rate of return to the taxpayer's basis in the property interest); Mary L. Fellows, *A Comprehensive Attack on Tax Deferral*, 88 MICH. L. REV. 722 (1990) (proposing an interest charge for the period that the tax on appreciation is deferred, generally referred to as retrospective taxation); Mark P. Gergen, *The Effects of Price Volatility and Strategic Trading Under Realization, Expected Return and Retrospective Taxation*, 49 TAX L. REV. 209 (1994) (discussing mark-to-market, retrospective taxation, and expected return taxation). In part to avoid the problems created by the realization doctrine, Professor Andrews has favored a consumption-based tax. See Andrews, *supra* note 5; see also William D. Andrews, *Fairness and the Choice Between a Consumption-Type and an Accretion-Type Personal Income Tax: A Reply to Professor Warren*, 88 HARV. L. REV. 947 (1975); Barbara H. Fried, *Fairness and the Consumption Tax*, 44 STAN. L. REV. 961 (1992); Graetz, *supra* note 9; Alvin C. Warren, *Fairness and a Consumption-Type or Cash Flow Personal Income Tax*, 88 HARV. L. REV. 931 (1975); Alvin C. Warren, *Would a Consumption Tax Be Fairer Than an Income Tax?*, 89 YALE L.J. 1081 (1980).

74. For purposes of this Article, the term "mark-to-market" is used interchangeably with the terms "accrual taxation" and "accretion taxation."

nating any tax deferral.⁷⁵

A mark-to-market regime has been discussed by a number of commentators.⁷⁶ Most agree that it is a theoretically correct approach in an ideal income tax system. In other words, it implements the Haig-Simons definition of income, which is considered the ideal definition of income by most tax theorists.⁷⁷ Under the Haig-Simons definition, income is defined as the “algebraic sum of (1) the market value of rights exercised in consumption and (2) the change in the value of the store of property rights between the beginning and end of the period in question.”⁷⁸ As many commentators have noted, however, eliminating the realization requirement and adopting a mark-to-market approach for unrealized appreciation in property could lead to numerous problems.⁷⁹ These problems include liquidity in paying the resulting income tax, the administrative difficulty of determining the changes in fair market value of the taxpayer’s assets (particularly those not traded on a publicly-traded exchange), and possible constitutional (or political) problems.⁸⁰ However,

75. The assumption being made here is that the property will be marked-to-market on the last day of the taxpayer’s taxable year and that any increase or decrease during the course of the year is ignored until the last day. As a result, the assumption is that no tax deferral takes place during the course of the year even though the property may have appreciated in value. Tax deferral is treated as taking place on the last day of the year when the amount of appreciation (if any) is calculated. See, e.g., Jeff Strnad, *Periodicity and Accretion Taxation: Norms and Implementation*, 99 YALE L.J. 1817 (1990) (discussing continuous accretion taxation); Land, *supra* note 1, at 73-75 (suggesting tax deferral created by the realization requirement should be addressed by continuous accretion taxation).

76. The recent literature on mark-to-market, accrual taxation, and accretion taxation is quite voluminous. See, e.g., Fred B. Brown, “Complete” Accrual Taxation, 33 SAN DIEGO L. REV. 1559 (1996); Cunningham & Schenk, *supra* note 73; Joseph M. Dodge, *A Combined Mark-to-Market and Pass-Through Corporate-Shareholder Integration Proposal*, 50 TAX L. REV. 265 (1995); Thomas L. Evans, *The Evolution of Federal Income Tax Accounting—A Growing Trend Towards Mark-to-Market?*, 67 TAXES 824 (1989); Fellows, *supra* note 6; Gergen, *supra* note 73; Daniel I. Halperin, *Saving the Income Tax: An Agenda for Research*, 77 TAX NOTES 967 (1997); Edward D. Kleinbard & Thomas L. Evans, *The Role of Mark-to-Market Accounting in a Realization-Based Tax System*, 75 TAXES 788 (1997); David J. Shakow, *Taxation Without Realization: A Proposal for Accrual Taxation*, 134 U. PA. L. REV. 1111 (1986); Theodore S. Sims, *Long-Term Debt, the Term Structure of Interest and the Case for Accrual Taxation*, 47 TAX L. REV. 313 (1992); Jeff Strnad, *The Taxation of Bonds: The Tax Trading Dimension*, 81 VA. L. REV. 47 (1995); Strnad, *supra* note 75, at 1817; Patricia D. White, *Realization, Recognition, Reconciliation, Rationality and the Structure of the Federal Income Tax System*, 88 MICH. L. REV. 2034 (1990); Edward A. Zelinsky, *For Realization: Income Taxation, Sectoral Accretionism, and the Virtue of Attainable Values*, 19 CARDOZO L. REV. 861 (1997).

77. See Robert M. Haig, *The Concept of Income—Economic and Legal Aspects*, in THE FEDERAL INCOME TAX 1, 7 (Robert M. Haig ed., 1921) reprinted in AMER. ECON. ASSN., READINGS IN THE ECONOMICS OF TAXATION 54, 55 (Richard A. Musgrave & Carl S. Shoup eds., 1959); HENRY C. SIMONS, PERSONAL INCOME TAXATION 50 (1938).

78. SIMONS, *supra* note 77, at 50.

79. See, e.g., DAVID F. BRADFORD AND THE U. S. TREASURY TAX POLICY STAFF, BLUEPRINTS FOR BASIC TAX REFORM (2d ed. 1984); GEORGE F. BREAK & JOSEPH A. PECHMAN, FEDERAL TAX REFORM: THE IMPOSSIBLE DREAM? (1975); Boris I. Bittker, *A “Comprehensive Tax Base” as a Goal of Income Tax Reform*, 80 HARV. L. REV. 925 (1967); Boris I. Bittker, *Tax Reform and Tax Simplification*, 29 U. MIAMI L. REV. 1 (1974).

80. See Alvin C. Warren, Jr., *Financial Contract Innovation and Income Tax Policy*, 107 HARV. L. REV. 460, 462 (1993); Cunningham & Schenk, *supra* note 73, at 741 (arguing that constitutionality should not be a problem in adopting a mark-to-market regime, based

because unrealized appreciation is equivalent to having a corresponding amount of funds set aside in a qualified plan, it appears that a strong argument can be made to partially or completely repeal the realization doctrine, at least as to publicly-traded property where problems of liquidity and valuation generally are not present.⁸¹

E. ANOTHER VIEW OF THE REALIZATION DOCTRINE

1. Introduction

Rather than focusing solely on the unrealized appreciation component of property, it is possible to focus on the entire piece of property and analyze it under tax deferral principles. Assume T has \$10,000 of salary that T includes in gross income. T invests the after-tax proceeds of \$6,000 in property that will appreciate in value by 10% each year. Assume at the end of three years, T dies and the property receives a fair market value basis at death equaling \$7,986 (\$6,000 multiplied by $(1.10)^3$). The recipient of T's property can dispose of it for its fair market value of \$7,986 with no income tax liability. This is in many ways an equivalent result to investing the entire salary in a qualified plan for three years.⁸² As shown earlier, the qualified plan is an example of the Super Cary Brown model. Property with unrealized appreciation (focusing on the entire property, including the after-tax dollars used to purchase the property as well as the unrealized appreciation), in which section 1014 is utilized, is really an application of the Super Cary Brown model, or more specifically, a kind of reverse Super Cary Brown.

The reverse Super Cary Brown is a situation where no partnership is created, but the investment income is excluded from gross income. In addition, the investment income generated by the previous year's investment income is also excluded from gross income. As shown above, an example is appreciated property to which section 1014 applies. Another example is the Roth IRA created by the Taxpayer Relief Act of 1997.⁸³ Under the Roth IRA, no partnership is created between the taxpayer and the government because the initial investment is not deductible.⁸⁴ In other words, the Roth IRA is funded with after-tax dollars. Each year the investment income is solely that of the taxpayer and not the government. When the Roth IRA is terminated, the taxpayer collects the entire amount, as it is free of income taxes.⁸⁵

in part on the Ninth Circuit's decision in *Murphy v. United States*, 992 F.2d 929 (9th Cir. 1993)). Congress has adopted mark-to-market in several areas of the Internal Revenue Code. See, e.g., I.R.C. §§ 475 (West Supp. 1998) (dealers and traders in securities and commodities); 817 and 817A (certain life insurance contracts); 1256 (regulated futures contracts); 1296 (marketable stock in a passive foreign investment company).

81. See Halperin, *supra* note 76, at 971 (arguing that mark-to-market should be adopted for all publicly-traded instruments and contractual arrangements on which the payments are dependent on the value of publicly-traded instruments).

82. Of course, T has to die to get this equivalent result.

83. Taxpayer Relief Act of 1997, Pub. L. No. 105-34, § 302(a), 111 Stat. 825 (1997).

84. See I.R.C. § 408A(c)(1).

85. See I.R.C. § 408A(d)(1).

2. *Combining the Two Views on Realization*

It is possible to combine the views of focusing solely on unrealized appreciation (ignoring the actual investment) under the Super Cary Brown model and also focusing on the entire appreciated property (including the actual investment) under a reverse Super Cary Brown analysis. Assume a brilliant inventor, who is also an entrepreneur, makes an important technological discovery that is marketed by the inventor's own company.⁸⁶ The inventor established the company ten years ago by contributing \$5,000 for all of the stock of the company. As a result of the brilliant discovery, the inventor's stock is now worth \$1 million. Assume also that comparable investments during this ten-year time frame yielded an annual rate of return of 10%.⁸⁷

At a 10% rate of return, \$5,000 invested for ten years will grow to \$12,968.71.⁸⁸ It may make sense to bifurcate the value of the stock—focus on the investment growing from \$5,000 to nearly \$13,000 by looking at the entire investment and treating the remaining value of the stock (\$987,000) under the Super Cary Brown analysis, in which \$987,000 is likened to a corresponding amount set aside in a qualified plan.⁸⁹ In other words, the \$5,000 investment is treated as creating an asset now worth \$13,000. The remaining \$987,000 is treated separately, as it was arguably created by brilliance, hard work, and luck, not by the \$5,000 investment.⁹⁰

86. See Warren, *supra* note 69, at 4-5; Cunningham, *supra* note 6, at 23-24.

87. Using a rate of return based on what similar investments have generated is obviously subject to interpretation in terms of what are similar investments. But the idea is to break the unrealized appreciation into four components: (1) risk-free rate of return on the after-tax investment, (2) risk premium on the after-tax investment, (3) inflation premium on the after-tax investment, and (4) inframarginal return. See, e.g., Cunningham, *supra* note 6, at 23 (describing capital income as composed of three components: the risk-free rate of return, the risk premium, and the inframarginal return, but not the inflation premium in a normative income tax and noting that inframarginal return may not be a return on capital but rather a return to labor or an investor's luck or ingenuity); Warren, *supra* note 69, at 5 ("[S]ome gains that at first might appear to be inframarginal returns to capital are actually returns to labor or, more particularly, to entrepreneurship."). The first three components would be subject to the reverse Super Cary Brown approach on the entire property, and the fourth component would be isolated from the underlying property and analyzed under the Super Cary Brown model.

88. \$5,000 multiplied by $(1 + .10)^{10}$.

89. Bifurcation in the case of financial instruments (dividing a financial instrument into a collection of component instruments and taxing each according to its economic substance) has been suggested as one possible solution in taxing the wide array of financial instruments. See Prop. Treas. Reg. § 1.1275-4(g), 56 Fed. Reg. 8308 (1991); *withdrawn*, 59 Fed. Reg. 64884 (1994); see also David P. Hariton, *New Rules Bifurcating Contingent Debt – A Mistake?*, 51 TAX NOTES 235 (1991) (opposing bifurcation because of its inability to account for contingent payment obligations); Lawrence Lokken, *New Rules Bifurcating Contingent Debt – A Good Start*, 51 TAX NOTES 495 (1991) (supporting bifurcation but admitting that it is not a perfect approach); Weisbach, *supra* note 2, at 511 (bifurcation is the best approach to taxing financial instruments); Jeff Strnad, *Taxing New Financial Products in a Second-Best World: Bifurcation and Integration*, 50 TAX L. REV. 545 (1994).

90. See Warren, *supra* note 69, at 5-6; see also Gentry & Hubbard, *supra* note 69, at 2-6; Cunningham, *supra* note 6, at 23.

Under this bifurcated view, it may make sense to allow \$8,000 of the gain (\$13,000 minus \$5,000) to potentially escape tax under section 1014 when the investor dies because that would be no better than having \$5,000 set aside initially in a qualified plan, such as a Roth IRA, earning an annual 10% rate of return. But, under this bifurcated view of the property, it appears to be overly beneficial to allow the \$987,000 to escape tax under section 1014. It may also be overly beneficial to give preferential tax treatment to the \$987,000 in the form of capital gains if the investor sells the stock. As stated earlier, the unrealized appreciation of \$987,000 can be likened to having a corresponding amount set aside in a qualified plan, such as a traditional IRA or a 401(k) plan, which is already a tremendous tax benefit, one that usually requires that a number of very rigid requirements be met.

F. EXTENSION OF THE REALIZATION DOCTRINE

The realization doctrine can be used in an almost infinite number of similar situations. For example, compare the difference between investing in stock of a growth company that pays no dividends versus investing in stock of a mature company that pays out all earnings by way of dividends. The investment of stock in a growth company will not be taxed until a realization event takes place, such as a sale. The dividends from ownership of stock in a mature company will be taxed each year as the dividends are received.

The realization doctrine also creates tremendous problems in taxing financial instruments and derivatives. A leading commentator on derivatives has written that because of the realization doctrine, it is not possible to achieve an equivalent tax treatment of economically equivalent financial investments.⁹¹ This is because of the tax deferral that results from the realization doctrine. Professor Andrews wrote a number of years ago that the realization doctrine is the "Achilles' heel of the income tax"—referring, in large part, to the tax deferral that takes place.⁹² The benefit of the tax deferral is explained by the Super Cary Brown model. The tax deferral benefit of unrealized appreciation is equivalent to a corresponding amount set aside in a qualified plan. As a result, the taxation of financial instruments and derivatives involves issues of tax deferral, which I believe Professor Brown identified fifty years ago.

91. See Hariton, *supra* note 62, at 1012 ("[S]o long as we continue under a realization system of tax accounting, it is not possible to achieve an equivalent tax treatment of economically equivalent financial investments."); see also Reed Shuldiner, *A General Approach to the Taxation of Financial Instruments*, 71 *TEX. L. REV.* 243, 246 (1992) ("Most, if not all, of these problems [shortcomings in the present tax treatment of financial instruments] could be solved by abandoning our current realization system and adopting market-to-market accounting for financial instruments."); Peter C. Canellos, *Commentary*, 50 *TAX L. REV.* 829, 829 (1995) ("It is impossible to erect a sound structure on the flawed foundation represented by the realization requirement, which, as has been noted so often, has little to do with the proper measurement of economic income.").

92. Andrews, *supra* note 1, at 280 ("But unrealized appreciation has proved, in fact, to be the Achilles' heel of the whole comprehensive income tax ideal.").

VII. FINAL THOUGHTS ON THE CARY BROWN MODEL AND THE SUPER CARY BROWN MODEL

The Cary Brown model and the Super Cary Brown model can easily be described by the five-step partnership analogy used throughout this Article. Under the Cary Brown model, steps one, two, and three take place but steps four and five do not. Under the Super Cary Brown model, steps one, four, and five take place. To eliminate tax deferral, steps four and five must be analyzed in the Cary Brown situation and steps two and three must be analyzed in the Super Cary Brown situation.

As a result, one can easily see that in eliminating tax deferral, first it is important to determine whether the Cary Brown model or the Super Cary Brown model is applicable. Once this determination is made, appropriate measures can be taken to combat deferral. For example, assume an installment sale has taken place. As demonstrated earlier, installment sales are an example of the Cary Brown model. As a result, steps one, two, and three of the partnership analogy take place. The government needs to focus on steps four and five to eliminate tax deferral. It generally does not matter what method is adopted to eliminate deferral, as long as it is consistent with steps four and five.

Assume instead that the government wants to take a serious look at eliminating the tax deferral benefit of unrealized appreciation. As demonstrated earlier, unrealized appreciation is an example of the Super Cary Brown model. As a result, step one of the partnership analogy takes place. The government needs to focus on steps two and three to eliminate tax deferral. Again, it generally does not matter what method is adopted to eliminate deferral as long as it is consistent with steps two and three.

The following table summarizes this.

TABLE 13

	Steps in the Partnership Analogy That Take Place	Steps in the Partnership Analogy That Are Lacking	Examples
Cary Brown Model	1—Deferral takes place; 2—Allocate the profits of the partnership based on the tax rate on investment income; 3—The government collects its share of the profits	4—Government taxes the taxpayer's share of the profits either at the time of allocation or on collection; 5—When tax deferral period ends, government taxes the taxpayer's share of profits that were not previously taxed in step four	Expensing, Installment sales (with no interest charge)

(TABLE 13, CONTINUED)

	Steps in the Partnership Analogy That Take Place	Steps in the Partnership Analogy That Are Lacking	Examples
Super Cary Brown Model	1—Deferral takes place; 4—Government taxes the taxpayer's share of the profits either annually or at the end of the deferral period; 5—When tax deferral period ends, government taxes the taxpayer's share of profits that were not previously taxed in step four	2—Allocate the profits of the partnership based on the tax rate on investment income; 3—The government collects its share of the profits	Qualified Plans, Unrealized appreciation in property

VIII. CONCLUSION

There have been a number of brilliant observations on tax deferral made in the last twenty-five years. Much of the credit goes to scholars such as Professors Surrey and Andrews, who originally created awareness of the Cary Brown model. They and subsequent scholars have advanced the discussion of tax deferral to an unbelievably high level. But it seems that if one goes back fifty years, to 1948, Professor Cary Brown's contribution to tax deferral is really the fountainhead of all learning on the subject. While a number of scholars have picked up on the Cary Brown model, it is unfortunate that Professor Brown's partnership analogy in describing tax deferral has not been more widely discussed. Once understood, it can be used to describe tax deferral and also used to demonstrate how to properly eliminate the time value of money benefit of tax deferral. Most importantly, the partnership aspect of the Cary Brown model appears to be a unifying theme in describing most, if not all, tax deferral situations.