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Tracing Rules and the Deduction for Interest Payments: A Justification for Tracing and a Critique of Recent U.S. Tracing Rules

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In an article published in 1981, I set forth and defended a general principle to govern the deductibility of interest payments in a well-designed income tax system.¹ According to that principle, the deductibility of interest payments on a loan ought to turn on the use made of the loan proceeds. Defending this deceptively simple principle forced reexamination of issues at the very foundation of the personal income tax² and to challenge the considered views of many distinguished tax analysts.³

For my principle to have any practical significance, I needed to develop a set of tracing rules that would allow for its implementation. My 1981 article set forth in some detail the tracing rules that would be appropriate for an income tax system designed to achieve the traditional tax policy goals of fairness, economic efficiency, and administrative economy. In a short article published three years later, I discussed in general terms the special tracing problems created by the inclusion of tax expenditures in an income tax.⁴ That later article also discussed the heightened need for a tracing system in an inflationary economy.⁵

In section I,A of this paper, I discuss my general approach to tracing in an ideal income tax. That section draws heavily from my 1981 article. In section I,B, I briefly address two common fallacies about tracing. Analysts who have embraced these fallacies have been led to favor a special tax regime for interest payments, divorced from the treatment they would give to expenditures that are strongly analogous to interest payments. Section I,C distinguishes a tracing system, such as the one recommended in this article, and a system for matching interest payments with one or more categories of income. As that section explains, tracing is consistent with the basic organizing principles of an income tax, whereas matching is typically an ad hoc response to some of the problems created by an unlimited deduction for interest payments.

Section II addresses tracing issues in a tax system that includes significant tax expenditure provisions. Tracing rules that would be appropriate for an ideal tax system need to be modified, in some cases quite substantially, to advance the goals of a tax expenditure. Section III discusses tracing rules designed for a tax system that excludes from taxable income some portion of the inflation component of nominal capital gains.

In section IV, I give a brief description of the 1986 U.S. reforms of the interest deduction, as amended by subsequent legislation, and my critique of those reforms. I conclude that the U.S. reforms, which require tracing, represent a significant step towards the ideal treatment of interest deductions that I have recommended, despite the major political constraints under which U.S. policy makers were

operating. Although debates are still going on in academic quarters over the theoretical merits of tracing, the supporters of tracing have won a major political victory in the United States. That victory is probably irreversible for the foreseeable future.

I. Tracing in an Ideal Income Tax System

Section I,A explains why tracing is necessary to achieve a fair distribution of tax burdens in a tax system designed according to Haig/Simons principles. Section I,B addresses two common fallacies—that the fungibility of money undermines the legitimacy of a tracing system and that the imposition of otherwise appropriate limitations on the deductibility of interest would create a systemic and unfair bias in favor of holders of property.

I refer to tracing of expenditures to their actual use as "physical tracing." I contrast "physical tracing" with tracing that makes use of simplifying accounting conventions designed to achieve the goals of physical tracing. Those accounting conventions are "presumptive tracing rules" in my locution, and their use is "presumptive tracing."⁶

An "ideal" or "model" income tax system in this lexicon is one in which all of the features of the system have been designed so as to achieve some specified and rational goals. By characterizing a tax system as "ideal," I do not mean to suggest that it meets some agreed criteria for a fair tax system. I simply mean that it has been designed according to logical requirements rather than, for example, the pressures of ad hoc political deals.⁷ What makes a system ideal is that the rules comprise a genuine system, with all the parts operating in harmony as means to specified ends.

A. Summary of the General Approach

Section I,A,1 describes the tracing rules that I believe should govern the deduction for interest payments in an ideal income tax system designed according to Haig/Simons principles. Section I,A,2 describes my proposed tracing rules for model income tax systems with less ambitious design criteria.

1. A Haig/Simons System

In a tax system based on Haig/Simons principles, the tax base is defined in terms of the uses of income.⁸ According to Simons' famous formula, an individual taxpayer's taxable income should be computed by taking the algebraic sum of (1) the market value of his (or her) consumption during the taxable period and (2) the net change in the market value of his (or her) assets during that period.⁹ In a system that sought to tax consumption plus savings directly, an interest payment made by a taxpayer that was properly classified as consumption would be taxable—that is, the amount of the payment would be included in the measure of the taxpayer's taxable capacity. All other interest payments would be included in the tax base only to the extent that they affected the savings component of income.

Because money used by a taxpayer to pay interest would not be on hand at the close of the taxable period, it would not be directly included in the savings component of the taxpayer's taxable income. Interest payments used to finance the purchase of an asset would be taxable indirectly, however, to the extent that the borrowing resulted

in an increase in the amount of assets held by the taxpayer at the end of the taxable period.

Consider, for example, a taxpayer, A, who has wages during the taxable period of \$50,000 and who borrows \$100,000 at ten percent interest to buy raw land for investment. At the start of the period, he has no assets and no liabilities. He pays interest of \$10,000, and that payment is not a component of his consumption. A engages in no other transactions during the taxable period. The interest payment of \$10,000 would reduce A's cash holding from \$50,000 to \$40,000. Assuming that the purchase of land was a good investment, the land would have gone up in value by at least \$10,000, and the amount of that increase would be included in the tax base. Thus the \$10,000 of interest payment would be taxable indirectly to A as an element of savings through its effect on A's holdings of assets.

Tax analysts have always envisioned that a practical Haig/Simons tax system would estimate a taxpayer's consumption and savings from information available about the taxpayer's income sources.¹⁰ Items of gross income received by a taxpayer would be tentatively included in that taxpayer's taxable income. The income figure so determined would be reduced by various allowable deductions. Deductions typically would be allowed for costs of earning taxable gross income, and no deductions would be allowed for expenditures properly classified as consumption. Certain expenditures unrelated to the earning of taxable income might also be deductible on the ground that they do not constitute taxable consumption, properly defined. For example, some commentators have argued that medical expenses and charitable contributions should be excluded from the definition of consumption used to define the tax base of a personal income tax.¹¹

The traditional way of identifying an expenditure that is properly deductible from gross income is by examining the use made of the goods and services that the expenditure finances. In my lexicon, the rules for linking expenditures with their ultimate use are "tracing" rules. In some instances, an expenditure has an immediate link with the earning of gross income. For example, a salary paid to a sales person may be directly linked with the gross income obtained from the sales made by that person. In other cases, expenditures are linked with the earning of gross income through a chain of transactions. Rental payments, including rental payments for the use of someone else's money, are typically linked with income through a chain of transactions. For example, the deductibility of a payment for rent of an office would depend on the use made of that office.

To justify a deduction for a rental payment in a Haig/Simons income tax system, the taxpayer typically must demonstrate that the chain of transactions that began with the payment of the rent has resulted in the acquisition of assets (including goods or services) that contribute to the earning of gross income. For example, to determine whether a rental fee paid for the use of an automobile should be deductible, it is necessary to show, first of all, that a rental payment was made that resulted in the acquisition of the use of an automobile and, second, that the automobile was used to earn gross income.

With the possible exception of money borrowed simply to increase cash on hand, a payment for interest on a loan always requires tracing beyond the initial receipt of the loan proceeds. It is

necessary to see what goods or services were obtained for those loan proceeds and how those goods or services were used.¹²

Section I,B below, presents the two chief arguments for giving some special status to interest payments. My argument for tracing is an argument against a special status for interest payments. I contend that the deductibility of all expenditures in a Haig/Simons income tax should depend on the use made of the assets (including goods or services) ultimately obtained from those expenditures. The assets ultimately obtained from an interest payment are the assets obtained from the proceeds of the loan with respect to which that interest was paid.

Under a tracing system that made the deductibility of interest turn on the actual use made of borrowed money, taxpayers would have a tax incentive to pay deductible expenditures out of borrowed money and to pay for consumption goods out of current income or by drawing down assets acquired in a prior taxable year. For example, a taxpayer holding \$1,000 worth of stock and contemplating a \$1,000 consumption expenditure would get a better tax result under a pure tracing system by selling the stock, using the proceeds to make the consumption expenditure, and then borrowing \$1,000 to buy back the stock.

The incentive illustrated above for using saved income rather than borrowed income to finance consumption is simply the mirror image of the famous "double tax" on savings produced by a Haig/Simons income tax. Assuming that the income tax is itself fair, that incentive feature is also fair. At least it would be fair in a world in which all taxpayers had access to good tax planning and were equally able to reshuffle their asset holdings to benefit from the incentive.¹³

To prevent unfairness in the real world, I proposed in my 1981 article a second principle to govern the design of tracing rules – what I will call my special principle. According to the special principle, the tracing rules of an ideal income tax should be designed, to the extent feasible, to give taxpayers the benefits they could obtain on their own through optimal tax planning. Under tracing rules designed to implement that principle, taxpayers would be treated as if they had actually taken advantage of optimal tax planning advice by liquidating their savings to finance their consumption and by using their borrowed funds to finance a deemed reacquisition of the assets actually acquired out of saved income. In a Haig/Simons income tax, the end result would be that interest on a loan would be characterized as a cost of consumption only if the amount of the loan exceeded the taxpayer's savings on hand at the time the loan was made.

As a practical matter, the tracing rules I endorse for a Haig/Simons income tax would allow most interest payments to be deductible. Only net borrowers—persons who borrowed in excess of the value of their assets—would face a disallowance of the interest deduction. Contrary to popular belief, net borrowers are typically not poor. In most countries, the class of persons who borrow in excess of their assets is comprised primarily of young professionals and other individuals with excellent prospects for earning high incomes. The sardonic truth is that large loans generally go to those who can demonstrate that they do not need them. Banking and other financial institutions almost never intentionally lend significant sums to the genuinely poor.¹⁴

The special principle set forth above would not necessarily be applicable in designing tracing rules to implement tax expenditure provisions. The design of tracing rules for a tax system that includes tax expenditures is the topic of Section II of this article.

2. Modified Haig/Simons Systems

All tax systems in the real world depart from the Haig/Simons ideal in at least two respects. First, they provide (with very limited exceptions) for the deferral of gains derived from the appreciation of assets until the gains have been realized through a disposition of those assets. Second, they provide a special tax regime for foreign source income, either exempting that income, deferring tax on it until repatriation, or reducing the tax otherwise imposed on it through the allowance of a foreign tax credit. Of course most income tax systems depart from Haig/Simons principles in other ways, by providing tax incentives for favored activities, by exempting imputed income from home ownership, by giving a special concessional rate on capital gains, and so forth.

The principles I would apply in designing rules to govern the deduction for interest payments in a modified Haig/Simons system are the same as those described in section I,A, above. First, the deduction for interest payments on a loan should depend upon the use made of the loan proceeds. Second, taxpayers should be given the benefits of optimal tax planning through the judicious use of presumptive tracing rules. My assumption, in proposing these tracing rules, is that the modified Haig/Simons system is being designed to advance tax policy goals rather than spending goals or unarticulated special interest goals.¹⁵ As explained in section II, below, different criteria should be used to design tracing rules in a tax system that contains tax expenditure provisions.

In my 1981 article, I proposed that the tax techniques generally employed to match deductions with particular categories of income should generally be employed to link interest payments with the use made of borrowed money. I argued, for example, that interest paid on a loan that financed the acquisition of a capital asset should be capitalized—that is, each interest payment should be added to the cost basis of the asset in the year the payment is made.¹⁶ That interest expense would then reduce the gross taxable income it helped generate over the life of the asset in accordance with the tax system's capital recovery mechanisms. Similarly, interest expenses properly attributable to the earning of foreign source gross income should be matched with that gross income and should be allowed as a deduction only when that gross income is taxed.¹⁷ I noted that some of the techniques commonly used to match deductions with income are flawed, and I discussed in some detail the refinements that should be made in those techniques before applying them to interest payments.¹⁸

As an example of how presumptive tracing rules ought to operate to give taxpayers the benefits of optimal tax planning, I set forth the tracing rules that I would apply in an ideal income tax applicable to realized income. In that ideal system, all Haig/Simons income would be fully taxed except for unrealized gains on appreciated property. Those tracing rules would need to be modified before they could be applied to a tax system that gave a preference for income other than

unrealized appreciation. My methodology for designing tracing rules could be employed, however, without modification.

My first tracing rule would link interest paid on purchase-money loans and similarly tied loans to the use made of the loan proceeds. Thus interest paid by a taxpayer on the typical home mortgage loan would be linked with the taxpayer's home. The typical second mortgage would not be a tied loan. A tied loan, in my lexicon, is a loan that could only be used for a purpose specified by the lender. In the typical tied loan, the lender takes a security interest in the acquired property. It is not that feature of the tied loan, however, that is relevant for my tracing rules. What is important is that the proceeds of a tied loan are not fully fungible; a taxpayer generally could not change the use of the proceeds of such a loan in response to expert tax advice.¹⁹

My second rule would match the actual purchases made by the taxpayer during the taxable period with the proceeds of untied loans incurred during that period according to a set of accounting conventions. The intent of the conventions is to guarantee that taxpayers would get the maximum tax advantage obtainable through the judicious allocation of their interest payments.

A tax system designed to achieve tax policy goals would almost certainly allow a current deduction—the most favorable treatment granted in a tax system—for expenditures linked to the earning of current business income. In such a system, a well-advised taxpayer would use the proceeds of his loans to finance current business operations. Under my presumptive tracing rules, therefore, I provide that the proceeds of a loan incurred during the taxable year are first allocated to business expenditures made during that year.

The balance of the loan proceeds, if any, would be allocated to the next favored use of money in the tax system. That use, in an ideal tax on realized income, generally would be the purchase of depreciable property.²⁰ Thus I would allocate the proceeds of loans incurred during the taxable year in excess of current business expenditures to purchases during the year of depreciable property. Any balance in the proceeds of loans for the year would be allocated to the next favored use, and so forth until all other proceeds had been linked with some expenditure made during the taxable year. Interest would be allocated to present consumption—the use that would provide no tax benefit—only if the proceeds of the loans obtained during the taxable period exceeded the total amounts spent during the taxable year for purposes that would generate a present or future tax benefit.²¹

Employed in an ideal tax on realized income, my proposed tracing rules would prevent taxpayers from financing a high level of personal consumption by borrowing against the unrealized appreciation of their stocks, real estate, and other investment assets. The application of my methodology to the design of interest deduction rules for tax systems with additional source distinctions would result in additional reforms. For example, certain unintended tax shelter benefits would be curtailed, and taxpayers engaged in both foreign and domestic operations would no longer be able to understate their domestic source income by claiming a deduction for interest payments properly attributable to foreign source income.

B. Two Fallacies

In objecting to limitations on the deduction for interest payments based on the use of the loan proceeds, commentators have sometimes asserted that tracing makes little sense because of the fungibility of money.²² I address that contention in section I,B,1. Another objection to limitations on the deductibility of interest is based on the belief that interest constitutes a form of "negative income."²³ The nebulous concept of negative income is addressed in section I,B,2.

1. Tracing and the Fungibility of Money

The usual function of money is to buy goods and services in the marketplace. For that purpose, a borrowed dollar (or other unit of currency) and a saved dollar are often fungible.²⁴ According to some commentators, this relationship between saved and borrowed dollars makes tracing economically meaningless and administratively difficult.

Taxpayers may create circumstances in which physical tracing is difficult or even impossible. Assume, for example, that T, a taxpayer, puts \$2,000 in her checking account, with \$1,000 coming from her savings account and the other \$1,000 being the proceeds of a loan. When T writes a check for one dollar, it is obviously impossible to know whether she has spent a saved dollar or a borrowed dollar.²⁵

In the example above, tracing became impossible because of the actions of T. Those actions, or the possibility that such actions might be taken, do not justify a more favorable tax regime for interest payments than for other types of expenditures. One possible solution to T's tracing problem would be to adopt presumptive tracing rules, as I have recommended. An alternative solution would be to discourage taxpayers from commingling borrowed and saved dollars by placing on them the burden of establishing the link between an interest payment and the use made of their borrowed money. For expenditures other than interest, the usual rule is to deny taxpayers a deduction unless they can establish a link between their expenditure and a tax-deductible use.

The fallacy of the argument against tracing based on the fungibility of money is illustrated by the following example. Consider F, a taxpayer, who leases two Lincoln Town cars for a year at a monthly rental fee of \$500 per car. For all relevant purposes, the cars are fungible. They are typically parked in F's driveway and are used by F and his wife, G. F sometimes uses a car for business and sometimes for pleasure. G never uses a car for business. For obvious reasons of convenience, F and G take whichever car is at the top of the driveway whenever they want to drive somewhere. F and G file a joint tax return, and the question arises as to how much of the automobile rental fees they should be allowed to deduct.

Should the taxpayers be allowed to deduct all of the car rental fees? That is, does the fungibility of the rented property justify a universal deduction for the cost of renting a car? Clearly no. F and G would not strengthen their claim for a full deduction, moreover, by demonstrating the difficulties that they might encounter in distinguishing between the two cars.

The proper result, in the example above, would be to allow F and G a deduction for the portion of their rental fees that was attributable to the business use of the cars. If the cars were not fungible, the taxpayers would be required to keep records of the business use of

each car. Because the cars are fungible, however, physical tracing of the rental fees to the business use of each car might not be necessary. The portion of the rental fees attributable to business could be determined by multiplying the total fees by a fraction. The numerator would be the total business miles driven on both cars, and the denominator would be the total miles driven on the cars for any purpose.

As the example above illustrated, the fungibility of rental property does not undermine the case for making the deductibility of rental fees turn on the use of the rented property. In the case of the rented cars, their fungibility allowed for some simplification in the record keeping otherwise required of the taxpayers. Just as it would be economically meaningful in that example to distinguish between the business use and the personal use of the cars, so also it would be economically meaningful to distinguish between loans used to finance income-producing activities and loans used to finance personal consumption.

Distinctions might be made between rental fees paid for the use of someone else's money and rental fees paid for the use of other fungible property. The analogy between interest payments and other types of rent, however, is quite strong. In the example above, the rental fees paid by F and G had several components. A major component was compensation for the time value of the owner's money – that is, interest. Indeed, interest is a major component of most rental payments.²⁶ Radically divergent tax treatment of interest payments and other rental payments is difficult, perhaps impossible to justify. As the example of the fungible cars illustrates, the fungibility of money provides no ground for divergent treatment.

The various commentators who have indulged the fungibility fallacy are not necessarily in agreement over the proper treatment of interest payments. They may recommend that all interest payments receive favorable tax treatment or that some or all interest payments receive unfavorable treatment. What they seem to agree on is that the fungibility of money requires a special status for interest payments and that those who reject that position have probably failed to appreciate the economic significance of fungibility.

2. 'Negative Income' and Forgone Investment Income

Some commentators contend that a universal interest deduction (UID)—a deduction for all interest payments without reference to the use made of the loan proceeds—is needed in an ideal tax system to prevent the system from having an unwarranted bias in favor of savers. The following example, taken from my 1981 article, illustrates the crux of the case for a UID:

Consider two taxpayers, both of whom have a net salary of \$12,000. Mr. Ant, a thrifty person, holds a \$1,000 money market certificate earning 10% interest; Mr. Grasshopper, who is a spendthrift, has accumulated no savings at all. Assume that Mr. Ant and Mr. Grasshopper both spend \$1,000 on a personal vacation. Mr. Ant finances his vacation by cashing in his demand certificate. Mr. Grasshopper finances his by borrowing the \$1,000 at 10% interest. Assume also that Mr. Grasshopper pays \$100 in interest on

his loan, and that he and Mr. Ant spend all of their remaining net income on food and recreation. Both have enjoyed the benefit of a vacation worth \$1,000, but Mr. Ant has \$100 more than Mr. Grasshopper to spend on food and recreation. Unless permitted a deduction for his interest payment, Mr. Grasshopper will pay the same amount of tax as Mr. Ant, despite this different in spending power.²⁷

I argued in my 1981 article that equal treatment of Mr. Ant and Mr. Grasshopper under the facts of this example is appropriate in an ideal tax system based on Haig/Simons principles, including a modified Haig/Simons system. Mr. Ant's advantage over Mr. Grasshopper is due to his decision in a prior taxable period to save \$1,000. He presumably paid an income tax on that income and paid tax on any investment income generated by the investment of that income. Mr. Ant is now in a position to forgo the yield on his savings and convert the savings to consumption. It is entirely consistent with the logic of an income tax to allow him that advantage.

The only way to deprive savers systematically of the tax advantage they obtain by drawing down savings to finance consumption would be to tax them on the income they could have earned from that savings. To do so, however, would convert the income tax into a tax on potential income. It would also provide no benefit to Mr. Grasshopper in the above example, assuming that he had forgone savings in a prior taxable period.

The argument discussed above for a UID is not strengthened by characterizing interest payments as negative income. The concept of "negative income" is muddled.²⁸ In accounting terms, the opposite of "positive" income is a loss. It is farfetched to claim that a taxpayer necessarily suffers an accounting loss either by incurring an obligation to pay interest or by discharging that obligation through the payment of interest due.

In my view, the members of the negative income school have committed what Henry Simons has characterized as "the folly of describing income as a flow."²⁹ To treat interest payments as a form of negative income is to assign to those payments some independent status based on their inherent characteristics. According to Haig/Simons principles, however, income "exists only as the end result of appropriate calculations."³⁰ It cannot be comminuted into a series of positive and negative flows without altering its fundamental character.

C. Tracing Versus Matching

Many commentators had proposed substantial limitations on the deductibility of interest payments prior to the publication of my 1981 article.³¹ Some of those proposals have considerable intuitive appeal. They were typically defended by reference to a matching concept borrowed from accountancy. According to that concept, interest payments should be deductible only when the income associated with those payments has been subject to taxation. Thus interest paid to earn tax-exempt income would never be deductible, and the deduction for interest paid to earn tax-deferred income would be deferred.

The tax lexicon traditionally has not made the sharp distinction between "tracing" and "matching" that I make in my writings on the

interest deduction. As indicated above, I reserve the term "matching" to signify the linking of interest payments with the particular sources of income that they are thought to generate. I argued in my 1981 article that the appropriate linking in a tax system based on Haig/Simons principles should be between interest payments on a loan and the use made of the loan proceeds. I took the term "tracing," which had been used without any pretense of precision in the tax literature, and refined its meaning to conform with that theory.

In my 1981 article, I sought to refute the view of many tax analysts that the deductibility of interest should turn on the inherent characteristics of interest payments—that interest payments deserve a special status in an ideal income tax. My tracing system is proposed as a feature of a tax system designed according to Haig/Simons principles, including systems that depart from a pure Haig/Simons system by providing schedular treatment of foreign source income and allowing deferral for some unrealized gains. In such a system, net income generally is taxable if it provides the taxpayer with consumption benefits or savings benefits.

An operating assumption of a practical income tax system is that an expenditure from gross income provides consumption or savings benefits unless the taxpayer "traces" an expenditure from gross income to a particular use and shows that the use did not provide such benefits. For example, a taxpayer justifies a deduction for rent paid to acquire space in a building by reference to the use made of that space. If the use is a cost of earning income, then it is deductible. If the use is family living, it is not deductible. Similarly, interest on a loan would not be deductible unless the taxpayer could demonstrate the loan proceeds did not finance his consumption or savings.

Matching, in contrast to tracing, is a special rule, designed to deal with perceived defects in the gross income rules of an income tax system. The implicit assumption made by the proponents of matching is that an interest payment is an inherently deductible expense in an ideal income tax system. In an imperfect tax system in which some categories of gross income are not currently taxable, however, the interest deduction may properly be denied or deferred if it is matched with untaxed income. Thus a matching rule, as I have defined it, is an nth best solution to problems resulting from an inappropriate definition of gross income. As with all nth best solutions, it is difficult to defend. The defense depends almost entirely on questionable assumptions about its distributional effects in a specific tax system operating in a specific economic environment.³²

In my view, matching is an ad hoc and rather fuzzy guideline, not a fundamental organizing principle of an income tax. It is not useful either for the design of a pure Haig/Simons income tax system or for the design of tax expenditure rules. It does suggest a way that certain timing issues should be resolved in a tax on realized income—not surprising given the roots of the matching concept in accountancy.³³ It suffers from a fundamental operational weakness in that it assumes that particular interest payments can be linked with particular items of income without offering any guidance on how that linkage is to be established. In contrast, I was able to derive considerable guidance in the design of tracing rules by drawing on analogies to the accepted tracing rules applicable to other types of expenditures, such as rental payments made for the use of tangible property.

When the linkage between income and an interest payment is obvious, a matching system obtains intuitively appealing results. Those results, however, are the same as those obtaining in a tracing system. When the linkage between interest paid and income generated is unobvious or is nonexistent, the matching concept gives no guidance as to the design of tax rules. Thus the matching concept is not helpful in determining how to treat interest payments made with respect to loans used to finance personal consumption.³⁴ It is also unhelpful in determining the deductibility of interest on loans used to finance failed ventures.³⁵

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IV. Limitations on the Interest Deduction under the U.S. Tax Code

The United States adopted some major reforms of the deduction for interest payments as part of the landmark Tax Reform Act of 1986. Those reforms have been modified somewhat by subsequent legislation and have been refined by temporary Treasury regulations issued in July of 1987. The reforms include a disallowance of the deduction for interest paid by individuals on consumer loans, a limitation on interest traced to the investment income of individuals, and, most importantly, a limitation on the deduction for interest attributable to loans used to finance tax shelter activities.³⁶ The current treatment of interest by the U.S. tax code is in need of further reform. In all relevant respects, however, the current rules represent a significant improvement over the treatment afforded to interest prior to the 1986 reforms and a movement in the direction of the tracing system I advocated in my 1981 and 1984 articles.

Under the U.S. tax code, interest is classified into the following five categories: (1) qualified residence interest; (2) business interest; (3) investment interest; (4) tax shelter interest; and (5) personal interest.³⁷ The last of these categories is the residual class, comprised of all interest other than interest falling within one of the other five categories. In general, interest in the first category gets the most favorable treatment, and so forth down the list. Individuals paying interest falling within the fifth category are not allowed a current deduction and are not provided with any other tax benefit in a future taxable year.

The sorting of interest into categories is done in accordance with the use made of the proceeds of the loan with respect to which the interest was paid or accrued.³⁸ It is generally irrelevant, in doing the sorting, whether the lender takes a security interest in property owned by the borrower.³⁹ In general, taxpayers have the burden of establishing the category in which their interest payments fall. Otherwise their interest is treated as personal interest.⁴⁰ Special ordering rules, generally favorable to the taxpayer, apply to assist the taxpayer in establishing the use made of loan proceeds that are commingled with other funds.⁴¹ These are all features of the tracing system that I proposed in my 1981 article.

This paper addresses the limitations on the interest deduction applicable to individuals. The limitations summarized above generally do not apply to corporate taxpayers. Corporations are required to

capitalize some interest payments and are subject to certain other restrictions in claiming a deduction for interest.⁴²

Section IV,A, below, discusses the treatment of consumer interest, including interest linked to consumer durables, such as a personal residence. Section IV,B discusses the treatment of interest paid on loans used to acquire investment assets. The limitation on the deduction for interest linked to tax shelter activities is discussed in section IV,C. Section IV,D discusses the treatment of interest paid on loans used to finance business operations. Each of these subsections begins with a description of current U.S. law and concludes with my critique of that law in light of the ideal tracing system proposed in sections I and II.

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A. Consumer Interest

I. Current U.S. Law

Prior to the 1986 reforms, U.S. individuals claiming itemized deductions were allowed to deduct all of their interest on consumer loans, including home-mortgage loans. After the recent reforms, they have lost their deduction for interest paid on their VISA cards and similar purchase-money consumer loans. In theory, they have lost the deduction with respect to interest paid on all consumer loans other than loans secured by a mortgage on their residence. Well-advised taxpayers, however, have probably accommodated themselves to the new rules by taking out home-equity loans to finance consumer purchases. Taxpayers taking the standard deduction, which was liberalized by the 1986 reforms, are unaffected by the reforms of the interest deduction.

As modified by the 1986 tax act, the U.S. tax code provides that "personal interest" paid or accrued during a taxable year is not deductible.⁴³ Personal interest is defined as all interest other than business interest, investment interest, tax shelter interest, qualified residence interest, or interest imposed for late payment of certain estate taxes.⁴⁴ Thus "personal interest" is the residual category of interest. The major component of personal interest is interest on consumer loans. It would include, however, other types of interest, such as interest due for failure to make timely income tax payments to the government.

Qualified residence interest is always deductible. Because it is excluded from the definition of personal interest, taxpayers who itemize their deductions are able to deduct most of the interest they pay to finance their personal consumption. There are two components of qualified residence interest. The first component is interest paid with respect to a loan used to finance the acquisition or substantial improvement of a "qualified residence."⁴⁵ That latter term is defined to include (1) the taxpayer's principal residence and (2) a second residence—typically a vacation home—designated by the taxpayer.⁴⁶ Interest paid on a loan used to acquire a qualified residence does not qualify for a deduction to the extent that the principal amount of the loan exceeds \$1 million.⁴⁷

The second component of qualified residence interest is interest paid on a home equity loan. Interest paid on a home equity loan does not qualify, however, to the extent that it exceeds \$100,000.⁴⁸ This feature of current law was adopted as part of the 1987 tax act. Under

the 1986 act, interest on a second mortgage generally was deductible only to the extent the principal amount of that indebtedness, plus all other indebtedness secured by the residence, did not exceed the taxpayer's cost basis in the residence.⁴⁹ The intent of the rule was to prevent homeowners from claiming a deduction for interest on a second mortgage that was secured by the unrealized appreciation in their home. This provision was made unworkable, however, by the inclusion of exceptions for loans used to finance certain medical and educational expenses.⁵⁰

For purposes of the alternative minimum tax, interest on a loan secured by a qualifying residence is deductible only if the loan proceeds were used to purchase the residence or to finance substantial improvements in the residence.⁵¹ Thus interest on the typical home-equity loan used to finance consumption expenditures would not be deductible under the alternative minimum tax.

2. Critique of the U.S. Rules Applicable to Consumer Interest

The current U.S. rules governing the deduction for consumer interest are badly flawed. The one positive thing that can be said for them is that they establish in the U.S. tax code the principle that consumer interest ought to be fully taxable as a matter of tax policy. The establishment of the principle is an important political achievement—important because the principle has real content and influential critics. It is not a principle, like the ability-to-pay principle, that has achieved approval because of its inherent ambiguity.

As explained in section I, above, interest paid on a loan used to finance current consumption should not be deductible in a tax system designed according to Haig/Simons principles. To the extent that result is reached under current law, it is in accord with my ideal tracing system. The favorable treatment of home-equity loans under U.S. law, however, is obviously improper under my proposed system.

The full deduction for interest paid on loans used to acquire a personal residence is also improper in a Haig/Simons system. The proper treatment depends (1) on the treatment afforded to accrued gains from the appreciation in the value of the residence and (2) on the treatment of the benefits derived from living in the residence rent-free. If those benefits are taxable on an accrual basis, then the interest on the home-mortgage should be fully deductible. Of course no income tax system in operation in the world aspires to tax those benefits fully.

In a modified Haig/Simons system in which unrealized gains and imputed rental income are not taxed, interest paid on a home mortgage should be treated as an acquisition cost. As I explain in detail in my 1981 article, the interest payments should be added to the taxpayer's cost basis in the home.⁵² The cost basis should be reduced each year, however, by the amount of depreciation that would have been allowable if the property had been rented out for profit. Adding interest to the cost basis of a residence would reduce the gain otherwise realized on the sale of the residence. That reduction in the amount of the gain is appealing to a well-informed intuition because it reduces the unwarranted advantage otherwise obtained by persons who finance the purchase of their home with saved income over those who are still paying on their home mortgage.

Obviously the treatment of home-mortgage interest under current U.S. law is inconsistent with the ideal set forth in section I. The deduction for interest on home mortgages is a certified sacred cow in the U.S. tax code. It should not be expected that it would be eliminated because of tax policy objections to it. Even the Treasury Department's 1984 report (Treasury I), which was purist on most points, recommended the full preservation of the deduction.

At its inception, the U.S. tax code granted a deduction for all interest payments. The rate of tax was very low, however, and the science of tax avoidance was still in its infancy. As the U.S. tax rates went up and taxpayers started using the interest deduction to avoid taxes, Congress began imposing some limits on the deduction. The deduction for home mortgage interest was untouched by reform. It came to be defended, to the extent it is defended at all, as an encouragement to home ownership. It is now classified by Congress and the Treasury Department as a tax expenditure. It has the typical defects of most tax deductions used to promote social goals—it gives no benefits to the poor and it favors taxpayers in the highest tax bracket over other taxpayers.

As explained in section II, the appropriate tracing rules for a tax expenditure depend upon the goal that the tax expenditure is supposed to serve. One plausible goal of the home-mortgage interest deduction would be to encourage taxpayers to buy rather than rent their home. In that event, only first-time buyers should qualify for the deduction, and then only if they finance the purchase of the home with a purchase-money mortgage or its functional equivalent. The design of appropriate tracing rules would be simple. To get the deduction with respect to interest paid on a loan, taxpayers would be required to establish that they were first-time buyers and that they used the proceeds of the loan to purchase a home.

The deduction allowable under current U.S. law for interest on home mortgages cannot be explained by a societal interest in having Americans own their own homes. Americans are encouraged by the tax benefit to move up from their original home to a bigger and better home and to have at least one additional home. They are also encouraged to put their home ownership in jeopardy by taking out home-equity loans to finance their current consumption. The spending goal that Congress is pursuing by setting up this set of incentives is difficult to fathom. As explained in section II, the proper tracing rules for an ineffective or irrational tax incentive are those that limit its scope. Of course the political pressures that led to the enactment of the inappropriate tax expenditure may also work to prevent the adoption of restrictive tracing rules.

B. Investment Interest

I. Current U.S. Law

Interest paid or accrued during a taxable year with respect to loans used to acquire property held for investment can be deducted only against net investment income for that year.⁵³ Any excess of interest over net investment income may be carried forward and deducted against the taxpayer's investment income derived in future years.

"Property held for investment" is defined to include stock, bonds, royalty contracts and similar intangible property that would yield a

return of interest, dividends, annuities, or royalties.⁵⁴ Property that produced such income in the ordinary course of a trade or business would not be treated as investment income.⁵⁵ Partnership interests and similar interests in a business would also constitute investment property if the activity of the business is not classified as a tax shelter activity and the taxpayer does not materially participate in the business.⁵⁶ Net investment income is the income generated during the taxable year by investment property, minus the expenses (other than interest) properly allocable to that income.

The limitation placed on the deduction for investment interest prevents taxpayers from obtaining a current interest deduction on loans used to buy investment assets that are expected to generate a substantial portion of their return in future year. As explained in section IV,C, below, the definition of investment interest is also important in preventing taxpayers from using artificial losses generated by their tax shelter activities from offsetting their dividends, interest, and other periodic gains from their investment assets.

2. Critique of the Investment Interest Rules

In the tracing system suggested in my 1981 article, interest paid on loans used to finance the purchase of investment assets would be capitalized and recovered under the capital-cost recovery system applicable to such assets. As I explained in that article, tax systems generally do not allow any cost recovery for the expenses of acquiring intangible property with an indefinite useful life until the property is sold or otherwise disposed of. Given that primitive system of cost recovery, a requirement that interest be capitalized would give improper results in many important circumstances.

Consider, for example, a taxpayer who bought a \$1,000 bond yielding 10 percent interest with money borrowed at 8 percent. He ought to have a net gain each year of 2 percent, or \$20. That result can be achieved by capitalizing the interest payments over the life of the bond and then allowing them to be recovered over that period. To achieve that result, however, the current cost-recovery rules applicable to bonds would need to be reformed.

The limitation imposed on the deduction for investment interest gets approximately the result achieved under my tracing system in some important cases. It is too generous, however, in two circumstances. First, it allows taxpayers who have a high yield from one asset and a low yield from another to deduct interest paid to finance the purchase of the low-yield asset against the income generated by the high-yield asset. This cross deducting of interest is usually inappropriate.

The current U.S. treatment of investment interest is also too generous to taxpayers who expect both a current income stream from their asset and a capital gain. In such circumstances, they are allowed to deduct all of the interest used to acquire that asset as long as its current yield is at least equal to the interest paid on their acquisition loan. Consider, for example, a taxpayer who buys 100 shares of XYZ stock at a cost of \$6,000, with \$3,000 of the purchase price coming from savings and the balance coming from a 10-percent loan. The taxpayer reasonably anticipates that the XYZ stock will pay annual dividends of \$300 and will appreciate in value at an annual rate of approximately five percent. Under these facts, only about half of the

taxpayer's interest should be deductible in a tax system employing appropriate tracing rules. The entire amount is deductible, however, under current U.S. law.

C. Tax Shelter Interest

1. Current U.S. Law

Interest paid to acquire tax shelter assets are deductible only against the income generated by such assets. In the overwhelming majority of cases, those assets would not yield any current income—indeed, the point of a tax shelter is to generate current paper losses. Deductions denied under this rule may be carried forward indefinitely. Thus the rule applicable to tax shelter interest is a capitalization rule, similar in function to the rule limiting interest paid on loans used to acquire investment property.

The details of the rules limiting the deduction for tax shelter interest are beyond the scope of this paper. They depend for their operation on the complex set of rules that are applicable generally to tax shelter activities.

The term "tax shelter interest" has been invented for use in this Article—it is not used in the U.S. tax code. What I refer to here as "tax shelter interest" is referred to in the code as "any interest which is taken into account under section 469 in computing income or loss from a passive activity of the taxpayer." Section 469 uses the term "passivity activity" as a euphemism for "tax shelter activity." That section specifies what constitutes a passive activity and imposing limitations on losses generated by such an activity.

In general, an activity constitutes a passive activity with respect to a taxpayer if the activity involves the conduct of a trade or business and the taxpayer is a passive participant in that business, typically as a limited partner. A passive activity usually includes real estate activities but does not include so-called working interests in an oil or gas lease.

2. Critique of the Tax Shelter Interest Rules

As part of the 1986 reforms, the U.S. Congress adopted an elaborate system designed to eliminate most tax shelter abuses. It would appear, from substantial anecdotal evidence, that Congress has accomplished its mission. The tax shelter business is in the water closet, yuppy investment bankers who were relying on the sale of tax shelters for their livelihood have put their BMWs up for sale, and many of the law firms and accounting firms that depended on the tax shelter business are facing a financial crisis. So the news on the tax shelter front is uniformly good.

The limitations imposed on tax shelter interest is an important part of the overall assault on tax shelters. There is a legitimate question whether the complex definitions needed to define tax shelter activities would be warranted if their sole objective were to limit the interest deduction. Since they were already in place, however, there is little additional cost in using them to limit the interest deduction.

The rules applicable to tax shelter interest generally work in accord with the requirements of a full tracing system. They operate improperly to the extent that they allow cross deducting of interest deductions relating to one activity against income generated by

another activity. The definition of a tax shelter activity is such, however, that most taxpayers will not have any positive income from those activities. Thus that defect in the rules is likely to be a de minimus one.

D. Business Interest

I. Current U.S. Law

The term "business interest" is used in this paper to refer to what the U.S. tax code refers to as "interest paid on accrued on indebtedness properly allocable to a trade or business (other than the business of performing services as an employee)."⁵⁷ Unless one or more special limitations apply, such interest is not quarantined or schedularized. It is deductible against any income earned by the taxpayer. For example, a taxpayer with an excess of business interest over his business income may use that excess to reduce his taxable income from wages or investments.

Several limitations do apply, however, to business interest. The most important is contained in the uniform capitalization rules of U.S. tax code section 263A. Subject to some exceptions, interest expenses allocable to the production by the taxpayer of real or tangible personal property that is paid or accrued during the construction period must be capitalized. The interest would be added to the cost basis of the property, and a deduction eventually would be allowed under the applicable cost-recovery system or upon the sale or other disposition of the property.

The amount of interest allocable to the production of real or tangible personal property is determined under what is described in section II as a strict-stacking rule. Interest payments on loans that are specially linked to the construction of the property are allocated to that property. In addition, taxpayers having other outstanding indebtedness must allocate to that property a sufficient portion of that indebtedness to cover the costs of its production.⁵⁸

Consider, for example, a taxpayer who uses \$10,000 to construct a building. He borrows \$6,000 at a 10-percent interest rate for that specific use. He also has an outstanding loan of \$30,000 on which he pays interest at 6 percent. He must allocate all of the interest attributable to the \$6,000 loan and interest attributable to \$4,000 of the \$30,000 loan to the acquisition of the building. He may capitalize that interest during the construction period but not thereafter.

2. Critique of the Business Interest Rules

The general rule allowing excess business interest to be netted against other interest is proper, but only to the extent that the interest relates to the earning of current income. Interest payments made to carry inventory or to finance the acquisition of an asset should not be deductible currently against any income. Those allocable to carrying inventory should be treated as an inventory expense, with the deduction deferred until the inventory goods are sold. Those interest expenses used to finance the acquisition of capital assets should be recovered under the cost-recovery system generally applicable to such assets. Most interest expenses incurred in business are probably allocable either to carrying inventory or to the acquisition of assets.

The development of good tracing rules for linking business interest with the income they help generate would facilitate the

allocation and apportionment of interest expenses between U.S. source income and foreign source income. Instead of using the conceptually flawed assets method of current law, taxpayers would match their interest deductions with the income generated by the assets acquired with the borrowed funds. The assets method, in theory, allocates the interest deductions claimed by a taxpayer pro rata to the fair market value of the taxpayer's assets. That portion of total interest deductions allocated to assets used to produce foreign source income is then allocated to foreign source income. The effect of the assets method is to treat all of the taxpayers capital as tangible.

In practice, the assets method is only workable because of a series of ad hoc rules that are wildly inconsistent with its underlying theory. The method was invented in the 1970s by economists working in the U.S. Treasury Department who believed that the fungibility of money prevented interest from being linked in any meaningful way with particular items of gross income. In the terminology of section I,B,1, they were led astray by the fungibility fallacy.⁵⁹

V. Conclusion

From the perspective of the tax collector, the deduction for interest is the most dangerous of all the deductions. Unless properly curbed, it will allow taxpayers to deplete their current taxable income by accelerating their deductions for capital costs into the current period, by generating artificial losses, by converting personal expenditures into deductible costs of earning income, and by pushing their income offshore. In the long run, a country that does not impose appropriate limitations on the interest deduction is out of the tax collection business. It may have a tax system in form, but in reality it is making a plea for voluntary contributions to the fisc.

The strategy of the United States in limiting abuse of the interest deduction has been to classify interest into categories and then to impose different restrictions on interest payments in each category. Some commentators have objected to this system. They assert that the schedularizing or quarantining of income that results from that system is a move away from the Haig/Simons ideal. What they apparently fail to realize is that a modern income tax is inherently a schedular system in some important respects.

The generally approved methods of taxing income having a foreign nexus illustrate the point. Most countries, including Australia and the United States, have detailed rules for determining what portion of such income should be subject to their primary jurisdiction. This division of worldwide income into domestic source income and foreign source income is inherently schedular. If it violates some tax specialist's concept of the Haig/Simons ideal, then that concept is an irrelevancy to the design of a modern tax system.

The division of income into foreign and domestic baskets is just one of the ways that deductions must be quarantined in a modern tax system. Even more basic is the way deductions are quarantined for purposes of computing gain on the sale of goods. The whole point of inventory accounting, for example, is to link deductions with particular items of income. That is also the whole point of requiring taxpayers to determine their cost basis in assets. A pure Haig/Simons system—that is, a system that taxed all income as it accrues—could

dispense with inventory accounting and the maintenance of cost basis. Every tax system in the world today, however, needs such features to operate.

The problem that governments face in controlling abuse of the interest deduction can be compared to the problem they would face in controlling pollution of their harbors and beaches from an oil tanker constructed with one very large storage compartment. With such a tanker, a sharp rock piercing the hull would send millions of barrels of crude oil into the ocean. One possible way of minimizing the risk of a disastrous oil spill would be to install a double bottom on the tanker. That approach would reduce the risk of a breach of the bottom, but it would not have any effect in limiting the amount of leakage that would occur once a breach had actually occurred. A better solution would be to divide the storage area of the tanker into compartments, with each compartment separately sealed.

The separate-compartment solution is the one the United States adopted to prevent wholesale leakage from its tax base through abuses of the interest deduction. In many respects, it is an elegant solution because the separation of interest into categories serves not only to protect against abuse but also to get a proper measurement of taxable income. Commentators who complain about that solution on the ground that money is fungible have missed the point. They might just as well complain about the division of the storage compartment of an oil tanker into separate compartments on the ground that oil is a fungible commodity.