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Indiana Law Journal

Volume 62 | Issue 1

Article 5

Winter 1986

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Tax Timing and the Haig-Simons Ideal:
A Rejoinder to Professor Popkin

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Professor Popkin makes two major sets of points in reply to my recent article.[1] The first set of points involves the proper application of the Haig-Simons ideal to issues of tax timing. Professor Popkin argues that the proper interpretation of that ideal calls for increases in wealth to be taxed as they occur rather than for a cash flow income tax ("CFIT") that taxes revenues as they are received and allows costs to be deducted when they are paid. He also constructs a "control and dominion theory" that he claims supports his proposed tax over the CFIT.

Part I contains a reply to these claims. The conventional statement of the Haig-Simons ideal requires that if wealth increases from $A to $B over an accounting period, then taxes should reduce wealth by the tax rate multiplied by $(A - B)$. Both the CFIT and Professor Popkin's proposed tax involve the same total net tax over time. His proposed tax, however, moves this net tax to an earlier point than the CFIT, and, as a result, does not tax wealth changes in a Haig-Simons manner.

Professor Popkin's control and dominion theory is motivated by the fear of abuse. Under a CFIT, the government will share in the costs of investment through an immediate deduction, but the taxpayer may not act as a proper . fiduciary in protecting the government's investment. Part I concludes with two points. First, the danger of abuse is minimal. Second, attempting to address the abuse does not imply the use of Professor Popkin's proposed tax.

Professor Popkin's second set of arguments consists of a normative evaluation of the methodology used to apply the Haig-Simons ideal. His main argument is that the pre-tax situation in the tax world rather than the no-tax world situation is the proper benchmark to use in assessing after-tax results. Part II shows that neither of these two benchmarks has a very strong normative justification at present. In addition, if the pre-tax situation in the tax world is used as a benchmark, the CFIT can be taken as the embodiment

1. Strnad, *Taxation of Income from Capital: A Theoretical Reappraisal,* 37 STAN. L. REV. 1023 (1985).

of the Haig-Simons ideal. The fact that this result was derived in a setting that ignores the impact of taxes on pre-tax incomes is irrelevant. The pre-tax results are being taken as a starting point regardless of their origin. This link between the CFIT and the Haig-Simons ideal is exactly the kind of conclusion that Professor Popkin opposes.

I. APPLYING THE HAIG-SIMONS IDEAL TO TAX TIMING ISSUES

One of the main results in my article was that the cash flow income tax ("CFIT") implements the Haig-Simons ideal in a non-general-equilibrium setting, that is, where the effect of taxes on pre-tax prices is ignored. Specifically, I demonstrated that for investment and borrowing transactions, the CFIT reduces the present value of increases in net wealth by exactly the tax rate.[2] This reduction is the same as would occur if the investment or borrowing rights were sold and the gain from sale taxed at the applicable tax rate.[3]

Professor Popkin makes two major criticisms of my analysis. First, he finds that my interpretation of the Haig-Simons ideal "contains a bias in favor of the (CFIT)" and that I "mischaracterize" the Haig-Simons ideal.[4] Second, he proposes that a "more plausible" and "fairer" formulation of the Haig-Simons ideal is that the taxpayer actually pay the tax to the government on wealth increments, rather than retain wealth subject to a future tax obligation with a present value equal to the payment.[5] The last part of this conception refers to the fact that although the CFIT reduces the present value of wealth increases by the proper amount, the government does not actually collect the corresponding taxes until later. Professor Popkin finds his approach fairer because he prefers a theory of "control and dominion" over the "accrual" theory that I used to argue that the CFIT implements the Haig-Simons ideal in a non-general-equilibrium setting.

Section A of this part shows that the CFIT implements the Haig-Simons ideal as conventionally stated while Professor Popkin's proposed "ideal

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2. *See id.* at 1068-69, 1077-78, 1085, 1091-92, 1099. This result depends on a group of simplifying assumptions about tax rate structure and the tax treatment of losses. Tax rates are taken to be constant over time and to be independent of the amount of income (i.e., no progressivity or regressivity), full loss offsets are assumed to be available, and there is no special rate on capital gains. Unless otherwise noted, these assumptions are used in this rejoinder also. For a discussion of these assumptions and their appropriateness to the points that I wish to make, see *id.* at 1042-43.

3. *See* Strnad, *The Bankruptcy of Conventional Tax Timing is Deeper Than Semantics: A Rejoinder to Professors Kaplow and Warren,* California Institute of Technology Social Science Working Paper No. 599 (March 1986), at 10-11, 17, 40-41, 43-44, 46 (to be published in January 1987 STAN. L. REV.).

4. Popkin, *Tax Ideals in the Real World: A Comment on Professor Strnad's Approach to Tax Fairness,* 62 IND. L.J. 63, 63 (1986).

5. *See id.* at 64.

income tax" does not. Section B argues that Professor Popkin's control and dominion theory does not justify the choice of his proposed tax over the CFIT.

A. The Haig-Simons Ideal

The conventional definition of the Haig-Simons ideal can be taken directly from the widely quoted formulation by Henry Simons: "Personal income may be 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 the end of the period in question."[6] This formulation requires that two quantities be defined in order to implement it: (1) the "benchmark" change in the value of property rights between the two times that begin and end an accounting period, and (2) a measure of the after-tax result to compare against the benchmark.

There are at least two choices to make in selecting a benchmark. First, one needs to choose between pre-tax results in a world with taxes and the results in a hypothetical "no-tax world." Second, value can be measured by market value (the value at which an investment or borrowing rights trade) or by present value (the value of the future flows discounted to current dollars). Similarly, in assessing after-tax results, one can use after-tax present value or the actual after-tax yield if the investment or borrowing right were sold. None of these choices matters when one is comparing the CFIT against the Haig-Simons ideal.[7] The CFIT implements that ideal in a non-general-equilibrium setting independent of which of the above-mentioned baselines or measures of after-tax result one chooses.

Professor Popkin does not dispute these results. Instead, he argues that this approach somehow "mischaracterizes" the Haig-Simons ideal. As stated, however, that ideal calls for measuring "baseline" changes in wealth between the beginning and end of an accounting period and then comparing the after-tax result to that baseline to see if the baseline change has been reduced by the appropriate tax rate.

Professor Popkin does not ever state the Haig-Simons definition in his reply. He argues that I "mischaracterize" the definition, that "the Strnad version" of the definition is "defective on basic fairness grounds," and that adopting this version "begs the question."[8] But the version stated above is

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6. H. SIMONS, PERSONAL INCOME TAXATION 50 (1938). Even those who disagree with my result that the CFIT implements the Haig-Simons ideal accept this definition (or one close to it) as the statement of the ideal. *See, e.g.,* Kaplow & Warren, *An Income Tax by Any Other Name — A Reply to Professor Strnad,* 38 STAN. L. REV. 399, 399, 408 n.39 (1985).

7. *See* Strnad, *supra* note 3, at 7-17, 40-41, 43-44, 46.

8. *See* Popkin, *supra* note 4, at 64. Professor Popkin also cites a reply by Professors Louis Kaplow and Alvin Warren to my original article. *See* Kaplow & Warren, *supra* note 6, at 407-12, for his position that I "mischaracterize" the Haig-Simons ideal. In my rejoinder to Professors

not some special "Strnad version" of the ideal; it is the formulation that Henry Simons uses and that scholars have continually cited.[9] There is more than merely an issue of semantics here. The Haig-Simons ideal is an important normative ideal: changes in wealth between any two points in time should be reduced by the appropriate tax rate. The results that follow from the ideal may be "defective on basic fairness grounds," but that implies that the ideal is being rejected or supplemented by some other norms.

Section B discusses these other norms. The present section addresses a prior question. Professor Popkin states that a "fairer interpretation of the Haig-Simons ideal" would require the tax that he proposes as an alternative to the CFIT.[10] How does Professor Popkin's proposed tax compare to the Haig-Simons ideal as conventionally stated? The example that follows shows that his proposed tax fails to meet that ideal.

Professor Popkin's tax requires that the taxpayer actually pay the tax to the government on wealth increments, rather than retain wealth subject to a future tax obligation with a present value equal to the payment.[11] I will call this tax a "Samuelsonian income tax" or "SIT" for short.[12] It requires that all changes in wealth by taxed precisely when they occur.

Suppose that the pre-tax interest rate is constant for riskless transactions during a year and compounds to an annual rate of 10% per year.[13] Suppose an investor borrows $X at time 0 to buy an investment. The only return on

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Kaplow and Warren, I show that their arguments suffer from one or both of two fatal flaws. *See* Strand, *supra* note 3, at 18-22. First, they compare my results for a portion of an accounting period to the change in wealth over an entire accounting period. This is an error. They should have examined my results for the whole accounting period. These results are consistent with the change in wealth over that period. Second, they may reject the idea that the baseline change in wealth from the beginning to the end of a period should be measured by market value or present value. But they present no alternative measure, and it is doubtful that one could be constructed that is consistent with modern economic notions of value.

9. *See supra* note 6. Haig and Simons themselves did not believe that the CFIT implemented their ideal. This does not mean that they believed in some ideal other than the one they stated or that their ideal should be interpreted somehow to exclude the CFIT. Those who define a norm do not thereby become the exclusive expositors of the norm for all time. The Haig-Simons ideal as conventionally stated is an important norm that has served as a guidepost for policymakers over several decades. *See* Strnad, *supra* note 1, at 1025. But I believe that Haig and Simons failed to see clearly the true implications of their ideal. *See* Strnad, *supra* note 3, at 6-7, 22.

10. *See* Popkin, *supra* note 4, at 64. He also says that this tax conforms to "the income tax ideal." *Id.* at 65. Is this a separate norm from the Haig-Simons ideal? It appears to be.

11. *Id.* at 64-65.

12. The motivation for this name is that in a famous article, Paul Samuelson showed that this is the only tax that produces valuations that do not depend on the taxpayer's marginal tax rate. *See* Samuelson, *Tax Deductibility of Economic Depreciation to Insure Invariant Valuations,* 72 J. POLIT. ECON. 604 (1964). Thus, all taxpayers would be willing to pay at most the same amount (say $A) for a given investment. Since this amount is independent of the taxpayer's bracket, it is *the* market value of the investment.

13. The results would not change if the riskless interest rate were allowed to vary over the period.

A constant interest rate that compounds continuously to 10% over the period is generated

the investment is at time 1 (exactly a year later). This return is $1100 plus 1.1 x $X, and it will be received for certain.[14] The loan is due at time 1 so that the investor discharges it by paying 1.1 x $X at that time. In cash flow terms, the investor has obtained $1100 at time 1 without paying anything at time 0. Clearly, in this series of transactions, "the investment" is profitable.

Suppose the investor was not taxed on the investment. Then, at time 0, the investor's wealth increases by $1000. This is because a tax-exempt investor would pay $1000 at time 0 to gain $1100 for certain at time 1 when the market interest rate for riskless transactions is 10%. For this tax-exempt investor, the "present value" at time 0 of receiving $1100 at time 1 is $1000.

Suppose that everyone is taxed using a Samuelsonian income tax. Then, as Professor Samuelson has shown, each person would assign the same value to the investment as the tax-exempt investor.[15] As a result, the market value of this investment would be the same as the present value to the tax-exempt investor, and each investor would perceive the investment as having a present value equal to that market value.[16]

Now consider an investor who is subject to a marginal tax rate of 40%. This investor pays taxes *continuously* as the investment increases in value. The following table divides the year into ten equal periods and presents the market value, the change in market value and several measures of taxes and tax rates. These tax and tax rate measures will be explained subsequently. The figures given for time 0 are those associated with the instantaneous increase in wealth of $1000 that occurs at that time. Thus, the "period" associated with time 0 is not one-tenth of a year long but extends from an

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by solving for r in the equation $e^r = 1 + .10$. Then the interest rate over a period of length t is r(t) where $r(t) = e^{rt} - 1$.

14. Analyzing a risky investment would be more complicated and would not add to my conclusions about the SIT. For the CFIT, adding risk to the analysis does not change the result that the CFIT implements the Haig-Simons ideal in a non-general-equilibrium setting. *See* Strnad, *supra* note 1, at 1050-52, 1065-67, 1068-69, 1084-85, 1089-92.

15. This is Samuelson's main result: in order for valuations to be invariant (to marginal tax rate), changes in wealth must be taxed at the time they occur. *See supra* note 12.

16. The reason that the result is true is that the SIT reduces the after-tax discount rate from the level of the pre-tax interest rate more for high-bracket taxpayers than for low-bracket taxpayers. The additional reduction in that discount rate for high-bracket taxpayers is just enough to cancel out the greater reduction in future revenues that those taxpayers face.

An investor with a marginal tax rate of T would experience an annualized after-tax discount rate of $e^{(1-T)r}-1$ where r is defined as in *supra* note 13. *See* Samuelson, *supra* note 12, at 604. For example, where the annualized pre-tax interest rate is 10% and the investor is in the 40% tax bracket, the annualized after-tax interest rate would be 5.89%. Since the investor can earn 5.89% after-tax on a riskless market investment, 5.89% is the after-tax discount rate used to evaluate other investments.

Note that this is less than 60% of 10%. This is because the SIT taxes wealth changes *as they occur*. Suppose the investor in the 40% bracket invests $100 for one year at 10%, the market rate of return. What is the after-tax return at the end of the year that would be equivalent to the SIT? It is $105.89. An end of the year after-tax return of $106 would be too much because that return is equivalent to delaying the $4 tax on the $10 return until the end of the year. That $10 gain accumulates (in unrealized form) gradually during the year.

infinitesimally small time before time 0 to an infinitesimally small time after that time.

TABLE 1

Time (years)	Present Value (equals market value)	Change in Present Value Since Last Period	Tax Paid Since Last Period	Cumulative Tax	Cumulative Tax Rate
0	1000.00	1000.00	400.000	400.00	0.4000
.1	1009.58	9.58	3.832	406.14	0.4023
.2	1019.25	9.67	3.868	412.34	0.4046
.3	1029.01	9.76	3.904	418.62	0.4068
.4	1038.86	9.85	3.940	424.98	0.4091
.5	1048.01	9.95	3,980	431.41	0.4113
.6	1058.85	10.04	4.016	437.91	0.4136
.7	1068.99	10.14	4.056	444.49	0.4158
.8	1079.23	10.23	4.092	451.14	0.4180
.9	1089.57	10.34	4.136	457.88	0.4202
1.0	1100.00	10.43	4.172	464.69	0.4224

At time 0, the investor's wealth increases instantaneously by $1000. The SIT taxes away $400 of this increase immediately. Then between time 0 and time .1 the market value of the investment increases by $9.58.[17] During that period, $3.832, 40% of the $9.58, must be paid to the government. This is indicated in the fourth column. The fifth column, "cumulative tax," indicates the amount that the investor would have to pay at a given time for that amount to be financially equivalent to all previous SIT payments. Thus, paying $406.14 at time .1 is financially equivalent to paying $400 at time 0 and paying $3.832 between time 0 and time .1 in the way specified by the SIT. "Financially equivalent" means that the taxpayer pays interest at market rates to the government to compensate for the delay in payment of the taxes. After the tax impact of the SIT, this will amount to paying at an after-tax annual rate of 5.89% for a taxpayer in the 40% bracket.[18]

The final column, "cumulative tax rate," is the rate obtained by dividing the total pre-tax change to date in the investor's wealth, listed in column 2, by the cumulative tax to date, listed in column 5. This portrays the after-tax change in wealth position of the investor. The early payment of taxes means that the investor's borrowing must be increased or investment must

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17. This is computed by the formula $1000 x e^{(r \times .1)}$ where r is as defined in *supra* note 13. Under the assumption of a constant, continuously compounding interest rate, $1 at time 0 will grow to $1 x e^r pre-tax at time t.

18. *See supra* note 16 (explaining the 5.89% rate). The $400 tax due at time 0 is increased by the amount of interest over a tenth of a period that corresponds to a continuously compounded

be decreased. Presumably, this borrowing or investment is at market rates of return. The after-tax annualized rate of return on market investments and the after-tax annualized cost of borrowing for an investor in the 40% bracket is 5.89%.[19] When this investor pays $X in taxes T months early, the after-tax reduction in wealth is the after-tax interest that the investor would earn on $X for T months. The final two columns of Table 1 build this reduction into the tax and tax rate computations.

When an investor in the 40% tax bracket experiences a pre-tax wealth increase of $1100 over a year, the Haig-Simons ideal requires that $440, 40% of the $1100, be taken in taxes from the investor. But the SIT effectively taxes away $464.69 of the $1100 gain instead of $440. The SIT therefore does not meet the Haig-Simons ideal as conventionally stated.

Under the CFIT for an investor in the 40% tax bracket, the government would tax 40% of the $1100 at time 1. At the end of the year, the investor will have an increase in wealth after-tax that is only 60% as large as the pre-tax increase, as required by the Haig-Simons ideal. At any given earlier time, the after-tax present value of the gains will be reduced by 40%. Thus, the tax will "accrue" at the proper rate against wealth changes under the Haig-Simons ideal. The following table illustrates this phenomenon for the CFIT and a 40% bracket taxpayer.

TABLE 2

Time (years)	Market Value	After tax Present Value	Cumulative Tax	Cumulative Tax rate
0	1000.00	600.00	400.00	.4000
.1	1009.58	605.75	403.83	.4000
.2	1019.25	611.55	407.70	.4000
.3	1029.01	617.40	411.60	.4000
.4	1038.86	623.32	415.54	.4000
.5	1048.81	629.29	419.52	.4000
.6	1058.85	635.31	423.54	.4000
.7	1068.99	641.40	427.60	.4000
.8	1079.23	647.54	431.69	.4000
.9	1089.57	653.74	435.83	.4000
1.0	1100.00	660.00	440.00	.4000

annual rate of 5.89%. Algebraically, this amount of interest is $400 x $(e^{r \times .6 \times .1}-1)$.

The cumulation of the $3.832 tax is more complicated. This is the total amount of tax that occurs from time 0 to time .1. Different amounts of interest must be charged on different pieces of this tax because each piece of the tax occurs at a different time during the period. Pieces that are closer to time .1 will result in lower interest charges than pieces of equal size that are closer to time 0. It is possible to show, using calculus, that this $3.832 tax plus the after-tax interest charges on it will amount to $1000 x $(e^{r \times .1} -e^{r \times .6 \times .1})$ at time .1.

19. *See supra* note 16.

At time 0, the market value of the investment is $1000.[20] But the fact that a tax of $440 is due at time 1 reduces the after-tax present value at time 0 to $600. This is easy to explain. Under a CFIT, the after-tax interest rate is the same as the pre-tax interest rate.[21] The tax of $440 at time 1 has a present value of $400 which equals $440/1.1 at time 0.[22] This reduces the pre-tax present value of $1000 at time 0 to an after-tax present value of $600. The "cumulative tax" at time 0 in column four is therefore $400. The future tax liability reduces present wealth by the Haig-Simons amount, 40%. Thus, the "cumulative tax rate" at time 0 in column five is 40%. The same result would occur if the investor sold the investment at time 0. Gain would be $1000 and the tax $400. This is a general trait of the CFIT in a non-general-equilibrium setting. The reduction in after-tax present value experienced if the investment is retained is exactly the same as the tax if it were sold.[23]

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20. Under a CFIT, an investor will be willing to pay a certain amount $A before tax for an investment. This amount is independent of the investor's marginal tax bracket. Thus, $A is the market value of the investment.

To see this, consider an example. How would investors at time 0 value an investment return of $X at time 1? Let the value be V(T) for an investor with marginal tax rate T. (This "value" is the most the investor would pay for the investment). Suppose the pre-tax riskless interest rate is i. Under the CFIT, this is also the after-tax riskless interest rate for all taxpayers with tax rates less than 100%. *See* Strnad, *supra* note 1, at 1053-56. For an investor subject to marginal tax rate T, the after-tax cost of buying the investment for V(T) is T x V(T). V(T) must be such that the after-tax return T x $X at time 1 is (1 + i) multiplied by the after-tax cost of T x V(T). If V(T) is any larger, then the investment would return less than i after-tax. In that case, the investor would not buy it because the after-tax return i is available in the marketplace. But T x V(T) = (1 + i) x T x $X implies that V(T) = (1 + i) x $X after dividing T out from both sides. V(T) is independent of T since both i and $X are independent of T. The pre-tax amount that an investor is willing to pay for the investment does not depend on the tax rate.

Note that this quality is the same one that the SIT has: valuation is invariant to the tax rate. This might seem to contradict Samuelson's result that the SIT is the unique tax that has this property. Samuelson's result, however, is based on a broader definition of "valuation" than merely the pre-tax amount that the taxpayer is willing to pay. Under the SIT, the *after-tax* present value of the investment for each taxpayer is equal to the "market value," the pre-tax amount that each taxpayer is willing to pay. So the *after-tax* present value is independent of the taxpayer's marginal bracket. In contrast, under the CFIT after-tax present value varies among taxpayers and is not equal to market value for any taxpayer facing a positive tax rate. This difference does not affect the issues discussed in this rejoinder.

21. *See* Strnad, *supra* note 1, at 1053-56, 1068-69. The intuition behind this result is straightforward. Consider an investment earning the pre-tax market rate of return. The CFIT reduces all costs and revenues by the same proportion, the marginal tax rate. As a result, the after-tax rate of return will be the same as the pre-tax rate of return.

22. The present value at time 0 of revenue $X at time 1 is simply the amount $Y at time 0 that would grow to be $X by time 1 at the market rate of return. When this rate of return is 10%, it follows that $Y x 1.1 = $X. Thus, $Y = $X/(1.1).

23. *See* Strnad, *supra* note 3, at 10-11, 17, 40-41, 43-44, 46. Under a SIT, there will be no tax if an investment is sold. The increase in market value is taxed continuously as it occurs. At any given moment, adjusted basis is thus equal to market value, and no taxable income would result on the sale.

Table 2 indicates that the CFIT meets the Haig-Simons ideal as conventionally defined at *all* times during the year.[24] Table 1 indicates that the SIT meets the ideal only in the case where the investment is sold at time 0 immediately after it is made. It can be shown that the total amount of tax paid under the SIT and the CFIT are the same in the example: $440.[25] But the extra burden caused by forcing the investor to pay earlier under the SIT causes deviations from the Haig-Simons ideal. This extra burden does not exist if the investment is sold at time 0. In that case, the CFIT and the SIT result in identical tax timing, a tax of $400 at time 0.[26]

B. The Control and Dominion Theory

Section A shows that Professor Popkin's proposed tax, the SIT, does not meet the Haig-Simons ideal as conventionally stated. Thus, his additional arguments for the SIT based on a "control and dominion perspective," are tax fairness arguments that supplement rather than define the Haig-Simons ideal. These arguments would have us impose a tax that does not reduce wealth gains over the accounting period by the tax rate.

Professor Popkin develops his argument by analogy to the issue of how debt should be treated under an ideal income tax. Normally, the principal amount borrowed is not taken into income because there is thought to be an equal and offsetting reduction in wealth due to the obligation to repay. This is "accrual accounting." The repayment accrues on the tax accounts at the time that the money is borrowed, thereby cancelling the borrower's income from receipt of the principal.

Professor Popkin notes that this accrual accounting treatment of debt is not always desirable. The taxpayer receives control and dominion of the principal upon borrowing, but the amount or the fact of repayment may be uncertain. This uncertainty makes it "questionable whether a taxpayer with

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24. For example, consider the period between time 0 and time .6. Wealth before tax has increased by $1058.85 during that period (including the initial jump of $1000 at time 0). But the after-tax present value of this wealth increase is only $635.31. That is 60% of the pre-tax figure as required by the Haig-Simons ideal for a 40% bracket taxpayer. The same result would be obtained if the investment were sold at time .6: the investor would retain $635.31 after-tax.

25. This can be seen from the example by adding the taxes under the SIT in column 4 of Table 1. *See supra* text accompanying notes 16-17. The result is $439.996. That differs from $440 only because of cumulative error due to rounding.

26. It is tempting to argue that the SIT would meet the Haig-Simons ideal if we "adjusted" the tax rate schedule to take into account continuous taxation of gains. But this adjustment is not possible. The effective tax rate under the SIT depends on which transaction is being taxed. There is no adjustment in tax tables that would achieve the proper result for all transactions.

This can be seen from the example. The cumulative tax rate in column 6 in Table 1, *see supra* text accompanying notes 16-17, varies over the life of the investment. For example, the SIT produces a different tax rate if the investment is sold at time .5 than if it is retained until time 1. These are two different transactions and are subject to different tax rates.

cash subject to a debt should enjoy tax-free use of current funds while others must spend out of after tax cash . . . .''[27] As a result, the cash method of accounting inherent in the CFIT is applied. The amount borrowed is taken into income at the time it is borrowed, and there is no deduction for repayment or interest payments until they actually occur.

What does concern about uncertainty imply about the proper treatment of investments? The answer to this question depends on *why* the uncertainty of future costs and revenues is worrisome. One idea is that taxpayers should neither benefit nor suffer currently from the tax consequences of future events that may never occur.[28] This idea argues for across-the-board CFIT treatment. A person should not receive a deduction until payment is actually made and should not be taxed on revenues until they are actually received.

Professor Popkin advocates a very different method for the taxation of investment revenues. He argues that doubts about whether a tax will actually be paid suggest that it is not sufficient that a future tax will lower after-tax present value. The future taxes must *actually* be accrued on the tax accounts and paid presently. They cannot be allowed to simply "accrue" as reductions in present value.[29] In essence, Professor Popkin is arguing that the taxpayer should be put on the accrual method of accounting for future revenue receipts as opposed to the cash method inherent in the CFIT.[30]

Protecting the fisc is the goal that motivates this position.[31] Deductions should not be taken for costs until they are paid since the costs may never occur. Otherwise, the taxpayer may exploit the tax system by taking out current revenues tax free by sheltering them under the guise of future obligations that may never arise.[32] By analogy, Professor Popkin claims that

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27. Popkin, *supra* note 4, at 66.

28. This idea can be stated using "control and dominion" rhetoric. "Control and dominion" over uncertain revenues does not occur until actual receipt of the revenues.

29. *See* Popkin, *supra* note 4, at 66.

30. Professor Popkin refers to the "accrual" of present value reductions as "the 'accrual' method of reporting income." *Id.* This is confusing. The accrual method of accounting for taxation requires that revenues or costs in a later accounting period be taxed or deducted in the current accounting period (perhaps after having been reduced to present value) *if* they are earned or incurred in that period. For example, under the accrual method if all the events (such as performance of services) required to earn the right to a payment occur in year 1, the earnings will be taxed in that year even if not actually received until a later year. *See* M. GRAETZ, FEDERAL INCOME TAXATION: PRINCIPLES AND POLICIES 820-21 (1985).

The SIT, Professor Popkin's proposed alternative, is an example of the accrual method of accounting in its purest form. Profits that are *earned* during a period are taxed during that period even if they are unrealized and are generated by revenues to be received in a later period. In contrast, the cash method of accounting delays taxation until receipt of the revenues. This causes the "accrual" of reductions in present value as opposed to the actual payment of taxes under an accrual method of accounting.

31. Thus, Professor Popkin justifies his perspective by noting that the whole purpose of taxes is to raise money for government expenditures. Fairness concepts should therefore center on whether taxpayers have paid their dues and should be sensitive to the possibility that they will exploit tax rules so as to escape taxation. *See* Popkin, *supra* note 4, at 67.

32. Professor Popkin notes some of the situations where current deductions for future costs

the taxpayer should not be allowed to deduct current costs without also currently paying for taxes on future revenues.

Under the CFIT, if a person invests $100 at time 0 in order to obtain $110 at time 1, the person must pay tax on the $110 return before consuming any of it. Professor Popkin, however, argues that before the $110 is realized, the taxpayer has "control and dominion" over the wealth. He fears that the taxpayer may "deplete it . . . [or] use it . . . to increase his income . . . with no fiduciary obligation to the government."[33]

There are two fatal flaws in this argument. First, for true investments, the potential for abuse is minimal. Second, if one believes that taxpayers should pay taxes up front to block abuse or because it is "fair" for them to do so, Professor Popkin's proposed tax, the SIT, is not the only one that will accomplish that purpose. In fact, there are taxes that will force taxpayers to pay the accrued value of taxes up front and will also meet the Haig-Simons ideal as conventionally defined. Thus, Professor Popkin's concerns do not argue specifically for the tax that he proposes. More normative justification must be provided for choosing the SIT.

Consider first the possibility of abuse. Suppose the investment involves a cost of $100 at time 0, and revenue of $110 is anticipated at time 1. A taxpayer in the 40% bracket will get a deduction worth $40 after tax at time 0 and will pay $44 in taxes at time 1. The government in effect buys 40% of the investment at the investor's cost of $100 and gets 40% of the returns. The investor holds 60% of the investment.

Where is the possibility for abuse? The investor who "depletes" the investment by not diligently earning the full $110 at the end suffers a direct loss on his or her 60%. Any costs associated with the investment will be deductible and the investor will bear only 60% of them after tax. If unexpected costs arise, the investor acting self-interestedly will act in the government's interest. The investor will compare 60% of the costs against 60% of the returns and will take the same action that a 40% owner (the government) or a 100% owner would advocate.[34]

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can lead to abuse. *See* Popkin, *supra* note 4, at 65-66. He also notes that one of the traditional problems has been that future deductions have been allowed to accrue at face value, that is, without discounting to present value. If after-tax interest rates are large, the taxpayer may even make a profit by incurring future costs. *See* M. GRAETZ, *supra* note 30, at 844 (discussing "structured settlements"). This problem is addressed explicitly by the Tax Reform Act of 1984. *Id.* at 845-55.

33. Popkin, *supra* note 4, at 67.

34. There is a danger of abuse if some of the $110 is realized as consumption that escapes taxation. In that case, the government provides 40% of the cost but does not receive 40% of the returns.

An example of this type of situation is the "hobby loss" problem. A taxpayer invests $100 in a show dog, but the main benefit is in enjoying the companionship of the dog. This consumption benefit is imputed investment income that is not taxed. Suppose that the companionship of the dog is worth $60 to the owner and that diligently showing the dog is expected to return $50. The government gets its 40% of the $50 but not of the $60. Current law addresses this by

What about the danger that the investor will "use" an increase in wealth to earn income before the government takes its share of the increase by taxation? If the owner invests the $40 received from the $100 deduction, under the CFIT the government will also obtain its 40% share of that investment. If the investor borrows against the time 1 return of $66 after-tax, the CFIT will tax the proceeds of the loan at a 40% rate when the loan is made to the investor. If those proceeds are then invested, cancelling out the tax on them, the government will share in 40% of the returns from the investment. As long as the CFIT applies across the board, the investor cannot use unrealized wealth increases to augment income without the government taking its tax share.

Now consider the second problem with Professor Popkin's argument. Suppose we want investors to pay taxes on expected future revenues up front because we believe this is fair or prevents abuse. Professor Popkin's proposed tax, the SIT, is one way to do this. But there are alternative ways that, unlike the SIT, do not violate the Haig-Simons ideal.

Perhaps the simplest alternative approach of this sort is to collect at the time of investment an amount equal to the present value of what future expected taxes would be under a CFIT. Consider the example in section A where the pre-tax interest rate is 10%, and an investment financed by borrowing earns a pure profit of $1100 at time 1. Under a CFIT, a 40% bracket taxpayer would pay $440 at time 1 in tax on this investment. The present value of this tax payment at time 0 is $400. The alternative approach would be to collect that $400 at time 0 and not to tax the revenues at time 1. Under this approach, the after-tax interest rate is still 10%.[35] The impact of the $400 tax at time 0 thus amounts to $440 at time 1. The extra $40 is the after-tax cost of borrowing the $400 at time 0 or the after-tax cost of foregoing that amount of investment at that time. The effective tax burden

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identifying this type of situation and denying or limiting deductions for investment and operating costs. *See* I.R.C. § 183 (1982); M. GRAETZ, *supra* note 30, at 377-83.

The danger of this sort of abuse, however, does not argue against the CFIT and in favor of its competitors. The abuse can arise whenever consumption is supposed to be in the tax base. The SIT and traditional forms of the income tax are taxes of that type. In fact, the sections addressing the problem in the current tax law evolved in a traditional income tax setting.

35. The after-tax riskless interest rate is obtained by calculating the after-tax rate of return on a riskless investment that earns the market rate of return. Suppose the pre-tax market riskless rate is 10%. Consider a riskless investment of $100 at this market rate. It will earn $110 at time 1. Under the CFIT, this would result in $110 of taxable income at time 1 and a deduction of $100 at time 0.

Under the method of taxation presented in the text, the $100 deduction at time 0 remains, but instead of taxing $110 at time 1, $100, the time 0 present value of the $110, is taxed at time 0. The $100 in taxable income and the $100 deduction at time 0 cancel out. The investor would earn the 10% return on the $100 without any tax consequences. Thus, the after-tax interest rate would be 10%, the same as the pre-tax interest rate.

would have exactly the same pattern as under a CFIT.[36] Therefore this tax would meet the Haig-Simons ideal as conventionally stated in the same way that the CFIT does.[37] At the same time, taxes are collected "up front" so that Professor Popkin's concerns are met.[38]

There are normative reasons for choosing the SIT. For example, that tax is neutral at the time of investment in the face of changing tax rates while the CFIT is not.[39] This reason may justify choosing the SIT over the CFIT despite the fact that the SIT does not have the tax base properties that the CFIT has.[40] The Haig-Simons ideal as conventionally stated, however, does

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36. This tax burden is described in column 4 ("cumulative tax") of Table 2. *See supra* text accompanying notes 20-23.

37. *See supra* text accompanying notes 19-24. This tax would allow investors to earn the full amount of market interest on their investments. *See supra* note 35. This creates a change in wealth that is not reduced in a Haig-Simons manner. In order to block this possibility, the government would have to supplement the tax with "forced loans." Consider the example from note 35. The taxpayer invests $100 at the market rate of interest of 10%. There are no tax consequences. If the taxpayer is in the 40% bracket, the government would force the taxpayer to borrow $40 from the government. The government would collect this sum plus interest at the market rate at time 1. At time 1, the taxpayer would pay $44 to the government. The taxpayer would end up with an after-tax gain of $6 instead of $10 at time 1. In effect, interest earned at market rates on investments would be treated in a CFIT manner. Pure profits, though, like the $1100 realized at time 1 in the text example, would be taxed according to the new system.

38. Future revenues may be uncertain, and information may accumulate that requires updating previous estimates. The suggested tax may therefore have to be adjusted at intervals during the investment. This presents obvious difficulties. The situation for the SIT, however, is even bleaker. The SIT requires taxation of changes in value the moment they occur. Thus, an SIT tax must be adjusted moment by moment to incorporate changes in value due to new information. Even if the SIT were "cumulated" so that taxation would occur at discrete intervals, the exact timing of the value changes would be information necessary to calculate the tax. *See supra* text accompanying notes 17-18 and note 18 (calculation of "cumulative tax" under the SIT requires knowledge of the timing of value changes to properly compute interest charges or allowances on the taxes).

39. Neutrality implies that the tax does not change the desire of investors to undertake any particular investment. In the example, it is easy to see that both the SIT and the CFIT are neutral. The investment is profitable before taxes as indicated by the pre-tax jump in present value by $1000 at time 0. At time 0, both the CFIT and the SIT tax this amount at the statutory rate. Thus, assuming this rate is less than 100%, profitable investments before tax will be profitable after tax. Similarly, unprofitable investments before tax will be unprofitable after tax. Investment incentives will not be affected by the tax.

The SIT retains this property when tax rates change during the life of the investment, while the CFIT does not. *See* Sandmo, *A Note on the Neutrality of the Cash Flow Corporation Tax,* 4 ECON. LETTERS 173 (1979). Tax rates may change over the life of an investment for many reasons. These include shifts in the investor's bracket under a progressive schedule as well as legislative alteration of the statutory schedule.

40. Professor Popkin characterizes me as a "consumption tax advocate" based on my results about the CFIT. *See* Popkin, *supra* note 4, at 65. This is odd. In my original article, I explicitly disavow any intention of discussing the general issue of choosing between consumption taxes and income taxes. *See* Strnad, *supra* note 1, at 1106 n.185.

That article presents arguments for both of these tax systems. Consider the following non-general-equilibrium result in the article: The CFIT implements the Haig-Simons ideal but is not equivalent to a yield exemption. The Haig-Simons property of the CFIT suggests choosing it over the traditional income tax. On the other hand, the showing that the CFIT and yield

not support the SIT, and neither does a theory based on control and dominion ideas. Both of these point instead to choosing the CFIT over the SIT.[41]

II. Tax Base Theory Issues

Professor Popkin raises two sets of issues in the portion of his reply that is devoted to broader normative concerns. First, he suggests that the focus in tax policy should be on "the distribution of losses" rather than on maximizing some measure of social utility. I call this "the normative structure issue." Second, he argues that if tax base theory is used, the benchmark world should be the pre-tax situation of individuals in the world with taxes rather than a hypothetical no-tax world. For simplicity, I will refer to the pre-tax situation in the tax world as "the pre-tax world."

These issues go far beyond those addressed in my earlier work. Section A shows how alternative resolutions of the issues affect the points made in that work and in part I of this rejoinder. Choosing a "distribution of losses approach" does not have much effect on any of these points, but taking the pre-tax world as a benchmark affects several of the points. Selecting that world as a benchmark makes the non-general-equilibrium results in the earlier work much more significant. At the same time, using a pre-tax world benchmark eliminates the need for potentially complex general equilibrium computations.

Sections B through D discuss the substance of the normative structure and choice of benchmark issues. The general conclusion is that the issues are

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exemption are not equivalent, destroys one of the arguments for the easy administrability of a consumption tax system. *See id.*

Not only do the non-general-equilibrium results cut both ways, but the article also qualifies those results. The article explicitly states that the non-general-equilibrium link between the CFIT and the Haig-Simons ideal is suspect because general equilibrium effects are likely to be important. *See id.* at 1024-25, 1102-04.

Finally, my original article and its progeny do not discuss the desirability of the Haig-Simons ideal itself but take it as an accepted norm in order to show that the conventional wisdom based on it is incorrect. *See* Strnad, *supra* note 3, at 3 n.1. This approach is reasonable given that many tax scholars begin with the Haig-Simons ideal as a starting point. *See* Strnad, *supra* note 1, at 1025. But the Haig-Simons ideal and other simple tax base norms are problematic, and it is not clear that any of them should be the norm of choice to evaluate tax systems. *See* R. TRESCH, PUBLIC FINANCE: A NORMATIVE APPROACH 267-74 (1981).

41. I will not attempt to discuss the choice between the SIT and the CFIT or between proxies for those taxes. The results here are obtained in a simple non-general-equilibrium setting. This makes them dubious guideposts in actual policy choices given that general equilibrium effects may be important. *See* Strnad, *supra* note 1, at 1024-25, 1102-04. Furthermore, implementation issues are ignored here even though they are important in choosing between tax systems. The SIT would be hard to implement in its pure form since it requires knowledge of the exact time path of wealth changes. This path may be very complex. It includes, for example, the fluctuations in the value of capital assets. These must be evaluated continuously and not just "cumulated" as total changes over discrete accounting periods. Despite the apparent simplicity of the CFIT, there are also significant problems that would arise in implementing it. *See* Graetz, *Expenditure Tax Design,* in WHAT SHOULD BE TAXED: INCOME OR EXPENDITURE? 161 (J. Pechman ed. 1980).

interesting but that Professor Popkin's positions need deeper theoretical justifications than he offers.

A. The Relation to Earlier Points

My original article makes two sets of points. One set centers on results derived in that article for a non-general-equilibrium setting. In that setting, the CFIT (and not what is traditionally thought to be an ideal income tax) implements the Haig-Simons ideal. These results are independent of whether one compares after-tax results to pre-tax world outcomes or to no-tax world outcomes.[42] The implications that follow from the result, however, do depend on the choice of benchmarks. Under either benchmark, the results lead one to reject the claim that the SIT (or any other traditional income tax candidate) implements the Haig-Simons ideal. If the pre-tax world is the proper bench-mark, however, then the fact that the results were generated in a non-general-equilibrium setting is irrelevant. Thus, the results imply a "new conventional wisdom" that the CFIT implements the Haig-Simons ideal. My position has been that this final step linking the CFIT with the Haig-Simons ideal is not justified.[43] This position depends on a repudiation of the pre-tax world as a benchmark.

Unlike the choice of benchmark issue, the outcome of the normative structure issue affects the significance of my non-general-equilibrium arguments only indirectly. The relevance of those arguments depends on whether the Haig-Simons measure of income is normatively meaningful. It could be chosen either as a measure of "the distribution of losses" or as a proxy measure for individual utility in social utility calculations,[44] and it may be a more meaningful measure of one than the other.[45] My non-general-equi-

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42. These worlds are identical when the CFIT is the tax system in the tax world and general equilibrium effects are ignored. *See* Strnad, *supra* note 1, at 1053-55, 1061-62. In fact, for a CFIT and a non-general-equilibrium setting the following four benchmarks are identical: no-tax world present value, no-tax world market value, tax world market value, and tax world present value. *See* Strnad, *supra* note 3, at 7-12, 14-16, 40-41, 44-47.

In my original article, I specify two different ways that one might view the impact of taxes on discount rates in a non-general-equilibrium setting. One of these corresponds to using the pre-tax world as a benchmark. *See* Strnad, *supra* note 1, at 1053-56, 1061-62, 1079. Even in this case, however, taxes that differ from the CFIT do not implement the Haig-Simons ideal. *See id.* at 1075, 1078-80.

43. *See* Strnad, *supra* note 1, at 1024, 1037-38, 1102-04; Strnad, *supra* note 3, at 27-29.

44. Measuring individual utility in a social utility approach is especially relevant if the social welfare function is "individualistic." That is, if it depends solely on the utilities of individuals. There are certainly other approaches that are in a broad sense social utility approaches. The essence of the social utility approach is simply to specify some function that ranks social alternatives. This function may depend partially or wholly on arguments other than the utilities of the individuals in society. Nonetheless, the use of individualistic social welfare functions has a large following among economic thinkers. *See, e.g.,* A. ATKINSON & J. STIGLITZ, LECTURES ON PUBLIC ECONOMICS 339-41 (1980); R. TRESCH, *supra* note 40, at 21-22.

45. Note, however, that "losses" may be measured by utility changes. If so, the choice of approaches has no effect on the relevance of the Haig-Simons ideal. The issue under both

librium results will be more important under the normative structure in which the Haig-Simons measure is more meaningful.[46]

A second set of points in my original article concerns methodology.[47] I argued for a two-step methodology. First, the total impact of various tax systems should be assessed as carefully as possible under existing economic technology. This implies that general equilibrium analysis should be used to examine issues such as the choice between the CFIT and traditional income tax variants. That is, the analysis should incorporate the impact of taxes on pre-tax prices. Second, the alternative states resulting from various tax systems should be analyzed according to some norm. I did not discuss whether this norm should be a social utility measure or a measure of the "distribution of losses." Professor Popkin challenges these methodological claims only at the first step. He suggests that the pre-tax world can be used as a benchmark. This would obviate having to make general equilibrium calculations concerning the effect of taxes on pre-tax prices and incomes.

B.   Two Approaches to Tax Policy Analysis

Before discussing the substance of Professor Popkin's positions, it is useful to contrast two approaches to tax policy analysis: classical tax base theory and optimal tax theory. These are not a comprehensive set of alternatives, nor are they mutually exclusive.[48] Examining them, however, clarifies my reasons for discussing the Haig-Simons ideal in terms of a no-tax world benchmark and sheds light on several of Professor Popkin's arguments.

Classical tax base theorists were faced with the following problem. It is desirable that government raise taxes for certain expenditures. It is impract-

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approaches is whether Haig-Simons income is a good proxy for utility. For a good discussion of that issue, see R. TRESCH, *supra* note 40, at 265-74.

46. The goal in my original article was to explore the implications of the Haig-Simons ideal itself rather than to consider whether the ideal is justifiable under deeper norms. That article and associated work did discuss some of the weaknesses of the Haig-Simons ideal and cited other such discussions. *See* Strnad, *supra* note 1, at 1093, 1094 & 1094 n.157; Strnad, *supra* note 3, at 3 n.1. However, the overall approach was to take the Haig-Simons ideal as a given on the basis of its widespread use as a starting point by tax policymakers. *See supra* note 40; Strnad, *supra* note 1, at 1024-26; Strnad, *supra* note 3, at 3 n.1.

47. *See* Strnad, *supra* note 1, at 1102-07.

48. In an excellent recent article, Professors Walter Hettich and Stanley Winer discuss the major theories used in tax policy analysis. *See* Hettich & Winer, *Blueprints and Pathways: The Shifting Foundations of Tax Reform*, 38 NAT'L TAX J. 423 (1985). They divide these into three categories. The category that they call "optimal taxation" includes the optimal tax theory discussed here. Classical tax base theory falls into their category of "equitable taxation" theories. Finally, they discuss a class of theories that they call "fiscal exchange" theories. These theories explain taxation and tax reform from the perspective of political exchange in representative government.

Some prominent legal scholars have applied normative theories to taxation that do not fall into any of the mainstream categories established by Professors Hettich and Winer. *See e.g.,* Kelman, *Personal Deductions Revisited: Why They Fit Poorly in an 'Ideal' Income Tax and*

ical or unethical for government to tax people based on the benefits that they receive from the expenditures.[49] As a result, there is a need to measure the overall burden of the tax system in order to determine whether individuals are making "fair" contributions.[50] Given this need, it makes sense to take the no-tax world as a benchmark.

Professor Popkin believes that the focus should be on distributing tax losses, and that this is an "important way of looking at our political relationships."[51] The classical tax base approach implements this by looking at the political bargain as a whole. We need to "fairly" exact burdens to pay for the totality of government expenditures. Losses from the tax system should be measured from the no-tax world if we want to know what people are "giving up" in order to enjoy the benefits of government. This gives us an idea of whether the "social contract" implicit in having taxes and expenditures is fair.

An "optimal taxation" approach works by specifying a social utility function that compares the desirability of various states. Under this approach, the no-tax world has no special place. Two tax systems can be compared directly under the social utility function. That function incorporates the social planner's views about distributional equity.[52] The no-tax (plus no-expenditure) world would be of interest only in the unlikely event that it is a strong candidate for maximizing social utility.[53] This view also is relevant to our political relationships. There is no reason that a political actor should give the no-tax world or any other world used to measure "tax losses" any particular moral credence. Why not strive as a society toward a distributional ideal as embodied by a social utility function?[54]

Why They Fit Worse in a Far from Ideal World, 31 STAN. L. REV. 831, 841-44, 880 (1979) (tax policy positions taken with goal of avoiding "commoditization" of human life).

49. For a discussion of the various routes to classical tax base theory, *see* R. TRESCH, *supra* note 40, at 261-66; Hettich & Winer, *supra* note 47, at 424.

50. Classical tax base theory therefore is accompanied by the language of "fairness." Professors Hettich and Winer classify that theory as a variety of "equitable taxation" theories. *See* Hettich & Winer, *supra* note 48, at 424-26.

51. Popkin, *supra* note 4, at 72.

52. One of the problems with this approach is that social choice mechanisms that are felt to be normatively desirable may not be capable of producing a social utility function. Conversely, those mechanisms that always can produce such a function have qualities that are undesirable, if not totally unacceptable. For example, under weak rationality conditions with no restriction on individual preferences, dictatorship is the only type of government that will guarantee the existence of a social utility function describing "society's" ranking of social states. For a good short discussion of these problems, see R. TRESCH, *supra* note 40, at 25-26. For a more comprehensive discussion, see D. MUELLER, PUBLIC CHOICE 184-201 (1979); A. SEN, COLLECTIVE CHOICE AND SOCIAL WELFARE 33-55 (1970).

53. Even advocates of the "minimal state" believe that there are some government functions (such as providing a mechanism for enforcing private contracts) that are worthwhile. As they are well aware, supporting these functions may require compulsory taxation. *See* A. ATKINSON & J. STIGLITZ, *supra* note 44, at 336-37.

54. There are concepts of economic or political equilibrium that may be taken to support the approach of examining the distribution of losses. For example, there is the idea of "core"

C. The Normative Structure and Benchmark Choices

Professor Popkin seems to be more comfortable with the classical tax base theory approach because he is concerned that "tax losses should be distributed fairly."[55] But he adds a twist to that theory as stated above. He argues that the baseline that defines losses should be the pre-tax world rather than the no-tax world.[56] His central justification for adding this twist is that taxes influence individual preferences and talents in a way that affects pre-tax income, and this should be taken into account.[57] This justification, however, does not imply the choice of the pre-tax world over the no-tax world as a benchmark. Both of these benchmarks take into account effects on pre-tax income, but they do so in different ways.

The following example illustrates this point. Suppose that imposing taxes

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allocations. These have the property that no group can make itself better off by withdrawing from the economy and setting up its own separate economy. *See* H. SCARF, THE COMPUTATION OF ECONOMIC EQUILIBRIA 206-07 (1973). The distribution of losses from the tax system would be crucial from this type of perspective. Groups would compare those losses to the benefits to them from government in order to determine whether to stay in the economy.

   Some political or economic theory of this type is required to justify the distribution of losses approach *and* to justify the choice of benchmarks under that approach. The ideas put forward by Professor Popkin and my embellishments of them do not provide a solid basis for choosing between the pre-tax world and the no-tax world as a benchmark on theoretical grounds. *See infra* text accompanying notes 59-66. Only after the theory underlying the distribution of losses approach is clarified will it be possible to come to some convincing conclusions about the choice between benchmarks. I do not attempt that gargantuan task here. The core allocations idea is only meant to be an example of the type of theory that is necessary.

   55. Popkin, *supra* note 4, at 72.

   56. *See id.* at 71. The use of the pre-tax world as a benchmark would obviate the use of general equilibrium analysis. Pre-tax income can be observed without knowing how taxes affected that income. Oddly, however, Professor Popkin finds general equilibrium analysis to be helpful in three cases. *See id.* at 68-69. The function envisioned for general equilibrium analysis in each of these cases is diametrically opposed to a preference for the pre-tax world as a benchmark.

   First, Professor Popkin states that general equilibrium analysis is useful in identifying situations where tax reform is "a waste of time" because it does not change the distribution of after-tax income. This suggests that two tax systems that produce the same after-tax result should be considered normatively equivalent. But the two systems may result in different pre-tax worlds and thus different relationships between pre-tax and after-tax income.

   Second, Professor Popkin argues that general equilibrium analysis is useful in determining whether one group should receive benefits to compensate for the tax benefits received by another group. He uses the example of renters versus homeowners. The fact that owners are not taxed on the implicit rental value of their homes prompts us to consider a compensating benefit for renters. Suppose, however, that the favorable treatment of oil and gas investments has as much general equilibrium impact on housing rents as the exclusion of the implicit rental value of owner-occupied housing. Why should the treatment of oil and gas investments be excluded from the analysis? Indeed, why should any of the impacts of the tax system, whether or not they originate from unjustified tax breaks, be excluded? If none are excluded, the benchmark should be the no-tax world.

   Finally, Professor Popkin believes that general equilibrium analysis is useful in determining whether tax reform causes sudden wealth losses that should be mitigated by transitional relief. But this is in the same spirit as the belief that we should look back to the no-tax world. The tax world is simply the no-tax world plus the "tax reform" of imposing the entire tax system.

   57. *See id.* at 69.

causes people to have more leisure and this whets their appetite for basketball. As a result, Mr. Magic Bird, a professional basketball player, earns $1,100,000 per year pre-tax in the tax world versus $100,000 per year in the no-tax world.[58] The choice between the pre-tax world and no-tax world as a benchmark determines how the extra $1,000,000 will be taxed. Suppose that the appropriate tax rate is 50%. With the no-tax world as a benchmark, all of the $1,000,000 should be taxed away in addition to half of the $100,000 that Mr. Bird earned in the no-tax world. With the pre-tax world as the benchmark, the extra $1,000,000 should be taxed in the same way as the original $100,000 that Mr. Bird earned in the no-tax world. Thus, he should pay $550,000 in tax, that is, one half of each dollar earned in the pre-tax world.

Neither benchmark calls for ignoring the $1,000,000 increase in wages that Mr. Bird experiences as a result of general equilibrium effects, but they call for different treatments of that amount. To determine which treatment is correct requires additional normative analysis. For example, according to the classical tax-base analysis sketched above, the pre-tax world benchmark would be wrong because Mr. Magic Bird ends up "sacrificing" a negative

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58. For simplicity, assume that Mr. Bird's love of basketball means that he works the same number of hours and with the same intensity in both worlds. The increase in his pay arises simply from a wage increase due to heightened demand for high-quality basketball.

This assumption makes this example different from the one presented by Professor Popkin. In his example, a worker increases the number of hours worked in response to a wage tax. As a result, the worker's total pre-tax wage earnings in the tax world are higher than the worker's total wage earnings in the no-tax world. At the same time, the worker has less leisure in the tax world. This is "stage 1" of the general equilibrium effects in Professor Popkin's example. A second stage of effects causes other changes in pre-tax earnings. *See id.* at 69-70.

Professor Popkin discusses the stage 1 effects in terms of "respecting the individual's work/leisure decision." *Id.* at 70. Thus, he suggests, a no-tax world benchmark might be adjusted to be equivalent to stage 1.

His example raises the whole set of issues that arise from the conventional exclusion of leisure from the Haig-Simons base. If that base is meant to measure economic well-being, it should include leisure since leisure is a component of well-being. The exclusion of leisure may have serious consequences for the degree of information obtainable through the base. For example, one well-known theoretical article shows that without leisure in the tax base, a regressive income tax structure may be optimal even if the goal is Rawlsian, namely, to make the least well-off person as well-off as possible after taxes. This is true even if all incentive effects of taxation are ignored and if regressivity means that average (in addition to marginal) tax rates decline with income. *See* Sadka, *On Progressive Income Taxation,* 66 AM. ECON. REV. 931 (1976). To be useful in measuring the impact of taxes on distribution, a tax base should suggest higher average taxes for higher "income" taxpayers under the base.

Including leisure and such consumption items as job pleasure in the tax base entails obvious practical difficulties. In addition, taking that approach to its limits means that the Haig-Simons ideal calls for an ability tax: Tax each person on what they could earn if they behaved in a way that maximized their lifetime earnings. Any departure from that behavior is consumption in the form of leisure or job enjoyment. This point and its implications for other values such as liberty have been discussed previously in the legal literature. *See* Kelman, *supra* note 48, at 841-42, 880; Klein, *Timing in Personal Taxation,* 6 J. LEGAL STUD. 461, 468-69 (1977).

It is unclear what Professor Popkin means by "respecting the individual's work/leisure decision." It could mean including leisure in the tax base so that it is not an untaxed consumption good. Most other goods can only be purchased using after-tax dollars. In any event, the example in the text excludes the complicating considerations that arise from omitting leisure from the tax base.

amount in exchange for the benefits of government services. His after-tax
income in the tax world of $550,000 is greater than his $100,000 income in
the no-tax world. The fact that Mr. Magic Bird's wages increase by $1,000,000
from the no-tax world to the pre-tax world calls for taxation of all of that
increase in addition to an exaction from the level of no-tax world wages.

Professor Popkin does not present a similar normative justification for
choosing the pre-tax world as a benchmark, but he mentions two elements
that together may provide such a justification. First, "political relationships"
may dictate our choice of tax policy norms.[59] Second, no one is very certain
of what a no-tax world would really look like.[60] This includes voters.

The "political relationships" argument for classical tax base theory is that
voters look at what they get from government as a whole against what they
pay. They compare the no-tax world to the world with taxes and government
expenditures. Politically viable tax systems thus have to make the right
adjustments from the *no-tax world*. If one supposes, however, that voters
have no idea what the no-tax world would be like, then politically acceptable
fairness conceptions might be based on pre-tax results in a tax world.

Both political relationship arguments are unrealistic. The public tax policy
debate does include matters of tax incidence that clearly involve the effect
of taxes on pre-tax prices and on behavior.[61] People do not entirely take

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59. *See* Popkin, *supra* note 4, at 72.

60. *See id.* at 71-72. There also may be considerable uncertainty as to what the tax world
would look like after a comprehensive change in the tax laws. One of the most important goals
of applied general equilibrium analysis is to estimate the effect of large changes in the tax system.
See C. BALLARD, D. FULLERTON, J. SHOVEN & J. WHALLEY, A GENERAL EQUILIBRIUM MODEL
FOR TAX POLICY EVALUATION 1 (1985). Professor Popkin, himself, discusses three cases where
general equilibrium analysis would be useful. *See supra* note 56. Arguing for usefulness in these
cases, however, undermines his claim that the pre-tax world should be the benchmark. *See id.*
He attempts to get around this problem by claiming that all three cases "utilize information
about pre-tax income in a tax world . . . rather than information about a no-tax world." *See*
Popkin, *supra* note 4, at 69. This is a fragile and, in my opinion, untenable distinction. The
problem is that the "information . . . in a tax world" is information about a *hypothetical* tax
world. This world may be as far removed from the present as the no-tax world.

Consider the third case discussed by Professor Popkin. In this case he urges that general
equilibrium analysis be used to assess the transitional losses that would arise from tax reform.
Assessing those losses in advance involves comparing the time path of wealth under the current
tax system to the time path under a tax system that includes reform. At least one of these
time paths will never occur. If the tax reform involved is substantial (e.g., shifting to a CFIT
or a "pure" traditional income tax from the current hybrid between them), the ensuing world
may be as hypothetical as a world without taxes.

61. These include, for example, various "supply side" issues. Will repealing the investment
credit or slowing down depreciation allowances hurt workers in "rust bowl" industries? Will
the curtailment of real estate tax shelters drive up apartment rents? Will lower capital gains
taxes for corporate stock increase venture capital? Will the extra income earned by high-bracket
taxpayers after their rates are cut "trickle down" to others after being spent or invested? If
so, how much? These issues are not just the province of academicians. They are in the nation's
newspapers. Politicians talk about them. This can be verified by reading the "Press Watch"
section and news items in almost any weekly edition of TAX NOTES magazine.

the pre-tax world as given. At the same time, Professor Popkin's statements about the no-tax world seem true. Estimating what the no-tax world would be like would be a challenging task for an economist.[62] It is hard to imagine that a clear picture of that world is in the forefront of public political consciousness.[63]

I have already mentioned that using social utility analysis instead of studying the "distribution of losses" undermines any special normative position for the no-tax world. It also undermines any special normative position for the pre-tax world. Social utility analysis, however, may provide instrumental arguments for a tax base theory that uses a pre-tax world benchmark. The Haig-Simons ideal and other tax base concepts may serve as "intermediate rules" rather than as governing norms. Tax base concepts operating on pre-tax income allow the design of a coherent tax system of specific rules that follow from those concepts.[64] This permits delegation of rulemaking to government bureaucrats and courts with a minimum of political oversight. It also provides a check on political manipulation of the tax laws. Amendments that contravene the tax base concept can be challenged as "loopholes" or "tax expenditures."[65] The overall effects of this structure would be analyzed by norms that do not refer to the tax base ideals—for example, by social utility analysis.

This analysis raises many questions. Do tax base concepts really constrain political debate? Do they provide effective guidance for judicial and bureaucratic decisionmakers? What if politicians and administrative decisionmakers know that the tax base ideals are not the "real" governing norms but merely an instrumentality to generate and constrain tax law?[66] Does the degree of constraint and guidance provided justify ignoring the "real" norms

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62. At a minimum, all the difficulties of general equilibrium calculations are involved. *See* Strnad, *supra* note 1, at 1106.

63. Professor Popkin suggests that people might speculate "about what a no-tax world would look like after repeal of taxes, not what the no-tax world once looked like in some golden age" before there was any knowledge of taxes. *See* Popkin, *supra* note 4, at 71-72. Perhaps this provides the basis for a political fairness calculation similar to that inherent in classical tax base theory. It may also be the case that the "no-tax world" that economists might construct would correspond to what the world would look like after the repeal of current taxes rather than to the "real" no-tax world. This is because the estimates of behavior that economists use are taken from the world with taxes. Behavioral parameters in general equilibrium models, however, can be manipulated to suit the imagination.

64. *See* Strnad, *supra* note 1, at 1032 (some see the Haig-Simons doctrine as central to constructing a coherent income tax).

65. The "loopholes" or "tax expenditures" would have to be justified by reference to social utility analysis, by reference to some other non-tax-base norm, or as a necessary concession in some political bargain.

66. Then the term "tax expenditure" carries no special stigma. It merely implies an analysis similar to other expenditures. Professor Popkin laments that this type of thinking seems to be "an emerging trend" in opposition to "the familiar view that tax fairness creates a presumption against using the tax law for expenditure purposes." Popkin, *supra* note 4, at 72.

in favor of the instrumental ones? Without answers to some of these questions, this type of theory remains pure speculation.

CONCLUSION

In discussing benchmarks to gauge the "distribution of losses," Professor Popkin states that "[t]he normative value of the no-tax world must be justified, not assumed."[67] This is certainly true. He provides some cogent reasons for rejecting the no-tax world as a benchmark. But the justifications for choosing his competing candidate, the pre-tax world, are equally weak, if not weaker, than those for the no-tax world. In any event, neither benchmark stands on very firm normative ground.

If the pre-tax world were the desirable benchmark, two of the conclusions in my original article would be changed. First, the claim in that article for the usefulness of general equilibrium analysis would be false. The pre-tax world can be observed without knowing how it has been formed by the general equilibrium effects of taxes. Second, the result that the CFIT implements the Haig-Simons ideal could be taken to be the new conventional wisdom. The argument that this result is merely an interesting anomaly because it is derived in a non-general-equilibrium setting would no longer be viable.

Other points are not affected by the choice of benchmark. Traditional income tax treatments, including the SIT proposed by Professor Popkin, do not implement the Haig-Simons ideal. This is true regardless of the choice of benchmark. Finally, the choice between social utility analysis and studying the distribution of losses has very little impact on the points made in my original article.

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67. *Id.* at 68.