The Double Taxation Controversy

Marc Lavoie*

An Overview

The Spring 1980 issue of *Canadian Taxation* included a symposium on the taxation of personal wealth, the main question being: should wealth be taxed? Among those opposed to such taxation, Professor Richard E. Wagner argued that physical capital was already overburdened by taxation, since savings and capital gains were already being taxed twice. He suggested that there is double taxation of savings because "savers are taxed once when their savings are earned and again when their savings yield a return". Furthermore, a combination of income taxation (an increase in flows) and capital gains taxation (increases in the value of a stock yielding flows of revenues) is equivalent to a double tax.[1]

The idea of double taxation on savings and capital gains has a long history. In 1848 in *Principles of Political Economy,* John Stuart Mill argued:

> No income tax is really just from which savings are not exempted...Unless...savings are exempted from income tax, the contributors are twice taxed on what they save, and only once on what they spend...[The principal and the interest] are the same portion twice counted: if [the contributor] has the interest, it is because he abstains from using the principal; if he spends the principal, he does not receive the interest. Yet because he can do either of the two, he is taxed as if he could do both – and could have the benefit of the saving and that of the spending, concurrently with one another.[2]

This statement still summarizes precisely the position taken by those who argue that savings and capital gains are taxed twice. Richard Wagner is not alone; Arnold C. Harberger has argued on similar lines.[3] In the past, such economists as Alfred Marshall, A.C. Pigou, Irving Fisher, and Luigi Einaudi have supported the double taxation argument.[4] The idea of double taxation was linked to the feeling that if savings were taxed twice people would be induced to consume too much and save too little. But at the height of the controversy, in the 1930s, it became evident, after Keynes' *General Theory,*[4a] that the most urgent problem of modern capitalist countries was not too little savings, and so the controversy faded.

More recently, the emphasis on supply-side economics has revived the idea that savings bring forth investment and growth.[5] It follows that some concessions should be made to those (savers and equity owners) who provide growth. This is politically more feasible if a case can be made showing that savings and capital gains are discriminated against under the existing tax system. The double taxation argument has thus regained popularity.[6]

Those who propound the double taxation argument normally suggest one of two alternative methods of alleviating it. First, one avenue for avoiding this so-called double taxation would be to simply exempt interest income and capital gains from taxation. This alternative has been advocated by many people both in the United States and Canada.[7] Another avenue would

---

**Marc Lavoie is a professor of economics at the University of Ottawa.*

1. Wagner, "Sense Versus Sensibility in the Taxation of Personal Wealth," 2 *Canadian Taxation* 23 (1980).
2. J.S. Mill, *Principles of Political Economy,* 1848 (Toronto: University of Toronto Press, 1965), p. 816.
3. Harberger, "Comments," in J.A. Pechman, ed., *What Should be Taxed: Income or Expenditure?* (Washington, D.C.: The Brookings Institution, 1980), p. 816.
4. See generally, N. Kaldor, *An Expenditure Tax* (London: Allen and Unwin, 1955), p. 80.

4a. J.M. Keynes, *The General Theory of Employment Interest and Money* (London: Macmillan, 1936).

5. See A.B. Laffer and J.P. Seymour, eds., *The Economics of the Tax Revolt* (New York: Harcourt Brace Jovanovich, 1979).
6. "Many of those who advocate an expenditure tax as a complete or partial replacement for the individual income tax believe that the rate of national savings is too low and that saving would increase if it were not subject to tax." Minarik, "Conference Discussion," in Pechman *supra* note 3, p. 297.
7. Indeed in 1980, largely in response to pressure to eliminate taxation on capital gains, the Department of Finance published a paper on the equity and efficiency aspects of taxing capital gains, see Can., Dept. of Finance, *A Review of the Taxation of Capital Gains in Canada* (Ottawa, 1980).

be to repeal the income tax altogether and to replace it with an expenditure tax. This has recently been given some consideration in 'official' or 'close to official' circles in the United States, Britain, and Sweden.[8] There is now an abundance of literature on the subject in law journals, economic journals, and reports of proceedings of tax conferences.[9]

Although one can argue in favour of an expenditure tax instead of an income tax without drawing on the double taxation case, only Nicholas Kaldor has convincingly done so in his well-known book *An Expenditure Tax*. For this reason, in this paper in analyzing the meaning and significance of the double taxation argument, I will relate it, in the main, to the determination of the proper tax base.

Double Taxation of Savings

What is double taxation of savings? The argument is usually illustrated using a two-period model. There are two individuals A and B: the first consumes all of his or her after-tax earnings in the first period, while the second saves all of his or her earnings in order to consume the capital plus the interest in the second period.[10]

Assume both individuals earn an extra $100 in the first period, and the income tax rate is 50 per cent. Both are left with $50 after tax. The value of individual A's consumption is $50. Individual B invests the $50 and earns a return of 20 per cent, i.e., $10. Since this is income, a tax of $5 must be paid, and hence the individual is left with $55 to consume in the second period. If the discount rate is also 20 per cent, in the first period the present value of B's consumption is approximately $44.

> [A]bility to pay should be measured by some weighted sum of both income and wealth.

Thus there appears to be double taxation of savings: the saver pays more taxes than the spender; the present value of the saver's consumption is reduced relative to the spender's because the saver's earnings have been taxed. Had the interest not been taxed, the present value of the saver's consumption would have been $50. An alternate solution would have been to impose a consumption tax only. In that case, B could have saved $100 in period one, and in the second period his or her income would have been $120, half of which would have been taxed under a consumption tax-inclusive rate of 50 per cent. B's consumption in the second period then being $60, its present value would have been $50.

It is easy to see, when presented in these terms, why the concept of double taxation has proved so appealing, particularly in a society where savings are considered necessary as a source of progress. In such a society a personal tax on consumption would be regarded as an ideal tax, even though it has been regarded as utopian by its proponents, due to its alleged implementing difficulties.[11]

Those who propound the double taxation arguments use two lines of attack: equity and efficiency. The equity aspect of double taxation has been emphasized in the past. I will deal with this aspect later.

The efficiency aspect, on the other hand, has been heavily emphasized in modern times. Indeed, instead of employing the expression 'double taxation', which has equity connotations, economists now speak of the inefficiency of the income tax with respect to intertemporal consumption choices.[12] Those economists interested in efficiency effects claim that for some optimality to result, we need to have an equality between the marginal rate of transformation of present into future consumption as seen by the producer, and the corresponding marginal rate of substitution as seen by the consumer. With an income tax, there is an inequality because the producer takes into account the gross rate of return on investment while the consumer must consider the net after-tax rate of return.[13] The relative prices of consumption at different points of time are thus distorted by an income tax which would not be the case with an expenditure tax. The latter is neutral with respect to consumption through time. With an income tax people might consume too many present goods because of the bias in favour of present consumption. This is the 'new

8. U.S., Dept. of Treasury, *Blueprints for Basic Tax Reform* (Washington: U.S. Gov't. Printing Office, 1977); The Institute for Fiscal Studies, J.E. Meade (Chairman), *The Structure and Reform of Direct Taxation* (London: Allen & Unwin, 1978); Sweden, Government Commission on Taxation, *Progressive Expenditure Tax - An Alternative? (Lodin Report)* (Stockholm: Liber Förlag, 1978).

9. See generally Andrews, "A Consumption-Type or Cash-Flow Personal Income Tax," 87 *Harvard L. Rev.* 1113 (1974); Warren, "Would a Consumption Tax be Fairer than an Income Tax," 89 *Yale L.J.* 1081 (1980); Kahn, "The Place of Consumption and Net-Worth Taxation in the Federal Tax Structure," in R.A. Musgrave, ed., *Broad-Based Taxes: New Options and Sources* (Baltimore: John Hopkins University Press, 1978); Bird, Prest and Miezkowski, "An Expenditure Tax to Replace the Income Tax," articles in Canadian Tax Foundation, *Report of Proceedings of the Thirtieth Tax Conference 1978* (Toronto: 1980), pp 219-39; Goode, Bradford, Andrews and Graetz, articles in Pechman, *supra* note 3, pp. 49, 75, 127, 161; for an allusion to the problem of double taxation of savings and to the choice of the tax base see Salyzyn, "Savings, Labour Supply and Tax Equity," 2 *Canadian Taxation* 142 (1980).

10. See, for instance, S.R. James and C. Nobes, *The Economics of Taxation* (London: Philip Allan, 1978), pp. 64-65. This type of argument was presented by Irving Fisher himself.

11. Kaldor, *supra* note 4, p. 12

12. See, for instance, Mieszkowski, "The Choice of Tax Base: Consumption Versus Income Taxation," in M.J. Boskin, ed., *Federal Tax Reform: Myths and Realities* (San Francisco: Institute for Contemporary Studies, 1978), pp. 33-34.

13. This is now well-documented in all textbooks on public finance. See R.A. Musgrave and P.B. Musgrave, *Public Finance in Theory and in Practice* New York: McGraw-Hill, 1973), p. 449.

look' of double taxation: it does not make any further claim.

But, particularly when one combines this bias with the bias in favour of leisure (instead of work) induced by either an expenditure or income tax, no general conclusions as to the more efficient tax system can be drawn. In fact, advocates of the expenditure tax on efficiency grounds are usually rather careful in their claims: only very reluctantly will they assert that net welfare effects are predictable.[14]

If one adopts a more radical view, one can even advance the proposition that efficiency considerations with respect to households (preference maps and the like) are irrelevant in a modern capitalist society since all investment and saving decisions are taken by firms and their managers while households have no impact on aggregate savings or the rate of growth. This is the Cambridge (England) view: intertemporal decisions of households have no influence on macroeconomic variables.[15]

The Proper Tax Base

Since Adam Smith, we have known that taxes can be allocated according to the benefit principle or according to the ability-to-pay principle. For Adam Smith, this presented no problem because he assumed (or he observed) that those who benefited from public expenditures were also those who could afford to pay taxes.[16] Here we will only deal with the ability-to-pay principle.

There are basically five possible tax bases: utility, endowment, consumption, wealth, and income; each one is somewhat related to the others. The utility concept can be disposed of quickly: it requires a rule that would allocate the tax burden according to the loss in total utility for each individual. Utilitarians were keen on devising such rules but the practical problems are insurmountable. Total utility would have to include all items that yield some satisfaction and all those that yield disutility (work?). The same difficulties apply to the newly formed index called endowment: it includes the value of leisure activities, household production and the marketable goods that one can consume.[17] For all practical purposes, utility and endowment are non-operational. The real choice is between the three other candidates.

Why is income so popular a measure of taxable capacity? As Kaldor has pointed out, this question has received little attention. In the past, property was the main source of taxation, but then property meant land and land meant rents. With the advent of industrialization, lands and their rents became a small source of taxation in comparison to transactions in trade. As emerging states were searching for convenient sources of revenue, both income and wealth taxes were considered. If one assumes that those in power were the wealthiest, it is not surprising that a tax on increments in wealth would be chosen rather than a tax on wealth itself. Furthermore, some estates could not be easily divided and thus it was much more convenient to impose a tax on continuous flows of income rather than on wealth. It was also probably easier to value flows than stocks. And since progressive rates of taxation were still to come, the writings of socialist social scientists convinced politicians that only an income tax could provide for some redistribution in favour of the poor whereas an expenditure tax would be relatively detrimental to them.[18]

> From a macroeconomic point of view, ... whether savings are overtaxed or not is irrelevant. Savings and the rate of return will always be decided by the investment decisions of entrepreneurs.

Contemporary proponents of income taxation are often silent as to the intrinsic reasons that justify the choice of income as the base of taxation. James and Nobes, for instance, after admitting that income, expenditure, and wealth are all likely candidates, raise a few objections against the expenditure base, then make a case in favour of wealth taxation and conclude by saying that obviously "income is the most useful basis for the ability-to-pay approach"![19] For Richard Goode, income rather than consumption must be chosen as a proxy for the ability to pay taxes because it is a more comprehensive indicator. It is clear, however, that income is not by itself the most comprehensive indicator, and this is recognized by Goode as well as by Musgrave and Musgrave.[20] In fact, there are no really convincing arguments for income taxation besides the fact that it already exists and that the administrative apparatus appears relatively simple. A plea for an income basis might emphasize the social aspect of production, where society as a whole, with the State as its representative, has first claim on the national product which consists of the

14. Goode, "The Superiority of the Income Tax," in Pechman, *supra* note 3, p. 57, thinks that those effects are unpredictable. Bradford, "The Case for a Personal Consumption Tax," in Pechman, *supra* 3, p. 96, thinks the opposite. It will be seen from Minarik, *supra* note 6, p. 302, that participants at the Brookings Conference were generally skeptical in this regard.
15. This is alluded to by Howrey and Hymans, "Measurement and Determination of Loanable-Funds Saving," in Pechman, *supra* note 3, p. 3. This particular aspect of the Cambridge School is presented quite extensively by Shapiro, "The Revolutionary Character of Post-Keynesian Economics," 11 *J. of Economic Issues* 540 (1977).
16. Musgrave and Musgrave, *supra* note 13, p. 193, fn. 8.
17. Musgrave, "E.T., O.T. and S.B.T.," 6 *J. of Public Economics* 3 (1976).
18. See G. Ardant, *Théore sociologique de l'impôt (Paris: Fagard, 1965)*, vol. 1, ch. 4.
19. James and Nobes, *supra* note 10, pp. 77-80.
20. R. Goode, *The Individual Income Tax*, 2d ed. (Washington, D.C.: The Brookings Institution, 1976), p. 21; Musgrave and Musgrave, *supra* note 13, pp. 320-22.

wages and profits of individuals.[21] But this is unrelated to the ability-to-pay principle.

> [P]rovided we take income in its ex post sense, all capital gains (except for those due to inflation) should be included in income.

My view is that ability to pay should be measured by some weighted sum of both income and wealth. Certainly, of two individuals earning $20,000, the one who owns a $500,000 estate has the largest means to pay taxes, even if this estate yields no income as such. This is the view taken by Kaldor, although he ends up as a proponent of the expenditure tax.[22] Modern defenders of the income base for taxation suggest that consumption and accumulation of wealth (the sum of which equals income) yield utility and hence, that both should be taxed. This is a strange argument for "it is the stock of wealth, not additions to it, that is usually thought to give utility".[23] Furthermore, utility has nothing to do with ability to pay. One has or does not have the resources to support one's debt vis-à-vis the state. This must be evaluated in money units not in displeasure or annoyance units. Again, one must be very careful to distinguish between the choice of the tax base and how progressive the tax should be. These are two different problems.

Some economists accept the view that accretions to spending power plus some index of the stock of spending power constitute the proper measure of ability to pay; why then is a tax on wealth (more properly, net worth) usually rejected? The recent symposium organized on wealth gives us all the answers. Taxes on wealth are turned down because they have been proposed for the wrong reasons. Such reasons as the redistribution of wealth, the breaking-up of large strongholds of economic power, the increase in the equality of opportunity, the taxation of benefits arising from the satisfaction of owning property or controlling people have been advanced as the main arguments in favour of wealth taxes.[24] But those are false reasons and they are easy to destroy. Taxing wealth in its own right is the only reason that stands up at all.[25] More recently, some economists have added that a wealth tax would be the most efficient tax because of its supply-side effects: all assets being taxed, owners would make sure that the rate of return on these assets would be maximized.[26]

Besides claims that a wealth tax would endanger the survival of civilization as we know it, the main argument against a wealth tax has come from critics allied with those who believe there is double taxation of savings. Their claim is that taxing capital is the same as taxing income since the value of any stock of capital is deemed to be equal to the discounted sum of the future flows of revenue. The same argument, *pari passu,* applies to capital gains with respect to increases in future dividends. To demonstrate the point, economists usually make use of the fruit/tree/orchard metaphor: this metaphor was used by Fisher, the Meade Commission, and Richard Wagner whose work is more closely related to this paper.[27]

In judging the sense of the double taxation argument, it is important to be clear about what tax base is being used as an *étalon.* Let us deal with the income/capital case first. Fisher writes:

> If we levy a tax of 1 per cent on an orange grove of 100 trees, we may (theoretically) do it simply by handing over, once and for all, one tree to the government. This is equivalent to handing over annually the oranges which one tree bears. But to do both, to hand over one tree at first and then to hand over annually 1 per cent of the oranges borne by the ninety-nine trees remaining, is virtually to hand over two series of oranges and reduce the fruit of the orchard twice; for the only value of an orange tree lies in its yield of oranges.[28]

What Fisher argues here is that a tax on capital can be made equivalent to a tax on income. But this does not mean that income and wealth are simply equivalent. If one were to assume that income or wealth were the measure of ability to pay, then one could argue that a tax on wealth and income constituted double taxation. But if we reason that income and wealth are two independent measures of the power to consume, the claim of double taxation vanishes. I would argue that wealth and income are indeed two independent indicators of the ability to pay; fruit that is never harvested will yield no revenue despite the high value of the orchard. Should we treat similarly two individuals with identical orchards, even if the first one, for whatever reasons, has not sold or consumed a single fruit? We shall see later that this is related to ex ante and ex post views of income. Provided we take the ex post view, income is not identical to wealth. The first objection to wealth taxes is seen to be groundless.

Another objection to a wealth tax is based upon the idea that if net worth were to be taxed, then, to be equitable, human capital as well as physical capital

21. Warren, Jr., "Comments to Goode and Bradford," in Pechman, *supra* note 3, p. 121.
22. Kaldor, *supra* note 4, pp. 30-33.
23. Aaron, "Comments to Goode," in J.A. Pechman, ed., *Comprehensive Income Taxation* (Washington, D.C.: The Brookings Institution, 1977), p. 30.
24. See Ward, "The Case Against Capital Taxes," and Bird, "Taxing Personal Wealth," 2 *Canadian Taxation* 31, 35 (1980).
25. See Tinker in the panel discussion, "Taxation of Personal Wealth," 2 *Canadian Taxation* 49 (1980).
26. Can., *Report of the Royal Commission on Taxation (Carter Report)* (Ottawa: Queen's Printer, 1966), vol. 3, p. 28; Bale, "Taxing Wealth: Selecting a Strategy," 2 *Canadian Taxation* 41 (1980). This has been most persuasively argued by M. Allais in the first part of his book, *L'impôt sur le capital et la réforme monétaire* (Paris: Hermann, 1977).
27. I. Fisher and H.W. Fisher, *Constructive Income Taxation* (New York: Harper and Brothers, 1942), ch. 8; *Meade Report, supra* note 8, p. 30; Wagner, *supra* note 1, pp. 24-26.
28. For I. Fisher, income is consumption, *supra* note 27; see also Kahn, *supra* note 9, p. 140.

would have to be taxed. This was the main objection raised by the Carter Commission; since it is impossible to measure and to tax human capital, a wealth tax would be unfair. This point is also raised by Wagner and Ward.[29] Regardless of the validity of the concept of human capital, there is a fundamental difference between earnings from labour and earnings from property. In the latter case, the right to receive income does not have to be renewed; it is permanently established. In the case of labour, in every period one has to 'earn' the right to receive wages.

The most damaging objection to the use of a wealth tax is one noted by Kaldor:

> The fact that capital and income constitute two distinct though mutually incomparable sources of spending power would certainly suggest that a separate tax on each provides a better yardstick of taxable capacity than either form of taxation taken by itself, even though the relative weight accorded to the two forms of taxation necessarily implies a measure of equivalence of the spending power accruing from each, which can only be based on arbitrary judgment.[30]

This means that an asset of $10,000 at a rate of discount of 10 per cent implies a spending power which is far more than $1,000. But how much more? Only the household can be the judge. There is no market mechanism which can give us an objective answer.

[A]dvocates of the expenditure tax on efficiency grounds are usually rather careful in their claims: only very reluctantly will they assert that net welfare effects are predictable.

The problems with using income as the tax base could be eliminated if expenditure constituted the tax base. There are three major arguments in favour of such a base. First, such a tax, as we have seen, does not affect the price ratio between present and future consumption. Second, and this is an argument that was found in Thomas Hobbes by Kaldor, an individual should be taxed according to what he "takes from the pot" and not according to what he contributes to it.[31] This is true, however, only if one assumes that savings are always beneficial to society and/or if one assumes that investments impose no strain on the resources of the economy.

Third, consumption is a good indicator of economic power because, under the life-cycle hypothesis, it is a function of yesterday's, today's as well as tomorrow's income, which means that human capital as well as inherited wealth are somehow incorporated. This means that people assess the extent of their purchasing power themselves, and that realization of their expenditure is a measure of this assessment. For most people, the choice between a proper income base and an expenditure base would only affect the timing of the taxes.

For some people, however, there would be large changes. Those who have large estates, with small income, but with large dissavings, would only be taxed under an expenditure tax. As a matter of fact, these are the people at which Kaldor was aiming when he proposed the introduction of an expenditure tax.[32] On the other hand, those who earn a large income and prefer to save rather than to consume would indefinitely postpone their tax payments, although their potential purchasing power would grow larger and larger. It is, in part, for these two reasons that a supplemental tax on expenditure (a tax that would supplement the existing income tax) has been proposed by some; it would not replace the existing income tax.[33] But one could as well propose a mixture of expenditure and wealth taxes.

The Ambiguity of the Income Base Concept

The most widely accepted definition of personal income is the so-called Haig-Simons definition: income is equal to the sum of consumption plus net savings. This can be restated as the sum of consumption and the change in the value of capital accumulation. It has also been defined as the maximum an individual can spend in a period while maintaining his or her capital resources intact. It is important to note that these are ex post concepts: income is determined only at the end of the period, when all transactions have occurred.

The other widely used definition of income is the one propounded by Hicks, who defined income as "the amount which [an individual] could consume in any one year and yet be left with the resources and expectations at the end of that year which would enable him to maintain that same level of consumption indefinitely in the future".[34] This is an ex ante concept. Those who have equal opportunities to start with are taxed equally. By this criterion, capital gains or losses are eliminated from the definition of income. The following example illustrates this: An individual owns an asset worth $500,000 yielding (at a rate of interest of 10 per cent) $50,000 per year. Suppose the dividend doubles: the an-

---

29. *Carter Report, supra* note 26, pp. 22-24; Ward, *supra* note 24, p. 32; Wagner, *supra* note 1, p. 24.
30. Kaldor, *supra* note 4, p. 33, cf. p. 48.
31. Kaldor, *supra* note 4, pp. 5, 53.
32. Kaldor, *supra* note 4, p. 14; cf. Kaldor, "Comments to Andrews," in Pechman, *supra* note 3, p. 151.
33. See the *Meade Report, supra* note 8, ch. 8; Kaldor, *supra* note 4, ch. 8; Andrews, "A Supplemental Personal Expenditure," in Pechman, *supra* note 3, p. 127.
34. *Meade Report, supra* note 8, p. 32. This definition comes from Hicks' third definition of income: "The maximum amount of money which the individual can spend this week and still expect to be able to spend the same amount in *real terms* in each ensuing week." *Value and Capital,* 2d ed. (Oxford: Oxford University Press, 1946), p. 174. Hicks' definition is not aimed at equity; it is designed to serve as a guide to prudent conduct. Cf. Kaldor, *supra* note 4, p. 64.

nual yield is then $100,000 and the present value of the asset is $1,000,000. The level of consumption that can be maintained forever is then $100,000, and not $600,000 as the Haig-Simons approach would suggest. But this is because a forward-looking criterion has been introduced: expected permanent consumption. To define income, we cannot use an expenditure-based criterion and we cannot use forward-looking expectations: they may never be realized.

At any rate, the Hicksian definition is useless for practical purposes because there would never be any agreement between the taxpayer and the tax-collector as to the level of future expectations. However, it is a good introduction to the ambiguity of the meaning of "change in the value of capital accumulation". Does it mean money value? Should it mean real capital accumulation? If so, what is real capital accumulation — a stream of possible future real consumption?[35] Both increases in prices and changes in interest rates will of course affect the value of the accumulated capital.

Economists agree that inflation (a generalized increase in all prices) distorts income from capital but not from labour. The typical example can be given in the following form. Suppose there is a 10 per cent rate of inflation and a 50 per cent tax rate. A wage-earner who was earning $100,000 a year will now earn $110,000 if his real income remains steady. He was left with an after-tax $50,000 and is now left with $55,000. The owner of a capital asset will see the value of his $50,000 asset increase to $55,000. If we are concerned with the change in the monetary value of capital, then the income of the owner has increased by $5,000. His after-tax income is $2,500. It is clear that if he had sold the property, he would be left with $52,500 and he could not buy back the same asset. This problem also applies to those who receive interest income. Although there are no clean-cut indexing rules to deal with inflation and capital gains, this is not an unsurmountable problem.[36]

> For most people, the choice between a proper income base and an expenditure base would only affect the timing of the taxes.

More complex is the case of changes in interest rates. Suppose that an individual owns an asset which yields $1,000 a year forever. If the rate of interest is 10 per cent, the present value of this asset will be $10,000. Suppose that the rate of interest drops to 6.67 per cent. The value of this asset will rise to $15,000. According to the Haig-Simons definition, there has been an increase in income of $5,000; that is, the increase in the value of capital (the capital gain) is $5,000. According to Kaldor, who claims that he does not support the Hicksian definition, there has been no accretion in economic power.[37]

To illustrate the different concepts of income compare two individuals: a rentier who owns an asset yielding $1,000 a year and a worker who owns nothing, but earns $11,000 per year. Table 1 sums up their situations before and after a change in the rate of interest.

Table 1

	Before, at a discount rate of 10%		After, at a discount rate of 6.67%		
	Rentier	Worker	Rentier option sell	Rentier option keep	Worker
Consume now	$1,000	$ 1,000	$6,000	$1,000	$ 1,000
Consume later forever	$1,000	$ 1,000	$ 667	$1,000	$ 667
Income: Haig-Simons approach	$1,000	$11,000	$6,000	$6,000	$11,000
Income: Hicks approach	$1,000	$11,000	$1,000	$1,000	$11,000[a]

Note: [a]If he is expected to earn $11,000 forever.

If the wage-earner decides to save $10,000 out of his earned income, at a rate of discount of 10 per cent, he can put himself in exactly the same situation as the rentier. At a rate of 6.67 per cent, things are different; the rentier can now spend $5,000 more on immediate consumption than the worker, although they can both expect the same future stream of consumption. The wage-earner is still receiving the same income. Hence the income of the rentier must have increased by $5,000. This is the Haig-Simons approach: it is an ex post measure. The base is income (accrued if the rentier does not consume; realized if the rentier does consume), it does not deal with expectations of future streams of real consumption.

Only if one adopts the ex ante/real consumption approach (the Hicks definition) can one claim that the fall in the rate of discount has not proven beneficial to the rentier. It is clear that the rentier cannot augment his consumption over $1,000 without diminishing his permanent future consumption. But this means that we have to translate the present value of the assets into consumption terms. To say that the rentier has gained no advantage, one has to take an expenditure point of view. But this line of thought does not make any sense

35. Comments on those points can be found in Kaldor, *supra* note 4, pp. 41-78; Goode "The Economic Definition of Income," in Pechman, *supra* note 23, p. 1.

36. See H.J. Aaron, ed., *Inflation and the Income Tax* (Washington, D.C.: The Brookings Institute, 1976); Can., Dept. of Finance, *supra* note 7, pp. 46-47.

37. Kaldor, *supra* note 4, pp. 44-69; cf. Wagner, *supra* note 1, p. 26, n. 3.

when one tries to deal with the concept of income. Who would deny that the income of the wage-earner is $11,000 whether the rate of interest is 10 per cent or 6.67 per cent? In the second case however, the situation of the rentier has improved compared to the worker's. Hence the income of the rentier must have increased. In consumption terms it is true that the situation of the rentier has stayed the same: but all workers are certainly worse off if they want to buy assets with future yields. The Hicks criterion cannot apply: two persons with identical income cannot be treated differently because they have different expenditure patterns if we have accepted income as the base.[38]

It should now be clear that provided we take income in its ex post sense, all capital gains (except for those due to inflation) should be included in income. It is only because Kaldor is implicitly adopting the expenditure base that he is able to claim that income is too ambiguous a concept. In his view, increases in the value of capital due to increases in annual yields are legitimate increases in economic power whereas increases in the value of capital due to a decrease in the rate of discount are fictitious. Since these two causes cannot be separated in practice, income is an ambiguous concept. Kaldor is not disputing the Haig-Simons view: he is simply claiming that it is difficult to distinquish real from fictitious gains in economic power because there are changes in interest rates and changes in prices. For this reason, it should be left to households to judge for themselves what is fictitious and what is not. Kaldor assumes that realized expenditures are a measure of this distinction. Hence, for Kaldor, the expenditure tax is nothing but a second-best solution, as it avoids all these valuation problems.[39]

The Double Taxation Argument: What is left of it

Double taxation of savings (or its increased dividend/capital gain counterpart) can only be said to exist with an ex ante/expenditure base. If one uses the ex post/Haig-Simons income approach, one cannot claim that there is double taxation at all. On the income basis, an increase in yield cannot be said to be the equivalent of the increase in the value of the asset.

The Hicksian definition of income is a sophisticated version of the old concept of real capital maintenance.[40] But from an equity point of view based on an ex post approach, it cannot make any sense. In his paper, Professor Wagner tries to make the following point: taxation on capital gains may appear to be a fair tax on nominal gains, but when one looks through the monetary veil, one discovers that such a tax can only be an unjustified tax on physical capital.

We have already partly utilized Wagner's example. He assumes that individual A owns an apple orchard with an annual stream of income of $50,000. At a 10 per cent discount rate, this orchard is worth $500,000. Suppose now that for some reason the price of apples doubles: the stream of income will then be $100,000 and the value of the orchard will be $1 million. there is a capital gain of $500,000. According to the Hicksian approach, the income of the period is only $100,000 because otherwise future permanent consumption will be reduced. According to Wagner, the income is also $100,000: if the individual of his example wanted to consume the extra $500,000, he would have to sell half of the orchard. Hence, he would be consuming half of his capital (half of the apples).

> [T]he emphasis on supply-side economics has revived the idea that savings bring forth investment and growth.

But this is not so. Individual A can sell the whole of his apple orchard for $1 million. He can spend $500,000 on consumption (and tax), save the other $500,000 and invest in a peach orchard. Provided that the price of peaches has not doubled (i.e., provided that there is no generalized inflation), individual A, after he has consumed (or paid in tax!) the whole of his capital gain, will be just as wealthy as when he was owning his $500,000 apple orchard. The new orchard will yield the same annual income of $50,000 which will allow individual A to buy the same basket of goods as before (apples excluded: but this situation applies to all, even those who did not make a capital gain!).

Professor Wagner is implicitly using the Hicksian approach: there is no erosion as such of the capital of the owner of the orchard. It is true that he cannot spend $600,000 forever. But it is also true that he can consume $600,000 of new goods without even reducing his future consumption. There is no doubt that in all fairness, he should be paying a tax on his capital gains, as well as on the received dividends.

Going back to the double taxation of savings, it should now be clear why the choice of the tax base is so important. In his paper, Richard Wagner gives the following example: suppose two individuals each earn an extra $100 and are each taxed at a 50 per cent rate. The first individual pays a tax of $50 and consumes the other $50. The second individual (initially) pays a tax of $50 and then pays an extra $25, equivalent to the present value of the tax he will have to pay on the returns of the $50 asset purchased. "...The impact of this future tax is to tax away one-half of the $50 that remains after the first tax."[41] This means that the present-value of the

38. For an attack upon the ex ante concept, see Warren, *supra* note 9, pp. 1097-1101; cf. Graetz, *supra* note 9, pp. 170-72.
39. Kaldor, *supra* note 32, pp. 152-53.
40. Goode, *supra* note 35, p. 4.
41. Wagner, *supra* note 1, p. 25. *Meade Report, supra* note 8 gives a similar example at pp. 36-37. According to Kaldor, *supra* note 3, p. 84, this approach goes back to Luigi Einaudi.

consumption of the spender is $50 while the present value of the consumption of the saver is only $25.

The problems with using income as the tax base could be eliminated if expenditure constituted the tax base.

From an expenditure point of view, there appears to be double taxation and some large inequity. If income is the criterion of ability to pay, however, there is no inequity. The saver is accumulating new economic power with the receipt of interest payments, while the spender, if he wanted to accumulate the same spending power, would have to work. All revenues, whatever their source, have to be included in the tax base, if income is the base.

But even on an expenditure basis, one can claim that there is no 'double taxation'. To demonstrate this suppose that the second individual saves the $50 left to him once he has paid the government. He will buy an asset worth $50. The price of this asset is a present value. It is equal to the sum of the discounted flows of revenue which this asset will yield in the future:

$$P_O = \sum_{i=1}^{\infty} \frac{R_i}{(1+r)^i}$$

The crux of the matter is whether there R_i's are net (after tax) or gross (before-tax) flows. If the R_i's are net flows, then savings are taxed only once; if the R_i's are gross flows, they are taxed twice (at least, on the expenditure side).

In the first case, the net present value of the asset is $50, which means that its gross present value is $100 while the present value of taxes that will have to be paid in the future is $50. Once the saver has paid all his taxes, he is still left with a present value of $50 to consume. In this sense, he has paid tax only once. In the second case, the one presented by Professor Wagner, the gross present value of the asset is $50, the individual has to pay $25 tax and he is only left with $25 to consume.

But why would an individual buy an asset the services of which will be less than its cost? When one buys an asset, one always considers the future stream of net income. Hence only the first case may apply and therefore savings are not taxed twice.

Municipal securities in the U.S. are a well-known example of this feature.[41a] Yields on these securities that are tax-exempted are typically lower than (gross) yields on other similar securities. This means that prices for ordinary securities are lower than similar tax-exempted securities because only the *net* stream of income of the former is taken into consideration.[42]

To sum up, we have asked whether a tax on profit reduces the net rate of return? There exists at least one macroeconomic model that shows that it does not. Incidentally, this model, which refutes the double taxation argument, even on an expenditure basis, is derived from Kaldor's famous income distribution model of 1956.[43] Using the Pasinetti assumptions, Ian Steedman has shown that whatever the tax rates on wages or interests, the net rate of return was not diminished by the introduction of the State and by taxation.[44] It is the gross rate of return which is augmented, as we have just argued on the microeconomic scale. The gross rate of profit , r, is given by:

$$r = n/(1 \quad t)s$$

where:

n is the natural rate of growth;
t is the tax rate of profits;
s is the propensity to save of capitalists.

The net rate of profit, (1 t)r, is thus:

$$r' = n/s$$

The net rate of return is the same, with or without taxation.

From a macroeconomic point of view, as Kaldor has recently pointed out, whether savings are overtaxed or not is irrelevant.[45] Savings and the rate of return will always be decided by the investment decisions of entrepreneurs.

41a. The Canadian government scheme (as outlined in the June 1982 federal budget) to reduce nominal interest rates is another example.

42. Bittker, "Equity, Efficiency, and Income Tax Theory: Do Misallocations Drive Out Inequities," in H.J. Aaron and M.J. Boskin, eds., *The Economics of Taxation* (Washington, D.C.: The Brookings Institution, 1980), pp. 23-26, takes this factor into account but does not draw any conclusion with respect to the double taxation controversy.

43. Kaldor, "Alternative Theories of Distribution," 23 *Review of Economic Studies* 83, 94-100 (1956).

44. Pasinetti, "Rate of Profit and Income Distribution in Relation to the Rate of Economic Growth," 29 *Review of Economic Studies* 267 (1962); Steedman, "The State and the Outcome of the Pasinetti Process," 82 *Economic J.* 1387 (1972).

45. Kaldor, *supra* note 32, pp. 156-57.