

SUBSTITUTING CONSUMPTION-BASED DIRECT TAXATION FOR INCOME TAXES AS THE INTERNATIONAL NORM**

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ABSTRACT

There would be significant advantages to a worldwide switch from conventional income taxation to consumption-based direct taxation as the international norm. This paper considers two direct consumption-based taxes. Both allow the immediate expensing of all business expenditures. One exempts interest and dividends and allows no deductions for them. The other includes the proceeds of borrowing in the tax base and allows a deduction for repayment of debt; interest is treated as under the income tax. Also examined are the distinction in international tax principles between the taxation of the normal return to capital and the taxation of economic rents, and the implications of the principle of "administrative independence" as an objective of international tax relations.

ally be achieved through a series of unilateral shifts.²

The article makes essentially two contributions. Standard discussions of international tax principles commonly do not distinguish between the taxation of the normal return to capital and the taxation of economic rents. This distinction is extremely important in appraising an international switch to consumption-based taxation, the base of which is limited to economic rents (and quasi-rents). The article's first contribution is to analyze the implications of this distinction. For simplicity, I assume a world of certainty; the implications of risk are left for later. The second contribution of the article is to set forth what I call the principle of administrative independence as an objective of international tax relations and examine its implications for the question at hand.

CONSIDERABLE attention has recently been devoted to the possibility of replacing income taxation with direct taxation based on consumption.¹ Most discussions of consumption-based direct taxes have occurred in a context that assumes, at least implicitly, a closed economy. They have focussed primarily on questions of distributional equity, intertemporal neutrality, administrative ease, and transition. To the extent they have considered international aspects of the question, it has commonly been in the context of a unilateral shift to consumption-based taxation by one country. This article addresses selected international issues in the tax treatment of income from capital raised by the possibility of a worldwide switch to consumption-based taxation as the international norm. It does not rehash the other issues listed above or ask whether a worldwide switch to consumption-based taxation might eventu-

Two Forms of Consumption-Based Taxation

Some think that in a consumption-based tax system it is not necessary to levy taxes on business, which does not consume.³ I believe this judgement is incorrect and assume that such taxes would be imposed, in part to capture part of economic rents for source countries.⁴ I discuss the taxation of income from business and capital under two variants of the consumption-based direct tax: (a) what the Meade Commission (Institute for Fiscal Studies, 1978) has called the R-based tax and I have called the Simplified Alternative Tax or SAT (McLure *et al.*, 1990) and (b) the Meade Commission's R + F-based tax.⁵

The bases of the business tax under both the R-based and R + F-based taxes are calculated by allowing immediate deductions for all non-financial expenditures, including depreciable assets and inventories.⁶ Under the R-based tax, interest and dividends are exempt from tax, whether received by individuals or by business

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firms; similarly, no deduction is allowed for interest expense or for dividends.⁷

Under the R + F-based tax, individuals are allowed a deduction for savings deposited in qualified accounts and pay tax on amounts withdrawn from such accounts, including earnings on funds in the account. Businesses include loan proceeds in taxable income and are allowed deductions for both repayment of principle and interest expense. I have argued elsewhere that the R-based system is much simpler to administer than either an income tax, the R + F-based tax, or another consumption-based direct tax, the S-based tax.⁸ This is especially true when international flows of capital and the resulting income are considered.

The base of the business tax in both systems is economic rents (and perhaps quasi-rents, during the period of transition to the tax). Stated differently, the marginal effective tax rate is zero.⁹ To see this, consider an equity investment of \$1,000 that yields a 20 percent return in one year. A taxpayer subject to a 30 percent marginal tax rate must put up only \$700 of his or her own money; the government supplies the rest, because of immediate expensing of the investment. The government takes \$360 of the \$1,200 return (including principal) and the investor gets \$840. Since the taxpayer earns a 20 percent return on "own funds," the METR is zero. Since there is no tax on the return to marginal investment, only economic rents are subject to tax. Note that the government earns the same rate of return on foregone tax revenues as the investor earns.

Addition of debt financing to the model does not change matters. Under the R-based tax, debt and interest payments have no tax consequences; under the R + F-based tax they have no tax consequences in present value terms.¹⁰ In essence, everything that is of interest from an economic view occurs in the tax treatment of real assets; the tax treatment of financial flows is an uninteresting side-show. But this side-show takes center stage in the discussion of administrative independence later in this paper.

In what follows, I assume that the R-

based treatment described above would prevail, whether business was conducted at home or abroad, whether by residents or by foreigners, and, in the latter case, whether interest and dividends were paid on portfolio investment or on direct investment by foreign corporations in local subsidiaries. (I address below the question of whether the "income" tax should be accompanied by a withholding tax on payments to foreign persons.) Similarly, for the R + F-based tax I assume that foreign investment and income therefrom are taxed in the same manner as domestic investment and the income it produces. From an administrative point of view this assumption is more problematical than the analogous assumption for the R-based tax.

Concepts of International Tax Policy

Literature on the taxation of international flows of income from capital describes several sometimes conflicting goals.¹¹

The Basic Concepts

First, many observers—and not a few practical politicians, especially those in capital-importing countries—believe that *inter-nation equity* requires that host countries are entitled to a substantial portion of the tax levied on income originating within their borders.¹² The principle of *source entitlement* naturally leads to *taxation at source*. Source-based taxation is implemented through a combination of income taxation and withholding taxes.

Second, *capital import neutrality* (CIN) is a concept that has few supporters among economists, although business people have a natural affinity for it. It requires that everyone doing business in a particular country face the same tax regime. It is also consistent with *source-based taxation*. For it to be realized under residence-based taxation, all nations would need to apply identical taxes to income from business and capital. Economists note that this form of neutrality is not needed to achieve an efficient location of the world's investment.¹³

Third, *capital export neutrality* (CEN) requires that income from capital be taxed equally, no matter where it is earned. This requirement is most usefully interpreted in terms of equality of marginal effective tax rates, though this is usually not made clear. If this requirement is not met, the world's capital will be misallocated to those jurisdictions where it is taxed least heavily.¹⁴ Under source-based taxation, fulfillment of this requirement would imply equality of income taxation in all countries—a stringent requirement, indeed. It can also be achieved by *residence-based taxation*.

Most (but not all) of the important capital-exporting nations follow the residence-based approach.¹⁵ Some (e.g., France) employ a *territorial* system, which exempts foreign-source income. Reflecting their historic status as net creditors, developed countries have typically attempted to negotiate treaties based on taxation at residence, while developing countries have insisted on their rights to source-based taxation.¹⁶

Since host countries have not been anxious to give up their source-based taxes, there is an obvious risk of double taxation. To prevent double taxation, capital-exporting countries employing residence taxation have generally provided their investors *foreign tax credits* (FTCs) for taxes paid to foreign governments (for withholding taxes, in the case of portfolio investors; for both income taxes and withholding taxes in the case of direct investors).¹⁷ Foreign tax credits can provide an "umbrella" under which source countries can raise their taxes, without fear of discouraging investment from abroad (but see the discussion of limits on FTCs below).

It is useful to distinguish between two types of foreign-source income, that from *portfolio investment* and that from *direct investment*. Direct investment is carried out through equity investments in foreign subsidiaries and branches controlled by the parent or home office, whereas portfolio investments are too small to provide control.¹⁸ Portfolio investment can produce either interest or dividends, whereas direct investment yields equity income for the investor. Whereas portfolio

investment would yield a normal return in equilibrium, some direct investment may also yield economic rents.

Complications

Residence-based taxation of income from foreign portfolio investment is extremely difficult to implement. It can be achieved only if there is a far-reaching system of information exchange and/or withholding by source countries on behalf of residence countries. If such income cannot effectively be taxed on a residence basis, the elimination of source-based taxation of this income creates incentives for capital flight and undermines the domestic tax system of the residence country.¹⁹

Some have argued that it would be appropriate to shift to the source principle for the taxation of portfolio income. International competition for investment is likely to result in the elimination of source-based taxation (except where justified by benefit considerations or where based on economic rents) in the absence of international cooperation to prevent it.²⁰ Others favor continuation of efforts to implement residence-based taxation of such income.²¹

Taxation of corporations is generally applied on a separate entity basis; that is, undistributed income of foreign subsidiaries is generally not consolidated with that of their domestic parents, even by countries that generally require consolidation of the income of affiliated domestic firms. As a result, only income that is repatriated (plus income earned by foreign branches of domestic firms and income deemed to be earned in tax haven jurisdictions) is subject to current taxation on a residence basis; tax on earnings retained abroad by foreign subsidiaries is *deferred* until dividends are paid. Thus, in practice, the present system of taxing income from direct investment represents an amalgam of residence and source taxation.

The source-based taxation of business income is an extremely complicated subject. This is true, in part because of the difficulty of determining the source of income, as required for the implementation

of source-based taxation. Transfer-pricing problems and issues in the allocation of expenses pose particular problems.

Implementation of residence-based taxation is also complicated, in part because of the limitations commonly placed on the availability of foreign tax credits.²² Countries that allow foreign tax credits limit such credits to the amount of domestic tax that would have been paid on the foreign-source income in the absence of credits. These limitations make it necessary for residence countries to determine the source of income. (If, for example, the U.S. tax rate is 34 percent and the foreign tax is \$340 on \$800 of foreign-source income, as defined by the United States, only \$272 (34 percent of \$800) can be credited. But if the taxpayer could attribute an additional \$200 of income to the foreign source, instead of the United States, the entire foreign tax can be credited.) Complicated rules have evolved governing both the source of gross income and the allocation of expenses among countries for the purpose of calculating the limitation on the foreign tax credit.

Some nations employ separate country-by-country limits on their foreign tax credits (so-called "per country limitations"), while others pool the income and taxes of many countries (the "overall limitation"). The United States employs an overall limitation, but has a complicated system of categories or "baskets" into which income is divided, in order to prevent certain income subject to low taxes (namely income from financial services and shipping) from being pooled with income subject to high taxes, effectively increasing credits available for foreign taxes on the latter.²³

When a company headquartered in a country that employs a residence-based tax system is chronically in an excess tax credit position (i.e., it pays more foreign tax than it can credit against its domestic liability), it faces a situation similar to that of a company located in a country with territorial taxation.²⁴ That is, it pays source-country taxes but no home country taxes.

The Tax Reform Act of 1986 tightened the U.S. limitation rules. This, as well as

rate reduction, has placed many U.S. corporations in an excess credit position.²⁵ This shredding of the FTC umbrella has placed downward pressure on tax rates around the world, despite American use of the residence/credit system.²⁶

The incredible complexity of the residence taxation/foreign tax credit rules has led some experts to call for a shift to source-based taxation for business income as the international norm. Hufbauer (1991), for example, argues that while residence-based taxation of portfolio income is required for the achievement of capital export neutrality, source-based taxation would be appropriate for income from direct investment. International tax competition would also tend to cause tax rates applied to this type of income to be bid down under source-based taxation.

Rethinking the Concepts

Standard discussions of source entitlement and capital export neutrality do not distinguish between the normal return to capital and economic rents. Thus they are not as useful as they could be, especially as background for the debate on consumption-based direct taxes on income from business and capital, which apply only to economic rents.

Source Entitlement

It seems that the best basis for the principle of source entitlement is the taxation of economic rents. That is, a country might reasonably expect to garner for its fiscal coffers part of the extraordinary returns generated by economic activity conducted within its boundaries. This is most clearly true in the case of natural resources, but this reasoning also seems applicable in the case of monopsonistic and monopolistic industries created or protected by public policies and rents from trademarks that have value because of brand recognition based on advertising.²⁷ It is less obviously true in the case of exploitation of patents based on research and development (R & D) conducted elsewhere. This might be argued to be a special case justifying a flow of tax receipts

to the jurisdiction where R & D occurs, perhaps on benefit grounds. Presumably this would be relevant for extraordinary returns, rather than normal returns.²⁸

By comparison, the assignment of entitlement to tax the normal return to capital to source countries is much less compelling. I find it more appropriate to assign this entitlement to the countries supplying the capital. In discussing the taxation of income from portfolio investment, Hufbauer (1991, Chapter 4) states the matter as follows:

It can be argued that, as a matter of international tax equity, residence countries should share their revenue on portfolio income with source countries. . . . We disagree with this suggestion. In our view, the residence country creates the economic climate favorable to the creation of portfolio capital, by practicing public fiscal virtue and by nourishing private thrift. The residence country should be rewarded for its contribution to the world economic system by garnering the tax revenue; the source country derives ample benefit simply by using the capital from abroad to finance investments that pay a higher return than the interest cost.

Some might argue that the benefit principle, the charging for benefits of publicly-provided services, might also justify source-based taxation. However, while benefits might justify user fees, a payroll tax, or an origin-based value added tax, they are not likely to justify source-based taxation of capital income.²⁹

This line of reasoning has important implications for the debate on consumption-based taxes. It suggests that, for the most part, economic rents should be taxed by source countries. (Income from research and development is an important exception.) This result is the natural outcome of the type of consumption-based taxes on business considered here. With a source-based system in place, there would be little role for withholding taxes.

Whether the normal return to capital should be taxed, if at all, by countries of residence or by countries of source is less clear. Under consumption-based taxes, these returns are not taxed at all.

Capital Export Neutrality

The discussion of capital export neutrality also commonly fails to distinguish

between economic rents and the normal return to capital. Clearly, capital export neutrality is relevant only (or almost only) for taxation of the normal return to capital; by definition, unequal source-based taxation cannot affect decisions on the exploitation of opportunities to earn economic rents.

The implication of this for the consumption tax debate is again obvious; consumption-based taxes, being applied, in effect, only to economic rents, automatically achieve capital export neutrality, at least as far as income is attributable to investment in depreciable assets and inventories. To the extent that the tax also hits only rents from such activities as R & D, it would also be neutral. Since most expenses of such activities would be expensed, this would seem to be the ordinary situation. The return to pure entrepreneurship is more problematic; it would be taxed under the R-based tax.³⁰

Synthesis

Combining these two qualifications of the traditional analysis produces a conclusion quite at odds with standard thinking. Unlike the conventional income tax, a consumption-based direct tax would be consistent with both source entitlement and capital export neutrality, regardless of rate differentials.³¹

Source countries would benefit in two ways from an international shift to consumption-based direct taxation: from the ability to levy relatively high taxes on economic rents, without fear of discouraging investment, and from the elimination of deductions for interest expense. Capital exporting countries would bear the revenue cost of this change. To the extent that foreign tax credits now absorb source-based taxes, eliminating residence-based taxation would have no effect on revenues.

Source or Residence-Based Taxation of Consumption?

It is common to think of a consumption-based direct tax as being a residence-based tax. This is understandable, since most

thinking has, perhaps implicitly, been in the context of a tax on income that is consumed. Consumption is a residence-based activity. But this view seems inappropriate in the case of the type of consumption-based tax systems considered here; the business portion of the consumption tax is more naturally seen as a source-based tax on economic rents. As noted earlier, the tax treatment of financial flows has no economic significance; I discuss administrative aspects of the issue in the next section.

Important problems of implementing source-based taxation arise in the taxation of income from direct investment. Here it seems that the crucial issue is whether taxation continues to be based on separate entities or is converted to a consolidated basis, eliminating deferral. Consumption-based taxation of separate entities produces pure source-based taxation, with no place for residence-based adjuncts and foreign tax credits. Indeed, residence-based taxation seems to have no place in such a system. First, it is not required by capital export neutrality. Second, it would be the source of considerable complexity, as under present law.

As noted above, source-based taxation suffers from difficult problems of transfer pricing and allocation of expenses. Some have suggested that formula allocation, rather than separate accounting, should be used to divide the income of multinational firms among the jurisdictions in which they operate. This approach could also be used for consumption-based taxes, but this would destroy the theoretical attraction of the tax based on source entitlement and capital export neutrality. Economic rents would, in effect, be allocated among nations in proportion to whatever is in the apportionment formula, instead of to countries of source. The tax applied to the rents of a particular firm could be rewritten as a tax levied on whatever is in the formula, at a rate that depends on the profitability (rents) of the firm.³² As a result, the tax would distort the location of the activities included in the formula. Thus, neither taxation based on entitlement nor capital export neutrality would prevail.³³

If these are thought to be important objectives, it would be appropriate to employ separate accounting where it is feasible and leads to less distortion of the measurement of income than does formula apportionment. There are doubtless many instances in which accurate separate accounting is difficult. But in the important cases of economic rents—especially natural resources trading on world markets at known prices—this is likely to be a less serious problem than the inaccuracy involved in formula apportionment.³⁴

A New Principle: Administrative Independence

I wish to call attention to a desirable feature of national tax systems, which I shall call *administrative independence*. While some such notion permeates discussions of international cooperation in tax administration, I do not recall seeing any explicit discussion of the desirability of this attribute of tax systems. Because of its importance, administrative independence might well rise to the lofty level of a "principle" on a par with such principles as international equity, interpersonal equity, capital export neutrality, and non-discrimination.

Two Types of Cooperation

It seems useful to distinguish two types of cooperation in the taxation of international flows of income. The first is cooperation in establishing the *rules of the game*. This is exemplified, for example, in the provision in the General Agreement on Tariffs and Trade (GATT) that allows border tax adjustments (BTAs) for indirect taxes, but not for direct taxes, in agreement on model treaties for the alleviation of international double taxation of income, and in the signing of tax treaties.

The second type of cooperation involves *day-to-day cooperation* in tax administration. This includes exchanges of information, arrangements for source-country withholding on portfolio income on behalf of residence countries, with a clearing-

house of liabilities, advance determination rulings, and appeals to competent authority.

Though agreement on the rules of the game may call for day-to-day cooperation if the system is to work, these two types of cooperation are not the same thing. One can imagine both tax regimes in which only minimal cooperation of the second type is required to implement agreements of the first type and regimes in which substantial day-to-day cooperation is required. Experience suggests that it is hard enough to gain agreement on the rules of the game; it is much harder to gain day-to-day cooperation.

These two types of arrangements (involving minimal and substantial day-to-day cooperation, respectively) may usefully be illustrated by the amount of cooperation needed to implement destination and origin systems of value added tax (VAT). Under the destination system each country can act unilaterally, providing export rebates and applying the tax to imports; day-to-day cooperation with trading partners is not required in any meaningful sense.³⁵

The situation is quite different with the origin-based VAT. It is necessary to value goods crossing national borders in order to assure that value added in both the country of origin and the country of destination is taxed.³⁶ Moreover, it is desirable that the same valuation is placed on exports from the country of origin and imports into the country of destination; otherwise, some value added will be taxed twice or not at all.

The taxation of international flows of income is replete with examples in which ongoing international cooperation would be desirable (but is generally rare or non-existent). These include rules for determining the source of income (including monitoring of transfer prices), rules for allocating expenses, and rules for determining jurisdiction to tax. In extreme cases, income is subject to multiple taxation or escapes taxation, for example, through the use of tax havens.

I contend that there is much to be said for an international agreement establishing an accepted approach to taxation that

maximizes administrative independence—that is, one that minimizes the need for day-to-day cooperation. Such cooperation is not costless. Some countries may fail to cooperate simply because they lack the resources to do so. Others may resist cooperation because they believe it is in their national interest to do so. Tax havens are the most flagrant cases of this; international cooperation in establishing rules that would increase the administrative independence of non-haven countries might help to eliminate the ability of tax havens to prey on other countries. Many otherwise respectable countries behave in non-respectable ways in fiscal affairs, for example, by exempting interest payments. In yet other cases, corruption may explain failure to cooperate. Whatever the problem, cooperation generally increases costs of administration and compliance, and failure to cooperate interferes with both equity and neutrality.

Implications

Countries can act independently in the implementation of source-based taxation of portfolio income; all they need to do is levy the tax. By comparison, it is much more difficult to implement residence-based taxation of the same income. One of the constant themes in the recent literature on the taxation of international flows of income is the difficulty of taxing such income in the absence of cooperative arrangements such as exchanges of information, withholding and international tax credits, etc.³⁷

The implications for the discussion of consumption-based direct taxes on this type of income are obvious. Under the R-based tax, source countries "tax" interest and dividends simply by allowing no deductions for them. The problems of residence-based taxation are thereby avoided. By comparison, the residence-based treatment of financial flows under the R + F-based tax requires substantial international cooperation. Not only do international flows of interest and dividends have tax consequences; so do flows of financial principal. Thus, there is a strong reason for preferring the R-based direct

consumption tax on grounds of administrative independence.

Things are not so simple in the case of direct investment, even under the R-based tax. There seems to be no acceptable way to achieve administrative independence. Gary Hufbauer has recently identified six issues that "do not fit comfortably within the old CIN-CEN debate": rules for determining the source of income, rules for allocating expenses, determination of transfer prices, the treatment of export income, the freedom to be accorded sub-national governments in taxing international trade, and prevention of discrimination against U.S. multinationals. The adoption of the R-based tax (or the R + F-based tax) would not solve any of these problems. Indeed, it might even exacerbate some of the problems, given the need to determine the geographic location of economic rents.

Summary and Conclusions

Replacement of the income tax with a consumption-based direct tax would have some relatively neglected benefits, but also some problems. Because the tax base is limited to economic rents (plus labor income and perhaps interpersonal transfers), it would in theory allow achievement of capital export neutrality, despite the use of source-based taxes levied at different rates in different countries. It would also be consistent with source-based entitlement to tax economic rents. Finally, the R-based tax, but not the R + F-based tax, would provide administrative independence in the treatment of income from portfolio investment, and indeed all interest and dividends.

While the adoption of the R-based tax would facilitate administrative independence on the taxation of interest and dividends, it would do nothing to achieve administrative independence in the taxation of business income. The R + F-based tax would do neither. Difficult problems of allocating income and expense in many countries would remain. The alternative of formula apportionment would undermine the advantages of a consumption-

based system related to source entitlement and capital export neutrality.

ENDNOTES

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¹See, for example, Aaron and Galper (1985), Andrews (1974), Bradford (1986), Hall and Rabushka (1983) and (1985), Institute for Fiscal Studies (1978), Lodin (1978), McLure (1988), McLure *et al.* (1990), Mieszkowski (1980), U.S. Department of the Treasury (1977), and Zodrow and McLure (forthcoming).

²See, however, McLure (1989a) and McLure *et al.* (1990), Chapter 9.

³See U.S. Department of the Treasury (1984), Vol. 1, pp. 193, 208.

⁴For elaboration of this point, see Zodrow and McLure (forthcoming).

⁵Under the R-based system, individual tax is levied only on labor income, including pensions. In effect (i.e., in present value terms), this also happens under the R + F-based system. Many who favor lifetime income over current income as the proper measure of ability to pay believe that gifts and inheritances should be included in the individual tax base. Other advocates of consumption-based direct taxation reject this view. This issue is not important for purpose of the present article and is not pursued. See, however, McLure *et al.* (1990, pp. 312-16) or Zodrow and McLure (forthcoming).

⁶These descriptions of the two consumption-based systems are intentionally brief; focus is on the international issues already identified. One referee, in commenting on an earlier draft, observed that in this section "the reader feels as though he is attending the second lecture of a two-part series, having missed the first." Given the ready availability of the literature cited in note 1, it does not seem appropriate to use scarce pages of the *NTJ* to reiterate the mechanics, effects, advantages, and disadvantages of consumption-based direct taxes.

⁷For further discussion, see Institute for Fiscal Studies (1978), Hall and Rabushka (1983) and (1985), Bradford (1986), McLure *et al.* (1990, Chapter 9), or Zodrow and McLure (forthcoming).

⁸On the relative simplicity of the R-based and R + F-based taxes, see McLure and Zodrow (1990). The S-based tax is levied on net flows of equity income from the business sector to households. This would clearly be difficult to implement in an international context, for reasons indicated in the discussion of administrative independence in the section entitled "A New Principle: Administrative Independence."

⁹These propositions are demonstrated in a number of places, including McLure (1991), McLure *et al.* (1990, Chapter 9), McLure and Zodrow (1990), and Zodrow and McLure (forthcoming). The METR is also zero under the S-based consumption tax mentioned in note 8.

¹⁰For a more complete discussion, see Zodrow and McLure (forthcoming).

¹¹The following description is not meant to be an

exhaustive treatment of the principles governing taxation of international income flows. See, for example, Hufbauer (1992) or Musgrave (1987).

¹²Peggy Musgrave has been the most forceful academic proponent of this view. See, for example, Musgrave (1987) and Musgrave (1992).

¹³Capital import neutrality is consistent with tax neutrality toward the location of saving. This is not commonly thought to be an important objective.

¹⁴In the literature of international aspects of taxation, it is common for any such statements to be qualified by the addition of words such as "except as required to reflect the benefits of publicly-provided services." These words can ordinarily be omitted, with little loss of generality, because the base of corporate taxes generally cannot be argued to reflect benefits. This issue is considered further below in the discussion of source entitlement.

¹⁵In speaking of "capital-exporting nations," it is most useful to think of gross capital flows. Thus the United States remains an important exporter of capital, although it has become a net importer of capital.

¹⁶See, for example, United Nations (1969).

¹⁷A key question facing any nation considering unilateral adoption of a consumption-based direct tax is whether credit would be allowed such taxes; the R-based tax can be argued not to be a tax on net income, because interest is not deductible. The analogous argument in the case of the R + F-based tax is that borrowing would not be included in the base of a tax on net income. This issue is not considered here. See, however, McLure (1990) and McLure *et al.* (1990, Chapter 9).

¹⁸Thus, under U.S. law, foreign subsidiaries of American corporations are "controlled foreign corporations." The characterizations in the next sentence of the text may not be totally accurate in all cases. For example, it is common for parents to provide substantial debt financing for subsidiaries. Many countries have "thin capitalization" rules to prevent the undue use of interest payments to the parent to reduce taxable income and tax liabilities of the subsidiary.

¹⁹McLure (1989a) suggests that U.S. exemption of interest earned by foreigners encourages capital flight from, and undermines the tax systems of, Latin American countries.

²⁰See, for example, Bird and McLure (1990). For a contrary view, see Gordon (1991).

²¹See, for example, Musgrave (1990) and Hufbauer (1991).

²²These issues are discussed, for example, in Slemrod (forthcoming). For a discussion of the incredible complexity of the U.S. rules and proposals for their simplification, see Tillinghast (1990).

²³See Tillinghast (1990).

²⁴Unused credits can ordinarily be carried forward and perhaps back to offset taxes in other years. If a company is chronically in an excess credit position, it is not able to utilize all its credits. Moreover, credits carried forward lose value, since ordinarily there is no interest adjustment.

²⁵See Goodspeed and Frisch (1989).

²⁶See Slemrod (forthcoming).

²⁷A complete discussion of this issue, while interesting, would take us beyond the scope of the present article. I would argue that rents from most natural

resources should be assigned to the country in which the resources are located. Arguments that "there is no value without a market" seem largely beside the point, since the demand curve facing most countries exporting natural resources is highly elastic. By comparison, the analogous assignment of rents from trademarks primarily to countries other than those of consumers seems less appropriate. Without the market, trademarks would be of little value; it seems, for example, that Alka Seltzer does not face an elastic demand curve for its product, but a series of rather inelastic country-specific demand curves.

²⁸This case emphasizes the importance of adequate provisions for carryforward of losses. It is essential that any losses that may be incurred in R & D be deductible against subsequent income. What may appear to be monopoly profits in the case of the few innovations that pay off handsomely after many years of R & D and many failures may be more nearly normal returns when averaged with the losses from unproductive R & D.

²⁹Some might see a justification for benefit taxation in the existence of economic rents. This seems to be just another name for the source entitlement principle.

³⁰Musgrave (1990), p. 476 reaches the same analytical conclusions regarding income from depreciable assets, but suggests that income from entrepreneurial activity and non-depreciable assets does not escape tax. Thus, she draws a different policy conclusion that "it is therefore quite possible that there would be even greater need for a business cash flow tax to be applied under a global-residence principle with foreign tax credit in order to preserve neutrality with respect to investment location."

³¹Capital import neutrality would also be achieved.

³²See McLure (1980).

³³Jack Mutti has suggested in correspondence that even greater distortions might occur if a country were forced by revenue losses resulting from manipulation of transfer prices to employ higher tax rates.

³⁴McLure (1989b) makes this point in the context of a paper advocating the general use of formula apportionment in the European Community after 1992.

³⁵It may be thought desirable to evoke international cooperation in the form of a clearinghouse for cross-country credits for taxes, in order to avoid the maintenance of border controls within an economic union such as the European Community; see, for example, Cnossen (1987). Strictly speaking, while this type of cooperation may be desirable, it is not required for satisfactory implementation of border tax adjustments; it is not the same as the type of cooperation that is needed for consistent administration of origin principle VATs.

³⁶Thus, for example, under the origin principle, importers would be subject to tax only on the excess of sales over imports. Similarly, it would be necessary to value exports, in order to tax them.

³⁷See, for example, Musgrave (1989) and Hufbauer (1992).

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