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Socialist Economies Reform

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# **A Consumption-Based Direct Tax for Countries in Transition from Socialism**

Charles E. McLure, Jr.

Countries emerging from socialism lack the accounting practices, the tax administration, and the experience with tax compliance to make an income tax work. A consumption-based direct tax — the simplified alternative tax proposed here — might be more effective.

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This paper — a product of the Socialist Economies Reform Unit, Country Economics Department — is part of a larger effort in PRE to study the processes of reform in countries emerging from socialism. Copies are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact CECSE, room N6-035, extension 37188 (44 pages).

Countries emerging from socialism must move quickly to implement tax systems that will allow them to finance the proper functions of government in a noninflationary way. Yet they are ill-prepared to cope with the intricacies of a standard income tax. They lack the accounting practices, the tax administration, and the experience with tax compliance to make an income tax work well. It is important to design tax policy with these limitations in mind, rather than simply ignoring them during the (possibly long) period when they remain significant impediments.

Indeed, administrative considerations should weigh almost as heavily as economic effects in the choice of a tax system for a country emerging from socialism.

McLure suggests an alternative to the income tax: the simplified alternative tax, a consumption-based direct tax. The simplified alternative tax encourages savings and investment in a way that is economically neutral and avoids many of the administrative problems of an income tax — especially those stemming from timing issues and the need to adjust for inflation.

The simplified alternative tax is not a panacea, but McLure suggests that it deserves serious consideration.

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in Transition from Socialism**

by  
**Charles E. McLure, Jr.**

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# A Consumption-based Direct Tax for Countries in Transition from Socialism

*Charles E. McLure, Jr.*<sup>o</sup>

## I. INTRODUCTION

Countries in transition from socialism--reforming socialist economies (hereafter RSEs) face severe fiscal problems. The problem is not merely that most of them are running large budget deficits that threaten to fuel inflation and undermine transition, though this is, indeed, a serious problem.<sup>1</sup> The basic outlines of their tax systems were set during the period of classical central planning when taxes did not play an important role in either the allocation of resources or the distribution of income.<sup>2</sup> Thus at the beginning of the transition process the systems were--and some still are--totally inappropriate for a market economy.<sup>3</sup> They contained (or still contain) anomalies that will distort resource allocation and create inequities in the distribution of income if continued after transition. Perhaps more important, the countries lack the administrative infrastructure, the accounting practices, and the experience with tax administration and compliance needed to make a modern tax system function. Thus, as privatization occurs, and revenues can no longer be taken from captive state enterprises, tax collection is likely to become more difficult and revenues are likely to fall.<sup>4</sup> Nor can tax administration and compliance quickly be improved, though every effort should be made to do so.

The general tendency has been to suggest that the RSEs adopt reformed tax systems patterned after those found in the developed countries of the West. Thus there would be a value added tax similar to those used by members of the European Community, an individual income tax, and a company income tax similar to those found in the West. As has so often been the case in developing countries, too little thought has been given (and is being given) to the features of RSEs that may make the standard prescription less than totally appropriate for these countries.<sup>5</sup>

Individual income taxes would presumably have graduated rates, but efforts to use personal exemptions, itemized deductions, and other devices to "fine tune" liabilities to the individual circumstances of taxpayers should be minimized to prevent administrative and compliance problems; this issue is discussed further below. In several "reformed" systems saving and investment is being encouraged by a variety of tax "gimmicks," including investment credits, accelerated depreciation, and tax holidays; these are reminiscent of both 1960s style interventionism in Latin America and the use of tax incentives for similar purposes in advanced countries before the worldwide tax reform movement of the 1980s.<sup>6</sup> There are ample reasons to believe that this is not good policy.

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The purpose of this paper is to break out of this mindset—to offer a plan for reform of direct taxation that is more closely geared to the problems of the RSEs. It addresses such concerns as weak tax administration and lack of experience with mass taxes; the special twist given to distributional issues by both the legacy of socialist indoctrination and the potentially egalitarian effects of privatization; and the desire to attract foreign investors.

The tax system proposed for consideration, a consumption-based direct tax which I call the Simplified Alternative Tax or SAT, has been proposed elsewhere, but has not been adopted by any country.<sup>21</sup> To some extent this lack of action on the SAT can be explained by the novelty of the proposal; after all, no one wants to be a pioneer in a matter of this importance. I contend, however, that RSEs should at least consider the SAT, since they are being pioneers in economic matters far more important than tax policy. To some extent failure to adopt the SAT can be explained by the legitimate concerns that have been raised about the tax. I contend that many of these concerns are less important in the RSEs than in other contexts.

Section II outlines some of the objectives of tax policy in RSEs and some of the constraints on the achievement of those objectives. Section III provides examples of the overwhelming complexity of the income tax. Section IV explains the basic mechanics of the SAT and contrasts the simplicity of the SAT with the complexity of the income tax. Section V describes the economic advantages of the SAT and section VI discusses some potential problems of the SAT. The final section contains concluding remarks. Two appendixes contrast the SAT with the income tax and with two forms of VAT. A third appendix explains briefly several reasons for preferring the SAT over another form of direct consumption-based tax. As noted in section V, the SAT is equivalent to exemption of the return to investment. In present value it is equivalent to a tax on consumption under certain circumstances. See McLure *et al.*, (1990) chapter 8. This last point is not emphasized in the text, since the important debate in RSEs is likely to be with advocates of a traditional income tax.

## II. OBJECTIVES AND CONSTRAINTS

In many ways the objectives of tax policy for RSEs and the constraints on their realization resemble those found in middle-income developing countries with market economies. But they are also different in important ways. Both the similarities and the differences must be considered in framing tax policy for countries in transition from socialism. This section discusses some of these objectives and constraints.<sup>22</sup>

### A. The Economic Context

The tax policy examined in this paper is being offered as potentially interesting to all the countries of Central and Eastern Europe making the transition from socialism, notably Bulgaria, Czechoslovakia, Hungary, Poland, Romania, the Soviet Union, and Yugoslavia.<sup>23</sup> In several cases (e.g., Czechoslovakia, the USSR, and Yugoslavia) it may be the constituent republics that would be interested, if existing unions were to dissolve.<sup>24</sup> The paper discusses the suitability of the SAT for a generic RSE, though using examples from particular countries.

1. The need for a stable business climate. Ideally the preferred long-run tax policy for an RSE would be put in place before the beginning of transition and would then be basically unchanged, in order to simplify transition to the new tax system and promote certainty and stability in the investment

climate.<sup>11</sup> Of course, that prescription is unrealistic, since all these countries have already undertaken some restructuring of their economies and some have already made important changes in their tax systems. A more realistic picture would find the tax system changing—perhaps repeatedly—as everything else changes. This suggests a less rigorous set of guidelines for tax policy during transition: avoidance of the "zigzag problem." By this, I mean that RSEs should decide at the outset the type of tax system they ultimately want to have and then move toward it essentially in a linear manner, avoiding reversals of policy that create uncertainty for business. An additional suggestion is to avoid introducing an individual tax that is more sophisticated and complicated than can be administered, risking either massive non-compliance or the need to rescind the policy and adopt a system that is more appropriate, given limitations imposed by the capacity for tax administration and compliance.

2. Three types of business. In all these countries state enterprises loom large in the overall economy, and are likely to continue to do so for some time, due both to reluctance in some countries to privatize completely and the difficulty in all of privatizing quickly. It thus seems best to think of three general types of business.<sup>12</sup> First are the state enterprises. Initially these will be found in—or even dominate—almost all sectors of the economy (with exceptions such as agriculture in Poland, which was decollectivized in 1956). Ultimately—following extensive privatization—state ownership may be found primarily in sectors characterized as public utilities in the West and in certain industries thought to have "special importance," such as steel and energy. In principle, it should be relatively easy for the authorities to exercise fiscal control over these enterprises, providing appropriate accounting standards are implemented. Indeed, much of the tax revenues of RSEs has traditionally come from these enterprises. Even so, the history of soft budget constraints and losses makes one less than optimistic about collecting taxes from most such enterprises.<sup>13</sup>

The second group are large enterprises that are primarily in the private sector. These include both locally and foreign-owned firms. (Whether to classify joint ventures between public and private firms with public or private enterprises is not totally clear. The answer probably depends on the breakdown of ownership, voting rights, etc. Fortunately this distinction is probably not crucial for the present discussion.) The primary issues for this group are a) whether such firms have accounting records adequate for their fiscal control and b) whether they are widely or closely owned. Widely owned companies are likely to be more easily controlled by fiscal authorities than are closely held ones, because of their need to report to shareholders.

The third group consists of the burgeoning small business sector. Many "firms" in this category are closely owned (they may be proprietorships, including "mom and pop" businesses), many have quite inadequate books of account, many are not formally registered to do business, some do not even have identifiable permanent places of business, and many will not voluntarily pay the taxes they owe. In short, they are typical of the "hard-to-tax" groups found in developing countries.

## B. Administration and Compliance

One legacy of central planning is the virtually complete lack of both a tax administration infrastructure and experience with tax compliance. Under classical central planning, (some if not all) profits of state enterprises were simply transferred to the state budget (and investment funds were allocated among enterprises by the planners). The transfer was simply a bookkeeping entry involving enterprise "funds" that, due to the all-inclusive nature of planning, generally could not be used for any other purpose.<sup>14</sup> In this "telling" activity, as much attention may have been paid to allocating revenues to the appropriate budgetary funds as to verifying the accuracy of reported profits.<sup>15</sup> While

there might be arguments about just how great the profits to be transferred were in particular cases, the basic fact remains that defining taxable income carefully and correctly was not high on anyone's agenda. Similarly, while the interests of the planners and those of enterprise managers were not totally congruent, they were certainly more closely akin than are those of the typical taxpayer and fiscal authorities in a Western market economy. In short, tax administration and compliance are different in kind and importance under central planning and in a market economy.

The situation is not much better in RSEs starting from the less extreme position of market socialism.<sup>16</sup> What are commonly called turnover taxes are not the type of multistage cascading taxes on gross receipts that go by that name in the West. Rather, in RSEs turnover taxes simply represent the difference between controlled retail prices (net of retail and wholesale margins) and manufacturing costs. Again tax administration and compliance are less demanding than in a market economy. Much the same can be said for the profits tax, which in the pre-transition system was collected only from state enterprises. The base of the tax is "balance sheet profits," a concept that bears little resemblance to economic income. (For present purposes the most important difference is the failure to allow depreciation allowances and deductions for some interest expense.) More to the point, for neither of these taxes is any real administrative effort expended.

The "supply constrained economy" that is characteristic of Communism creates behavior that will be inimical to tax compliance and administration.<sup>17</sup> Enterprise managers have learned to barter with each other in order to circumvent the restrictions of central planning and obtain the inputs they need. They will find the skills in barter trade and the personal ties developed in this process to be valuable in avoiding tax liabilities.

Kornai (1990, pp. 118-19) has identified yet another legacy of Communist rule that compounds the problem of inadequate tax administration: disrespect for the state and its laws. He notes:

people in general consider it a laudable act, rather than something to be ashamed of, if someone defrauds the state, appropriates its wealth, or shuns his own obligations. Those who refrain from this kind of behavior are seen as dupes.... Consequently, when we contemplate budget revenues we should be prepared to face the fact that many citizens will try hard to dodge taxes.... In the Hungarian case, there is an additional factor: a considerable part of the private sector still belongs to the shadow economy, and it will voluntarily emerge from the shadow and into the light--only after some time.

Another legacy of Communism, based on experience with the secret police, is a deep-seated fear of the state. Kornai rightly fears a system in which tax collectors spy on taxpayers, keeping a constant check on their earnings and expenditures.

Under Communism, earning income outside the tightly controlled state enterprise sector was disreputable, if not illegal. This mindset permeates much thinking in the RSEs. Even now, one hears complaints against "speculation"--what economists in the West might call the seeking of unexploited opportunities for profit that make the economy innovative and efficient. Thus many residents of RSEs will be reluctant to reveal their incomes to the fiscal authorities, for fear of reprisals.

The upshot of this discussion--and that of the previous subsection--is that every effort should be made both to upgrade tax administration and compliance and (especially in the short run) to design tax policies with the constraint posed by inadequate administration and compliance firmly in mind. As



Kornai (1990, pp. 120, 117) states the issue, "Hungary needs a tax system able to evade the dilemmas described above.... Taxes should be collected where they are 'seizable,' giving preference to the technically simplest forms of taxation." Bird adds (in correspondence with the author), "it is a classic 'Hard-to-tax' problem from developing countries, which presumably calls for the same sorts of solutions e.g., withholding where possible, presumptive techniques, and a decent auditing and penalty system." Pending the development of improved taxpayer morale and auditing, it is important to utilize withholding to the extent possible and to design the system in such a way as to facilitate compliance and administration.

### C. Distributional Considerations

In virtually all countries there is a desire to use progressive taxation to "level down" the peaks in the income distribution. This egalitarian sentiment appears to be at least as strong in RSEs as in other societies; it is almost certainly stronger there than in the United States. Up to now it has been manifested formally primarily in the compression of wages; workers in RSEs who would have high incomes in the West are simply paid less than the value of their marginal product, rather than receiving a wage commensurate with productivity which is then subject to high marginal tax rates.

The essential absence of private entrepreneurial activity (at least in legal forms) and private property has, until recently, largely eliminated the need to think seriously about progressive taxation of the income from private business and capital. Reflecting the socialist bias against private business activity, the existing taxes on business income of individuals tend to be levied at high rates—rates of 80 to 85 percent—that can only be termed punitive.

The shift to a market economy will change all this. Wages will be geared more closely to marginal productivity. That plus the rise of private business activity and private ownership of capital will create tendencies for inequalities in the distribution of income and wealth not seen in these countries for many years.<sup>18'</sup> This, in turn, will likely lead to pressures for progressive taxation.<sup>19'</sup>

On the other hand, the RSEs start from a position of relatively equal distribution of wealth. Depending on how privatization is conducted, the ownership of shares in companies may, at least for a while, be much more widespread and equal than in most Western countries.<sup>20'</sup> This is particularly significant when one thinks about whether and how to eliminate the double taxation of company income, to be considered further below. Moreover, at least some members of society in RSEs recognize the need to offer the incentives provided by the prospect of large incomes if rapid economic development is to occur. It is difficult to know how these conflicting pressures for and against progressive taxation will ultimately be resolved. One would hope, however, that progressivity will be fairly mild and that the enterprise tax rate and the top marginal rate applied to income of individuals will be relatively low—in the range of 40 to 50 percent.

### D. Incentives for Saving and Investment

Following a long period in which private ownership of most forms of capital was out of favor and in which there was little foreign investment, RSEs are now interested in encouraging domestic saving and investment by both their residents and foreigners. For the most part these countries are adopting what I call the "Swiss cheese" strategy of legislating tax incentives, tax holidays, and other fiscal inducements to saving and investment, many of them targeted to particular sectors, rather than adopting a comprehensive definition of income for tax purposes and relying on low tax rates and market forces

to stimulate saving and investment and direct funds to the right uses, as many advanced Western countries recently have done.

This strategy has several undesirable implications. First, it creates opportunities for abuse that will strain the ability of weak tax administrations. Obvious opportunities for abuse include manipulation of transfer prices on sales to and from affiliated holiday firms and the "yo-yo problem" of residents sending money out of the country so it can return as tax-preferred foreign investment.

Second, it implies faith in the ability of bureaucrats and politicians to pick winners and losers that is unjustified and reminiscent of central planning, rather than a willingness to rely on the invisible hand of free markets. If the wrong sectors are chosen—or choose themselves, via abuses—economic distortions and the waste of scarce resources will occur. Third, it necessitates higher tax rates than under a comprehensive definition of taxable income. Finally, its equity is questionable, and it creates the impression of inequity. In short, it is not an appropriate policy. It would be far more appropriate to have generalized and neutral incentives that do not involve picking winners and losers, do not distort resource allocation, and do not open the door to abuses; ideally such generalized incentives would be perceived to be fair.

#### E. International Considerations

After four or more decades of isolation from the West, the RSEs of Eastern Europe are suddenly painfully aware of the international implications of what they do in the fiscal arena. First, any of them with aspirations of joining the European Community (EC) are almost certain to adopt an EC-type value added tax (VAT).<sup>21</sup> Second, as suggested above, all RSEs are concerned with attracting foreign investment, as well as preventing capital flight. This concern is reflected in the desire to have a favorable tax climate.

Traditionally it has been thought that tax effects on foreign investment would be most relevant for investors from countries employing a territorial system of taxation or from countries that allow tax sparing. In the case of countries utilizing residence-based or worldwide taxation and offering foreign tax credits (without tax sparing), the source country tax would be borne by the treasury of the home countries of investors. This view must be qualified in several respects. First, home-country tax generally is not due until profits are repatriated. If investment is financed from retained foreign earnings, rather than new equity, there may, in effect, be no additional tax in the home country.<sup>22</sup> Recent changes in the tax systems of many countries with residence-based systems, including especially the United States, and the increasing prevalence of excess foreign tax credits that has resulted, make the host-country tax climate relevant for many potential investors from such countries.<sup>23</sup> (These changes include reduction in tax rates, changes in income allocation rules, and limits on the foreign tax credit. This point is explained further in Section V below.)

### III. COMPLEXITY OF THE INCOME TAX

In order to understand why the Simplified Alternative Tax is given that name, it is useful to examine the complexity that is either inevitable or likely under the income tax.

In order for an income tax to be fair and neutral, the definition of income for tax purposes must reflect real economic income fairly accurately. If this objective is not realized, income from different sources will be taxed differently. If this happens, the tax system will not be fair and it will distort economic decisions.<sup>24</sup>

Designing an income tax that measures real economic income accurately involves one major problem that is inevitable, no matter what the rate of inflation, and another that arises if prices are not essentially stable. These are the issues of timing and inflation adjustment, respectively.<sup>25</sup> Timing issues are discussed first, ignoring issues of inflation adjustment. Then the effects of inflation are considered. Finally, a few additional issues are discussed briefly.

#### A. Timing Issues

The classic Haig-Simons definition of economic income is "consumption plus the change in net wealth." Leaving aside questions of valuing consumption and knowing exactly when consumption occurs, we see immediately that the "change in net wealth" part of this definition can be a source of considerable trouble, for it is not necessarily easy to know when this change occurs (when income "accrues") or to measure it accurately. This is perhaps most easily seen through the use of several simple examples that illustrate the difficulty of accrual taxation.

*Depreciation* is perhaps the best-known example of a timing problem. Strictly speaking, depreciation allowances should track the loss in the economic value of assets if taxable income is to reflect economic income.<sup>26</sup> Of course, this pattern of loss in value is extremely difficult to know, and arbitrary schedules are commonly used for tax purposes to approximate actual depreciation. The problem is that deviations of depreciation for tax purposes from economic depreciation will cause income to be mismeasured and cause inequities, economic distortions, or both. Similar problems arise in the case of amortization, depletion, etc. In some cases (e.g., advertising and research and development) the problems are so severe that it is common to allow immediate deduction of expenditures, despite the inequities and distortions this creates.

To see the importance of this timing issue, we can assume that the true pattern of depreciation of a particular asset is such that it loses 99.99 percent of its value in the second year, and nothing in years one and three.<sup>27</sup> If the relevant interest rate used to discount tax savings is 25 percent, immediate expensing of this asset (first-year write-off) would give a deduction that is 25 percent greater in present value than is appropriate for the calculation of economic income. (If deduction is to be allowed in the first year, an allowance of only 79.99 would be required to equal the 99.99 properly allowed in the second year.) If, on the other hand, the deduction is postponed until the third year, it will be only 80 percent as great as it should be. (A third-year deduction of 124.99 would be required to be equivalent in present value to the allowance of 99.99 properly deducted in the second year.) More generally, if deductions are granted too rapidly (too slowly) or the recognition of income is postponed (accelerated), income for tax purposes is understated (overstated).

*Capital gains* should ideally be taxed on an accrual basis, that is, as changes in asset values occur. This is difficult for both administrative and political reasons. While it is relatively easy to determine the current value of securities that are widely traded on financial markets, for many assets current valuation is extremely difficult; this is true, for example, of real estate and closely owned businesses. In addition, the need to pay tax on an accrual basis could force the disposition of appreciated assets and the liquidation of family businesses. For these reasons capital gains are almost universally taxed on a realization basis, that is, at the time of disposition of assets.

Taxation at realization creates other problems. First, the taxation of capital gains is generally postponed, often for many years. This reduces the present value of tax and undermines both horizontal and vertical equity.

Second, taxpayers can choose the timing of realization of gains and losses. Thus there is a tendency to realize losses, but not gains. To prevent abuse, it is common to limit the amount of capital losses that can be offset against ordinary income. Such limitations create an impediment to risk-taking, which requires unlimited deduction of losses.

Third, taxation at realization reduces the mobility of capital, as investors become locked into appreciated assets.<sup>29/</sup>

Fourth, if gains are taxed only at realization, they tend to be concentrated in a few years. Under a tax system with graduated rates, the tax liability on such gains will be greater than if the gains were taxed on an accrual basis and thus spread out more evenly over more years. (Of course, the advantage of deferral may far outweigh the effects of bunching of gains.) This problem can be ameliorated by allowing the averaging of income received over a period of years, but this adds considerably to complexity.

An alternative approach is to tax capital gains at a preferential rate; this policy is also often proposed to further various other objectives, including stimulus to saving, investment, and risk-taking, and provision of ad hoc compensation for inflation. Preferential treatment of capital gains is not a satisfactory response to any of these concerns, and it considerably complicates compliance and administration, as taxpayers attempt to convert ordinary income to capital gains and fiscal authorities attempt to prevent them from doing so.

*Original issue discount* occurs when a bond is issued at less than its redemption value; (at least part of) the interest is implicit in the increase in the value of the bond as maturity approaches. The question is when the increase in value occurs. Clearly it is not appropriate to assume that the increase occurs only at the time of maturity and to tax it then; to do so is to give this form of income unduly favorable treatment. On the other hand, assuming interest is earned proportionately over the period from issue to maturity errs in the other direction; because of compounding, interest income is earned later than this straight-line assumption suggests. Interest is earned as indicated by a table of compound interest, and to assume otherwise produces an inaccurate measure of income.<sup>29/</sup> Of course, a similar problem exists anytime an interest bearing security is not acquired at its redemption value--which is most of the time, in the case of marketable securities.

*Multi-period production* occurs when expenses are incurred currently for the subsequent production of income. (Examples include long-term construction contracts, mine development costs, and the costs of growing timber, coffee, and orchards.) Such expenses should be capitalized and deducted (or depreciated) at the time income is earned.<sup>29/</sup> A faster schedule of deduction will be too favorable to the taxpayer.

This is only a small sampling of timing issues. A more complete list reads like a rogues' gallery of tax complexity. It would include installment sales, decommissioning of nuclear power plants, reclamation of strip mines, capitalization of the costs of inventories, and the tax treatment of property and casualty insurance. The common features of many of these issues include lack of clarity as to exactly when the change in net wealth occurs; complexity in accounting and in tax compliance and administration, even if clarity is not a problem; and distortions and inequities if the issues are not handled properly.

Problems arise if an income tax does not provide symmetry in the tax treatment of interest income and expense. That is, under symmetrical treatment, interest would be deductible by the debtor and taxable to the creditor in the same year. In fact, many tax systems do not achieve symmetry. For example, if taxpayers can choose their fiscal years for tax purposes, it is fairly simple to "knit together" repeated loans between related parties (e.g., a partnership and its partners) in which interest is always deducted before it is reported as income. This results in a loss of revenue and inequity.

Problems may be compounded under certain circumstances. If deductions are sufficiently accelerated, if the recognition of income is sufficiently postponed, or if the two sides of important transactions are not treated symmetrically, some taxpayers may report losses for tax purposes, even if they are making money. If business losses can be passed through to the owners of businesses and used to offset or "shelter" income from other sources, a political problem may arise, due to the perception of inequity.<sup>21/</sup> "Backstop" measures are sometimes used to prevent the unseemly spectacle of wealthy individuals and large and profitable companies paying no tax.<sup>22/</sup> These can add enormously to the complexity of the system. For example, the U.S. Tax Reform Act of 1986 contains antishelter provisions that—along with efforts to deal with timing issues—help explain why one multinational accounting firm has noted that, "Complexity is the hallmark of this legislation."<sup>23/</sup>

Timing issues are inevitable in any standard income tax. Even if the more esoteric problems can be avoided, many mundane ones such as depreciation will remain, and others (multi-year contracts, installment sales, etc.) will surface as taxpayers and the economies in which they operate become more sophisticated. If they are not handled satisfactorily, equity and neutrality will suffer.

## B. Inflation Adjustment

The tax systems of most developed countries were designed for a world of price stability. That is, they use historical costs as the basis for calculating capital gains, depreciation allowances, and the cost of goods sold from inventory.<sup>24/</sup> Moreover, they make no distinction between nominal and real (inflation-adjusted) interest income and expense. As long as prices are relatively stable, such treatment is entirely appropriate; inflation adjustment is so complicated that it should not be introduced unless it is really needed. If, however, inflation reaches even relatively modest levels, it is necessary to choose between the complexity of inflation adjustment and the inequities and distortions that result from an unindexed system.

Several simple examples illustrate the need for inflation adjustment. Consider first the issue of capital gains. Suppose for simplicity that the price level has doubled since an asset was bought. If an asset was bought for 100 and now sells for 160, there is no real capital gain; indeed, there has been a real capital loss of 40 ( $= 160 - 100 \times 2$ ). Yet a tax system based on historical values will report a capital gain of 60 ( $= 160 - 100$ ) in this case. By comparison, a system that provides inflation adjustment of the basis of assets produces the correct result.

A similar problem arises in the case of unindexed depreciation allowances and inventories. If the price level has increased significantly since a depreciable asset was acquired, it would be appropriate to base depreciation deductions on this increased value. Use of historical value understates the loss in real value and overstates taxable income. Depreciation allowances are sometimes accelerated in an effort to offset the effects of inflation. Of course, a given pattern of acceleration is appropriate for at most one inflation rate.

The cost of goods sold from inventories can also be indexed to reflect the increase in their value since the time of acquisition. Some countries allow the use of last-in, first-out (LIFO) inventory accounting as a substitute for explicit inflation adjustment of inventories. Note, however, that while this approach may appear to be easy to implement, it is not conceptually correct, in that it confounds changes in relative prices of inventories and changes in price levels (the proper object of indexation).<sup>25</sup>

Consider finally the deduction of nominal interest expense and the taxation of nominal interest income. Suppose the real interest rate is 5 percent, the inflation rate is 20 percent, and the nominal interest rate is 25 percent.<sup>26</sup> It would be appropriate to allow a deduction for (and tax) only the real interest payment of 5 percent, because the part of nominal interest rates that exceeds the real rate represent compensation for loss in the value of principle, not interest, per se. The conceptually correct way to achieve this result is to disallow a deduction for (exclude an amount of income equal to) the inflation rate times the principal amount of indebtedness. An alternative that may be somewhat simpler, but is correct only under very special circumstances, is to disallow (exclude) a percentage of interest equal to the fraction of the nominal interest rate represented by the inflation rate.<sup>27</sup> In this simple example both techniques give the same result: disallowance (exclusion) of 80 percent of interest deductions (income). It is apparent from this example that adjustment for an unexpected inflation rate as low as 20 percent can have major impacts on the equity of the tax system. (If inflation is expected, there is likely to be little effect on either equity or resource allocation in a closed economy; distortion of resource allocation is likely to be serious only if borrowers and lenders are subject to substantially different marginal tax rates. In an open economy resource allocation may also be seriously affected by expected inflation. See also McLure *et al.*, 1990, chapter 7.)

These examples illustrate the need for inflation adjustment, as well as suggesting one form of adjustment, ad hoc and essentially independent adjustments of each of the four affected types of income flows (capital gains, depreciation, inventories, and interest). An alternative "integrated" approach used in Chile that is more accurate makes adjustments to non-monetary elements of the balance sheet and then reflects these adjustments in the income statement.<sup>28</sup> The adjustment of interest is an implicit result of the process, rather than being done explicitly.

Whichever of these approaches is used, the ad hoc approach or the integrated Chilean approach, there can be no doubt that inflation adjustment is complicated. It would be a major burden for any country, and doubly so for a country with only rudimentary accounting practices, almost no tax administration, and almost no experience with taxpayer compliance. The problem is aggravated by the lack of reliable price indices.<sup>29</sup> Inflation adjustment is not something the RSEs should gladly or lightly undertake.

Whether inflation adjustment is needed in RSEs is not clear. The historical experience of these countries provides no guidance, as it reveals only the artificial price stability of suppressed inflation. The transition experience of the pioneer RSEs would be of some relevance, if it were thought that tax policy in other countries could be fundamentally reformed before the beginning of transition. In Poland prices rose by 78 percent in January 1990, immediately following the administration of "shock treatment;" although inflation has slowed markedly, it has been perhaps 5 percent per month since then,<sup>30</sup> a rate that, if continued, would clearly justify concern about the effects of inflation on an unindexed tax system. Whether this experience is relevant depends on whether a given country can manage transition without inflation, and if not, whether it will have undergone much of the transition most likely to induce inflation before tax reform can be completed, and thus avoid the need for inflation adjustment.

The most relevant question is the rate of inflation that will prevail in the years immediately following tax reform. There is little on which to base an estimate of this rate, but my guess is that it may be fairly high for several years following the beginning of transition and tax reform--perhaps in the range of 10 to 20 percent per year. If this is true, reliance on an unindexed tax system would be risky.

### C. Other Issues

The above discussion should suggest why I have given the following assessment of the U.S. Tax Reform of 1986, which addressed many timing issues, but did not provide for inflation adjustment:

it is horribly complex--so much so that we may have shown definitively that attempting to implement a conceptually correct income tax (even one without inflation adjustment) is impractical.<sup>41/</sup>

Problems that would be encountered by an RSE go beyond those identified thus far.

1. Dividend relief. Under so-called classical systems the equity income of companies that is distributed to shareholders as dividends is subject to double taxation. That is, corporate tax is paid on the income and then individual tax is paid on the dividends. In such systems there are strong incentives to prefer debt to equity finance and to recharacterize dividends as interest, since the interest is deductible and dividends are not.<sup>42/</sup> Depending on the relationship between company tax rates and individual tax rates applied to dividends and capital gains, there may be an incentive to avoid use of the corporate form.<sup>43/</sup>

Most European countries allow relief from double taxation of dividends, commonly through the imputation (shareholder credit) method. That is, the corporate tax attributable to income distributed as dividends is treated as a withholding tax for which shareholders receive a tax credit. Even so, most do not allow complete dividend relief. Moreover, to the extent that dividend relief is granted in the first instance to the shareholder, rather than to the company paying dividends, there is likely to be some residual preference for debt finance, even where dividend relief is complete. This is true because business managers may respond more strongly to corporate deductions--for either interest or dividends--than to shareholder credits. Only to the extent that dividends and interest are treated identically (taxable to the recipient and deductible to the payor) is there likely to be no such preference.<sup>44/</sup> (Germany combines a shareholder credit with application of a lower rate to income that is distributed; presumably the latter feature has the same effect as an equivalent deduction for dividends paid.)

The dividend-paid deduction appears to be simpler to implement than the shareholder credit, since it lodges the primary compliance problems at the enterprise level. In fact, this difference is easily overstated. If there is withholding of tax on dividends, the two are essentially equivalent from an administrative point of view.

The existence of deviations of taxable income from economic income further complicates the problem of providing dividend relief. In order to prevent giving relief for company taxes not actually paid, most countries have special provisions (e.g. the Advance Corporation Tax in the United Kingdom and the precompte in France) intended to limit relief to the amount of company taxes paid. Such provisions are inevitably complicated, and they can distort decision-making.<sup>45/</sup>

Inter-corporate (or inter-company) dividends create a final source of complexity. That is, it is necessary to prevent multiple taxation of such income, without granting overly generous treatment. This

can be especially important in RSEs, where holding companies are likely to be established in the process of privatization, intercompany holdings are likely to be quite common, and there are likely to be many joint ventures.

In short, prevention of double taxation of dividends is complicated. Again, while necessary from an economic point of view, it is not something RSEs will soon be prepared to handle.

2. Global taxation. Most authorities on taxation would probably agree that global taxation (taxation of all income under one rate schedule applied to aggregate income) is conceptually preferable to schedular taxation (taxation of specific types of income under separate schedules). Under the former approach, liability is based on the taxpayer's aggregate income from all sources, whereas under the latter different rates are applied to different types of income. At first glance global taxation seems preferable on grounds of both equity and neutrality. In fact, schedular taxation has some appeal under certain circumstances. We have already seen one example, the avoidance of tax shelters (the offsetting of artificial tax losses against income from other sources). The second, the simplification of withholding, may be especially important in RSEs, since it may reduce drastically the number of taxpayers who must file returns.

3. Withholding on interest and dividends. The taxation of interest and dividends under the income tax causes at least two types of complications related to withholding. First, recipients of interest and dividends are notorious for their reluctance to report such income and pay tax on it. Thus withholding on such income, or at least the filing of information returns, is necessary to prevent evasion.

Second, in a system with graduated rates, the marginal tax rate that should be applied to interest and dividends depends on the taxpayer's labor income. Thus it is difficult, within the context of a global income tax, to make withholding a final tax on such income. Recipients of large amounts of interest and dividend income may need to file returns, even though they would not need to do so in the absence of the progressive taxation of these income flows. By comparison, if schedular taxes are applied to interest and dividends (or if they are tax-exempt), withholding is simplified.

Where deduction is allowed for interest payments of individuals, including especially mortgage interest, further problems arise. Even the marginal tax rate to be applied to labor income depends on the amount of such deductions.

#### IV. MECHANICS AND SIMPLICITY OF THE SAT

In many respects the Simplified Alternative Tax resembles the type of income taxes found in most countries. Yet it differs in important ways that have both administrative and economic implications. This section describes the basic mechanics and simplification benefits of the SAT.<sup>46</sup> Three appendices compare the tax to the income tax and two types of VAT and explain why it is simpler than another consumption-based direct tax.

##### A. Mechanics

The SAT system would consist of two more or less separate taxes. One would be imposed on the wage and salary income (including pensions) received by individuals; the other on the income of businesses. Both interest and dividends would be exempt from both taxes and neither would be deductible. Borrowing and lending would have no tax implications.<sup>47</sup> Unlike the situation under the so-called expenditure tax. Capital gains on financial assets would be exempt. Gains on non-financial



assets would be exempt from the individual tax, but would be subject to the business tax.<sup>48'</sup> Under some proposals, gifts and inheritances would be included in the base of the individual tax.

The individual tax could (but need not) accommodate joint returns, personal exemptions, itemized deductions, and graduated rates; it would be collected largely through withholding at source by employers. There is much to be said for a relatively simple system with individual filing, no personal exemptions, and no itemized deductions, at least until the administrative infrastructure needed to deal with such complexities has time to develop. Such a system allows fairly accurate withholding on labor income and avoids the need for most taxpayers, especially those with only one employer, to file tax returns.<sup>49'</sup> Fortunately, most of the RSEs are not hampered by a tradition of joint filing and itemized deductions.

The business tax would be levied at a flat rate--presumably the top rate applied to the income of individuals--with no allowances for personal exemptions or itemized deductions. It would apply to all forms of business, whether state-owned enterprises, cooperatives, collectives, stock companies, partnerships, joint ventures, or proprietorships. Immediate expensing would be allowed for all investments, including those in depreciable assets and inventories. Owners of small businesses (including cooperatives and corporations) would be allowed to pay salaries to themselves, thereby achieving the benefits of "do-it-yourself integration." On the other hand, business losses could not be passed through to individual owners of the business.<sup>50'</sup>

Owner-occupied housing poses particularly thorny questions. It would be possible, in theory, to treat owner-occupied housing as a business. This would necessitate the imputation of rental income; it is generally not recommended. Instead, most authorities agree that owner-occupied housing should be treated in the same way as financial investment. That is, the purchase and sale of a home would have no tax implications; of course, home mortgage interest would not be deductible.<sup>51'</sup>

## B. Simplicity of the SAT

The SAT avoids the problems of timing and inflation adjustment that characterize the income tax, since interest payments have no tax consequences and business tax liabilities are based on cash flow, rather than accrual concepts. For example, expensing replaces both depreciation and inventory accounting; thus there is no need (for tax purposes) to determine depreciation rates or engage in depreciation or inventory accounting and no need for inflation adjustment of depreciation allowances or inventories.<sup>52'</sup> (Of course, such issues may be addressed in financial accounting. This is discussed below.)

Because of expensing, the basis of capital assets is identically zero. Thus the entire proceeds from the sale of such assets is subject to tax. There is no need to keep track of the (depreciated) basis of such assets or to index it for inflation. This feature also facilitates cross-checking the income tax returns of buyers and sellers. Deductions for the purchase of assets and inventories are contemporaneous with the reporting of receipts, instead of being spread over time, as in the case of depreciation allowances and deductions for cost of goods sold.<sup>53'</sup> (In a growing economy, expensing also increases the prevalence of losses; this issue is discussed in section VI.)

Since interest is exempt and non-deductible, such timing problems as original issue discount and inflation adjustment of interest payments cannot arise. With interest payments having no tax consequences, postponement of the recognition of income and the acceleration of deductions cannot undermine the neutrality or fairness of the system.

The SAT avoids the problems created by the differential treatment of debt and equity under virtually all extant income taxes. First, since both interest and dividends are treated identically for tax purposes (non-deductible and non-taxable), there is no artificial tax-induced preference for one over the other. Second, this result is achieved automatically under the SAT, without complicated provisions for integrating the company and individual taxes.<sup>24</sup> Finally, since there is no incentive to recharacterize dividends as interest, the administrative burden of preventing this abuse is avoided.

The problems related to withholding identified earlier are avoided under the SAT. There is no need for either withholding on interest and dividends or information returns covering such income. Perhaps more important, liability for the individual tax depends only on labor income (and family circumstances, as indicated by a working spouse, personal exemptions, and itemized deductions); it does not depend on the amount of non-labor income received.<sup>25</sup> Thus withholding can much more accurately reflect final tax liability than under a global income tax. This minimizes the number of individual returns that must be filed.

The general disallowance of interest deductions would also increase the accuracy of withholding. It may also facilitate avoidance of one of the most inequitable and distortionary elements of the tax systems of some countries, the deduction of interest on home mortgages.<sup>26</sup>

The schedular nature of the SAT implies that tax shelters based on pass-through of losses cannot exist; sheltering can occur only within the boundaries of a single business filing one tax return. This benefit is, of course, bought at the expense of implicitly taxing all business income (except that paid out to the owners as wages) at the business tax rate, rather than at the marginal rate applied to other income of the owners.

It is important not to claim too much for the SAT.<sup>27</sup> The individual portion of the SAT is essentially the same as the taxation of labor income under a standard income tax; it involves no major simplification, at least relative to a sensible income tax. Perhaps the most important difference—aside for the exemption of interest and dividends—is that home mortgage interest is inherently non-deductible in the SAT framework, whereas the desirability of deductibility is more debatable in the income tax context.

The SAT facilitates compliance for (and administration of the tax on) honest taxpayers who want to pay the proper amount of taxes, but have difficulty in doing so, because of complexity. It will do relatively little directly to curb certain abusive practices or to facilitate taxation of the "hard-to-tax" groups.<sup>28</sup> In this area there is no substitute for proper administrative procedures and diligent effort. But the SAT will help indirectly by freeing administrative resources that would otherwise go into implementation of complex provisions.

## V. ECONOMIC EFFECTS OF THE SAT

The SAT is, under certain conditions, equivalent to a tax only on income from labor; that is, to a tax that exempts the return to investment. This is most clear in the case of interest and dividends, which are explicitly exempt from the individual tax.<sup>29</sup>

### A. Exemption of the Return to Invested Capital

What is less clear is that income from other investments is also, in effect, tax exempt.<sup>30</sup> This can be seen from a simple example. Consider the case of an equity-financed investment of \$1,000 that yields \$200 or 20 percent one year later. If the company tax rate is 30 percent, the company only invests

\$700 of its own money, since the deduction of \$1,000 results in a tax saving of \$300 (assuming the company can fully utilize the deduction of \$1,000 resulting from expensing of the investment, an issue to be addressed in the next section). Tax of \$360 must be paid on "taxable income" of \$1,200 in the second year, leaving net after-tax income of \$140 (\$1,200-\$700-\$360), or 20 percent of the initial investment of \$700 of own company funds.<sup>41</sup> Since the net rate of return on company funds is the same as in the absence of tax, the marginal effective tax rate (METR) is zero.<sup>42</sup>

Economists commonly cite the implicit exemption of the return to saving as one of the primary advantages of consumption-based taxes such as the SAT. My own view is that while this is an important advantage, the administrative advantages described above are even more important.

#### B. Taxation of Extraordinary Returns

Even though the SAT essentially exempts the return from capital, it allows the state to share in extraordinary returns to investments. In the above example, the government also earns 20 percent on its investment of \$300 in forgone tax revenues; this is true even if the competitive return is only 10 percent. In a sense the fisc is a silent partner in all investments.

This feature could be very important in economies in transition from socialism, where extraordinary returns are likely to be common. To see this, consider these cases: the profits attributable to trademarks such as Coca Cola and McDonald's; the profits that will be made if state enterprises are privatized on terms that are too generous to private investors; the profits that will be made when inefficient but viable state enterprises become efficient; and the returns from the exploitation of natural resources.

#### C. Investment Incentives

As indicated above, the return to investment is effectively exempt under the SAT. This should be a powerful incentive for saving and investment—and one that avoids the problems of targeted incentives: the need to pick winners and losers, the risk of economic distortions, the complexity, the opportunities for abuse, and the real and perceived inequities.

It is interesting to compare risk-taking under the SAT and under a generalized system of perpetual tax holidays.<sup>43</sup> Under both the marginal effective tax rate is zero. But, as just noted, under the SAT the government is a partner in all investments; thus it shares in the cost of investment (via expensing) and in all returns, be they extraordinary returns, normal returns, low returns, or losses. (The full validity of this statement depends on the treatment of losses, an issue to be addressed in the next section.) By comparison, in the case of holidays the government is not a partner, since it does not share in the cost of investment or in either gains or losses. (This is actually an optimistic assessment. It is fairly common for governments to allow, if not always intentionally, deductions to be taken for at least some expenses of holiday firms. This means that losses are subsidized and that the METR on profitable activities is negative.)

This has several important implications. First, under an income tax regime with tax holidays, if the government wants to share in the returns to extraordinarily profitable investments it must identify the opportunities for such investments and explicitly make the investments, through state enterprises or joint ventures. This does not appear to be consistent with the sentiments for privatization running through the RSEs.<sup>44</sup>

Alternatively, the government can abrogate the laws providing tax holidays, once it sees which sectors are unusually profitable. Ordinarily this possibility might be dismissed simply by noting the folly of such a policy for a country that needs to establish a favorable investment climate in order to attract foreign investment. But some of the RSEs are already becoming aware that their holiday provisions are much too generous and may therefore be thinking of rescinding them.

Second, the up-front revenue cost of the SAT is higher than that of tax holidays. Third, the stimulus to risk-taking is greater under the SAT than under holidays if gains and losses are treated symmetrically under the SAT; see also the discussion of losses below.

Fourth, it may be more convenient to tax some employee fringe benefits by denying business deductions for them than to attribute them to employees and subject them to tax as labor income under the individual tax. This option does not exist under holidays.

#### D. Parity of state and private enterprises

It is important to achieve parity in the tax treatment of state enterprises and private firms during the period before privatization is complete.<sup>65</sup> Interest and dividends received by the state are inherently tax-exempt. Thus interest and dividends received by private investors should also be exempt. This implies non-deductibility of interest and dividends at the enterprise level. (Otherwise, the METR will be highly negative, considering the taxes levied at both the enterprise and shareholder/bondholder levels.) In combination, this suggests that the SAT is needed to achieve parity.

#### E. Parity of taxable and tax-exempt sectors

One problem found in many Western countries is the lack of parity between taxable and exempt sectors. Interest and dividends received by non-profit organizations are commonly exempt. Besides being non-neutral, this treatment opens the door for various forms of abuse. The SAT helps to achieve parity in these and similar situations. Because all interest would be exempt, that received by non-profit organizations would enjoy no special privilege.

In some countries, business income of non-profit organizations that is not directly related to their charitable purpose is subject to taxation. (For example, in the United States, income from "unrelated business activities" is taxed.) This seems entirely appropriate, if only to prevent unfair competition with the for-profit sector. Even if business income of non-profit organizations were to be exempt, the violation of parity would be less under the SAT (which effectively exempts the marginal return to investment) than under the income tax.

Some countries make the mistake of exempting the interest paid on the debt of governmental and quasi-governmental agencies. In the United States, for example, interest on the debt of state and local governments is exempt from federal taxation (and generally from the state income tax of the state in question). In many countries interest on all government debt is exempt.

This is an extremely inequitable and inefficient means of subsidizing the borrowing of such entities, since the revenue cost of such exemptions depends on the marginal tax rates that would have been paid by high-income lenders, but the savings in interest costs depend on the marginal rate paid by the marginal lender. By exempting all interest income, the SAT would eliminate the differential advantage of public borrowing and the inequity and inefficiency it entails.

## VI. POTENTIAL PROBLEM AREAS

When offered in market economies, proposals for the SAT have run into predictable and potentially valid objections. For the most part these objections appear to be somewhat less telling in the context of countries in transition from socialism.

### A. Distributional Equity

The SAT effectively excludes the return to capital from the tax base. This can be appraised in two ways. First, the SAT is less progressive than is an income tax levied at the same rates. This is troublesome in the developed countries of the West—and even more so in LDCs—because the ownership of capital is highly concentrated.<sup>68</sup> This might be less important in RSEs than in market economies, despite the greater weight given to distributional considerations in the former, if the ownership of capital following privatization were much less concentrated than in the West.<sup>69</sup> The degree of concentration will depend on exactly how privatization is achieved, that is, via vouchers distributed equally to all citizens, distribution of enterprise shares only to workers and managers of the enterprise, sale of assets, or "spontaneous privatization" (in which enterprise managers "take the enterprise private," often by means of questionable legality).

Second, a society that has been raised to believe that profits and other returns to capital are not to be tolerated may have considerable difficulty in swallowing the notion that income from capital is effectively to be exempt. This political problem may initially be ameliorated by the fact that profit appears to be taxed under the SAT, even if interest and dividends are not. Eventually—and perhaps very soon—it would become apparent that many who have large economic incomes were paying little or no taxes.<sup>68</sup>

This problem of inequity—and the perception of inequity—would be especially important in the case of banks and other financial institutions. Because interest income is exempt and interest expense is non-deductible, the entire profit margin earned from financial intermediation would be tax exempt, as is the income earned from providing services of intermediation (which is commonly included in exempt interest income). It has been proposed that a special tax might be imposed on this sector.<sup>69</sup>

Third, there is the important issue of whether it is appropriate to define equity in terms of "opportunities," instead of in terms of "outcomes." Under the income tax (and under an alternative form of consumption-based tax called the tax on consumed income), those who "strike it rich" on their investments pay high taxes (except to the extent earnings are reinvested, in the case of the tax on consumed income), whereas under the SAT all returns to investment are exempt.<sup>70</sup>

### B. Losses

Another of the potentially troubling problems of the SAT is that, because of expensing, tax losses would occur more frequently than under a standard income tax. New companies are especially likely to incur tax losses. Simple carry forward of losses (without interest) is not a totally satisfactory solution, for if deductions for investments cannot be utilized immediately, the economic benefits of the SAT would not be fully realized, and some of the simplicity benefits would also be lost. Moreover, there is the potential problem that the firm may never have the income necessary to absorb the losses, which are based on expensing, and not on depreciation allowances. This is especially true of rapidly growing firms.<sup>71</sup> This prospect can be expected to dampen the theoretical incentives for investment and risk-taking provided by the SAT.<sup>72</sup>

The economic benefits of the SAT could be retained if refunds equal to the product of the tax rate and the amount of losses were paid currently.<sup>23'</sup> Such refunds are commonly opposed, due to the risk of fraud and the administrative burden of preventing abuse. While refunds of this type are paid under the VAT employed in the EC, as well as the VATs of many other countries, some countries will not make large refunds, especially to new firms, without first verifying their validity. An additional problem is the appearance of unfairness that occurs when profitable companies and wealthy individuals (operating businesses as companies) receive tax refunds.<sup>24'</sup>

An alternative is to allow tax losses to be carried forward with interest. While clearly superior to carry forward without interest, this adds somewhat to complexity and does not address the problem of perpetual tax losses.

It is important to place this problem in perspective. Targeted investment incentives under an income tax are likely to create similar problems of unused tax benefits. Even tax holidays can create complexity, whether or not firms are allowed to postpone deductions that are worthless during the holiday period until after the holiday has expired. Moreover, holidays create opportunities for abuse not found in the SAT.

### C. Investment Hunger

Kornai has emphasized the insatiable hunger for investment on the part of state enterprises that face a soft budget constraint.<sup>25'</sup> Some countries with socialist economies impose taxes on investment spending in the attempt to suppress this investment hunger.<sup>26'</sup> Some may fear that immediate expensing of capital goods under the SAT would aggravate the excessive demand for investment.

This concern can be addressed on several levels. First, including gimmicks in the tax system is no substitute for a rational system of ownership, control, and incentives for management to be concerned about profitability. Where private firms are concerned, there is little reason to expect expensing to lead to irrational demands for investment, as long as the tax rate is moderate and there is no expectation of state bail-outs for those who lose money. The situation is more worrisome in the case of state enterprises, which historical experience has given reasons for such expectations. This emphasizes the need for privatization to occur as rapidly as practicable and for managerial incentives to be rationalized where rapid privatization is not possible.

Beyond that, there is little reason to fear that expensing under the SAT would provide a unique spur to investment hunger, if the alternative is investment incentives, tax holidays, etc. or an income tax with negative METR for debt-financed investment under inflationary conditions. Presumably these policies would have similar effects if their benefits were equally available.

### D. The Cost of Debt Capital

The inability to deduct interest might make foreign-source debt capital too expensive for enterprises operating in an RSE employing the SAT. This might necessitate the allowance of deductions for interest (and presumably for dividends, in order to maintain parity between the two types of financing). This, in turn, would call for taxation of interest received by residents (collected in large part through withholding) and perhaps withholding taxes on interest paid to foreigners.<sup>27'</sup>

Such a compromise has several disadvantages. First, it would destroy the parity in the tax treatment of enterprises owned by the state and those owned privately and the parity of the for-profit and

non-profit sectors . Second, it would increase the prevalence of tax losses and the problems associated with them. Third, it would reintroduce some of the complexities of the income tax (those related to timing of the recognition of interest income and the deduction of interest expense) and (unless interest deductions were indexed, at the cost of further complexity) render the tax vulnerable to the effects of inflation.

#### **E. Counter-cyclical Effects**

One potentially important characteristic of taxation--though one that is not currently in vogue--is automatic or built-in macro-economic stabilization. Thus tax liabilities would ideally increase during cyclical periods of prosperity (full employment and the threat of inflation) and fall during periods of cyclical weakness.

On this criterion the business portion of the SAT fares rather poorly, compared to a conventional income tax. (The individual portion of the SAT would resemble the portion of the income tax applied to labor income in this respect.) An investment boom would reduce tax liabilities under the SAT because of the effect of expensing. Conversely, tax deductions would fall with a drop in investment spending. By comparison, deductions for depreciation allowances under an income tax remain relatively stable, being determined largely by prior events, rather than current investment.

It is difficult to know how much weight to accord the lack of automatic stabilization. The traditional Keynesian view is that built-in stability is very important; extreme monetarist and rational expectations views would discount this feature heavily.

#### **F. Accounting**

Countries in transition from socialism commonly lack the generally accepted accounting practices (GAAP) found in the West. This hampers the development and implementation of a modern income tax, as well as the development of business more generally. In addition, many small businesses are likely to lack the ability to implement sophisticated accounting systems.

To some extent the SAT sidesteps both problems by providing cash-flow tax treatment of many receipts and expenditures, including investment in depreciable assets and purchase of inventories. Moreover, neither borrowing and lending nor payment and receipt of interest has any tax consequences under the SAT. This simplification advantage is (or will be) partially offset by the fact that as GAAP develops firms will need to keep dual records, one set based on GAAP and one based on the SAT conventions. By comparison, choosing the income tax model should encourage more rapid development of GAAP. (There is some risk that those responsible for the development of GAAP would seize on the SAT rules for financial accounting. Any such tendency should be resisted, since these rules are not appropriate for judging the financial performance of enterprises.)

This problem is easily overstated, because the tax returns under the SAT would be fairly simple and would be based on much of the same information as income tax returns, but without the complexities inherent in compliance with a satisfactory income tax law--one that handles timing issues and inflation adjustment adequately. Perhaps more important, any difficulties of this type are dwarfed by the more common problem found in the United States, some other Western countries, and many LDCs: ad hoc divergence between GAAP and the calculation of income for tax purposes. Such divergence can be traced to failure to adopt GAAP for tax purposes in such areas as installment sales, inventory accounting, etc. and to incentives such as tax holidays and accelerated depreciation. As noted earlier, the SAT eliminates

the first set of issues and makes targeted incentives redundant and unnecessary. On balance, this does not appear to be a matter of major concern.

#### G. Manipulation of Transactions<sup>78/</sup>

Under the SAT some economically similar transactions would be treated very differently. For example, lease payments would be deductible and taxable, whereas interest would be non-deductible and non-taxable. This opens the way for manipulation of transactions between two persons, one of whom is taxable under the business tax and the other of whom is not. (There is generally no advantage to such manipulation when both parties are either taxable or non-taxable under the business tax.) For example, a taxpayer might simultaneously lease a building to a tax-exempt organization at below-market rent and borrow from the organization at a below-market rate of interest. Alternatively, it might make an installment sale to such an organization—or to an individual—at an understated price and an overstated rate of interest.

Solutions to this problem might involve floors and ceilings on interest rates and/or the taxation of certain business activities of tax-exempt organizations. Though this problem deserves further scrutiny, it does not appear to be important. A related and potentially more important source of problems is the overstatement of the purchase price of imported assets. (It would generally do no good to inflate the price of assets produced locally, for reasons indicated above.) Since assets can be written off in the first year, there may be an incentive to overstate their value. If substantial customs duties are applied to such imports, this abuse is unlikely; in some countries, however, such imports are duty free or subject to low tariffs. Of course, one hopes that the RSEs will employ only low and uniform tariffs. The VAT would not have much effect in preventing this practice, since it is creditable against future liabilities. It should be noted that similar abuse is possible, though in attenuated form, under a conventional income tax.

#### H. International Issues

It is unclear whether the United States would allow foreign tax credits for the company SAT.<sup>79/</sup> Credit is allowed only for net income taxes paid to foreign governments. This restriction is intended to prevent credit being taken for gross receipts taxes, severance taxes, royalties, etc., especially those levied by oil-rich nations. It can be argued that the SAT is not a tax on net income, because no deduction is allowed for interest expense.

If the SAT were not creditable, several concerns would arise. First, the country adopting the SAT might be giving up the opportunity to have part of its tax bill paid by the U.S. government.<sup>80/</sup> Second, a non-creditable tax might discourage investments by U.S. multinational corporations in RSEs adopting the SAT.

I believe that the SAT should be creditable; of course, this line of reasoning may not be found convincing.<sup>81/</sup> First, the SAT is less burdensome than a tax on real net economic income, not more; this is indicated by the METRs under the two taxes: zero under the SAT; statutory rate under the income tax. Moreover, revenues are likely to be lower under the SAT than under an income tax levied at the same rate.<sup>82/</sup> Second, the SAT clearly has economic and administrative advantages that recommend it over the income tax; it is not just a gross receipts tax being levied to soak up foreign tax credits. Finally, for the portion of the income tax base that is common to the base of the SAT, extraordinary profits, the two taxes are identical. In short, the SAT should be creditable.



This issue can easily be overstated. First, creditability is an issue only for repatriated earnings. For income financed by reinvestment of retained earnings, the effects of taxation resemble those of a territorial system.<sup>82/</sup>

Second, a tax with a METR of zero, even when combined with the US tax on repatriated earnings, is unlikely to have much disincentive effect on investment in the host country.

Third, as a result of the rate reduction and other features in the 1986 tax reform many American multinationals have excess foreign tax credits (that is, they have paid more foreign taxes than they can credit against U.S. liability, because of statutory limits on the availability of the U.S. credit).<sup>83/</sup> Excess credits can only be carried backward two years and forward five years (without interest). Because of the American use of an overall limitation on the foreign tax credit, such companies would not be able to take credit for an income tax levied by an RSE, even if the tax were, in principle, creditable. In other words, there may be little practical difference between a creditable income tax and a non-creditable SAT; neither would actually be credited.

There is, however, more to the story than this. First, not all American firms have excess foreign tax credits. Second, similar questions must be addressed for other countries employing worldwide taxation based on the residence of the taxpayer and offering foreign tax credits for source-based income taxes.

Third, any country knowingly adopting a non-creditable tax would be in a vulnerable position. If the United States were to raise its corporate income tax rates enough to restore the "umbrella" over the tax systems of other countries, any country adopting a non-creditable tax could be placed in a worse position than if it had adopted a creditable tax.

Fourth, the creditability of the company tax may have symbolic importance over and above the number of dollars of U.S. tax offset by the foreign tax credit. In this respect creditability may resemble the existence of a double taxation treaty. There are good reasons to question whether developing countries benefit, on balance, from treaties concluded with developed countries. Much the same question can be raised about treaties between RSEs and developed Western countries. Yet the existence of a system of tax treaties may be thought to be important as providing evidence of a stable investment environment. Much the same may be said of the symbolic importance of creditability.

The hybrid system described above in the section on the cost of capital would eliminate concerns about creditability. A tax that allowed a deduction for interest expense would clearly be creditable. But, as noted there, such a system is not without its own problems.

## I. Transition Issues

The shift from an income tax to the SAT would pose difficult transition problems for a Western market economy. These involve primarily how to treat the undepreciated basis of assets and interest on outstanding debt, in order to avoid windfall gains and losses.<sup>84/</sup> This is much less problematical in economies in transition from socialism.

First, under the system of enterprise taxation based on "balance sheet" profits, some interest is not deductible; in addition, interest rates have tended to be exceptionally low (e.g., one percent on some loans in Bulgaria). Thus shifting to a system in which interest is not deductible is not a major change.

In addition, since there have been no deductions for depreciation, there is no issue of how rapidly to allow the remaining basis to be written off.

Second, if the SAT could be introduced quickly, before privatization, windfalls would be experienced largely by state-owned enterprises, rather than by individuals and privately owned companies. Under some forms of privatization windfalls would also be less troubling than in the West, even if experienced by private investors. In particular, one could hardly complain about windfalls if the SAT were introduced just after all citizens received equal shares in all enterprises (or vouchers that entitled them to such shares) and no private investment had yet occurred. Of course, the longer introduction of the SAT—or any new direct tax system—is postponed, the more the transition issues resemble those in the West. The windfall problem could be alleviated, though at the cost of increased uncertainty, by making it clear to prospective buyers and investors that a system such as the SAT is being considered.

Third, in many countries making the transition from socialism the issue is essentially one of introducing a new tax system where a workable system has not existed, rather than substituting one workable system for another. (Again, delay will render this assessment inaccurate, since elements of Western style income taxes are being introduced.) Unlike the situation in Western countries, maintenance of the status quo is not a viable option; these countries must abandon their present flawed systems. Similar transition problems will be faced whether the shift is to the SAT or to a conventional income tax. The transition to the SAT may be no more difficult than the transition to a conventional income tax.

This is especially true once one considers the need to deal adequately with issues of timing and inflation adjustment described above. At high rates of inflation, most of nominal interest payments would be disallowed as deductions or excluded from income; disregarding all such payments may involve only a minor difference. Of course, the administrative and compliance effort needed to introduce a tax on real economic income is far greater than that needed for the SAT.

Finally, and most important, any transition problems resulting from the introduction of the SAT are likely to be swamped by the larger transition effects of moving from a command economy, with state ownership, controlled prices, etc., to market economies with private ownership of property, market-determined prices, etc. The present transition period offers unparalleled freedom to choose the best and most appropriate tax system available, relatively unencumbered by past choices.<sup>86</sup>

#### J. "No one does it"

No country in the West has wanted to be the first to introduce the SAT.<sup>87</sup> (That international tax conventions are based on the income tax is a different issue; it is discussed above.) The argument that no one has ever tried the SAT is less telling in countries emerging from socialism, since no country has ever tried to make the transition from a command economy to free markets, either.

A slightly different reaction commonly heard in the countries of Central and Eastern Europe is that they do not want to be used as guinea pigs for an experiment Western countries are unwilling to undertake at home. While this reaction is understandable, it really does not seem appropriate. The thesis of this paper is that the SAT may be more appropriate for RSEs than is a conventional income tax, for the reasons stated. If the reasoning presented here is not found compelling, the SAT should be rejected.

In making this judgement, one should clearly be aware of the costs of being mistaken. The primary risk seems to be the up-front revenue loss resulting from expensing and the transition problems that would result from the need to switch subsequently to a system in which interest is taxable and

deductible (and the related problems involved in changing the tax treatment of dividends). Taxpayers would not object to allowing deductibility for interest on existing indebtedness (or for dividends); the primary problem would be one of revenue loss. By comparison, creditors (shareholders) would object to the taxation of interest income from existing debt (dividends on existing stock). It would, of course, be undesirable to allow interest deductions without taxing interest income. Since the marginal tax rates of most borrowers are likely to be higher than those paid by most lenders, it seems likely that borrowers and lenders could work out voluntary arrangements to restructure debt incurred under the SAT for an income tax world.

#### K. Relation to the VAT

In his recent book, *The Road to a Free Economy*, Janos Kornai (1990, pp. 125-31.) argues that Hungary (and by implication, all economies in transition from socialism) should adopt three types of taxes as their primary sources of public revenue: a linear consumption tax such as the value added tax, a linear (non-progressive) payroll tax, and a linear (non-progressive) profit tax. He urges this approach to achieve three objectives: simplicity, economic neutrality, and non-progressivity. The SAT clearly resembles an amalgam of the last two of these (but it might well be levied at graduated rates on labor income). It is most commonly thought of as a substitute for the individual and company income taxes.

The SAT is also quite similar to the subtraction-method VAT. (This is shown in appendix B.) But, because the SAT can accommodate personal exemptions and graduated rates on income from labor, it has distributional advantages not shared by any extant VAT. It would be fairly easy to duplicate the basic distributional effects of the SAT at the low end of the income scale through the combination of a VAT and a system of grants based on labor income and the size and composition of families; it is, however, difficult to achieve the full range of rate differentiation provided by the SAT.<sup>227</sup> This raises the question of whether it makes sense for a country to have both a VAT and the SAT.<sup>228</sup> One can imagine a system in which the SAT substitutes for both the VAT and the individual and company income taxes (and for payroll taxes).

The answer seems to depend in part on whether the country in question has aspirations of joining the European Community. If it does, there is no real alternative to adopting an EC-type VAT; in that case, the only question is whether to adopt the SAT instead of a conventional income tax. The discussion to this point has implicitly taken this question as the point of departure.

For a country not likely to be joining the EC anytime soon the question is more complicated. Administrative resources would be saved by concentrating them on one tax. But this benefit would be achieved at the risk of putting "all the revenue eggs in one basket," a serious issue in countries that a) can hardly afford serious revenue shortfalls, b) have little experience in tax administration, and c) can expect evasion to be a serious problem. If these fears can be overcome, the SAT would be the logical choice for the single revenue source, since the SAT is much simpler than the conventional income tax, and the individual component of the tax can be "personalized" to take account of the individual circumstances of taxpayers in a way that the VAT cannot be. Moreover, the individual SAT can include graduated rates.

There are, however, international issues to be addressed in this discussion. We have seen above that the SAT may be judged not to be creditable against the income tax of the United States (and perhaps those of other countries). Ironically, it is also possible that border tax adjustments (BTAs, compensating taxes on imports and rebate of tax on exports) would not be allowed for the SAT, on the grounds that it is not an indirect tax, the only type for which BTAs are allowed under the General Agreement on

**Tariffs and Trade.** Thus we would have the worst of both worlds--no foreign tax credit and no border tax adjustments. It seems likely, however, that the tax could be structured to avoid one of these adverse judgements.

## VII. CONCLUDING REMARKS

Countries emerging from socialism must move quickly to implement tax systems that will allow them to finance the proper functions of government in a non-inflationary manner. Yet, they are ill-prepared to cope with the intricacies of a standard income tax. They lack the accounting practices, the tax administration, and the experience with tax compliance to make an income tax work well. It is important to design tax policy with these limitations in mind, rather than simply ignoring them during the (possibly long) period when they remain significant impediments. Indeed, I would argue that administrative considerations should weigh almost as heavily as economic effects in the choice of a tax system for a country emerging from socialism.<sup>29</sup>

This paper suggests an alternative to the income tax, the SAT, that encourages saving and investment in a way that is economically neutral and avoids many of the administrative problems of an income tax, especially those stemming from timing issues and the need for inflation adjustment. The SAT is not a panacea. But I believe it deserves serious consideration.

## Appendix A

### Relation of SAT and Income Tax<sup>21/</sup>

Tables A-1 and A-2 are constructed to show the relationship of the SAT to the conventional income tax. They are based on the simplifying assumption that an investment of \$1,000 in a real asset that lasts exactly one year is made at the end of year 1. To simplify the example, we assume that there are no expenditures other than those for the initial investment and (in Table A-2) interest expense. The investment yields a 20 percent return. Under these assumptions expensing gives a tax deduction of \$1,000 in year 1, but economic depreciation postpones the \$1,000 deduction to year 2, when the asset is assumed to become valueless. In either event, gross receipts are \$1,200 in year 2, representing the return of principal of \$1,000 and the before-tax yield of 20 percent or \$200.

Table A-1 considers the case of 100 percent equity finance. In the top half of the table economic income is the tax base; thus income is calculated using economic depreciation. Income is \$200; tax is \$60, calculated using an assumed tax rate of 30 percent, and net (after tax) income is \$140.

The bottom half of the table illustrates the SAT. In it expensing of \$1,000 produces a tax saving of \$300 in the first year, so that the private investment of "own" funds is only \$700.<sup>22/</sup> Since there are no year 2 deductions for expenses, tax is 30 percent of \$1,200, or \$360, and net income is again \$140 (\$1,200 - \$700 - \$360).

It is important to emphasize the similarities and differences in these results.<sup>23/</sup> In both cases the net income is \$140. But in the income tax case the private investment is \$1,000, while in the SAT case it is only \$700, due to the benefits of expensing. Thus the net return is only 14 percent ( $.14 = 140/1,000$ ) in the income tax case, but 20 percent in the SAT case ( $140$  as a percent of  $700$ )—just as in the absence of taxation. Whereas the METR is equal to the statutory rate in the income tax case, it is zero in the SAT case.

It is easy to see why the SAT result occurs. Because of expensing, the government becomes a partner in the investment, sharing both the cost of the initial investment and the return (gross of depreciation). Note that we have not specified the normal rate of return. The government is a partner-- and the METR is zero--no matter whether the project earns more or less than a normal return.

Table A-2 considers the case of 40 percent equity finance with debt carrying an interest rate of 20 percent. Under the income tax interest of \$120 is deductible in the second year. This reduces taxable income to \$80; income tax is \$24 and net income is \$56 or 14 percent of the initial equity investment of \$400. Thus the effective rate of tax on equity equals the statutory rate of 30 percent, as in the all-equity case.

The result for the SAT in the case of debt finance is again a METR of zero. This can be seen from the following. Because of expensing and debt-finance, "own" investment is only \$100 (\$1,000 - \$600 debt - \$300 tax saving attributable to expensing).<sup>24/</sup> After tax income is \$20 (\$1,200 gross receipts - \$600 repayment of debt - \$360 tax - \$120 interest - \$100 own investment); thus the return to capital is 20 percent, the same as in the no-tax situation. (Own investment of \$400 and net income of \$80).

**Table A-1**  
**Comparison of SAT and Income Tax,**  
**100 Percent Equity Finance**  
**Investment Yielding 20 Percent**

| Tax/transaction                                    | Year 1<br>(a) | Year 2<br>(b) |
|--|---------------|---------------|
| <u>Income Tax (with economic depreciation)</u>     |               |               |
| Gross receipts                                     | 0             | 1,200         |
| Depreciation                                       | 0             | 1,000         |
| Taxable Income                                     | 0             | 200           |
| Income tax (30%)                                   | 0             | 60            |
| After-tax income                                   | *             | 140           |
| "Own" investment                                   | 1,000         | *             |
| After-tax return on "own"<br>funds                 | *             | 14            |
| Effective tax rate on "own"<br>funds               | *             | 30            |
| <u>Simplified Alternative Tax (with expensing)</u> |               |               |
| Gross receipts                                     | 0             | 1,200         |
| Expensing  | 1,000         | 0             |
| Taxable income                                     | -1,000        | 1,200         |
| Income tax (30%)                                   | - 300         | 360           |
| After-tax income                                   | *             | 140           |
| "Own" investment                                   | 700           | 0             |
| After-tax return on "own"<br>funds                 | *             | 20            |
| Effective tax rate on "own"<br>funds               | *             | 0             |

**Table A-2**  
**Comparison of SAT and Income Tax,**  
**40 Percent Equity Finance**  
**Investment Yielding 20 Percent**

| Tax/transaction                                    | Year 1 | Year 2 |
|--|--------|--------|
|  | (a)    | (b)    |
| <u>Income Tax (with economic depreciation)</u>     |        |        |
| Gross receipts                                     | 0      | 1,200  |
| Depreciation                                       | 0      | 1,000  |
| Interest expense                                   | 0      | 120    |
| Taxable Income                                     | 0      | 80     |
| Income tax (30%)                                   | 0      | 24     |
| After-tax  | *      | 56     |
| "Own" investment                                   | 400    | *      |
| After-tax return on "own" funds                    | *      | 14     |
| Effective tax rate on "own" funds                  | *      | 30     |
| <u>Simplified Alternative Tax (with expensing)</u> |        |        |
| Gross receipts                                     | 0      | 1,200  |
| Expensing  | 1,000  | 0      |
| Taxable income                                     | -1,000 | 1,200  |
| Income tax (30%)                                   | - 300  | 360    |
| Interest expense                                   | *      | 120    |
| After-tax income                                   | *      | 20     |
| "Own" investment                                   | 100    | *      |
| After-tax return on "own" funds                    | *      | 20     |
| Effective tax rate on "own" funds                  | *      | 0      |

## Appendix B

### Relation of SAT to VAT<sup>29</sup>

The SAT, which is commonly considered to be a substitute for the income tax, bears a striking resemblance to one form of value added tax. This is shown here, in order to provide background for the question addressed in section VII: does it make sense for a country to have both a VAT and the SAT?

#### 1. The basic analysis

Table B-1 illustrates the relationship of the SAT to two types of value added tax, the subtraction-method tax employed in Japan and the credit method tax used in the EC and most other countries that have VATs. The first four lines of the table indicate the assumptions on which the example rests. It is assumed that there are three stages in a linear process of production and distribution. Farmers grow wheat, using only hired labor and no purchased inputs; millers hire labor, buy all the wheat, and convert it into flour, which is sold only to bakers; the bakers produce bread, which is sold only to households. To simplify the comparison, it is assumed that the three taxes are all imposed at a rate of 10 percent; thus there are no exemptions or zero rates under the VAT. Moreover, under the SAT of this example there are no personal exemptions, itemized deductions, or graduated rates.

Value added in each of the three stages can be measured alternatively as the difference between sales and purchases or the sum of wages and salaries and "profits." Profits is enclosed in quotation marks to indicate that it is calculated by deducting all purchases, including investments in capital goods and inventories, as under the SAT and consumption-based VATs, rather than using depreciation allowances and inventory accounting, as under a standard income tax. For the purpose at hand this distinction is not important, since all three taxes under discussion treat capital goods and inventories in the same way; if the comparison were with an income tax, as in Tables A-1 and A-2, or with an income-based VAT, the distinction would be important.<sup>29</sup> A more important distinction for the present purposes is the treatment of foreign trade under the three taxes; this is discussed at the end of this appendix.

The SAT system consists of two taxes, those on individuals and companies. The base of the business SAT (the "profits" of lines 4 and 9) is the difference between sales and the sum of purchases and wages and salaries. The individual SAT is imposed only on wages and salaries. The calculation of these two taxes is shown in lines 6 to 13.

The similarity of the SAT and the subtraction-method VAT is immediately obvious from a comparison of these calculations with those of lines 14 to 17. The sum of the base of the two SATs is identical to the base of the subtraction-method VAT. This is inevitable, since the base of the company SAT differs from that of the subtraction-method VAT by the amount of wages and salaries--which is the base of the individual SAT. Stating the tax bases algebraically:

$$\begin{aligned}
 \text{Total SAT} &= \text{Company SAT} + \text{Individual SAT} \\
 \text{Company SAT} &= \text{Sales} - \text{Purchases} - \text{Wages \& Salaries} \\
 \text{Individual SAT} &= \text{Wages and Salaries} \\
 \text{Total SAT} &= \text{Sales} - \text{Purchases} = \text{Subtraction VAT}
 \end{aligned}$$



Of course, the possibility of personal exemptions, itemized deductions, and graduated rates weakens this equivalence, but the fact remains that the SAT shares characteristics of the subtraction-method VAT.<sup>97</sup>

It is also useful to compare the SAT with the credit-method VAT illustrated in the last three lines of Table B-1. Under the credit-method VAT tax is calculated by deducting taxes paid on purchases, as evidenced by invoices, from tax on sales. Provided there is only one tax rate that is uniformly applied to all transactions, the credit and subtraction methods produce identical results, as they do in the simple example of Table B-1. In more realistic situations in which there are exemptions and differential rates, the equivalence is only approximate, and there are good reasons for preferring the credit method.<sup>98</sup>

## 2. International aspects

It is important to consider now the treatment of international trade under the three taxes.<sup>99</sup> There are two standard ways in which trade can be treated. Under the "destination principle," tax is collected on imports, but not on exports. (Indeed, taxes collected before the export stage are rebated.) Thus the tax is levied on consumption, rather than on production. This is the approach used by virtually every country that has a VAT. The alternative is the "origin principle." Under it tax is not rebated on exports and is not collected on imports. Thus production is taxed, rather than consumption. This approach is not popular, because it appears to place a nation's producers at a disadvantage, relative to imports and in export markets.<sup>100</sup>

Whereas it is commonly taken for granted that credit-method VATs are based on the destination principle, it seems more likely that the SAT would, in effect, be an origin-based tax (if thought of in indirect tax terms). That is, as under an income tax, receipts from exports would presumably be included in gross "income" for tax purposes and a deduction would be given for purchases of imports, as well as for those of domestically produced goods. In this important sense the SAT and the VAT, as ordinarily implemented, would be quite different. (Since Japan's is the only example of an extant subtraction-method VAT, this comparison is limited to the credit-method VAT. In principle, a uniform subtraction-method VAT levied at a single rate could be imposed on either the origin or destination basis. Note, however, that it is very difficult to use the subtraction method to implement the destination principle if a single rate is not applied to all consumption.<sup>101</sup>)

This raises the interesting question of whether the SAT could be levied under destination-principle rules—a policy some would favor because of the apparent benefits to domestic producers. That is, could exports be omitted from the tax base and could a deduction for imports be disallowed? Under the General Agreement on Tariffs and Trade (GATT) border tax adjustments (BTAs—export rebates and compensating import taxes) are allowed for indirect taxes such as the VAT, but not for direct taxes such as the income tax. The question is: which type of tax is the SAT?

The answer is far from clear, in part because the definitions of direct and indirect taxes are not clear. As described thus far in this appendix the SAT appears to be equivalent to the subtraction-based VAT. But there is some question whether the GATT would treat the SAT as an indirect tax, despite its similarity to the credit-method VAT.<sup>102</sup> Once one adds personalization and graduated rates, the SAT looks more like an income tax and less like one for which BTAs should be allowed. But it would be fairly easy to duplicate the SAT through the combination of a credit-method VAT and a system of grants based on labor income and the size and composition of families.<sup>103</sup> This, plus the rough equivalence of the origin and destination principles, reemphasizes the question raised at the beginning of this discussion: does it make sense to have both the SAT and a VAT?

**Table B-1**  
**Relation of the SAT to Two Types of VAT**

| <u>Basic Transactions</u>         |        |        |       |       |
|-----------------------------------|--------|--------|-------|-------|
|                                   | Farmer | Miller | Baker | Total |
| 1. Sales                          | 300    | 700    | 1,000 | 2,000 |
| 2. Purchases                      | 0      | 300    | 700   | 1,000 |
| 3. Wages and salaries             | 200    | 200    | 200   | 600   |
| 4. "Profits"                      | 100    | 200    | 100   | 400   |
| 5. Value added                    | 300    | 400    | 300   | 1,000 |
| <u>Simplified Alternative Tax</u> |        |        |       |       |
| <b>Business SAT</b>               |        |        |       |       |
| 6. Sales                          | 300    | 700    | 1,000 | 2,000 |
| 7. Purchases                      | 0      | 300    | 700   | 1,000 |
| 8. Wages and Profits              | 200    | 200    | 200   | 600   |
| 9. "Profits"                      | 100    | 200    | 100   | 400   |
| 10. Business SAT                  | 10     | 20     | 10    | 40    |
| <b>Individual SAT</b>             |        |        |       |       |
| 11. Wages and salaries            | 200    | 200    | 200   | 600   |
| 12. Individual SAT                | 20     | 20     | 20    | 60    |
| 13. Total SAT                     | 30     | 40     | 30    | 100   |
| <u>Subtraction-Method VAT</u>     |        |        |       |       |
| 14. Sales                         | 300    | 700    | 1,000 | 2,000 |
| 15. Purchases                     | 0      | 300    | 700   | 1,000 |
| 16. Value added                   | 300    | 400    | 300   | 1,000 |
| 17. Tax                           | 30     | 40     | 30    | 100   |
| <u>Credit-method VAT</u>          |        |        |       |       |
| 18. Tax on sales                  | 30     | 70     | 100   | 200   |
| 19. Tax on purchases              | 0      | 30     | 70    | 100   |
| 20. VAT liability                 | 30     | 40     | 30    |       |

## Appendix C

### Advantages of the SAT Over the Tax on Consumed Income

Under certain circumstances the SAT is equivalent to a tax on labor income and economic rents and quasi-rents.<sup>104/</sup> In present value terms such a tax is also equivalent to a tax on consumption.<sup>105/</sup> The SAT is one of two consumption-based direct taxes that have been widely discussed in recent years, the R-based tax of the Meade Commission.<sup>106/</sup> Both taxes allow immediate expensing for capital investments, including purchases of inventories. The other, the R plus F-based tax of the Meade Commission, includes borrowing, as well as interest income, in the tax base and allows a deduction for lending and repayment of debt, as well as for interest expense. The base of such a tax is clearly consumption or "consumed income." The SAT is much simpler to administer than the R plus F tax and is the only one considered here. This appendix presents only two examples of this greater simplicity.<sup>107/</sup>

Under the SAT neither debt transactions (principal) nor interest has any tax consequences. By comparison, under the R plus F-based tax both principal and interest do have tax consequences. This means that withholding would be much more complicated under the latter tax. Not only would withholding be required for borrowing (with "reverse withholding" for lending and repayment of debt); borrowing for consumption purposes would affect tax liability, making accurate withholding more difficult.

Opportunities for abuse would be greater under the R plus F-based tax than under the SAT. A particularly worrisome form of abuse would occur during transition to the former type of tax. Taxpayers who took funds out of the country--including funds borrowed for the purpose--could channel them back to give the appearance of increases in savings.

## ENDNOTES

1. On this problem, see McKinnon (1990) and Feige (1990).
2. For further discussion, see Holzman (1954), Wanless (1985), Gray (1990) and McLure (in process, a).
3. Gray (1991) gives a brief description of the situation in Hungary, Poland, Czechoslovakia, and the USSR. McLure (1991, b) does the same for Bulgaria.
4. In private correspondence Richard Bird has noted the irony of this. In market economies the lack of control over state enterprises creates problems. But the privatization of such enterprises in RSEs threatens to create budgetary problems, because of lack of fiscal control.
5. For the suggestion that itinerant tax advisers have frequently sold LDCs tax policies that were inappropriate to their circumstances, see McLure and Pardo (1991).
6. On the worldwide tax reform movement, see the papers in Gillis (1989), Boskin and McLure (1990), and Shirazi and Shah (forthcoming). Perhaps it should be noted that what I call the "Swiss cheese" model of taxation in (McLure, 1991, b) was not adopted in response to the advice of responsible foreign advisors; it reflects home-grown interventionist attitudes, presumably created and nurtured by decades of central planning. Responsible foreign advisors are recommending against the use of such gimmicks.
7. As noted in section V, the SAT is equivalent to exemption of the return to investment. In present value it is equivalent to a tax on consumption under certain circumstances. See McLure *et al.*, (1990) chapter 8. The SAT belongs to a family of direct taxes usually characterized as consumption taxes. It should be emphasized that the SAT is not the expenditure tax briefly and unsuccessfully introduced by India and Ceylon (now Sri Lanka) some thirty years ago. Though the SAT shares certain important characteristics of that tax, it differs in ways that simplify administration. See McLure *et al.*, (1990), Zodrow and McLure (1988), or McLure and Zodrow (1990), as well as the appendix to the present paper.
8. These are discussed more fully in McLure (1991, a) and (1991, b).
9. East Germany is omitted from this list because of reunification with West Germany. It now looks that Albania may soon be added to the list. Concentration on RSEs in Central and Eastern Europe reflects the author's primary interest in that area; most of what is said would be equally applicable in other geographic areas.
10. Of course, the problems may be significantly different if one is writing about policy for one of the republics, instead of policy for the union; see McLure (in process, c)
11. On the need for stability in the investment climate, see McLure (1991, a), which draws heavily on Litwack (1989).
12. Janos Kornai has suggested this classification in correspondence with the author.

13. On soft budget constraints and their implications, see Kornai (1979). In most RSEs much of enterprise tax revenues go to pay subsidies to enterprises that suffer losses. In some cases the payment of taxes may have simply increased losses and bank credit to enterprises; thus enterprise borrowing from banks may have substituted for government borrowing as a source of money creation and inflationary pressure. The distinction between taxes and profits has traditionally made little difference in this sector, since both accrue to the state. This is, of course, precisely one of the reasons that managers of state enterprises have little incentive to maximize profits. Prescriptions for using tax policy in the attempt to harden the budget constraint are beyond the scope of this paper.
14. Indeed, in the Soviet Union, there are effectively two moneys, what households receive as wages and use to make their purchases and that used within the enterprise sector. The latter cannot be converted into the former, except with the permission of the planners. See McKinnon (1990) or (1991).
15. This evocative term comes from Radian (1979), chapter 6.
16. For a discussion of this case, see Gray (1991). It may be worth noting that there is no attempt to assign tax instruments uniquely to various forms of socialism. Thus centrally planned economies have long relied on both profits taxes and turnover taxes, as well as confiscation of profits.
17. I am indebted to John Litwack for this observation, which he made in personal conversation.
18. Atkinson and Micklewright (1991) report distributions of labor income in some RSEs that appear to be no more equal than those in some Western countries.
19. For the view that such pressures should be resisted, see Kornai (1990), pp. 122-25.
20. "Spontaneous privatization" (the euphemism applied to the abusive "roll-your-own" privatization in which members of the nomenclatura, in essence, sell or otherwise appropriate to themselves state enterprises or their assets at bargain prices) would produce a much more concentrated initial ownership of companies and of wealth in general than would distribution of shares or vouchers to all citizens.
21. This is true, even though the VAT used in the EC is not necessarily the best model. The New Zealand VAT is superior.
22. See Hartman (1981).
23. These developments are explained more fully in McLure (1990, b) and Slemrod (1991).
24. As noted in section V, the income tax also distorts the saving-consumption choice. That is an inevitable feature of the income tax, and not a distortion that results because of problems administering the tax.
25. This discussion draws on McLure (1988) and (1989a).

26. It is useful to separate losses in value that result from a decline in productivity from those that result from a decline in the price of the output the assets produce. Both are relevant for measuring economic income. But whereas the former is best seen as a matter of depreciation, the latter are more appropriately classified as capital losses.
27. This peculiar assumption is made for expositional convenience. It avoids the scrapping of the asset at the end of year 2, without complicating the calculation of present values of allowances taken at various times.
28. In the United States gains on assets transferred at death are never taxed. In the case of assets transferred through gifts, the recipient assumes the donor's basis in the asset. The first of these increases lock-in of assets held by aged and infirm taxpayers, but reduces it immediately after death. The second simply increases lock-in.
29. Unforeseen fluctuations in interest rates may, of course, create additional gains and losses.
30. Actually even this extreme approach is not the conceptually ideal solution. Strictly speaking, expenses should be deducted currently, but increases in wealth represented by increased earning power should be included in income for tax purposes. This is even more problematical.
31. Inequity is apparent, and not real, if capital is sufficiently mobile that all investments earn the same after-tax yield and differences in tax treatment are merely reflected in distortions. In general there is likely to be enough inertia in the system that tax shelters create real inequities as well as the perception of inequity. On perceptions of inequity, see also note 73 below.
- ~~32.~~ For more on "backstop" provisions, see McLure (1990a).
33. See Arthur Andersen (1986), p. 4.
34. It may be desirable to note explicitly at this point that this discussion involves only inflation adjustment in the measurement of income from business and capital. It ignores the separate and much simpler question of indexation of amounts specified in nominal (monetary) terms in the tax law, including personal exemptions, rate brackets, etc. See also Aaron (1976). Of course, the latter type of indexation should be provided.
35. This distinction is discussed further in McLure *et al.* (1990), chapter 7. The use of LIFO as a surrogate for indexed FIFO is analogous to basing depreciation allowances on replacement costs (rather than on indexed acquisition costs)—a practice that, like many other surrogates adopted for practical reasons, is also conceptually improper.
36. This version of "Fisher's law," unmodified to take account of taxation, is considered for simplicity. Modification would not change the nature of the argument.
37. Colombia took this approach in its 1986 reforms. The U.S. Treasury Department (1984) proposed an even less satisfactory system in which a fixed real rate of interest was assumed.
38. See McLure *et al.* (1990), chapter 7, for a complete description of this technique.

39. Historically price indices have often had little meaning in socialist countries, since many of the items in the consumer's market basket could not be bought at the prices set by the state. As prices are liberalized, the problems will be more statistical.
40. See Lipton and Sachs (1991), p. 114.
41. Mintz (1990) writes in a similar vein, "the income tax is inherently imperfect and complex."
42. See McLure (1979). Strictly speaking, under the so-called "new view" of the taxation of dividends, this argument applies only to equity finance via new issues of shares. This is the most relevant case in the context of RSEs, especially if the basic tax system is established before privatization occurs.
43. If the tax rate applied to the ordinary income of individuals is higher than the corporate rate, but that applied to capital gains is lower, the corporate form may be tax-preferred for activities giving rise to capital gains, but not for those paying out earnings currently.
44. In 1986 Colombia adopted an approach that, while not conceptually sound, seems appropriate for its situation, given the concentration of share ownership in the hands of the wealthy: it simply exempts dividends from shareholder taxation. Depending on how privatization is achieved, the extreme concentration of share ownership may not occur in RSEs. See also McLure (1991, b).
45. See McLure (1979), chapter 4. In Colombia, where the corporate tax rate is 30 percent, this is handled in a fairly simple way; dividends are exempt only to the extent they do not exceed 7/3 of corporate taxes paid. Corporations make this calculation and inform recipients of dividends whether dividends are taxable or exempt.
46. This section draws on earlier work with George Zodrow reported in Zodrow and McLure (1988); McLure *et al.*, (1990); and McLure and Zodrow (1990). See also appendix B.
47. This differs from the situation under the so-called expenditure tax (the R + F base of the Meade Commission), under which both the proceeds of borrowing and interest income are included in the tax base, and both repayment of debt and interest expense are deductible.
48. Thus individuals buying or selling non-financial assets would need to file business returns. In simple cases these could be additional schedules filed with the individual tax, as under many income taxes.
49. See McLure (1991, b).
50. By forgoing salaries, owners of businesses could, however, pass losses through to themselves to the extent of the salaries they would otherwise receive.
51. McIntyre (1983) suggests that homeowners might transfer their homes to wholly-owned corporations which would charge their owners below-market rents and use deductions for expenses to offset income from other sources. This scheme does not seem to be a major problem, since only homeowners with business income could benefit from it. It would be simpler to monitor rental rates set in these relatively few cases than to monitor imputed rents for all homeowners.

52. If the rate of inflation during the taxable period is extremely high it may be desirable to inflation adjust nominal amounts of transactions occurring within a given year to make them comparable; this possibility is ignored. In addition, the payment of interest on losses that are carried forward is more problematical if the inflation rate, and thus the interest rate, is high and variable.
53. This is identical to the situation under a consumption-based value-added tax levied using the subtraction-method. The similarity of the SAT to such a VAT is discussed further in Appendix B.
54. Like the dividend-paid deduction under the income tax (and unlike the shareholder credit), the SAT achieves symmetry in the tax treatment of debt and equity.
55. Under some proposals gifts and inheritances would be included in the tax base of individuals; see McLure *et al.* (1990), chapters 8 and 9. This would probably affect the accuracy of withholding for only a minute fraction of the population.
56. In some RSEs the lack of a mortgage deduction could be seen as a mixed blessing in the short run, when new construction and privatization of existing houses should be encouraged. Of course there are far better techniques than mortgage deductions for encouraging home ownership.
57. Thus there is no suggestion that the tax return could be placed on a postcard, as there is for a similar proposal in Hall and Rabushka (1983) and (1985). Thus many of the strong criticisms of the Hall-Rabushka scheme in McIntyre (1983) would be inapplicable. Some anti-abuse provisions would be necessary, but not as many as found in (or desirable) in many income taxes.
58. Mintz and Seade (1939) note, "the main avenues for evasion would probably not be affected at all, for in principle the informational needs and resources of the tax authority remain basically unchanged." Indeed, they note, the cash flow tax is less conducive than the income tax to the use of presumptive methods to determine tax liability. The same point has been made in McLure *et al.* (1990).
59. In essence, interest is taxed via non-deductibility and dividends are treated equivalently, instead of being subject to double taxation, as under the classical system, or asymmetrically, as under the imputation approach to integration. In the case of interest on bank accounts (and interest paid by other financial intermediaries), this effect of non-deductibility occurs when the borrower from the bank is allowed no deduction for interest expense.
60. See also Appendix A for further development of this theme.
61. It may be worth noting that "taxable income" is placed in quotation marks to indicate that, because expensing replaces depreciation, tax is being paid on the return of principal. By comparison, after-tax income of \$140 is being calculated relative to the initial \$700 investment of own funds.
62. The METR is the percentage by which taxation reduces the before-tax rate of return. See King and Fullerton (1984) or McLure *et al.* (1990), chapter 4.
63. Most tax holidays are available only in selected sectors and only for limited periods. Perpetual holidays are examined to increase comparability with the SAT. Generalized holidays are examined to avoid the problems of targeted holidays.



64. An alternative would be for the government to retain an ownership share in companies being privatized and to require a share in new ventures, either with or without purchase. Such schemes can be married with the SAT; see McLure (in process, c).
65. This paragraph draws on McLure (1991c).
66. Any desired degree of overall progressivity can be achieved by adjusting the rate structure. Of course, a more highly graduated rate structure would produce disincentives that could be damaging to economic development. Moreover, graduated rates in the SAT are not as effective as those in the income tax in dealing with concentration in the distribution of income from capital, given that the METR is zero under the SAT.
67. The problem could be reduced in either case by the existence of taxes on net wealth and gift and inheritance taxes. This issue is not pursued further, since it is somewhat distinct from the basic question of the suitability of the SAT for RSEs. It should, however, be noted that it is extremely difficult to have a net wealth tax with a base that extends far beyond real estate. The proposal in McLure *et al.* (1990, chapter 9) for a Colombian SAT was accompanied by the suggestions that gifts and inheritances be included in the tax base of recipients and that the net wealth tax should be retained. In fact, the tax was repealed as part of Colombia's 1988 tax changes. Atkinson and Micklewright (1991) surveys information on the distribution of income in Eastern Europe, finding substantial differences across countries and through time.
68. Sinn (1987), p. 349, offers the following pessimistic observation: "The decisive weakness of the proposals is the missing ability to include the taxation of personal interest income.... A reform that leaves the rentier's return untaxed cannot be made palatable to any of the world's parliaments."
69. See Kay (1988) and references therein.
70. The consumed income tax is what the Meade Commission (Institute for Fiscal Studies, 1978) calls the R plus-F tax. It is described briefly in Appendix C. For further discussion of the debate over "outcomes" versus "opportunities," see McLure *et al.* (1990), chapter 9.
71. The tax benefit of expensing is never recaptured as long as gross investment does not fall; of course, some tax would generally be collected in such a case. But McLure (forthcoming) notes that if the rate of growth of investment is at least as great as the rate of return on investment, an equity-financed firm will never incur tax liability. Similar propositions can be derived for less extreme forms of accelerated depreciation. This phenomenon helps explain the decision of the United Kingdom to return from expensing to depreciation allowances. Note, however, that the U.K. system did not combine expensing with disallowance of interest deductions.
72. In private correspondence Richard Bird has questioned the desirability of making the government an implicit partner in all investments. This concern seems misplaced, since a) private investors must risk their own money in order to risk the government's and b) the tax does not actually encourage risk-taking; it is neutral with regard to risk-taking.
73. In 1981 the United States achieved essentially the same effect for many firms, without paying explicit refunds, through "safe-harbor leasing," which allowed firms with no tax liability to transfer excess tax benefits to firms that could use them, through the use of transactions thinly disguised as leases. This approach proved to be politically unacceptable, and was soon repealed,

because many profitable firms were able to use the transferred benefits to pay no tax. Such a scheme might not be a long-run substitute for refunds, since tax losses might be so pervasive that there would not be enough tax liabilities to absorb the full benefits of the SAT.

74. See Tait (1988), pp. 307-8.
75. Kornai (1979).
76. Bulgaria, for example, has imposed a 5 percent tax on the Fund for Development and Technical Renovation, one component of which is accumulated depreciation. See Gray (1991) for experience in other RSEs.
77. Sinn (1987), chapter 11, has advocated such a tax. McLure (1991, b) offers such a hybrid between the SAT and the income tax as a fall-back position if the SAT is rejected. The fact that investors residing in countries that provide foreign tax credits might not benefit from the exemption of interest is discussed further below under "International Issues."
78. These issues are discussed further in Zodrow and McLure (1988), Sunley (1988), McLure *et al.* (1990), chapter 9, and McLure and Zodrow (1990).
79. In principle, this argument is equally applicable to other countries imposing income taxes on worldwide income and offering foreign tax credits. But the United States has the most stringent restrictions on creditability. McIntyre (1990) has argued that consumption-based taxes would not be creditable and should not be. Though McIntyre deals primarily with what the Meade commission called the R plus F type consumption-based tax (see Institute for Fiscal Studies, 1978), his arguments appear to be largely applicable to the SAT. For similar views, see Sunley (1988) and Kay (1988).
80. One person who commented on a previous draft of this paper found this sentence to express "a very American attitude." In my view, it is simply an objective statement of fact.
81. See McLure (1990, b). It is worthwhile to note that the case for creditability should be presented very carefully to the US Treasury Department, since a carelessly prepared argument might result in an adverse decision that would doom the SAT to join the ranks of non-creditable taxes.
82. Mintz (1990) notes that the tax base for the SAT is narrower than that for the income tax. This is not necessarily true, if the comparison is with an income tax shot full of holes via holidays, investment incentives, etc.
83. See Hartman (1985).
84. In effect, the United States allows credit only to the extent foreign taxes do not exceed the amount implied by application of the average U.S. tax rate of the company to foreign-source income.  
Under the "overall limitation" on the credit, the income and taxes of all foreign countries (but not all types of income and taxes thereon) are lumped together in calculating the limitation. Another important change in the 1986 legislation was to extend the system of "baskets" of income (and related taxes) that could not be combined for the purpose of calculating the overall credit. This also increased the likelihood that any company might be in an excess credit position, as far as its ordinary business income is concerned. For a thorough discussion, see Slemrod (1991).

Goodspeed and Frisch (1989) estimate that the fraction of foreign-source income subject to excess credits would increase from 50 percent to 78 percent (from 32 percent to 82 percent in manufacturing) as a result of the changes in U.S. tax rates. These estimates do not consider changes in the source allocation rules or the rules for segregating income in different "baskets," which should raise these fractions, or the offsetting effects of reductions in the tax rates of other countries or the behavioral response of multinational corporations.

85. For discussions of such issues, see Aaron and Galper (1985) and McLure *et al.* (1990), chapter 9.
86. Sinn (1987), pp. 348-49, notes about proposals for consumption-based taxes, "There is only one problem, though: the taxes involve quite radical reforms of the present tax system and they cannot be implemented without a great upheaval. ... These aspects are a very long way from existing tax laws, and unfortunately, it seems that they reduce the chances of the cash flow taxes being implemented in the foreseeable future."
87. See McLure *et al.* (1990), chapter 11 for a discussion of the Colombian decision not to adopt the SAT.
88. See Bradford (1987).
89. McLure (1989b) considers the analogous question for the United States.
90. Of course, these two features of tax systems are not really separable; the way a tax is administered conditions its economic effects.
91. For a somewhat different exposition, see McLure (forthcoming) or McLure *et al.* (1990), chapter 9.
92. It is assumed that this deduction can be utilized immediately. See also the discussion of losses in the text.
93. See Musgrave (1990), pp. 473-75.
94. Exposition become more complicated if the interest rate differs from the assumed yield to the investment. If the sum of the marginal tax rate and the debt-finance percentage exceeds 100, "own" funds become negative and interpretation of results becomes difficult. Consideration of such complications goes beyond the purpose of this paper.
95. This discussion draws on McLure (1989b). Many of the same points are covered in Bradford (1987).
96. To illustrate an income tax or an income-based VAT, it would be necessary to decompose the "purchases" line to distinguish depreciable capital goods, purchases for inventory, and items consumed currently, and to include additional basic assumptions on the speed and pattern of depreciation and on movement of inventories and inventory accounting practices. In addition, it would be necessary to provide deductions for interest expense. See McLure (1987) for numerical illustrations of income-based VATs. Though such taxes exist, they are quite rare.

97. Thus U.S. Department of the Treasury (1984), volume 3 refers to the SAT as a "personal exemption VAT."
98. This is explained in greater detail in McLure (1987). It might be noted that the three taxes under consideration are also equivalent to a 10 percent retail sales tax (RST) levied only on sales of bread to households. This is not emphasized further, given the likelihood that the RST is not a relevant choice in most RSEs.
99. These issues are discussed further in McLure (1987).
100. In long-run equilibrium the origin and destination principles should theoretically have roughly the same real effects, with only the exchange rate depending on which is chosen. See McLure (1987). For important qualifications to this argument, see Cnossen (1983), p. 155.
101. For more on this, see McLure (1987).
102. Experience with the new Japanese tax may shed some light on this issue.
103. See Carlson and McLure (1984) and Bradford (1986).
104. "Economic rents" is a term economists use for income that exceeds what would be needed to call forth a given economic activity. Thus it can exist in areas other than real estate. In particular, it includes extraordinary profits.
105. This equivalence is demonstrated in McLure *et al.*, (1990).
106. See U.S. Department of the Treasury (1977); Institute for Fiscal Studies—the Meade Report—(1978); Hall and Rabushka (1983) and (1985); Bradford (1986); McLure (1988); and McLure *et al.*, (1990), chapter 9. Institute for Fiscal Studies (1978) also discusses a third type of consumption-based direct tax, which it calls the S-base tax. Its base is equal to net flows from the business sector to the household sector, or (in the case of corporate business) the difference between dividends and net new issues of shares. It has received relatively little attention and is not discussed here.
107. For more comprehensive and detailed discussions, see Zodrow and McLure (1988); McLure *et al.*, (1990); or McLure and Zodrow (1990). Sunley (1988) argues that there are more opportunities for abuse under the R-base tax than under the R + F-base tax. He mentions, for example, difficulties in differentiating between financial and non-financial transactions and the use of defaults on loans to make disguised payments of labor income. Musgrave (1990), on the other hand, supports the view that once taxation of international capital flows are taken into account, the R-based tax is administratively superior.

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