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**TAX POLICY LESSONS  
FOR LDCs AND  
EASTERN EUROPE**

**Charles E. McLure, Jr.**

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# **Tax Policy Lessons for LDCs and Eastern Europe**

Charles E. McLure, Jr.



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## PREFACE

The International Center for Economic Growth is pleased to publish *Tax Policy Lessons for LDCs and Eastern Europe*, by Charles E. McLure, Jr. This is the twenty-eighth in our Occasional Papers series.

In this paper, Dr. McLure succinctly outlines the problems that can ensue when less-developed countries and countries emerging from socialism adopt tax systems mimicking those of more economically advanced nations. What may be sound tax policy for a developed Western nation often is not only unsound but also unadministrable in a less-developed country. After considering the objectives of tax policy and issues of inflation, timing, and tax incentives, Dr. McLure argues that, for many countries, a consumption-based system of direct taxation is preferable to an income-based system. He provides an overview of the benefits inherent in what he terms the Simplified Alternative Tax.

Dr. McLure is eminently qualified to address this subject, having served as a tax policy adviser to the governments of Bolivia, Canada, Colombia, Egypt, Guatemala, Indonesia, Jamaica, Kenya, Malawi, Malaysia, Mexico, New Zealand, Panama, Trinidad and Tobago, Turkey, and Venezuela, as well as Deputy Assistant Secretary of the U.S. Treasury for Tax Analysis (1983–1985). His expertise on tax reform is recognized worldwide; with Michael Boskin, he is coeditor of *World Tax Reform*, a 1990 ICEG publication. The insights he provides in this occasional paper will benefit all those who are engaged in tax policy formulation and reform, in developing and developed countries.

Nicolás Ardito-Barletta  
General Director

International Center for Economic Growth

Panama City, Panama  
June 1992

## ABOUT THE AUTHOR

Charles E. McLure, Jr., is a senior fellow at the Hoover Institution at Stanford University. From 1983 to 1985 he served as deputy assistant secretary for tax analysis of the U.S. Treasury; in that capacity he had primary responsibility for development of the Treasury Department proposals to President Reagan that became the basis for the Tax Reform Act of 1986.

A specialist in the economics of taxation, McLure has written extensively on federal tax reform, the value-added tax, and taxation in developing countries. Among his recent publications are *World Tax Reform: Case Studies of Developed and Developing Countries*, edited with Michael J. Boskin; *The Value-Added Tax: Key to Deficit Reduction*; and *The Taxation of Income from Business and Capital in Colombia*. His current research focuses on tax policy for countries in transition from socialism.

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CHARLES E. McLURE, JR.

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## **Tax Policy Lessons for LDCs and Eastern Europe**

Less-developed countries (LDCs) tend to imitate the tax systems of advanced countries. Historically, this has been especially true of former colonies, which have copied the systems of the metropolitan powers that have dominated them. This experience has often been unfortunate, as many LDCs have adopted tax systems that are not appropriate, in part because they cannot be administered. Now we see the same thing happening in Eastern Europe, as the countries that are newly emerging from socialism adopt tax systems patterned after those of Western nations, without adequate consideration of their propriety.

In addition, there has been an unfortunate tendency for LDCs to adopt tax incentives to encourage saving and investment or to direct investment into particular activities. To some extent this also represents an attempt to follow the lead of advanced nations. This pattern is now being repeated in the Eastern bloc.

The tendency to mimic the tax systems of other, more advanced nations can be illustrated by the income tax. The tax systems of virtually all LDCs include income taxes levied on companies and individuals. For the most part these income taxes have been translated from developed countries to their former colonies or to other countries over which, for

one reason or the other, they have exercised influence. Thus the tax systems of former British colonies resemble the British system, taxes in Francophone countries are patterned after the French system, and U.S. influence can be seen in the tax systems of much of Latin America. Moreover, LDCs may tend to adopt recent innovations in the tax systems of the advanced nations to which they have historically been related. The tax systems of particular LDCs share the strengths and weaknesses of the ones after which they have been patterned.

Because administrative capabilities of the typical LDC fall far short of those in many developed countries, tax provisions that work satisfactorily in a developed country may be quite inappropriate for an LDC, if only for administrative reasons.<sup>1</sup> The same is true of former socialist countries. They lack the administrative capacity—and much more—to implement a Western-style income tax.<sup>2</sup> Moreover, economic conditions are often sufficiently dissimilar that what is good tax policy for a developed Western country may be questionable for an LDC or for a country newly emerging from socialism. (Of course, the provisions may not be good tax policy in either setting, even if they are administrable; that is another issue, one beyond the scope of this essay.)

This essay focuses on three issues in the taxation of income from business and capital. The first two—timing and inflation—raise questions of income measurement where a policy that is employed in a developed country may be inappropriate or infeasible for an LDC or a country emerging from socialism.<sup>3</sup> Attempting to deal with these issues may require administrative skills not available in the typical LDC. The third issue this essay discusses is the use of tax incentives to encourage saving and investment or to channel investment funds into particular activities.

The essay then considers an alternative system of direct taxation that provides quite different treatment of the two income measurement issues: one based on consumption, rather than on income. The consumption-based alternative is substantially simpler in most respects than the income-based alternative, primarily because it avoids problems of timing and inflation adjustment. For this reason I have referred to it as the Simplified Alternative Tax, or SAT, in my other writings. Because it provides very generous tax treatment of all income from business and capital, the SAT makes tax incentives unnecessary, and indeed undesirable. The essay discusses briefly the potential problems inherent in the SAT. Despite

these, I believe that the SAT deserves consideration as a substitute (a replacement, in many countries) for the conventional income tax.

### **The Objectives of Tax Policy**

For purposes of this essay, the objectives of tax policy are taken to be horizontal and vertical equity, economic neutrality, and administrative simplicity.<sup>4</sup> These concepts are explained only briefly here, since their implications for the discussion at hand will be explained later on.<sup>5</sup>

Horizontal equity requires that households with the same amount of real economic income (if income is the chosen measure of ability to pay) should pay roughly the same amount of tax. It is essentially a technical and administrative matter of defining and measuring real economic income accurately. By comparison, the question of vertical equity involves the relationship between taxes paid by households with different levels of real economic income. It is a question of social judgment about which technical economics (and tax administration) has little to say.<sup>6</sup>

Economic neutrality requires that the marginal impact of taxation be roughly the same for competing occupations, investments, and so forth. In the case of income from business and capital, departures from neutrality are commonly indicated by differences in the marginal effective tax rate, or METR—the percent by which taxation reduces the before-tax return to capital.<sup>7</sup> The achievement of economic neutrality is also a question of technical economics and administrative feasibility.

“Administrative simplicity” encompasses the many details of compliance and administration that make the income tax work—or not work. Among these are the basic law, the regulations that explain the law in greater detail, the forms that must be available for completion by taxpayers or their representatives, filing procedures, and the instructions that explain the forms and procedures. While they are sometimes neglected as being of secondary importance, they should not be; as Milka Casanegra has put it, “Tax administration *is* tax policy.”<sup>8</sup>

Horizontal equity and neutrality commonly point toward the same policy prescription: uniform treatment of all income, regardless of its source or use. By comparison, vertical equity is usefully addressed by the use of graduated marginal tax rates. Sometimes neutrality, horizontal

equity, and vertical equity are consistent with simplicity; sometimes they are not.

The term "real economic income" plays a key role in the definition of horizontal equity, economic neutrality, and vertical equity. The taxation of *real* income involves the question of inflation adjustment. The taxation of *economic* income involves satisfactory treatment of timing issues. The attempt to measure real economic income accurately involves serious problems of tax administration and compliance. The two sections that follow explain these points.

### Timing Issues

The classic definition of income for tax purposes is the Haig-Simons definition: consumption plus change in net wealth.<sup>9</sup> A moment's reflection reveals that implementing this definition involves thorny questions of timing: when does net wealth change? The appropriate benchmark against which to measure timing issues is real economic income. Setting aside for the moment issues of inflation adjustment, we can say that (the timing of) income for tax purposes should track (the timing of) economic income fairly closely. If recognition of income is deferred, or if deductions are allowed "too soon," tax payments are postponed, to the benefit of the taxpayer and the detriment of the government. (Of course, the converse is also true.) If this occurs, neither horizontal equity nor economic neutrality is achieved, and vertical equity occurs only by accident.

Perhaps the best-known timing issue is depreciation. Allowances must be made for the loss of value resulting from wear and tear, obsolescence, and so forth. Unless depreciation allowances closely reflect economic reality, taxable income will differ from economic income. That is, if depreciation allowances are too generous (not generous enough), income for tax purposes will be understated (overstated).

The Accelerated Cost Recovery System (ACRS), adopted in the United States as part of the Economic Recovery Tax Act in 1981, provides an example of the distortions that can result from highly accelerated depreciation. At the rate of inflation prevailing at the time of enactment, ACRS, together with the investment tax credit enacted

at the same time, produced a METR near zero on equity-financed equipment. When inflation subsequently subsided, the METR turned negative; that is, the after-tax rate of return to investment was higher than the before-tax return.<sup>10</sup> This was poor policy because it encouraged socially unproductive investment, it created inequities—and the perception of inequity—and it complicated administration by creating opportunities for tax shelters (including clearly abusive shelters) and the need to police them.

Depreciation can usefully be thought of as a process involving “point input, phased output.” That is, an expenditure is made at one point in time and then the asset created thereby loses value over time as it produces income.<sup>11</sup> The problem is to determine the time pattern of the loss of value. Other important questions of timing involve phased inputs and point output or both phased inputs and phased outputs. The growing of timber provides a useful example of phased inputs and point output. Expenditures are made over a period of many years, leading up to the harvesting of timber. The conceptually correct treatment of this activity would involve current taxation of the increase in value of growing timber, as well as the deduction of current expenses. Of course, this prescription is hardly ever followed, for administrative as well as political reasons. But if income is to be recognized only when trees are cut, it is clearly inappropriate to allow immediate deduction of expenditures. Capitalization of expenditures, with deduction at the time timber is harvested, is more appropriate than current deduction, but even this treatment results in undertaxation, because tax is postponed.

Phased inputs and phased outputs are common in many activities found in developing countries. Agricultural endeavors involving long gestation and productive periods, such as coffee and rubber plantations, vineyards, and fruit orchards, fit this mold. As with depreciable assets and timber, immediate deduction of all expenses results in deferral of tax liability. The conceptually correct approach would be current taxation of the increase in the value of assets, combined with immediate deductions for expenditures, and then depreciation of the assets during their productive period. It is more practical to capitalize expenses (as with timber) and then depreciate the assets over their productive life.

Inventory accounting also raises timing problems. Perhaps the most obvious issue is the assumed pattern of flow of inventories through the

production-distribution process. This is likely to be an important issue only when there is rapid inflation or when there are large changes in relative prices. Thus discussion of this issue is postponed until the next section, which deals with inflation. Perhaps equally important is the choice of which expenditures should be capitalized as part of the cost of inventories and which should be deducted currently. For example, the capitalized cost of imported goods should include not only the goods' CIF but also the cost of customs brokers, import duties, transportation from the dock, warehousing, and so forth. If such expenditures are deducted immediately, undertaxation occurs. But allocating such expenditures to inventories and capitalizing them creates compliance and administrative problems.

There are many other examples of what might generally be called "multi-period production." The construction of buildings is an example common to most countries. Income from a construction contract is presumably earned over the lifetime of the contract, rather than only at its completion. Yet attempting to determine when during the contract income is actually earned so it can be taxed at the proper time is extremely difficult and administratively burdensome. If interim tax payments are made, based on an estimated amount of income that subsequently proves to be erroneous, it is necessary to "look back" and recalculate income reported in previous years, with appropriate adjustments for interest.

Interest must be taxed as it accrues if the tax base is truly to reflect the taxpayer's increase in net worth. (In the case of the borrower, the problem involves the timing of deductions for interest expense.) Where interest is being credited more or less continuously, this may occur automatically. But what about interest on bonds issued (or purchased) at a discount? Such bonds might not even provide for explicit payments of interest, earnings being implicit in the bonds' increase in value from the time of issue until maturity.

In such cases of "original issue discount" (and "market discount"), it clearly is not appropriate to treat the increase in value as a capital gain (which may imply exclusion or a preferential rate) or to tax the implied income only at the end of the contract (which would imply deferral of tax). Rather, it is necessary to impute accrued interest and tax it currently. A natural, but conceptually incorrect, approach would

involve simply pro-rating the amount of the initial discount over the life of the loan. Such a methodology would result in excessive deductions being taken in early years. The conceptually correct approach involves the use of compound interest tables to allocate the initial discount among tax years. As imputed interest income accrues, the implied principal of the loan, and therefore the amount of imputed interest, increases each year.

The conceptually correct treatment of capital gains is accrual taxation, that is, taxation of the annual increase (deduction of the decrease) in the value of the asset. For both practical reasons (including valuation problems and the inability to pay taxes without liquidating appreciated assets) and political reasons, gains are almost universally taxed only when they are realized, commonly through sale. This allows the deferral of tax on such gains and creates distortions and inequities.

These examples are not intended to be exhaustive. Rather, they are provided to make two points. First, if timing issues are not handled satisfactorily, it is generally impossible to achieve horizontal and vertical equity or neutrality. Second, dealing satisfactorily with these issues is not easy, especially in a country lacking in administrative skills. It is thus appropriate to examine alternatives to the income tax that achieve satisfactory treatment of these issues in a relatively simple manner. The section of this paper titled "Consumption-based Taxation" describes such an approach.

## **Inflation**

The tax systems of many developing countries—like those of virtually all developed countries—make no allowance for inflation in the measurement of income for tax purposes.<sup>12</sup> Rather, income measurement is based on unadjusted historical values of assets and liabilities and nominal payments of interest. The primary exceptions are certain South American countries (for example, Argentina, Brazil, and Chile) in which inflation has been so rapid that it could not be ignored without gross distortions and inequities.<sup>13</sup> As a result, real income is commonly mismeasured, producing departures from horizontal and vertical equity and economic neutrality.

It is useful to distinguish four general areas in which inflation adjustment may be required. These are depreciation (and similar allowances), inventories, capital gains, and interest income and expense.

As indicated, the purpose of depreciation allowances is to reflect the decrease in the value of assets. During a time of inflation, it is inappropriate to base depreciation allowances on historical costs while other items of income and expense are based on current values that reflect inflation. Rather, depreciation allowances should be adjusted upward to reflect inflation.<sup>14</sup> Analogous adjustments are also appropriate for other activities involving either phased inputs, phased outputs, or both, such as depletion and capitalized expenses. (In the case of phased inputs, amounts being capitalized would be adjusted upward to reflect inflation.)

First-in, first-out (FIFO) appears to be the most appropriate assumption about the movement of inventories in most activities. It has thus been the most common method of accounting for inventories. In a period of rising prices, the use of FIFO results in the systematic overstatement of real income, since goods sold from inventory will always be those purchased at the lowest prices, often in previous years. Last-in, first-out (LIFO) largely avoids this problem but contaminates the measurement of real income with the effects of shifts in relative prices. A conceptually preferable approach (at least where FIFO truly reflects the movement of physical inventories) is the use of indexed FIFO. Under indexed FIFO, the costs assigned goods sold are those of the oldest items in inventory, adjusted for inflation.

Capital gains are also usually calculated without adjusting the cost basis of assets for inflation that has occurred since the time of acquisition. As a result, real gains are overstated, and tax may be paid when real gains are actually negative—that is, when there are real losses. The solution, as with depreciation, is inflation adjustment of the basis of capital assets. Indeed, consistency requires that capital assets be treated similarly, whether in calculating depreciation allowances or capital gains. Inconsistent treatment causes problems of compliance and administration and opens the door for abuse.

Inflation erodes the real value of debt that is not indexed. As a result, nominal interest payments overstate real interest by the amount of the inflation rate. An unindexed tax system thus overstates the real income

of creditors and understates the real income of debtors. An inflation-adjusted income tax would reduce both taxable interest income and deductible interest expense by the product of the inflation rate and outstanding debt.

The upshot of this discussion is similar to that of timing issues: unless inflation can be avoided, a tax system that makes no allowance for inflation in the measurement of income will be both unfair and distortionary. Since it is not realistic to expect LDCs and countries in transition from socialism to avoid inflation, it is necessary to adopt either some form of inflation adjustment or a system of taxation that makes inflation adjustment unnecessary.<sup>15</sup>

The discussion to this point assumes implicitly that under an income tax system ad hoc adjustments would be made in each of the four areas identified in order to prevent inflation-induced mismeasurement of real income. An alternative approach, developed in Chile and recently enacted in Colombia, involves what has been called an "integrated" approach. Under it, balance-sheet items are adjusted for inflation, and then such adjustments are reflected in the income statement.<sup>16</sup> The result is a measure of real income that comes closer to the conceptual ideal. Regardless of which of these approaches is employed—ad hoc adjustments or the Chilean integrated approach—it is clear that inflation adjustment adds considerable complexity to tax compliance and administration. As in the case of timing issues, it is thus desirable to consider alternatives that avoid this complexity.

### **Tax Incentives**

Many developing countries, like many developed ones, employ tax incentives to encourage saving and investment. These incentives take such forms as accelerated depreciation, investment tax credits, and additional depreciation allowances. Such incentives are generally available whether investment is financed with debt or with equity and are sometimes justified as ad hoc adjustments for the effects of inflation that are easier to implement than explicit inflation adjustment. Tax holidays—tax exemptions lasting for a period of years—are also used

to encourage selected activities, commonly those deemed to be of special importance for economic development.

In recent years countries around the world have been moving away from tax systems that contain investment incentives and tax holidays to systems with lower rates applied to a more comprehensive tax base.<sup>17</sup> This has occurred in part for the reasons noted in the following discussion. At the same time, the countries of Eastern Europe seem intent on repeating the experience of the rest of the world with tax incentives. Hungary, for example, provides income tax holidays for a variety of activities, and other transition countries are considering doing so. I call this the "Swiss cheese" approach to income taxation.

Investment incentives create a host of problems. Most obviously, they sacrifice revenue and necessitate higher tax rates.

Tax incentives are an extremely poor substitute for explicit inflation adjustment. For one thing, a given pattern of acceleration of depreciation can be accurate for only a particular rate of inflation; at any other rate it is either too generous or not generous enough. Beyond that, the provision of investment incentives does nothing to correct the mis-measurement of income resulting from the full deduction of nominal interest expense. Allowing both full deductibility and investment incentives can create large inequities and highly anomalous incentive effects that greatly distort resource allocation. In extreme cases, marginal effective tax rates are not merely low; they are negative.

In a noninflationary context, incentives tend to interfere with the achievement of both horizontal and vertical equity. In addition, they tend to distort the allocation of economic resources toward those activities and assets that qualify for incentives. Experience with central planning and with tax incentives in market economies does not inspire confidence that politicians and bureaucrats know better than markets what to produce and how to produce it.

In the absence of careful scrutiny by tax administrators, incentives (especially tax holidays and preferential rates) create opportunities for manipulation and abuse that further weaken equity, neutrality, and revenues. For example, if, as is common, income from "agriculture" is exempt but income from the processing of agricultural products is not, artificial transfer prices can be used to shift all profits from the taxable processing sector to the exempt agricultural sector.

Monitoring tax incentives to prevent their abuse absorbs scarce administrative talent.

In short, tax incentives should be employed sparingly and with great care to avoid these and other problems.

### **Consumption-based Taxation**

Considerable research has recently been devoted to the development of consumption-based alternatives to the traditional income tax.<sup>18</sup> Proposals for consumption-based direct taxation are similar to each other in that they provide immediate expensing (total write-off in the first year) of capital assets. They differ from each other in the treatment of debt and interest. Under one approach, which has variously been called the R (real) base, the "prepayment" approach, the Simplified Alternative Tax, or simply Plan X, no deduction is allowed for interest expense, and interest income is not taxed; capital transactions have no tax consequences, as under the income tax; and dividends and capital gains of individuals are also exempt. Under an alternative, sometimes called the R+F (real plus financial) base, the "individual cash-flow" approach, or the qualified accounts method, interest is an item of income and a deductible expense, as under the income tax; contrary to practice under the income tax, the proceeds of borrowing constitute taxable receipts and the repayment of debt is allowed as a deduction.<sup>19</sup>

The problems described in the previous three sections are substantially reduced under consumption-based direct taxes. This is most easily seen in the case of the Simplified Alternative Tax, which I believe to be the simpler of the two types of consumption-based direct tax and the one most deserving of consideration. It is the only one discussed here.

**Timing Issues.** The timing issues identified earlier do not arise under the Simplified Alternative Tax. Since immediate deduction is allowed for all business expenditures, there is no need to worry about inventory accounting, depreciation schedules for phased outputs, or capitalization of the expenses of phased inputs. The timing of the accrual of interest income and expense is of no relevance, since interest income is not taxable and interest expense is not deductible.<sup>20</sup>

**Inflation.** There is no need for inflation adjustment under the Simplified Alternative Tax. Since immediate deductions are allowed for all expenditures, there is no possibility that inflation can erode the real value of depreciation allowances or goods sold from inventories.<sup>21</sup> The immediate expensing of capital assets implies that the basis of all such assets is zero, eliminating the need for inflation adjustment of basis. Finally, there is no need to distinguish between the real and inflationary components of nominal interest payments, since interest is neither taxable or deductible.

**Tax Incentives.** Many tax incentives involve efforts to increase the present value of capital consumption allowances, by accelerating depreciation or by allowing either additional depreciation or investment tax credits. The expensing of capital assets provided under the Simplified Alternative Tax is, in a sense, the ultimate in acceleration of depreciation allowances. It reduces the METR on equity-financed investment to zero. This provides a powerful incentive for saving and investment.

This last point deserves further explanation, because it is extremely important and far from obvious.<sup>22</sup> Suppose that an investor subject to a marginal tax rate of 40 percent makes an investment of \$100. Because of expensing, the investor's taxable income is reduced by \$100 and tax liability is reduced by \$40.<sup>23</sup> Thus the investment costs only \$60 of the investor's "own" funds; the government provides the other \$40. The government takes 40 percent of the "income" from the investment and the investor keeps 60 percent. The fact that the investor and the government share both the cost of the investment and the income from the investment on a 60/40 basis has two important implications. First, the METR is zero under the SAT. Second, the government is a partner in the investment. Whether the investment is a very good one, a very bad one, or just an average one, the government shares in the return. Thus if the investment is highly profitable, the government benefits, even though the METR is zero.

This is in marked contrast to the situation under tax holidays. If an investment produces an above-normal rate of return, this is shared with the fisc under the SAT; under a tax holiday the entire yield is exempt during the holiday period.

Because the incentive effects of the SAT are generally available, there is no distortion of resource allocation. Moreover, there is relatively little opportunity for manipulation of the measurement of income.<sup>24</sup>

If the METR on debt-financed investment, as seen by the business firm, is not to be negative, it is necessary to disallow deductions for interest expense. The SAT provides such treatment of interest. To be consistent, it also exempts interest income from taxation. By treating interest and dividends in exactly the same way, the SAT avoids difficult problems of differentiating between these two forms of payment for the services of capital.

**Contrary Considerations.** The SAT does, of course, have some drawbacks. Space does not allow a satisfactory discussion of these. In the remainder of this section I merely mention the most important concerns and suggest the most important counterarguments.<sup>25</sup> The reader is urged to consider these arguments in greater depth.

First, the SAT effectively exempts the return to capital from taxation; this arguably reduces the progressivity of the tax system. This can be answered at several levels. Perhaps most telling is the fact that in many countries the taxation of income from capital does not yield much revenue now—in part because of the prevalence of tax incentives and the deductibility of home mortgage interest.<sup>26</sup> In addition, many of the returns to capital are extraordinary—returns in excess of what a marginal investment would yield in a competitive market. The state would share in such returns under the SAT, as under an income tax.

Second, the problems of transition to a consumption-based tax are formidable. While this issue is quite important for many LDCs, which have private property and established income taxes, it is substantially less important for countries in transition from socialism. Since virtually all capital is owned by the state under socialism, transition to the SAT would have no effects on the interpersonal distribution of income—provided the SAT is introduced before privatization occurs. Moreover, the problems of transition to the SAT pale beside the more general problems of transition to a market economy. Finally, there will be transition problems even if these countries adopt a conventional income tax, because existing profits taxes employ definitions of profits that bear little resemblance to those under a reasonable income tax.

Third, because of expensing, tax losses may be much more prevalent under the SAT than under a conventional income tax. This is especially true for equity-financed firms, since the nondeductibility of interest is an important offset for debt-financed companies. This has several implications. Firms with taxable income will have an incentive to merge with firms with tax losses. This is not all bad, since the METR will not really be zero unless expenses can actually be used currently to reduce taxable income. But tax-induced mergers can lead to undesirable concentration. Thus it is probably necessary to allow firms to carry losses forward with interest.<sup>27</sup>

Fourth, it is unclear whether the United States and other advanced countries would allow foreign tax credits (FTCs) for the SAT. If not, imposition of the SAT would appear to place any country using it at a disadvantage in attracting investment from abroad. This factor figured in Mexico's decision not to adopt a cash-flow corporate tax several years ago. This concern can also be addressed at several levels. I have argued elsewhere that credit should be allowed for the SAT;<sup>28</sup> of course, this may not be persuasive. Even if the tax is not creditable, this may make little difference for two reasons: (1) U.S. tax is collected only when profits are remitted and (2) many American firms have excess credits, in any event. And the United States is not the only player in this game. Not all countries tax worldwide income, and many of those that do have rules on creditability that are not as strict as the American rules. This concern could also be addressed under a "hybrid" system taxing interest and allowing interest deductions.<sup>29</sup> Such a tax would be creditable, but vulnerable to inflation.

Finally, it can be objected that "no one does it." Again, this is more important for the typical LDC than for socialist countries in transition. After all, no one has ever made the transition from socialism to a market economy, either.

It may be worthwhile to answer the objection sometimes heard that no one wants to be a guinea pig for a fiscal experiment. While this sentiment is quite understandable, I believe that the fears motivating it are not well founded. First, we have thought much more about the SAT and its potential problems—and thus know much more about them—than we did about the income tax before it was adopted in 1913. There may be some unpleasant surprises in the SAT, but I doubt that

there are any big ones. Second, it is clear that the conventional income tax is extremely complicated, especially if efforts are made to deal with inflation.<sup>30</sup> There is no possibility that the SAT is as complicated. And, of course, it has other advantages.

### **Conclusion**

The SAT is no panacea. But it does solve the two major issues of income measurement that account for much of the complexity of modern income taxation, particularly in countries plagued by high rates of inflation. Moreover, it makes tax incentives redundant and undesirable. Legitimate concerns have been raised about the SAT, but I believe that the benefits of this novel tax outweigh the concerns, especially for countries in transition from socialism. This conclusion is buttressed by the following summary assessment of alternatives:<sup>31</sup>

<i>Tax base</i>	<i>Assessment</i>
Real economic income	Conceptual ideal; too complicated
Unindexed income	Unfair and distortionary
“Swiss cheese” income	Unfair, distortionary, complicated
SAT	Simplest; a few problems, especially FTC
Hybrid	No FTC problem; vulnerable to inflation

The SAT simply seems to be the best alternative available.

## NOTES

1. This theme is developed more fully in McLure and Pardo 1991.
2. For further development of this theme, see McLure 1991b and 1991d.
3. This essay draws heavily on McLure 1989a, as well as the papers listed in note 2.
4. It may appear strange that I do not include macroeconomic stability in this list of policy objectives. The level of tax revenue is much more important than the structure of taxation for achieving macroeconomic stability. Inflation, combined with collection lags, often compromises the ability to achieve macroeconomic stability by eroding the real value of tax collections. This problem occurs under both an income tax and a consumption-based direct tax, and thus has little to do with the basic issues discussed in this paper; it is not discussed further.
5. See also McLure 1989a.
6. Optimal taxation suggests the proper degree of progression, given society's views on income inequality. The proper degree of inequality is a social value judgment, not a technical issue.
7. The usual reference is to King and Fullerton 1984. See also McLure, Mutti, Thuronyi, and Zodrow 1990, chapter 4.
8. Casanegra 1990, 179; see also Bird 1989.
9. On this, see Bradford 1986. For a general discussion of timing issues, see McLure 1989a.
10. See U.S. Department of the Treasury 1984, chapter 8.
11. Reclamation of strip mines and decommissioning of nuclear power plants pose interesting examples of "phased output, point input." The future cost of reclamation or decommissioning builds up as minerals are extracted or the power plant is operated, and then the expense of reclamation or decommissioning is incurred. In this sense the situation is just the opposite of depreciation, where cost is incurred and then value is lost through use.
12. This discussion of inflation draws heavily on McLure, Mutti, Thuronyi, and Zodrow 1990, especially chapter 7. Note that the problem of inflation adjustment in the measurement of income is different from—and considerably more complex than—the need to index amounts stated in nominal (monetary) terms, which is not discussed here.
13. For descriptions of the experiences of several Latin American countries, see *Adjustments for Tax Purposes* 1984 and Massone 1981a and 1981b. Lent 1976 and 1978 provide a somewhat dated survey of LDC

experience with inflation adjustment. Despite its relatively low rate of inflation, Colombia has recently adopted one of the most far-reaching systems of inflation adjustment in the world. McLure 1990a examines Colombia's experience with inflation adjustment, culminating in the 1988 adoption of an "integrated" system patterned after that used in Chile.

14. It should be noted that accurate measurement of real income requires inflation adjustment of historical costs, not the use of replacement cost depreciation. For further explanation, see McLure, Mutti, Thuronyi, and Zodrow 1990, chapter 7.

15. It is interesting to contrast the recent views of several leading authorities on tax administration with those expressed by tax experts a quarter century ago. Casanegra, Coelho, and Fernandez (1991) have written, "Experts currently tend to agree on the advisability of introducing inflation adjustments for business profits." In the early 1960s the Taylor Mission to Colombia (*Fiscal Survey of Colombia* 1965, 84) wrote:

If inflationary pressure is to be contained, certainly *it is not desirable economic policy, in general, to remove its penalties through automatic adjustments*. A more therapeutic method is to permit the painful effects of inflation to be manifested for whatever beneficial effects these will have as a restraint on inflationary pressures. (emphasis added)

At the end of the decade the Musgrave Commission (Musgrave and Gillis, 1971, 82) reached the following similar conclusion:

The Commission . . . believes that the proper solution for Colombia lies in a well-designed stabilization policy . . . , rather than a general and automatic adjustment for inflation provided through the tax system. Such an adjustment would tend to encourage inflation and have detrimental effects on economic development.

For further discussion of the evolution of views on this issue, see McLure 1990a.

16. For an explanation of the Chilean system and a comparison with ad hoc methods, see McLure, Mutti, Thuronyi, and Zodrow 1990, chapter 7. Harberger 1988 provides a very brief summary of the system.

17. See the papers in Boskin and McLure 1990 and Whalley 1990.

18. This discussion draws heavily on Zodrow and McLure 1991; McLure, Mutti, Thuronyi, and Zodrow 1990, chapters 8 and 9; McLure and Zodrow 1990; and McLure 1992a. It relates only to direct (personalized) taxes on consumption; it is not directly relevant to indirect taxes, such as the value-added tax and retail sales taxes.

19. Among the many writings devoted to the first form of consumption-based tax, see Brown 1948, Institute for Fiscal Studies 1978, U.S. Department of the Treasury 1977, Hall and Rabushka 1983 and 1985, McLure

and Zodrow 1990, McLure, Mutti, Thuronyi, and Zodrow 1990, and Zodrow and McLure 1991. On the second form, see (besides the second, third, and last references above) Andrews 1974, Lodin 1978, Mieszkowski 1977 and 1980, and Aaron and Galper 1985. The Institute for Fiscal Studies 1978 considers yet another type of consumption-based tax: the S-based tax, which is based solely on the flow of cash between companies and shareholders. It differs so radically from the conventional income tax that it is not considered further here.

20. Under the alternative (R + F) approach, the present value of borrowing equals the present value of the sum of interest payments and repayment of principal.

21. If the rate of inflation is high enough it may, however, be necessary to provide adjustment for inflation occurring during the year of acquisition of assets.

22. This is explained in greater detail in many places; see, for example, Zodrow and McLure 1991; McLure, Mutti, Thuronyi, and Zodrow 1990, chapter 9; McLure and Zodrow 1990; or McLure 1991a.

23. This requires that the taxpayer be able to use the \$100 deduction to offset other income. The issue of tax losses is discussed further later.

24. For exceptions, see McLure, Mutti, Thuronyi, and Zodrow 1990, chapter 9.

25. These are discussed more fully in McLure 1988a, 1992a, and 1992b.

26. See Gordon and Slemrod 1988.

27. It may even be appropriate to pay refunds in some instances. While paying refunds based on prior investment may seem like a radical idea, it is commonly done under the value-added tax—but only subject to considerable safeguards.

28. See McLure 1990b.

29. McLure 1991d and 1991e consider this possibility. McLure 1991f discusses the possibility of replacing income-based taxation with consumption-based taxation as the international norm.

30. In appraising the United States Tax Reform Act of 1986, I have written (1988b, 303): “[I]t 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.”

31. This table is based on McLure 1991b.

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