The U.S. Debate on Consumption-Based Taxes: Implications for the Americas

Charles E. McLure Jr.

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THE U.S. DEBATE ON CONSUMPTION-BASED TAXES: IMPLICATIONS FOR THE AMERICAS

CHARLES E. MCLURE, JR.*

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I. INTRODUCTION

During the past year—roughly since the Republican Party gained a majority of the seats in both houses of the Congress—there has been a groundswell of interest in a fundamental tax reform in the United States. In general, the proposals that are now being discussed are different from reforms that have been enacted or widely discussed in the past, including the massive Tax Reform Act of 1986.1 Whereas previous tax reform debates have focused on changing the income tax, the predominant theme of the current debate revolves around whether to replace the income tax with an entirely different type of tax—namely, a tax based on consumption.2

If these reform efforts succeed—or even if they do not succeed but are taken seriously—there will be important repercussions in other countries, including the countries of the Western Hemisphere. If these efforts succeed, other countries may be tempted to imitate the United States (as many did after the 1986 Reform) by changing their tax systems to resemble the new U.S. system.3 Even if other countries do not change their tax systems, they may need to alter their tax structures to respond to the changes in the U.S. system. These changes might be even more fundamental

2. It is important to note, however, that in the U.S. Treasury Department’s 1984 proposals consumption taxes were considered before being rejected in favor of a reformed income tax. 1 U.S. DEPARTMENT OF THE TREASURY, TAX REFORM FOR FAIRNESS, SIMPLICITY, AND ECONOMIC GROWTH 30-33 (1984) [hereinafter TAX REFORM FOR FAIRNESS].
CONSUMPTION-BASED TAXES

1997-98]

than the adjustments triggered by the 1986 Reform. Even if a fundamental reform does not occur in the United States, the U.S. tax reform debate may stimulate debate, and possibly reform, throughout the Americas.

This article describes some of the potential international repercussions of the U.S. debate on a consumption-based tax and focuses on the potential effects of this debate on the South American countries. Part II outlines the salient features of the most important and most novel consumption-based tax reform plans. For the most part, Part II does not concentrate on proposals merely to reform the income tax, which would be far less fundamental; nor does it describe or analyze the value added tax (VAT) or retail sales tax (RST) in detail. These forms of tax are generally familiar; most countries of Latin America already have VATs. Part III describes the motivations for the current wave of tax reform fever and discusses the extent to which expectations would be achieved under the various plans. Like Part II, Part III concentrates only on the most novel plans and plans that are most likely to be serious contenders. Part IV discusses international implications of the reforms, including whether the United States would allow foreign tax credits for a consumption-based tax levied by another country. Part V discusses the experience of Colombia and Bolivia, both of which recently considered adopting a cash-flow tax. Part VI concludes the article. Part VII, Appendix A, reviews six consumption-tax alternatives. Part VIII, Appendix B, discusses the economic effects of alternative tax systems. Transition issues—

4. See Tanzi, The Response of Other Industrial Countries, supra note 3; Tanzi, Tax Reform in Industrial Countries, supra note 3; Whalley, supra note 3.

5. For example, Representative Dick Gephardt (D-Missouri) would retain the basic structure of the income tax, but would eliminate all personal deductions except that for mortgage interest. The standard deduction would be $8350 for married couples, and the personal exemption would be $2750. Although mysteriously (and misleadingly) called the "10% Tax," the Gephardt plan would tax individual income at rates ranging from 10% to 34%. STEPHEN J. ENTIN, GEPHARDT TAX PLAN: COMPLEX AND BIASED AGAINST SAVING AND GROWTH, IRET CONG. ADVISORY (INSTITUTE FOR THE RESEARCH ON THE ECONOMICS OF TAXATION, July 7, 1995). Contributions to pensions would no longer be tax-deductible (but taxation of the build-up in pension values would still be deferred until withdrawn) and the tax rate on capital gains would no longer be subject to a ceiling (28% at the time of the Gephardt proposal and 20% following enactment of the Taxpayer Relief Act of 1997). Taxpayer Relief Act of 1997, H.R. 2014, 105th Cong. § 311 (1997). The thrust of these changes is diametrically opposed to that of consumption-based proposals. They have virtually no chance of passing a Congress controlled by the Republicans.

6. Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela already have a value added tax (VAT). See INTERNATIONAL BUREAU OF FISCAL DOCUMENTATION, TAXATION OF TRANSACTIONS (1994-1997).
some of the most complicated matters in this area and some of the most important—are discussed briefly in Part IX, Appendix C.

II. THE PLANS

Plans for consumption-based tax reform generally fall into two broad categories: (1) indirect or "impersonal" taxes, such as an RST or a VAT (2) and direct or "personalized" consumption-based taxes, which are not currently levied by any country on a broad basis.\(^7\) Appendix A shows the relation among the various forms of consumption-based taxes.

A. Indirect/Impersonal Consumption Taxes

Indirect taxes are levied on the supply of goods and services; they are not levied on individuals. Accordingly, they cannot be easily "personalized" to take into account the characteristics of families such as family size, income, source of income, or spending patterns.

1. Sales Tax

Congressman Bill Archer (R-Texas), Chairman of the House Ways and Means Committee, the tax-writing committee of the House of Representatives, has suggested that he may propose a sales tax to replace the income tax to "tear the income tax system out by its roots" and "get the IRS completely out of our individual lives."\(^8\) Although Archer has not clearly indicated what kind of tax he has in mind, it is reasonable to infer that he is thinking of an RST. Forty-five of the fifty states and the District of Colombia impose an RST, thus such a tax would be familiar to U.S. citizens. Although Archer has not indicated the tax rate that would be needed to replace the income tax, Senator Richard Lugar (R-Indiana) has proposed a 17% RST.\(^9\) Many observers believe that a

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7. The traditional distinction between indirect and direct taxes is not really satisfactory; in some cases it becomes blurred. The distinction between personal and impersonal taxes is explained below. See discussion infra Part II.A-B. As stated infra note 12, after this article was originally written in 1995, Croatia enacted a consumption-based tax of a type not considered here.


tax rate of this level (some 17% to 25% when combined with existing sales tax rates) would be unrealistic for a single-stage RST because it creates a strong incentive to cheat.\(^{10}\)

2. Value Added Tax

In 1994, Senator Sam Gibbons (D-Florida), a minority member of the House Ways and Means Committee, introduced a legislative proposal for a subtraction-method VAT,\(^{11}\) commonly called a "business transfer tax" in the United States. Senators David Boren (D-Oklahoma) and John Danforth (R-Missouri) made similar proposals in 1995. The credit-invoice form VAT, the revenue workhorse of the world, is notably absent from the current debate, despite a 1994 proposal by Senator Ernest Hollings (D-South Carolina). The credit-invoice form VAT is included here for completeness and to provide a basis for comparison.

**B. Direct/Personalized Consumption-Based Taxes**

Direct taxes are levied on individuals. For this reason, they can be personalized. There are four such taxes: two "pure" forms and two "hybrid" forms.\(^ {12}\) The explanation as to why these taxes are called consumption-based taxes will follow in the next section.

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\(^{11}\) Under a subtraction-method VAT, tax is the product of the tax rate (usually stated on a tax-inclusive basis) and the difference between sales and purchases. By comparison, under a credit-method tax, liability is the product of the (tax-exclusive) tax rate and sales, minus credit for tax on purchases. In simple cases the two methods—and a retail sales tax (RST)—give the same result. More generally they do not. See CHARLES E. MCLURE, JR., THE VALUE ADDED TAX: KEY TO DEFICIT REDUCTION? 16-17, ch. 6 (1987). Michigan and New Hampshire levy yet a different type of VAT; under the addition method (which is similar to the subtraction method) components of value added (wages, profits, etc.) are summed to derive the tax base.

\(^{12}\) There is actually a third pure form of consumption-based direct tax which is one based on net cash flow from the business sector. See INSTITUTE FOR FISCAL STUDIES, THE STRUCTURE AND REFORM OF DIRECT TAXATION (1978). As policymakers have shown no interest in it, it is not discussed further. Since this article was originally prepared, Croatia has enacted yet another form of tax that achieves the same objectives as a cash flow tax. It allows a deduction for the imputed cost of equity finance. See Peter Schmidt et al., The New Croatian Tax System, 50 BULL. INT'L FISCAL DOCUMENTATION 155-63 (1996).
1. The Flat Tax

House Majority Leader Dick Armey (R-Texas) and Senator Arlen Specter (R-Pennsylvania) have both introduced proposals for a “flat tax.”\(^\text{13}\) The prototypical flat tax that Hall and Rabushka described\(^\text{14}\) has four distinct and separable features: (1) separate taxes on the labor income of individuals and the “income” of businesses; (2) distinct treatment of income from business and capital, including a cash-flow measurement of the business tax base; (3) virtually no personal deductions other than a tax-free amount;\(^\text{15}\) and (4) a single tax rate of about 20% that is to be applied to the taxable “income” of both individuals and businesses.\(^\text{16}\) Labor income, including pensions, would be subject to withholding, as under the income tax. The remainder of this section focuses on the taxation of income derived from business and capital under the flat tax.

The key features of the business tax base are the following: immediate deduction (expensing) for all purchases—including depreciable assets and additions to inventories—and labor costs; ex-

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13. The Armey Bill, H.R. 4585, 103d Cong. (1994) and the Specter Bill, S. 488, 104th Cong. (1995) differ slightly. For example, the Specter Bill, but not the Armey Bill, would allow deductions for charitable contributions and interest on home mortgages. For further details, see Staff of Joint Comm. on Taxation, 104th Cong., Description and Analysis of Proposals to Replace the Federal Income Tax 3-4 (Joint Comm. Print 1995) [hereinafter Joint Comm.].


15. The Armey Bill, H.R. 4585 would allow a basic standard deduction of $24,700 for a couple filing a joint return and an additional standard deduction of $5000 per dependent. The comparable figures for the Specter bill are $16,500 and $4500. By comparison, the standard deduction under present law is $6500. There is also a personal exemption of $2500 (1995 level, to be indexed for inflation) for the taxpayer, spouse, and each dependent. In each case, the standard deduction depends on the filing status of the taxpayer (i.e., joint return, single, etc.).

16. For more complete descriptions, see THE FLAT TAX, supra note 14, at 56-64; George R. Zodrow & Charles E. McLure, Jr., Implementing Direct Consumption Taxes in Developing Countries, 46 TAX L. REV. 405, 410-28 (1991). CHARLES E. MCLURE, JR. ET AL., THE TAXATION OF INCOME FROM BUSINESS AND CAPITAL IN COLOMBIA 295, 295-351 (1990); CHARLES E. MCLURE, JR., ET AL., LA TRIBUTACIÓN DE LA RENTA DE LOS NEGOCIOS Y DEL CAPITAL EN COLOMBIA (Colombian Government trans. 1988), includes such a tax but with graduated rates. “Income” is placed in quotations to indicate that it refers to a tax base that is analogous to income, but different.
clusion of interest income; and no deduction for interest expense. The same treatment applies to interest income and expenses of individuals. In addition, dividends and capital gains are tax-exempt. Because of this treatment of the return to capital, this approach is sometimes called “yield exemption treatment” (YET).17

In the Hall-Rabushka proposal, the flat tax would be levied on a territorial basis; there would be no tax on income earned abroad and no credit for tax paid to foreign governments.18 The tax would be levied on an origin basis. Therefore, export sales would be taxable, and deductions would be allowed for business imports.

The flat tax can be seen as a special form of VAT in which a business is allowed a deduction for compensation, which is then taxed in the hands of employees.19 This allows personalization of the flat tax in a way that is not possible under a standard VAT. For this reason, the U.S. Treasury Department in 1984 referred to this tax as “a personal exemption VAT.” In theory, the same objective could be achieved by combining a standard VAT with refundable credits for low-income individuals. The U.S. experience with fraudulent claims for refunds under the earned income tax credit, however, makes this an unattractive option, even though a similar practice apparently works in Canada.20

2. The Consumed Income Tax

The other “pure” version of a consumption-based direct tax is the consumed income tax (CIT).21 Under this version, payments to

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17. Both the flat tax and the consumed income tax (CIT) are sometimes lumped together as “cash-flow taxes.” Reflecting the fact that cash flow treatment is provided for real assets under the flat tax, but financial flows are ignored, the U.K.’s prestigious Meade Commission called the resulting tax base the R (real) base. INSTITUTE FOR FISCAL STUDIES, supra note 12, at 230-33. By comparison, it called the CIT described below an R+F (real plus financial) base, because debt transactions and interest flows are considered in calculating taxable cash flows. I have adopted the yield-exemption treatment (YET)/CIT terminology to avoid potential confusion.

18. THE FLAT TAX, supra note 14, at 76.


20. Title X of the Taxpayer Relief Act of 1997 renders ineligible for earned income tax credits those who make claims for credits that are fraudulent (for ten years) or in reckless or intentional disregard of the law (for two years). H.R. 2014, 105th Cong. § 1085 (1997).

21. See generally DAVID F. BRADFORD & THE U.S. TREASURY TAX POLICY STAFF, BLUEPRINTS FOR BASIC TAX REFORM 3, ch. 4 (2d ed. 1984) [hereinafter BLUEPRINTS FOR BASIC TAX REFORM]; INSTITUTE FOR FISCAL STUDIES, supra note 12; HENRY J. AARON &
labor and business purchases would be deductible as under the flat tax. Interest income would be taxable, and interest expense would be deductible as under the income tax. In marked contrast to the income tax, however, both individuals and businesses would include the proceeds of borrowing and the receipt of debt repayments in their tax base and deduct lending and repayment of debt. There is no active proposal for such a tax. It is described here primarily to provide a benchmark for descriptions of other proposals.

3. The McLure-Zodrow Hybrid

Based on work done in Bolivia during 1995, McLure and Zodrow have proposed a hybrid system that combines yield exemption (flat tax) treatment of individuals with CIT treatment of business. In addition to a tax-free amount, the hybrid can accommodate either a single tax rate or graduated rates on the income of individuals. This tax would be levied on an origin basis.

4. The Unlimited Savings Account Tax

The fourth possible variant of consumption-based direct taxation would be a hybrid that combines CIT treatment of individuals with YET treatment of business. No such proposal currently exists. However, the Unlimited Savings Account (USA) Tax (S. 722), proposed by Senators Sam Nunn (D-Georgia) and Pete Domenici (R-New Mexico), resembles such a hybrid. It combines an 11% subtraction-method VAT on businesses with a treatment of indi-


23. The same is equally true of the flat tax and the CIT.

individuals that resembles the CIT. Under this proposal, individuals would be allowed an unlimited deduction for savings, and reductions in net savings would be included in their tax base. Further, proceeds of borrowing are not included in the tax base; they only reduce deductible savings but not below zero. Moreover, consumption from assets existing at the time the tax is imposed would not be subject to tax, and the tax exempt status of interest on state and local bonds would be preserved.

The USA tax would allow two standard deductions: a “personal living allowance” and personal and dependent deductions for the taxpayer, spouse, and dependents. Itemized deductions would be allowed for home mortgage interest and charitable contributions, but not for the other itemized deductions found in current law, and for certain educational expenses.25 Contrary to the current practice, these deductions would be allowed in addition to the standard deductions, not in lieu of them.26

After the first year, individual tax rates would be 8%, 19%, and 40%—the last reached by a couple filing a joint return at an income of $24,000.27 As under current law, the individual portion of the USA tax is levied on worldwide income, and it would allow foreign tax credits for income taxes paid to foreign governments. It would also allow earned income tax credit, a refundable credit available for low income taxpayers who have earned income. In addition, there would be a new credit for the employee portion of payroll taxes collected to finance social security, which is currently 7.65% of the first $60,000 of annual compensation.28 The individual credit would be refundable to the extent it exceeds liability under the USA tax. Thus, net of the credit for payroll taxes, aggregate tax rates would be 0.35%, 11.35%, and 32.35%, over the income range covered by the credit.29

25. The personal living allowance would be $7400 for a couple filing a joint return; personal and dependent deductions would be $2550 for the taxpayer, spouse, and dependents, comparable to the $2500 in current law. Deduction would be allowed for educational expenses of up to $2000 per year per student, for up to four students, for a total of up to $8000.


27. By comparison, the current tax rates on individual income are 15%, 28%, 31%, 36%, and 39.6%; couples filing joint returns reach the last two rates at income levels of $143,600 and $256,500, respectively. Id. § 1.

28. Id. § 3101.

29. Note, however, that for a high-income individual who does not save, the aggregate marginal effective tax rate would be 46.6% (40% individual tax plus 11% business
The business portion of the USA tax would be a territorial subtraction-method VAT. Thus, there would be no foreign tax credit. Instead, there would be border tax adjustments (BTAs), taxation of imports, and a rebate of tax on exports, as explained further below. A credit of 7.65% would be allowed for the employer share of payroll taxes. Losses, instead of resulting in refunds, as when credits exceed gross tax liability under a credit-method VAT, would be carried forward without interest. This treatment would apply to exporters, which are commonly zero-rated under conventional VATs.

III. MOTIVATIONS AND ANALYSIS

In general, economists have favored consumption-based taxes because they do not distort the choice between saving and consumption in favor of current consumption and against saving, as the income tax does. Business prefers them for a similar reason; they view consumption-based taxes as more favorable to capital formation. Others emphasize the simplicity advantages of consumption-based taxes. Some recent advocates of consumption-based taxation presumably expect to pay less tax than under the income tax. However, some possible motivations that have been prominent in the past are notably absent from the current debate.
A. Economic Benefits

1. Effects on Savings

The RST, the VAT, and the CIT, are taxes on consumption. They apply only to sales to households (an ideal RST),\textsuperscript{35} allow a credit for tax paid on capital goods (the VAT),\textsuperscript{36} or allow a deduction for saving (the CIT).\textsuperscript{37} In each case, the return on investment is unaffected by taxation because the marginal effective tax rate (METR) on income from capital is zero.\textsuperscript{38} The flat tax, and thus the two hybrids, is equal in present value to a tax on consumption because it is characterized by a METR of zero.\textsuperscript{39}

A standard theorem in the economics of public finance states that the METR on income from capital is zero under a consumption-based tax.\textsuperscript{40} There are a number of ways to demonstrate this proposition. One of the simplest is to consider an equity-financed one-year investment of $100 that yields 10\% in the absence of tax. Assuming that the taxpayer has other income against which to offset the deduction for the investment, expensing reduces taxable income by $100. If the marginal tax rate of the taxpayer is 30\%, the investment costs the taxpayer only $70. The government advances the other $30, via reduced tax receipts. At the end of the year the investment returns $110, which consists of principal of $100 and the return of $10. The government takes 30\%, or $33, leaving the taxpayer with $77. The net private return to the investment, 10\% ($7 as a percent of $70), is the same as in the absence of tax. Thus, the METR is zero. By comparison, the METR under an ideal income tax equals the statutory tax rate.\textsuperscript{41} Ap-

\begin{itemize}
  \item \textsuperscript{35} In practice, the RSTs levied by the states commonly apply to a substantial amount of investment goods. This problem could be greatly reduced if a serious effort was made. For an explanation of the RST, see supra text accompanying notes 8-10.
  \item \textsuperscript{36} For an explanation of the VAT, see supra text accompanying notes 11-20.
  \item \textsuperscript{37} For an explanation of the CIT, see supra text accompanying note 21.
  \item \textsuperscript{38} The marginal effective tax rate (METR) is the percent reduction in the before-tax rate-of-return created by taxation; it can exceed 100\%, or it can be negative.
  \item \textsuperscript{39} See generally McLure ET AL., supra note 16, at 60-64 (containing an introductory discussion of METR).
  \item \textsuperscript{40} Arnold C. Harberger, Tax Neutrality in Investment Incentives, in THE ECONOMICS OF TAXATION 299, 299-313 (Henry J. Aaron & Michael J. Boskin, eds., 1980). See generally McLure ET AL., supra note 16, at 60-64.
  \item \textsuperscript{41} In this case, the investment is written off in the second year via depreciation. Thus, the taxpayer's private investment is the full $100, before-tax income is $10 ($110
Appendix B provides further numerical examples of the economic effects of the YET, the CIT, and a tax on economic income.

The METR is zero under a tax on consumption; therefore, such a tax is neutral with regard to whether to consume now or to save now and consume later. By comparison, an income tax penalizes savings by reducing the return on savings. Stated differently, a consumption-based tax, with its METR of zero, is more conducive to saving and investment than an income tax. As a result, it is expected that economic growth would be more rapid under a consumption-based tax than under the income tax. Jorgenson estimates that movement to a consumption-based tax in 1986, instead of reform of the income tax, would have produced twice as many opportunities for new economic growth as the 1986 Act did, which he places at one trillion dollars. Kotlikoff, on the other hand, estimates an 8% increase in the level of output if a consumption tax were substituted for the income tax or a 6% increase if payments are made to the elderly to compensate them for lump-sum losses created by the shift.

2. Uniformity of Consumption-Based Taxation

The primary objective of the tax reform exercise that culminated in the Tax Reform Act of 1986 was to tax all real economic income uniformly and consistently. While substantial progress gross receipts minus $100 depreciation), tax is $3 (30% of $10), and net income is $7. As taxation reduces the return from 10% to 7% ($7 as a percent of $100), the METR is 30%.

42. Strictly speaking, consumption-based taxation may not encourage greater savings, even though, unlike the income tax, it is neutral with regard to the choice between current and future consumption. For a simple explanation of this point, which is ignored in what follows, see Charles E. McLure, Jr., Taxes, Saving, and Welfare: Theory and Evidence, 33 NAT'L TAX J. 311, 311-20 (1980). If those saving for retirement are "target savers" who want to be able to accumulate a "nest egg" of a given size in order to be able to finance a target level of consumption during retirement, an increase in the rate of return may actually lead to a reduction in saving. On the other hand, the lump-sum taxation of existing wealth represented by a consumption-based tax with no transition relief (discussed below) would spur such individuals to increase saving.


45. For alternative estimates of these effects, see Alan J. Auerbach, Tax Reform, Capital Allocation, Efficiency, and Growth, in ECONOMIC EFFECTS OF FUNDAMENTAL TAX REFORM 29, 30 (Henry J. Aaron & William G. Gale eds., 1996).

46. The U.S. Department of Treasury does not state this objective in these words.
was clearly achieved on that score, it is also clear that total success is impossible. As Michael J. Boskin notes, "measuring income is a severe, probably insurmountable problem." It is certainly complicated.

If an income tax is to be fair and economically neutral, the measure of income for tax purposes must track economic income fairly closely. Otherwise, there will be inequities and distortions of economic decisions. In order to measure income accurately, it is necessary to deal satisfactorily with issues of timing—namely, deciding when to recognize income and when to allow deductions. Depreciation is perhaps the most obvious example of a timing issue. If depreciation allowances are too generous, income is understated, but if the allowances are not generous enough, income is overstated. Other examples of thorny timing issues include the capitalization of inventory costs, original issue discount, and multi-year production. Some of these issues are conceptually and technically simple, but difficult in practice, such as original issue discount. Others are impossible in practice, such as knowing the rate of economic depreciation and the rate at which income is created in multi-year projects. Thus, METRs inevitably vary across assets, methods of finance, and patterns of ownership, and therefore across industries.

Consumption-based taxes allow for the expensing of business purchases (or its equivalent, as under the credit-method VAT), so timing issues cannot arise. The METR under a consumption-based tax is identically zero unless intentional deviations are legislated. The treatment of interest under the YET, which is neither taxable nor deductible, implies that timing issues, such as original issue discount, do not arise in that sphere. Similarly, but less obviously, under the CIT the inclusion of the proceeds of borrowing is completely offset by deductions for payments of principal and interest.

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Inflation further complicates the task of measuring income accurately. First, in the absence of inflation adjustment of the value of assets, tax is levied on capital gains that are not real, and real losses are understated. Similarly, deductions for cost of goods sold from inventories and depreciation allowance do not allow recovery of costs. Second, nominal interest income is taxed and nominal interest expense is deductible without recognition of the inflation-induced reduction in the real value of indebtedness. Therefore, failure to adequately address inflation creates inequities and distortions. However, inflation adjustment creates added complexity, even under a relatively "clean" method of the type used in Chile and Colombia. Consumption-based taxation avoids these problems because it is based on cash flow.

B. Simplicity

Some consumption-based direct taxes are inherently simpler than income-based taxes. This is explained in the second part of this subsection. First, it will be useful to dispose of other tangential issues of simplicity related to the flat tax.

1. Simplicity of the Flat Tax

Advocates of the flat tax claim that it is so simple that tax returns would fit on a postcard. The flat tax's simplicity has begun to capture the imagination of both the American public and lawmakers. People are tired of and angry about the complexity of the present income tax.

49. In this method, adjustments are made to the entire balance sheet and profit and loss statement to produce an inflation-adjusted measure of both net income and net wealth. See McLURE ET AL., supra note 16, at 189-94. For a simplified exposition, see Arnold C. Harberger, Comments to Daniel Halperin and Eugene Steuerle, Indexing the Tax System for Inflation, in UNEASY COMPROMISE: PROBLEMS OF A HYBRID INCOME-CONSUMPTION TAX 380, 380-83 (Henry J. Aaron et al., eds. 1988).


51. Marsha Blumenthal and Joel Slemrod have estimated that individual taxpayers devote an average of 27.4 hours to tax matters annually. Marsha Blumenthal & Joel Slemrod, The Compliance Cost of the U.S. Individual Income Tax System: A Second Look After Tax Reform, 45 NAT'L TAX J. 185, 185-202 (1992). They estimate the aggregate cost in time
The flat tax for individuals derives its claim to simplicity from the interaction of three of the features described above. First, only labor income would be reported on individual tax returns; dividends and interest income would be exempt, interest expense would not be deductible, and business "income" would be reported on a separate form. Additionally, there would be no personal deductions except as needed to provide a tax-free amount. Finally, all taxable income would be taxed at the same rate, and this rate would apply to both businesses and individuals.

Without gainsaying the simplicity advantages of the flat tax, it should be noted that most of these advantages could be achieved in an income tax. Most taxpayers do not currently have business income; personal deductions could be eliminated, or at least severely limited, and there could be a single rate. In short, for individual taxpayers with no business income and no income from interest or dividends, it would be easy to fit tax returns on a postcard. Indeed, while Form 1040EZ is not printed on a postcard, it probably could be, especially if fewer deductions were available to those who use it. Conversely, there is no reason—aside from the name—that the flat tax could not allow personal deductions and graduated rates. Indeed, in the debate preceding the enactment of the 1986 Reform, there was discussion of a "modified flat tax."

The flat tax does, however, exhibit aspects of simplicity that income taxation does not have. These aspects involve the taxation of income from business and capital, the exemption of interest and dividends, the disallowance of deductions for interest expense, and the measurement of business income. It is useful to distinguish the simplicity benefits of the "yield exemption" approach of the flat tax from the aspects of simplicity discussed above.

and money to be between 5% and 7% of total revenue collected from individual income taxes. Id. Blumenthal and Slemrod combine these figures with estimates of costs of the corporate income tax, concluding that total costs of compliance and administration may be as much as $75 billion annually, or 10% of total revenue from federal and state income taxes. See Joel Slemrod, Which is the Simplest Tax System of them all?, in ECONOMIC EFFECTS OF FUNDAMENTAL TAX REFORM 355, 355-91 (Henry J. Aaron & William G. Gale eds. 1996).

52. THE FLAT TAX, supra note 14, at 45-46.
53. Id.
54. Id.
55. TAX REFORM FOR FAIRNESS, supra note 2, at 23-29; Editorial, A Flat Tax That America Might Buy, BUS. WK., June 12, 1995, at 110; Charlotte Saikowski, Reagan Makes His Pitch for Tax Overhaul, Touts GOP for Proposing It, CHRISTIAN SCI. MONITOR, July 11, 1986, at 3.
2. Inherent Simplicity of Consumption-Based Taxes

Because of the difficulties inherent in solving the problems of timing described above, an income tax is inherently complicated. It is especially complicated in a world of rapid inflation. In 1988, I wrote the following in an article whose subtitle asked whether the 1986 Act was tax reform's finest hour or the death throes of the income tax: "we may have shown definitively that attempting to implement a conceptually correct income tax (even one without inflation adjustment) is impracticable."56

As indicated above, some forms of consumption-based direct taxation are inherently simpler than an income tax, especially in an inflationary environment.57 Because tax liability is based on cash flow, timing issues cannot arise, and there is no need for inflation adjustment.

3. Relative Simplicity of Yield Exemption Treatment and Consumed Income Tax 58

The YET version of consumption-based direct taxation is considerably simpler than the CIT version, especially for individuals. Individuals are not required to report interest, dividends, or capital gains, and the tax administration is not required to ensure that they do.59 By comparison, under the CIT, individuals must keep records of saving and dissaving.60 The CIT would thus be even more complicated and more difficult to administer than the income tax for individuals. It would be difficult to prevent taxpayers from borrowing abroad and taking a deduction under the CIT for amounts apparently saved.


57. For further explanation, see generally McLure, supra note 56; Zodrow & McLure, supra note 16. For analysis of the comparative simplicity of the flat tax and a conventional income tax, see Joel Slemrod, What Makes Some Consumption Taxes So Simple and Others So Complicated?, paper presented to a conference on Fundamental Tax Reform organized by the Center for Economic Policy Research, Stanford California 2 (Dec. 1, 1995) (unpublished manuscript, on file with The University of Miami Inter-American Law Review); Charles E. McLure, Jr., The Simplicity of the Flat Tax: Is it Unique?, 14 AM. J. TAX POL'Y (forthcoming Fall 1997).

58. This section draws on McLure & Zodrow, A Hybrid Approach, supra note 22, at 70-90.

59. Id. at 78.

60. Id.
Despite the simplicity advantages of YET treatment of individuals, application of YET to businesses would create or accentuate several problems. First, because of its treatment of interest, it would exempt the margin and thus the profits of financial intermediaries. This treatment may not be politically acceptable, and measures to deal with the problem may be complicated and would undermine the objective of consumption-based taxation.

Second, losses reported for tax purposes under the YET would be much greater than under the CIT, which includes the proceeds of borrowing in the tax base. It would be necessary to carry losses forward with interest in order to preserve their value. Otherwise, new businesses would be at a disadvantage and there would be incentives for mergers and acquisitions motivated by tax savings.

Finally, under the YET there would be opportunities for abusive transactions between businesses and persons not subject to tax, including foreigners and non-profit organizations. For example, a taxable firm might sell at below-market prices in exchange for an above market interest rate on installment debt.

4. Simplicity of the Hybrid Consumption-Based Direct Tax

Given the complexity of the CIT for individual taxpayers, the disadvantages of applying YET treatment to business, and the fact that businesses could generally handle the complexities of the CIT, McLure and Zodrow propose a hybrid where YET treatment is applied to individuals but CIT treatment is applied to businesses. Some problems remain, but these are thought to be less significant than those under either of the pure forms of consumption-based direct tax—and a fortiori less significant than those under the other hybrid: YET for business and CIT for individuals, or the USA tax.

61. The Joint Committee on Taxation notes that, as drafted, the flat tax appears to apply tax to interest income of financial intermediaries, while allowing no deduction for interest expense. Joint Comm., supra note 13, at 33. As noted, this is probably unintended. It appears more likely that the intent is to exempt the financial sector. For further discussion of the taxation of financial services, see id. and references cited therein.

62. The interest rate used would be the rate on 3-month Treasury bills. See id.

63. See McLure & Zodrow, A Hybrid Approach, supra note 22, at 72-73, 84; McLure & Zodrow, A Hybrid Consumption-Based Direct Tax, supra note 22, at 97-112.
5. Complexity of the Unlimited Savings Account Tax

Instead of following standard CIT treatment of individuals—with taxation of interest income and the proceeds of borrowing and deduction of interest expense and the principal of lending—the USA tax provides a deduction for net saving by individuals. While the term "net saving" may sound like the excess of saving over borrowing, the concept in the USA tax is much more complicated than that. This complexity derives from the desire to prevent the taxation of consumption financed by drawing down assets owned at the time the USA tax is implemented and the desire to maintain the advantage currently enjoyed by tax exempt bonds issued by state and local governments (plus, apparently, the desire to avoid the politically sensitive issue of including the proceeds of borrowing in the tax base). "The idea here is that savings [derived from nontaxable funds] should not be deductible ... , but later consumption attributable to such funds should be tax-free." 

The USA tax will probably not be enacted due to its complexity and other flaws. Accordingly, for the purposes of this article, it is unnecessary to subject the audience to a lengthy exposition of its arcane rules; a few examples will indicate the nature of the problem. First, the transition provisions intended to prevent the taxation of amounts already taxed under the income tax actually benefit only dissavers, not savers. Second, the intended exemption of interest from state and local securities also only benefits dissavers. These features are hardly consistent with the purpose of the USA tax—namely, to eliminate the income tax bias against saving. And, of course, these features will lead to manipulation, which implies even more complexities.

For example, Ginsburg notes "everyone decently wealthy will be a net saver in some (perhaps odd-numbered) years and a net

64. See Unlimited Savings Allowance (USA) Tax System, supra note 24, at 1514; Weidenbaum, supra note 24, at 56.
67. These examples come from the work of Alvin C. Warren. See Warren, supra note 65, at 1105.
dissaver in other years."\textsuperscript{68} Anti-abuse rules are included to prevent these and other "games," but "anti-abuse rules of this sort suggest, not that the problems are thereby solved, but rather that there are basic flaws in the Unlimited Savings Allowance."\textsuperscript{69} Warren concludes, and Ginsburg concurs, "[i]t would be much simpler to implement the standard cash flow taxation of personal consumption."\textsuperscript{70}

\textbf{C. Distributional Considerations}

One of the Achilles' heels of consumption-based taxation has traditionally been its distributional effects; taxes on consumption tend to be regressive.\textsuperscript{71} Because the percentage of income consumed falls as income increases, the percentage of income paid in taxes falls as income rises. In the case of indirect taxes on consumption, regressivity can be avoided by introducing exemptions for necessities and higher rates on "luxuries." However, this is done only at the cost of substantial complexities of administration and compliance, economic distortions, horizontal inequities, and higher rates. After all, in aggregate, the non-poor consume more of such goods than do the poor. Accordingly, it is especially difficult to use this approach to achieve progressivity in the upper income levels.

Direct consumption-based taxes can, in principle, use tax thresholds and graduated rates to avoid regressivity. This is the purpose of the structure of a flat tax; unlike a standard VAT, it allows a personal exemption. Indeed, with the proper structure

\begin{footnotesize}
\begin{enumerate}
\item[\textsuperscript{68}] Ginsburg, supra note 66, at 588. See also Louis Kaplow, \textit{Recovery of Pre-Enactment Basis Under a Consumption Tax: The USA Tax System}, 66 \textit{TAX NOTES} 1109, 1110-11 (1995).
\item[\textsuperscript{69}] Ginsburg, supra note 66, at 590.
\item[\textsuperscript{70}] The alternative mentioned in the last sentence is what we have called the CIT. See Warren, supra note 65, at 1108. Regarding the transition provisions, Ginsburg concludes:
\begin{quote}
In any event, a cash flow consumption tax that (1) includes borrowed amounts in the tax base and (2) does not hold the recovery of pre-enactment basis hostage to taxpayers' post-enactment conduct, may not solve all the problems and eliminate all the opportunities real life and the tax bar can produce—the rich will persevere—but it will perform measurably better the task to which the Nunn-Domenici proposals are addressed.
\end{quote}
Ginsburg, supra note 66, at 598.
\item[\textsuperscript{71}] Another potential problem is the interaction of a federal tax on consumption and state RSTs. It is not discussed here because it is a problem primarily for the VAT (and perhaps the RST). \textit{Cf.}, MCLURE, supra note 11, at 152-57.
\end{enumerate}
\end{footnotesize}
of graduated tax rates, it may be possible to levy a consumption-based direct tax that is no less progressive than the income tax.

The current debate seems to be turning this distributional concern on its head. Many current advocates of the flat tax are high-income individuals who probably expect to pay substantially less tax than under the current income tax. Whereas highly graduated rates would be required under a consumption-based tax, to achieve the current level of progressivity, application of flat rates would guarantee regressivity.

The U.S. Treasury Department has estimated that, in a revenue-neutral tax reform, the bottom 80% of households would be required to pay more taxes to compensate for the tax reduction enjoyed by the more affluent. It estimates that under a 22.9% flat tax of the type proposed by Armey, the bottom four quintiles would pay from 8.3% to 12.2% more taxes than they do under the current law, while the top quintile would pay 5.6% less tax. The 5% of households with the highest incomes would pay 19.2% less tax and the top 1% would pay 33.2% less tax. Once the public becomes aware of this, support for the flat tax may diminish. Whether support can be salvaged by substituting graduated rates remains to be seen.

By comparison, the 46.6% top effective tax rate under the USA tax, reached at an income level of $41,600 by a family of four, implies more progressivity at a lower level of income than under current law. This casts doubt on its political feasibility.

These incidence figures implicitly assume that the flat tax has always been in existence, instead of the income tax. Thus, they neglect transition effects. In the absence of transition rules

74. Id.
75. Id. These estimates are based on annual flows of income and consumption. Estimates in which taxation is related to lifetime income are much less regressive. See also DON FULLERTON & DIANE LIM ROGERS, WHO BEARS THE LIFETIME BURDEN? 161, 171-74 (1993).
76. This effect was a major "lightning rod" drawing criticism to Steve Forbes, a wealthy publisher who based his unsuccessful candidacy for the Republican nomination for president in 1996 on his advocacy of the flat tax.
to prevent it, a consumption tax would represent a lump-sum tax on "old capital"—capital existing at the time of enactment. This is most easily seen in the case of wealth that is fixed in nominal terms and an RST that is reflected in higher prices. The fixed nominal wealth would finance lower consumption with higher prices. More generally, the flat tax is commonly characterized as a tax on labor income, above-normal profits, and quasi-rents, which is the return to old capital.

The lump-sum tax on old capital is one of the reasons for the great efficiency benefits of consumption-based taxation. Taxing old capital avoids the burden of higher tax rates needed under a consumption-based tax that provides transition relief.77 Thus, replacing the income tax with a consumption-based tax, minus transition relief, is often viewed as representing redistribution from the older generation, who will pay most of the lump-sum tax on old capital, to the younger generation, who will benefit from the greater economic efficiency under the consumption-based tax.

Gentry and Hubbard have attempted to assess the accuracy of this last characterization by examining the bases of taxation more carefully and determining who owns old capital.78 They remind us of the following points: a) much of the return to capital would be taxed under the cash-flow tax and only the "normal" return would effectively be exempt and b) much of the income from capital escapes tax under current law.79 Households headed by people age fifty-five or older own just over half the net wealth of all households,80 but this is not the end of the story. For example, they would be hurt disproportionately because of

77. Lawrence J. Kotlikoff finds an increase in long-run output of 8% from replacing the income tax with a RST if there is no transition relief, but 6% if relief is provided. Kotlikoff, supra note 44, at 176-78.


79. William M. Gentry and R. Glenn Hubbard suggest dividing the ex post return to capital into four components: the opportunity cost of capital (the return to waiting); the risk premium; economic profit; and the difference between expectations and realizations ("luck"). Id. Roger H. Gordon and Joel Slemrod found that in 1983 substituting cash-flow taxation for income taxation of financial assets would have increased tax revenues slightly. Roger H. Gordon & Joel Slemrod, Do We Collect Any Revenue from Taxing Capital Income, in TAX POLICY AND THE ECONOMY 89, 105 (Lawrence H. Summers ed., 1988). Of course, 1983 was just before the Tax Reform Act of 1986 (which was motivated in part precisely by such findings) reduced the problem markedly.

80. Gentry & Hubbard, supra note 78, at 16.
their relatively large ownership of financial assets.

Gentry and Hubbard also find a distributional picture somewhat at odds with the one described above. First, losses to owners of existing assets would be concentrated in households with high income and high net wealth. Second, assets with high, above-normal returns are also concentrated in households with high income and high net wealth, as are assets favored by preferential treatment under the current tax system. Taken together, these considerations suggest that the flat tax would be more progressive than estimates that neglect transition effects suggest.

D. Currently Inapplicable Motivations

A VAT, or other form of sales tax, has sometimes been advocated as a means of reducing the budget deficit of the federal government. As such, it would provide a source of additional revenue and might replace some revenue from the income tax. This reasoning appears to be almost completely absent from the current tax reform debate. Hufbauer notes, "if any TBA [tax on business activity] advocates suggest that a tax on business activity should be added to the existing tax structure." The Republican majority is intent on achieving a balanced budget by reducing spending rather than by raising taxes. Moreover, they probably fear that the VAT, once enacted, would become a "money machine," financing future growth of the federal government. Finally, adding a VAT to the fiscal arsenal of the federal government, without eliminating the income tax, would add substantially to administrative and compliance costs.

The VAT has also been proposed as a means of financing reform of health care in the United States. This idea also seems to be dead for now, or at least dormant, a casualty of the battle over health care reform.

81. Id. at 17.
82. See McLURE, supra note 11, at 3.
83. HUFBAUER, supra note 32, at 10.
IV. INTERNATIONAL ISSUES

Until recently, U.S. debate on tax reform has been conducted as though the United States were a "closed" economy—especially one closed to international trade and capital flows. This description is still largely accurate of popular debate. In reality, of course, the enactment of a consumption tax would have important international consequences, including particularly important ramifications for U.S. trading partners. This section describes some of these consequences.

A. Prices, Border Tax Adjustments, and Effects on Trade

In order to examine the effects on prices, exchange rates, and international trade of substituting a consumption-based tax for the income tax, it is useful to consider separately the following: first, eliminating a uniform income tax and introducing a uniform consumption-based tax; second, introducing BTAs; and, finally, taking account of non-neutralities in the income tax.

1. Price Effects of Uniform Taxes

Considered separately, a tax increase reduces real after-tax incomes, and a tax reduction increases them. But a reduction (an increase) in factor incomes can be achieved by an increase (reduction) in prices, with nominal incomes remaining constant or by a reduction (an increase) in nominal incomes, with prices remaining constant (or by other equivalent changes). Ignoring for the moment the influence of international trade, the question is, what is the most likely response to substitution of a consumption-based tax for the income tax?

a. **Indirect Taxes**

It is commonly assumed that an RST or a VAT would be reflected in higher prices instead of lower nominal returns to factors—essentially wages. It is hard to imagine the monetary authorities not accommodating such an increase in prices, given the downward rigidity of wages. This is especially so in unionized sectors; the alternative would presumably be substantial unemployment.\(^8\) The predominance of international experience supports these theoretical conclusions.\(^7\)

b. **Income Tax**

By comparison, the elimination of the income tax probably would not have much effect on either before-tax factor incomes or product prices. Thus, substituting one of the indirect taxes for the income tax would probably result in an increase in product prices, little change in before-tax factor returns, and an increase in nominal after-tax returns.

c. **Flat Tax and the McLure-Zodrow Hybrid**

Adjustment to the flat tax would presumably resemble the adjustments to an income tax: neither the price level nor before-tax income would be affected. Thus, substituting it for an income tax would have no effect on the price level and either before or after-tax factor incomes. Similar results appear likely for the McLure-Zodrow hybrid.

d. **Unlimited Savings Account Tax**

The results under the business portion of the USA tax are more difficult to predict. The individual portion would probably

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\(^8\) For a similar view, see Robert Hall, The International Consequences of the Leading Tax Proposals, paper presented to a conference on Fundamental Tax Reform organized by the Center for Economic Policy Research, Stanford California 9-10 (Dec. 1, 1995) (unpublished manuscript, on file with The University of Miami Inter-American Law Review). Auerbach suggests that it is inappropriate to prejudge this issue. Auerbach, supra note 45, at 54 n.43.

\(^7\) See ALAN A. TAIT, VALUE ADDED TAX: INTERNATIONAL PRACTICE AND PROBLEMS 191, 212 (1986).
have effects similar to those assumed for the flat tax and the McLure-Zodrow hybrid. The basic business tax is an 11% subtraction-method VAT, so it should have effects similar to those of the RST and the standard VAT. Whether the credit for the payroll tax would offset part of this effect is unclear. The analysis that follows (as summarized in Tables 1 and 3) assumes that it would not.

### Table 1
Probable Effects of Tax Reform on Factor Incomes and Product Prices

<table>
<thead>
<tr>
<th></th>
<th>Nominal Wages</th>
<th>After-Tax Wages</th>
<th>Product Prices</th>
<th>Real Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eliminate income tax</td>
<td>0</td>
<td>+</td>
<td>0</td>
<td>+</td>
</tr>
<tr>
<td>Introduce another tax:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAT or RST/USA tax</td>
<td>0</td>
<td>0</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Flat tax/M-Z hybrid</td>
<td>0</td>
<td>-</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Net effect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAT or RST/USA tax</td>
<td>0</td>
<td>+</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>Flat tax M-Z hybrid</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

2. Border Tax Adjustments of Uniform Taxes

Under the General Agreement on Tariffs and Trade (GATT), indirect taxes can be levied on either an origin or destination basis. That is, products entering international trade can bear either the tax of the country of origin or the tax of the country of destination.\(^{88}\) An RST is inherently a destination-based tax, ex-

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\(^{88}\) Implicit in this description is the assumption that products will be treated consistently by the importing and exporting countries. If not, they will be subject to double taxation (origin taxation in the exporting country and destination taxation in the importing country) or no taxation (destination taxation in the exporting country and origin taxation in importing country). This is not the issue here. The intent is merely to indi-
cept to the extent that sales to tourists and to businesses producing for export are taxed. Tax is collected on retail sales of imports, but not on exports. In order for a VAT to be levied on a destination basis, tax must first be levied on imports, with no credit for tax paid to the country of origin (no deduction for imports, in the case of a subtraction-based system) and, second, tax must not be collected on exports, and any tax collected at prior stages must be rebated (deduction must be allowed for costs incurred in earlier stages, under a subtraction-based tax). The collection of taxes on imports and rebate of taxes on exports is commonly called BTAs. BTAs are needed to convert a destination principle tax to an origin principle tax. BTAs are not allowed for direct taxes such as income taxes and payroll taxes.

In theory, in the long run and under certain conditions, the choice of origin and destination principles is a matter of indifference. A shift from one principle to the other would be offset by movements in exchange rates or domestic price levels. (The trade effects of the destination principle are thus equivalent to those of the origin principle, plus devaluation.) Of course, such adjustments take time, during which, all else equal, the destination principle would be more favorable to trade than the origin principle. Virtually all countries that impose a VAT employ the destination basis. There is no need to discuss the principles in detail because the United States would presumably do the same and the RST is inherently a destination-based tax.

The authors of the flat tax and the McLure-Zodrow hybrid propose that the tax should be levied on an origin basis. By

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90. For a discussion on the flat tax, see Hall, supra note 86, at 3. For a discussion on the McLure-Zodrow Hybrid Method, see McLure & Zodrow, *A Hybrid Approach*, supra
comparison, the proposal for the USA tax includes BTAs. Both of these proposals, in different ways, are problematic.

a. Flat Tax and the McLure-Zodrow Hybrid

Under any origin-based tax, including the flat tax and the McLure-Zodrow hybrid, there would be tremendous pressure on transfer pricing. Specifically, firms would want to attribute as much value added as possible to foreign countries, in order to avoid paying tax on value added in the United States.

To avoid this problem, consideration might be given to imposing these taxes on a destination basis. However, direct taxes are not eligible for BTAs under the GATT. Thus, it is unclear whether this option is available. Hufbauer argues that, under present interpretation of the GATT, BTAs are unlikely to be allowed for the flat tax, but speculates that the GATT might be amended to allow BTAs as an accommodation to the United States.

b. Unlimited Savings Account Tax

It is unclear whether the USA tax would be eligible for BTAs because of the credit for payroll tax. It can be argued that the USA tax is an attempt to gain BTAs for the payroll taxes—for which BTAs are not allowed. Hufbauer states:

[w]e conclude that, under current GATT rules, the USA Tax can be adjusted at the border. But it is not an open-and-shut case. In particular, a technical question can be raised as to whether the USA Tax is a product tax, and a more substantial

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note 22, at 73-84.
92. HUFBAUER, supra note 32, at 68-70.
93. The argument in HUFBAUER, supra note 32, at 68, that the credit for the 7.65% payroll tax on employers is tantamount to earmarking part of revenues for the social security trust funds is not totally convincing. There is no doubt that BTAs would be allowed for the USA Tax if the payroll tax were repealed and revenues from the USA Tax were earmarked for the trust funds. This is not what is proposed. Cosmetics are very important in this business.
question can be raised concerning the USA Tax treatment of the Social Security Tax.\(^9\)

The first three columns of Table 2 show, for various taxes assumed to replace the income tax, the tendencies for movements of domestic prices (from Table 1), import prices, and export prices induced by various combinations of taxes and BTAs, ignoring the restraining influence of international trade. Based on these tendencies, one can infer pressures on the U.S. exchange rate, shown in the last column.\(^5\)

TABLE 2

Probable Effects of Tax Reform and Border Tax Adjustments on Prices and Exchange Rates

<table>
<thead>
<tr>
<th>Income tax replaced by:</th>
<th>Effect on Domestic Prices</th>
<th>Effect on Import Prices</th>
<th>Effect on Export Prices</th>
<th>Effect on Exchange Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>RST or VAT</td>
<td>+</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>USA tax</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Destination-based</td>
<td>+</td>
<td>+</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Origin-based</td>
<td>+</td>
<td>0</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Flat tax/M-Z hybrid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Destination-based</td>
<td>0</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Origin-based</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

A destination-based tax that raises domestic prices, such as the RST or VAT, also raises import prices and leaves export

\(^9\) Hufbauer, supra note 32, at 2.

\(^5\) For a similar exercise, see Hall, supra note 86.
CONSUMPTION-BASED TAXES

prices unaffected. Similarly, an origin-based tax that does not raise domestic prices, such as the flat tax or the McLure-Zodrow hybrid, leaves import and export prices unchanged. In either of these cases there would be little immediate impact on international trade and little effect on the exchange rate. By comparison, if the flat tax or the McLure-Zodrow hybrid were imposed on a destination basis, import prices would rise in relation to domestic prices, and export prices would fall. This would provide a short-run stimulus to exports, and an impediment to imports, and would lead to an appreciation of the dollar. Conversely, if the USA tax were levied without BTAs, both the prices of domestic goods and exports would rise, but the price of imports would not change. The resulting difficulties in competing in both domestic and foreign markets would lead to a depreciation of the dollar.

3. Other Considerations

Up to this point, the discussion has assumed that a neutral income tax would be replaced by a neutral tax on consumption. In fact, this is not the case. At the very least, the existing income tax is not neutral; it applies more heavily to capital-intensive goods than to labor-intensive ones. Whether the tax replacing it would replicate these differentials, be more neutral, or impose yet another set of differentials, remains to be seen. Shifts in burdens between the tradable and non-tradable sectors would alter the neutrality results described above.

If substitution of a cash-flow tax for the income tax were to increase saving more (less) than investment, it would cause a temporary improvement (deterioration) in the trade balance. Of course, this would eventually be reversed.

The transitional impact of a consumption-based tax would depend crucially on whether it was levied on an origin or desti-

96. Leslie B. Samuels suggests that there would be little effect on competitiveness from this source. See Hearings, supra note 73. Feldstein and Krugman concentrate on the other side of the replacement, the possibility that the VAT would not be neutral. Feldstein & Krugman, supra note 89, at 264-65, 275-77.

97. National accounting provides the following identity:

\[ C + S + (T - G) = C + I + (X - M), \]

where \( C \) is consumption, \( S \) is saving, \( (T - G) \) is the budget surplus (taxes minus government spending), \( I \) is investment, and \( (X - M) \) is the trade surplus (exports minus imports). All else equal, if \( S - I \) increases, the trade surplus must increase.
nation basis. If levied on a destination basis, such a tax would burden U.S. owners of capital located both in the United States and abroad but not foreign investors in the United States. On the other hand, an origin-basis tax would burden both resident and foreign investors in the United States but not U.S. residents investing abroad.

B. Location of Economic Activity

1. Outbound U.S. Investment

Both the flat tax and the USA tax are levied on a territorial basis. They do not apply to income earned abroad by U.S. corporations. By comparison, under the current law, U.S. tax is paid on worldwide income, and credit is allowed for income tax paid to the country where income originates, up to the level of U.S. tax that would be due on such foreign-source income. This has led some observers to believe that the flat tax and U.S. tax would create an incentive for investment to shift from the United States to other countries that levy lower taxes—the "runaway plant" problem. Hufbauer characterizes this as "a near fatal objection." This view reflects a fundamental misunderstanding of the nature of consumption-based taxes. As noted earlier, a consumption-based tax exempts the normal return to capital, but not the above-normal return. Thus, a foreign country would not be more attractive than the United States to an investor in a project yielding only a normal rate of return as long as its tax rate was positive. Whether it would be attractive for an investment yielding an above-normal return depends on the relation between the tax rates of the two countries and the fraction of total returns represented by normal returns. The higher the

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99. HUFBAUER, supra note 32, at 68.
101. Assuming all returns to be distributed immediately, the U.S. consumption-based tax would impose a lower tax burden than a foreign income tax, if:

\[ U \times A < F \times T, \]

or:

\[ U < F/a, \]

where \( U \) is the tax rate in the United States, \( F \) is the foreign tax rate, \( A \) is above-normal
fraction of above-normal returns, the more attractive a low-tax foreign country would be. In any event, investment in the United States would become relatively more attractive than investment in high-tax countries.

This reasoning must be modified if foreign-source income is not distributed currently and/or the U.S. parent is in an excess credit position. If repatriation of foreign earnings is deferred, taxation currently resembles an exemption. Similarly, for multinational corporations with excess foreign tax credits, foreign-source income is effectively exempt because it can be offset by excess credits. U.S. adoption of a consumption-based tax would eliminate these considerations and make investment in the United States more attractive. The fact that U.S. domestic production currently coexists with these tax inducements to investment in low-tax countries suggests that the risk of companies relocating the plants to other countries is not as great as sometimes claimed.

2. Inbound Investment

Foreigners who invest in the United States would face the mirror image of this problem. Two cases deserve consideration. First, investments yielding only a normal return made by residents of countries taxing only domestic-source income would be taxed at a lower effective rate in the United States than in the home country. The results for investments yielding above-normal returns would depend on tax rates and the profitability of the investment. Given the predominance of territorial taxation in Latin America, this is the most relevant case for the audience of this article. U.S. adoption of a territorial consumption-based tax would reduce the intellectual case for shifting to residence-based taxation.

The second case involves countries, such as the United Kingdom and Canada, that tax the worldwide income of their profits, T is total profits, and a is \( A/T \), the percentage of total return represented by above-normal returns. Thus, for example, if the United States were to levy a flat tax of 24% and the normal return represents one half of the total return, the United States would be competitive with a foreign country with a tax rate as low as 12%. Of course, this discussion assumes that the investment is not location specific; if it is, tax considerations would not dictate location.

multinational corporations, but offer credits for taxes paid to foreign countries. If they were to allow credit for the consumption-based tax levied by the United States, these countries should not notice any effect on locational considerations faced by their multinational firms that repatriate profits currently and do not have excess credits. Below, we discuss whether such taxes should be creditable. Lower foreign tax credits would offset lower tax paid to the United States. But firms that do not repatriate profits currently or that have excess foreign tax credits would find the United States a more attractive place to invest, particularly in industries yielding only a normal return.

Income on passive investments made in the United States by foreigners poses a somewhat different issue because it is largely tax-free now. If interest deductions were eliminated, as under the flat tax, interest rates paid in the United States would presumably fall. This would eliminate the current preference for passive investment in the United States and would make investment at home relatively more attractive.

3. Effects on Saving, Investment, and Interest Rates

Replacing the current income tax with a consumption-based tax would increase the return to equity-financed investment. This return would encourage increased equity investment, especially in the corporate sector, where double taxation of equity income now occurs because of the classical system of separate taxation of dividends and corporate income.

It has commonly been thought that the substitution of a consumption-based tax for the income tax would lead to a reduction in interest rates. There would be no net effect on the after-tax cost of debt financing or the return to saving because interest would no longer be taxable or deductible. This reasoning ignores the integration of world capital markets and the benefits of expensing. Because interest rates are unlikely to fall far enough to offset the loss of the interest deduction, the interest rate paid on debt capital would rise. However, this effect on the cost of capi-

103. Foreign tax credits would presumably be lower because the United States would tax only abnormal profits.

tional to business would be offset by the benefits of expensing.

If current preferential treatment for non-corporate investment were eliminated (the deduction of interest on home mortgage interest), or neutralized by making it generally available (the exemption of interest on state and local securities), there would be a substantial increase in the supply of funds to the corporate sector. This would also counteract the tendency for interest rates on corporate debt to rise. By comparison, the tendency for saving to increase would be reduced because much of current saving is currently tax preferred.\footnote{Deferral of tax on pension saving and preferential treatment of savings invested in owner-occupied housing are examples of such tax preferred saving.}

4. Shifting of Income

Interest would not be deductible or taxable in the United States under the flat tax, so there would be an incentive to shift borrowing to other countries where interest would be deductible and to shift interest income to the United States.\footnote{For the discussion of potential abuses of the YET, see supra text accompanying notes 58-62. See also McLure & Zodrow, supra note 33, at 335-62.}

To the extent these shifts would be offset by shifts in other income or expenses, there would be no net affect on revenues of foreign countries. However, it is to be expected that this would not be the case. Transactions would be structured in such a way as to place offsetting income in tax haven countries and offsetting deductions in countries where they could be utilized. This shifting could create substantial loss of tax revenue for foreign countries. The shift of debt and interest expense to other countries could be counteracted by provisions such as thin capitalization rules.

5. The Foreign Tax Credit Issue

At various times in recent years several Latin American countries have flirted with the idea of introducing a consumption-based direct tax. Although Mexico may have been the first, Colombia and Bolivia are the best documented.\footnote{See generally Charles E. McLure, Jr., Tax Reform in an Inflationary Environment: The Case of Colombia, in WORLD TAX REFORM: CASE STUDIES OF DEVELOPED AND DEVELOPING COUNTRIES 205, 205-25 (Michael J. Boskin & Charles E. McLure, Jr., eds., 1990); Charles E. McLure, Jr., Analysis and Reform of the Colombian Tax System, in TAX REFORM IN DEVELOPING COUNTRIES 3, 44-78 (Malcolm Gillis ed., 1989). For further dis-}
describes the experience of these two countries. While perhaps gaining in interest, especially among economists, such taxes are generally still seen as exotic deviations from the international norm, and therefore suspect. A serious U.S. debate on the pros and cons of consumption-based direct taxation could focus attention on the issue throughout Latin America and the Caribbean and lend respectability to the idea.

Any country that considers adopting a consumption-based tax would be forced to wrestle with the issues raised above; notably distributional effects, transition, and the treatment of gifts and bequests. Moreover, it would face a particularly vexing problem, the possibility that the United States might not allow a foreign tax credit for cash-flow tax.

The United States has imposed the income tax since 1913. During that time it has built up an imposing network of treaties with other countries intended to prevent or at least mitigate the double taxation of income. Even where treaties do not exist, U.S. taxpayers are allowed credits for income taxes paid to foreign countries where they earn income. Much of the current debate on the U.S. tax reform ignores these two facts and the stumbling blocks they represent to successfully implementing a tax reform.

The United States allows foreign tax credits only for income taxes and taxes on excess profits. While there is a compelling economic case to support the credibility of a consumption-based direct tax, actually gaining creditability under existing regulations is neither easy nor certain. As the yield exemption approach does not allow a deduction for interest expense, it does not look like an income tax; nor does the CIT, because it includes the proceeds of borrowing in the tax base. The fact that expensing offsets the effects of disallowing interest deductions and the fact that the expenditure of borrowed funds would offset the inclusion of borrowing in the tax base may not be dispositive for the Internal Revenue Service (IRS). A more detailed discussion appears in the description of the Bolivian experience in Part V.B.
There are reasons why the issue of creditability may be more symbolic than real. First, not all countries tax the worldwide income of their taxpayers. Some countries tax only income from domestic sources, and for taxpayers from such countries, the creditability issue is moot. Second, not all countries have rules that are as strict—or as strictly interpreted—as the United States. Third, creditability is an issue only when foreign-source income is repatriated. Taxation of income that is not repatriated more closely resembles source-based taxation. Finally, many U.S. corporations have excess foreign tax credits. Where this is true, creditability is a secondary issue: there will be no credits in any event. This said, a country must nonetheless be chary about enacting a tax that will not be credited. If nothing else, eligibility for the foreign tax credit is a kind of "good housekeeping" seal of approval.

V. THE EXPERIENCE OF COLOMBIA AND BOLIVIA

As noted earlier, three Latin American countries have toyed with the idea of introducing a cash-flow tax on business. This is an integral part of most proposals for a consumption-based tax. This Part describes the experiences of Colombia and Bolivia, which are far better documented than the Mexican experience.

A. The Colombian Experience

In 1986 Colombia enacted a major tax reform. The avowed purpose was to make the tax system more neutral and to reduce incentives for decapitalization of the Colombian economy, i.e., the substitution of debt for equity as the means of financing businesses. In the process, the high marginal tax rates that had long been imposed in the interest of distributional equity were reduced substantially; the top bracket rate applied to the income of individuals and the corporate rate were reduced from 49% and 40%, respectively, to 30%. In addition, and of special importance in the present context, essentially complete inflation adjustment

110. France, for example, taxes only income from domestic sources.
111. For a more thorough description of this experience, see sources dealing with tax reform in Colombia cited supra note 107. These publications also contain further references to literature on the Colombian experience.
112. The basis of this reform is Ley 75 de 1986, Direccion General de Impuestos Nacionales (Colom. 1986).
was provided for interest income and expense. Rather than also indexing depreciation allowances and inventories, the government commissioned a study of alternative ways to deal with the effects of inflation on the measurement of income from business and capital. The 1986 tax reform legislation provided the President with extraordinary powers, allowing him to decree changes in the method of adjustment for inflation during the two-year period ending December 31, 1988.

The study commissioned by the government\(^{113}\) proposed two basic approaches for consideration by the government: first, inflation adjustment of the measurement of income from business and capital and, second, a direct consumption-based tax system, which eliminates the need for inflation adjustment. While the report described and analyzed two forms of consumption-based tax—the yield exemption and the consumed income varieties which are described above and in Appendix A—it favored the yield exemption approach. The report called the yield exemption approach the Simplified Alternative Tax, to indicate that it was a simpler alternative to the standard income tax. The report also included a preliminary but incomplete analysis of the issue of creditability of cash-flow taxes.

Ultimately, in late 1988, the Colombian government decided to follow the less controversial path of more comprehensive adjustment for inflation instead of the more novel approach of a consumption-based tax.\(^{114}\) Among the considerations influencing this choice, three deserve to be mentioned: (1) the late date at which the study of taxation and inflation became available (mid-November 1988) meant that there was far too little time to consider carefully such a radical proposal as an introduction of a consumption-based system before the December 31 deadline for Presidential action; (2) it was feared that the Supreme Court would rule that the introduction of a consumption-based system fell outside the scope of the powers granted to the President in the 1986 legislation; and (3) it was uncertain whether a cash-flow tax would be eligible for foreign tax credits in the United

\(^{113}\) McLURE, ET AL., supra note 16, xvii.

\(^{114}\) In the first instance, ad hoc inflation adjustments would be made for each of several components of income: depreciation; inventories; capital gains; and interest income and expense. Subsequently, after taxpayers and the tax administration had gained experience with this system, a switch would be made to an "integrated" system patterned after that used in Chile. See McLURE, ET AL., supra note 16, at 192-94, 236-37, for a description of these two approaches.
States. The subsequent experience of Bolivia, described below, suggests that the third concern, discussed above, might have been dispositive, even if the first two had not been present.

B. The Bolivian Experience

In 1994 Bolivia was under pressure from the International Monetary Fund to introduce a corporate income tax to bolster revenues. Gonzalo Sanchez de Lozada, then the President of Bolivia, expressed a strong personal interest in introducing a cash-flow tax, instead of a standard income tax, and requested a study of the alternatives. For simplicity reasons this unpublished study (by Charles McLure and George Zodrow) focused on developing the hybrid system that combines CIT treatment of business with YET of individuals. It also emphasized the possibility that the IRS would not allow foreign tax credits for the tax if it were enacted.

These fears about creditability ultimately proved to be well-founded. Although an IRS representative met with the President and his advisers in Bolivia to learn of the policy reasons for advocating the cash-flow tax and saw that only about 3% of the base of the proposed cash-flow tax on business would not also be subject to tax under an income tax, she stated that the proposed tax would not be creditable. Her decision was apparently based on her view of the "predominant character" of the proposed tax, an aspect of the regulatory requirements for creditability. She apparently concluded that the predominant character was such that realizations under it would not be the same as those under the U.S. income tax. She stated that the IRS "looks at the form, not the substance" of the tax. Thus, the IRS was unwilling to say that it would grant foreign tax credits for the hybrid tax proposed for Bolivia.

115. The Bolivian experience is described more fully in McLure & Zodrow, A Hybrid Consumption-Based Direct Tax, supra note 22, at 97-112; Charles E. McLure, Jr. & George Zodrow, Creditability Concerns Doom Bolivian Flat Tax, 12 TAX NOTES INT'L 825, 825-29 (1996).
116. Bolivia had repealed its previous corporate tax in 1986 because it yielded little revenue, only to replace it with an assets tax that had the same problem. See generally McLure & Zodrow, A Hybrid Consumption-Based Direct Tax, supra note 22.
Leaving the creditability issue aside, Bolivia in 1994-95 may have offered the best imaginable opportunity for introducing a cash-flow tax on business.\footnote{118} As in all developing countries, the simplification and economic benefits of such a tax would have been important. But the Bolivian situation was unique in four respects. First, the President of the country was personally interested in the proposal.\footnote{119} The idea originated with him; it did not percolate up from technocrats or foreign advisers. Accordingly, this would have increased the likelihood of enactment. Second, because Bolivia had no corporate income tax, it could not be argued that introducing the cash-flow tax, which is commonly seen as a substitute for an existing corporate tax, would reduce progressivity; if anything, it would have increased progressivity by taxing economic rents.\footnote{120} Third, for the same reason, the transition issues that commonly plague proposals for cash-flow taxes would have been much less severe than in most countries.\footnote{121} Fourth, Bolivia has a relatively pure VAT on which the cash-flow tax could be piggybacked for purposes of compliance and administration.\footnote{122}

The position of the IRS is troubling to those interested in good public policy for several reasons.\footnote{123} First, unless the creditability issue can be addressed effectively, it is virtually certain that no other country will introduce a cash-flow tax, in spite of its manifest advantages, especially for developing countries and countries in transition from socialism. Second, if no other country will adopt this innovation, because of fears it would not be creditable, the world, including the United States, will be denied access to the practical experience that could be instrumental in convincing skeptics of the benefits of such a tax.

\begin{itemize}
\item \footnote{118}{See McLure & Zodrow, \textit{A Hybrid Consumption-Based Direct Tax}, supra note 22, at 103 (making this point in greater detail).}
\item \footnote{119}{\textit{Id.}}
\item \footnote{120}{\textit{Id.}}
\item \footnote{121}{\textit{Id.}}
\item \footnote{122}{McLure and Zodrow demonstrate the similarity of the bases for the VAT and the proposed cash-flow tax and the adjustments that would be required to convert from one to the other. \textit{Id.} at 101-02.}
\item \footnote{123}{The position of the IRS is troubling for a more fundamental reason: it appears that it is inconsistent with both the U.S. Internal Revenue Code and with the regulations interpreting the Code. McLure & Zodrow, \textit{supra} note 109.}
\end{itemize}
VI. CONCLUSION: A POSTSCRIPT

Between the time this article was first prepared (late 1995) and now (early 1998), when it is being finalized for publication, much water has run under the bridge. Though the Republicans retained control of both houses of Congress in the 1996 elections, they managed through gross ineptness to cede the political high ground to the Democrats—and thus the opportunity to make radical changes in U.S. laws, including, perhaps, even a reform as fundamental as restructuring of the tax system along the lines described in Part II above. And, of course, Steve Forbes, the most visible advocate of the flat tax, did not win the presidency in 1996. Thus, there appears to be less interest in fundamental restructuring of the U.S. tax system now than two years ago. Speculating on whether there will be greater interest in the future is pointless. This should not, however, reduce interest in direct consumption-based taxes outside the United States.

As has been well documented elsewhere and summarized in Part III above, the case for such taxes is strong, particularly in less developed countries and countries in transition from socialism. Cash-flow taxes are both simpler and more conducive to saving and investment than conventional income taxes—major advantages in countries that suffer from a lack of both administrative skills and capital. Despite the existence of other problems mentioned above (e.g., distributional implications, transition problems, and the treatment of gifts and bequests), I believe that the most important impediment to the adoption of a direct consumption-based tax is the risk that the U.S. government would not allow foreign tax credits for cash-flow taxes paid to foreign governments; no country can ignore this possibility in considering whether to adopt a cash-flow tax. Yet, I believe that the economic and legal case for such credits is overwhelming. Thus, countries that might be interested in introducing a consumption-based direct tax need to find a way to insist effectively—and thus perhaps multilaterally—that the United States not, in effect, bar the door to adoption of cash-flow taxes by refusing to allow foreign tax credits for them.

124. The U.S. laws were changed in 1997, but these are better described as "tax deform" than as tax reform. See Taxpayer Relief Act of 1997, H.R. 2014, 105th Cong. (1997).
VII. APPENDIX A: SIX CONSUMPTION-TAX ALTERNATIVES

Virtually all the consumption-based taxes levied in the world fall into the category of indirect taxes—taxes that are levied on business with the expectation that they will be shifted to consumers who will pay the tax "indirectly." There are few actual examples of a direct consumption tax, a tax levied directly on the consumption of individuals, commonly through wage withholding and the filing of tax returns. The tax recently enacted by Croatia is the only direct consumption tax of general applicability of which I am aware. Among the possible reasons for the absence of direct consumption-based taxes in other countries, one is paramount: a concern that the United States would not allow its multinational corporations to take foreign tax credits against liability for U.S. income tax for direct consumption-based taxes paid to countries in which they operate.

The primary economic difference between direct and indirect taxes on consumption is the capacity of the former to allow for the circumstances of individual taxpayers. For example, since indirect taxes do not involve tax returns, the individual's circumstances such as marital status, the number of children, the aggregate consumption, and so forth, are not considered. It is also possible to exempt a threshold level of consumption from a direct tax and to impose graduated rates on consumption above that level. Doing so avoids burdening those with low levels of consumption and adds progressivity to the pattern of tax burdens.

By comparison, it is very difficult to avoid burdening the poor under an indirect tax. An indirect tax involves exempting food and other necessities. In addition, because the non-poor also benefit from such exemptions, it is a very blunt and inefficient tool for protecting the poor from taxation. Thus, in order to compensate for the burden of such taxation on the poor, it is commonly thought necessary to link the imposition of an indirect consumption tax with the reform of income maintenance policies. Furthermore, it is even more difficult to achieve through taxa-

126. This appendix is based on Charles E. McLure, Jr., A Taxpayer's Guide to Consumption Taxes, SAN JOSE MERCURY NEWS, Apr. 1995, at 8C. For a more detailed discussion, see McLure, supra note 19, at 345-58.

127. Still, many income taxes contain a variety of features that are more appropriate for consumption-based taxes. Mexico taxes small business on a cash-flow basis.

128. See supra Parts IV.B.5 & V.
tion of luxury consumption meaningful progressivity in indirect taxation of the non-poor. Moreover, this is an administratively cumbersome device.

A. Indirect Consumption Taxes

The RST is what most states impose, primarily on sales to households and on many purchases by business. Though relatively simple to collect and a useful benchmark for the analysis of other forms of consumption taxation, a federal RST seems unlikely because it would trespass on the fiscal turf of the states. Unless state taxes were levied as surcharges on a base defined by the federal government, administration would be needlessly complicated.

The VAT, the revenue work-horse in Europe and the rest of the world, achieves much the same result as the RST, but in a different and better way. VAT is levied on all sales, but businesses are allowed credits for all tax paid on purchases, including capital goods. As there is ultimately no tax on business purchases—which is contrary to the case under the RST—VAT affects only sales to households. Like the RST, VAT infringes on the tax base of the states. Since the two taxes are imposed in very different ways, it would be impossible to levy RSTs as surcharges on a federal VAT. Experience in Canada confirms what many feared—that the combination of a federal VAT and state or provincial RSTs is problematic. Since compliance and administration would be costly, especially for small business, VAT makes sense only if large amounts of revenue—such as $100 billion or more—are needed. Once imposed, the VAT might become a “money machine.”

The business transfer tax (BTT), sometimes called a subtraction-method VAT, also does what the RST and VAT do, but in a way that resembles the income tax. Tax is levied on the dif-

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129. The taxation of business inputs implies that the RST is not a tax only on consumption, that domestic production and imports are not treated similarly, and that exports do not enter international trade free of tax.

130. For a detailed exposition of the operation of the VAT and the business transfer tax, see MCLURE, supra note 11, at 6-7, 67-69 & ch. 4.

131. However, Bird and Gendron contend that arrangements in Canada have not proven as problematic as feared. Richard M. Bird & Pierre-Pascal Gendron, Dual VATs and Cross-Border Trade: Two Problems, One Solution? 18-19 (June 1997) (unpublished manuscript, on file with The University of Miami Inter-American Law Review).
ference between the sales and purchases of a business, including purchases of depreciable assets, but not wages and salaries. Thus, to avoid taxation of business purchases, the BTT uses an immediate deduction for expenditures by businesses, including those for capital goods (often called "expensing"), instead of tax credits. The BTT would be easier to implement than a VAT. Thus, both states and businesses might object less to a BTT than to a VAT. State RSTs could apparently co-exist with a federal BTT, making this scheme potentially attractive. Japan is the only developed country to have such a tax, and Japan levies it at a relatively low rate.\textsuperscript{132}

\textbf{B. Direct Consumption Taxes}

The YET, which I have previously proposed under the name "simplified alternative tax," modifies the BTT by allowing a business deduction for wages and by levying an individual tax on wages above a given threshold.\textsuperscript{133} It is the capacity to "personalize" the taxation of wages that makes this a direct tax. The tax-free amount would eliminate tax on low-income households, and if desired, the application of graduated tax rates to wages above the tax-free amount would allow progressivity. This tax also enables the possibility of itemized deductions similar to those in the current income tax.

The "flat tax" popularized by Robert Hall and Alvin Rabushka\textsuperscript{134} and supported by Congressman Armey is a variant of the YET. The tax is said to be "flat" because there would be a single tax rate on wages in excess of the tax-free amount, and the same rate would be applied to income from capital. Debt transactions have no tax consequences under the YET. Neither businesses nor individuals pay tax on dividends, interest, and capital gains, and interest expense is not deductible.

\textsuperscript{132} See Shohizei-ho (Consumption Tax Law), Law No. 108 of 1988 (Japan).

\textsuperscript{133} McLure, supra note 56, at 310; McLURE, ET AL., supra note 16, at 295-97; Mc\textsuperscript{134} McLure & Zodrow, supra note 33, at 335-82. See generally Zodrow & McLure, supra note 16, at 405-87. David F. Bradford has also supported this kind of tax. DAVID F. BRADFORD, UNTANGLING THE INCOME TAX 76-77 (1986).

\textsuperscript{134} LOW TAX, SIMPLE TAX, FLAT TAX, supra note 14, at 19-31. See generally BRADFORD, supra note 133, at 76; ROBERT E. HALL & ALVIN RABUSHKA, THE FLAT TAX (1985).
The CIT treats financial transactions differently. Proceeds of borrowing, receipt of debt repayments, and interest income are taxable. Lending, repayment of debt, and interest expense are deductible. Under certain conditions the YET and the CIT are equivalent in present value terms. The CIT could accommodate either flat or graduated rates.

The hybrid consumption tax combines CIT treatment of business with YET treatment of individuals. That is, businesses pay tax on interest income and the proceeds of borrowing, unless they are invested, and businesses deduct lending and interest expense. By comparison, individuals ignore all transactions in principal and interest on debt. I think this hybrid consumption tax is preferable to either pure form, for reasons stated in the text—namely, it achieves the benefits of both, while avoiding most of their pitfalls.

The USA tax combines a subtraction-method VAT on businesses with taxation of individuals that allows a deduction for net savings. This method resembles CIT treatment but is far more complicated and has undesirable economic consequences. It would allow credit against the individual and business taxes for the 7.65% payroll taxes that fund social security.

VIII. APPENDIX B: ECONOMIC EFFECTS OF ALTERNATIVE TAX SYSTEMS

Despite the inherent complexity of modern economies and tax systems, it is possible and now common to summarize the economic effects of the taxation of business and capital under various tax systems by calculating the METR inherent in such provisions as depreciation allowances, investment credits, the treatment of interest, the rate of inflation, and adjustments for

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135. BLUEPRINTS FOR BASIC TAX REFORM, supra note 21, ch. 4; AARON & GALPER, supra note 21, at 20-29.
136. BLUEPRINTS FOR BASIC TAX REFORM, supra note 21, ch. 4; AARON & GALPER, supra note 21, at 20-29.
137. For a demonstration of this proposition, see McLure & Zodrow, supra note 33, at 335-82.
139. See Unlimited Savings Allowance (USA) Tax System, supra note 24, at 1488, 1523; Weidenbaum, supra note 24, at 57.
140. This appendix is taken from McLure & Zodrow, supra note 109. Joint Comm., supra note 13, at 53-58, also demonstrates the equivalence of various types of consumption-based taxes.
inflation. The METR is the percentage by which taxation reduces the before-tax rate of return. While METR analysis is fairly complicated, for present purposes an extremely simplified form of this method of analysis will suffice. It is based on a two-period model in which a very simple investment is made in Year 1 and the return to investment occurs in Year 2.

Assume that a firm makes an investment of $100 at the end of Year 1. Assume further that initially it uses its own money, rather than relying on debt finance—a complication to be considered below. The investment earns returns for only one full year (Year 2), during which time the value of the investment asset depreciates to zero. For convenience, all other expenses are ignored except for interest, in the case of debt finance.

Two cases will be considered. In the first, the investment return is 10%, which is assumed to equal "the" rate of interest prevailing in the economy. Economists commonly call this the "normal" return to capital. In the second case, the investment pays an above-normal return of 15%.

A. Income Tax on Economic Income

1. Equity Finance

Under a tax on economic income, the cost of the investment would be written off in the second year, since all economic depreciation is assumed to occur in that year. Thus, the calculation of the tax base for an equity-financed investment would be as shown in Table B-1.

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141. The locus classicus for METR analysis is MERVYN A. KING & DON FULLERTON, THE TAXATION OF INCOME FROM CAPITAL (1984). It has commonly been applied many times in many countries.

142. For more extensive use of this methodology, see MCLURE ET AL., supra note 16, at 70-74.
Table B-1

Calculation of the Base of a Tax on Economic Income:
Equity Finance

<table>
<thead>
<tr>
<th>Year</th>
<th>10% return</th>
<th>15% return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment</td>
<td>Depreciated in Year 2</td>
<td>Depreciated in Year 2</td>
</tr>
<tr>
<td>Net taxable income</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross receipts</td>
<td>110</td>
<td>115</td>
</tr>
<tr>
<td>Depreciation</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Net taxable income</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

The result is what one would expect. The income tax base is equal to net income in the two cases: 10% of the initial investment in the first case and 15% in the second. The income tax does not distinguish between the normal return to capital, 10% in this example, and the above-normal return of 15%. Income tax applies to both.

2. Debt Finance

Consider now the case of debt finance in Table B-2. Suppose that the business borrows $100 at an interest rate of 10% and makes an investment yielding alternatively 10% or 15%. The debt is repaid at the end of Year 2. In Year 2 the $10 deduction for interest expense exactly offsets the return on the investment yielding a 10% normal return, leaving a zero tax base. The income is taxed as interest income if interest is subject to tax. By comparison, in the case of the investment yielding 15%, the above-normal return of five would be subject to tax.
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Table B-2

Calculation of the Base of a Tax on Economic Income:

Debt Finance

<table>
<thead>
<tr>
<th></th>
<th>10% Return</th>
<th>15% Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment</td>
<td>Depreciated in Year 2</td>
<td>Depreciated in Year 2</td>
</tr>
<tr>
<td>Net taxable income</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Year 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross receipts</td>
<td>110</td>
<td>115</td>
</tr>
<tr>
<td>Depreciation</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Interest expense</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Net taxable income</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

B. Consumption-Based Direct Taxes

With this background, we are ready to consider the effects of the two consumption-based direct taxes.

1. Equity Finance

   In the case of equity finance, the only analytical difference between the consumption-based direct tax and the tax on economic income is that under the former the cost of investment is deducted in the first year instead of being depreciated. There is no positive cash flow in Year 1. Therefore, this deduction must be carried forward with interest (calculated at "the" interest rate of 10%) to Year 2 in order to maintain its present value and make it comparable to the monetary magnitudes in Year 2.143

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143. In the case of a "stand-alone" investment, there would be an excess deduction (negative cash flow or "losses") in the first year. Some taxpayers would be able to use the
Table B-3 presents the calculations of taxable cash flows resulting from the two alternative equity-financed investments. The benefit of expensing is sufficiently great that the normal return to investment is effectively exempt from tax under the consumption-based direct tax. However, if the investment earns above-normal returns, such above-normal returns are taxed.

**TABLE B-3**

Calculation of the Base of a Consumption-Based Direct Tax:

**Equity Finance**

<table>
<thead>
<tr>
<th></th>
<th>10% return</th>
<th>15% return</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment (Expensed)</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Net taxable cash flow</td>
<td>-100</td>
<td>-100</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross receipts</td>
<td>110</td>
<td>115</td>
</tr>
<tr>
<td>110% of Year 1 excess deductions</td>
<td>110</td>
<td>110</td>
</tr>
<tr>
<td>Net taxable income</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

2. Debt Finance

The two cash-flow taxes would treat interest and debt transactions differently.

deductions currently to offset other income. The conclusions presented here are independent of which of these analytical conventions is used. In either event, the excess deductions would be carried forward with interest to offset positive cash flow in the second year. It would be appropriate to use the prevailing 10% interest rate to compound deductions taken in Year 1 to make them comparable to the monetary magnitudes in Year 2.
a. *Consumed Income Tax*

Under the CIT, proceeds of borrowing would be included in the tax base for Year 1, and interest expense and the repayment of debt would be deductible in Year 2. Because the proceeds of borrowing offset investment expense, there are no excess deductions in Year 1, as there are in the case of equity finance (and the YET considered below). Table B-4 illustrates the calculations of the tax base under the CIT for the two years.

**Table B-4**

Calculation of the Base for the Consumption-Based Direct Tax: Debt Finance

<table>
<thead>
<tr>
<th></th>
<th>10% return</th>
<th>15% return</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proceeds of borrowing</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Investment (Expensed)</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Net taxable cash flow</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross receipts</td>
<td>110</td>
<td>115</td>
</tr>
<tr>
<td>Repayment of debt</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Interest expense</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Net taxable cash flow</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

In the case of the 10% return, the investment only covers the cost of borrowing and, as in the case of equity finance, there is no tax liability. If the investment yields a return greater than the interest rate, there is a net tax liability which is identical to that incurred in the case of equity finance and above-normal returns.
b. **Yield Exemption Tax**

Under the yield exemption tax, neither debt transactions nor interest payments have tax consequences. The excess deductions resulting from expensing of the investment in Year 1 are carried forward to Year 2 with interest. Table B-5 shows the net results, which are the same as in Table B-4, in the aggregate. If income is exempt, neither normal nor above normal profits are taxed.

| Table B-5 |
| Calculation of the Base for the Yield Exemption Tax: |
| Debt Finance |

<table>
<thead>
<tr>
<th></th>
<th>10% return</th>
<th>15% return</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment (Expensed)</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Net taxable cash flow</td>
<td>-100</td>
<td>-100</td>
</tr>
<tr>
<td><strong>Year 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross receipts</td>
<td>110</td>
<td>115</td>
</tr>
<tr>
<td>110% of Year 1 excess deductions</td>
<td>110</td>
<td>110</td>
</tr>
<tr>
<td>Net taxable cash flow</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

Figure 1 can be used to present the results of this section graphically.\(^\text{144}\) The three sets of blocks represent amounts of

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\(^{144}\) As the possible existence of above-normal returns may confuse the issue, it is convenient to recast Figure 1 to eliminate such returns, as is done below. This shows why it is sometimes said (imprecisely) that a consumption-based direct tax is equivalent to exemption of the return to capital. If there are no above-normal returns, such a tax is equivalent to exemption of the return to capital.
"income" from an equity-financed investment that are taxed under various tax regimes: above-normal returns and the normal return. The base of the tax on economic income is the total return to capital (both normal and above-normal returns). By comparison, the base of the cash flow tax is only above normal returns. If income is exempt, neither normal nor above normal profits are taxed.

FIGURE 1

Components of the Tax Base under Various Regimes
Equity Financed Investment

Component of Tax Base:

<table>
<thead>
<tr>
<th>Normal Returns</th>
<th>Taxed</th>
<th>Effectively Exempt</th>
<th>Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above-normal Returns</td>
<td>Taxed</td>
<td>Taxed</td>
<td>Exempt</td>
</tr>
</tbody>
</table>

| Tax on Economic Income | Consumption-based tax | Exemption |

IX. APPENDIX C: TRANSITION ISSUES

Individuals, families, business firms, governments, and other institutions have made countless commitments on the expectation that the income tax will continue to exist in roughly its present form. Unless accompanied by carefully crafted transition rules, substitution of a consumption-based tax for the income tax would confound those expectations and create windfall gains and

Components of Tax Base under Various Tax Regimes
Equity Financed Investment, Ignoring Above-normal Returns

<table>
<thead>
<tr>
<th>Normal returns</th>
<th>Taxed</th>
<th>Effectively exempt</th>
<th>Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax on Economic income</td>
<td>Consumption-based tax</td>
<td>Exemption</td>
<td></td>
</tr>
</tbody>
</table>
losses. A few examples should help clarify this.

Expensing replaces depreciation allowances under a consumption-based tax. This raises the issue of how to handle the existing undepreciated capital stock. On the one hand, allowing immediate write-off for the remaining basis would entail large revenue losses. On the other, requiring that the remaining basis be written off according to original depreciation schedules would place owners of existing depreciable assets at a competitive disadvantage, relative to owners of new assets, which would be expensed. In any case, existing assets would presumably benefit from expensing if sold. Such “churning” is not efficient (unless it is merely a tax-motivated paper sham with no substance).

The USA tax would allow depreciable assets with remaining recovery lives of fifteen years or less to be written off over ten years; assets with remaining lives of more than fifteen years would be recovered over thirty years. On average these rules seem very harsh.

The USA tax takes an even more draconian approach to several other issues of business taxation. It would eliminate carryovers for net operating losses and capital losses, for foreign tax credits, and for credits for minimum tax paid in prior years.

Existing debt creates another type of problem. Under the flat tax, interest is neither taxable nor deductible. But how should interest on existing indebtedness be treated if a flat tax is adopted? Continuing income-tax treatment of outstanding debt would postpone realization of the flat tax’s simplicity benefits and would probably lead to abuse. However, if flat-tax treatment were extended to interest on existing debt, there would be huge windfall gains (to creditors, who would receive interest tax-free) and losses (to debtors, who could not deduct interest expense). Debtors would probably not simply call debt and reissue it at lower interest rates; much debt does not have call features.

The CIT has different transition problems. Under the CIT, tax is paid on dissaving. But what about savings that have been accumulated under the income tax, from after-tax income?

(Savings accumulated from before-tax income, with the expectation that they will be taxed upon distribution, are less problematic; they are already taxed under CIT principles.) Subjecting them to taxation when dissaving occurs would impose large windfall losses on holders of existing wealth, many of whom expect to rely on such savings for retirement income. The complicated proposal to deal with this problem under the USA tax, discussed in the text, is quite unsatisfactory.