

5-1-2001

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David F. Bradford

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### Recommended Citation

David F. Bradford, *Blueprint for International Tax Reform*, 26 Brook. J. Int'l L. (2001).  
Available at: <https://brooklynworks.brooklaw.edu/bjil/vol26/iss4/9>

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# BLUEPRINT FOR INTERNATIONAL TAX REFORM

*David F. Bradford\**

## I. INTRODUCTION

My object in this paper is to explore a design for a system of international income taxation that is at once very different from, and very similar to, the one we have today. The similarity is that it is based on company taxation, just as the present international rules most centrally concern multinational corporations. The difference is that the system moves away from the accrual income objective that, in principle, motivates so much of the present tax design. As a result, it is possible to exclude from taxation most financial instruments, and thereby greatly simplify and rationalize the system. Most readers will recognize the system as based on consumption, rather than income, although I argue that this distinction hides more of importance than it reveals.

The paper explicitly is broad-brush in its approach in the interest of stimulating discussion and reflection. It is intended to suggest a possible model toward which one might aim that would deal with a variety of vexing problems in the existing system, while better serving reasonable ends of that system. As will be obvious, I make no attempt at systematic citation of the many works of others from which I have learned about all of this, or to which I implicitly respond.

In the same spirit, I blithely ignore in this presentation a host of important practical and political dimensions of the international tax dilemma. Important examples are interna-

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\* The author is a Professor of Economics and Public Affairs at the Woodrow Wilson School at Princeton University and Adjunct Professor of Law, New York University. He also currently serves as Research Associate at the National Bureau of Economic Research in Cambridge, Massachusetts. Professor Bradford is a former member of the President's Council of Economic Advisors and served as Deputy Assistant Secretary of the Treasury (Tax Policy). Professor Bradford's research has centered on public sector economics, and he is particularly noted as an authority on taxation. His book, *UNTANGLING THE INCOME TAX*, provides a comprehensive review of income taxes and their alternatives, including consumption taxes. Professor Bradford is a graduate of Amherst College, and holds advanced degrees from Harvard University and Stanford University.

tional trade conventions (*e.g.*, the GATT) and international double tax treaties. My intent is to describe a target for reform, with no claim to having seriously addressed how to get to that target. In some cases, I know what I am ignoring. No doubt, I am missing many others, for which I beg indulgence.

A standard approach to this subject would be to lay out a set of criteria that the proposed system should strive to fulfill—a set of questions to which the proposed system is the answer. In the interest of moving briskly to the concrete, and in view of the great familiarity with the issues on the part of the present audience, I propose to give the answer and then work back through some of the important questions.

## II. THE X TAX IN AN INTERNATIONAL SETTING

I have described in several publications elsewhere what I call the X Tax, a variant of the Hall-Rabushka Flat Tax.<sup>1</sup> We can make do here with a very brief description that neglects matters such as treatment of governments, charitable contributions, and the like. The X Tax consists of two components: A business tax and a compensation tax. Under the business tax, all businesses (regardless of legal form) are liable for tax at a single rate on the difference between proceeds from sales and purchases from other businesses.<sup>2</sup> In addition, payments to workers are deducted. Individuals, except as they also are businesses, are taxed only under the compensation tax, on amounts received in payment from businesses. Unlike the business tax, the compensation tax is levied at graduated rates, with a zero bracket amount and some set of higher rates on larger amounts received, up to a top rate that is the same as the business tax rate. In addition, there would be an earned income credit, as under the current system.

Importantly for ease of administration, financial transactions are excluded from both business and compensation tax bases. In the ordinary case, transactions such as borrowing and lending, issue and repurchase of stock, payments and receipts of dividends, and the like, do not enter the calculation of the taxable base. In the helpful terminology of the Meade

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1. Other authors have described other variants along similar lines.

2. See *infra* Part IV.B.2.

Committee, this is an R-Base ("real" transactions, as opposed to "financial" transactions) tax.<sup>3</sup>

The idea would be to adjust these parameters to raise the needed revenue and achieve the desired degree of progressivity of the system. This is not the context in which to develop what might be required to mimic the present system's progressivity. To have something concrete in mind, however, we could approximate the progressivity of the current U.S. income tax system with a rate of business tax of 28 percent, which also would be the top rate of compensation tax.

It has been understood that, if we neglect the deduction of payments to workers, the business tax component of this system constitutes, in the jargon of the trade, a value-added tax of the consumption type, implemented by the subtraction method. This is a great help to thinking about the links among tax systems in a world of national X Taxes. Provided the rate of tax is the same, a value-added tax of the subtraction type is exactly equivalent to a value-added tax of the invoice-and-credit type, a tax institution with which there is a great deal of experience.

Under the invoice-and-credit method, the selling firm pays a tax on all sales, noting the amount of tax on the sales invoice. A taxable firm making a purchase is allowed a credit against tax liability of the amount shown on the invoice. The effect is that a sale from one business to another gives rise to simultaneous payment of tax by the seller and equal credit against the tax by the seller. There is no net tax paid to the government until the point of sale to a buyer other than a taxable firm, generally the public. The invoice-and-credit method value-added tax thus gives rise to exactly the same flow of revenues to the government as does a subtraction-method value-added tax or a retail sales tax, with the proviso, again, that the same goods and services are subject to tax at the same rate.

The fact that the X Tax allows a deduction for payments to workers (and an earned income credit) does not change fundamentally the story from an economic perspective (even though it may do so from a legal perspective). The system can be un-

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3. Financial institutions present special problems, which I neglect in this paper.

derstood as a subtraction-method value-added tax, combined with a system of transfers based on earnings for purposes of adjusting the vertical distribution of net burdens.

To extend this picture to an international economic system, we need to specify the treatment of sales to customers abroad ("sales to abroad") and purchases from suppliers abroad ("purchases from abroad"). Under most value-added tax systems, sales to abroad are excluded from the base and purchases from abroad are included in the base. This corresponds to excluding sales to abroad from the X Tax base and denying a deduction for purchases from abroad. The result is a destination-based tax, the idea being that the tax is based on the total amount of stuff consumed in the country in which it is levied. Sales destined for another country are excluded from the base of the exporting country; imports destined for a country are included in the importing country's base.

The alternative is to include in the domestic business tax base sales to abroad and to allow a deduction for purchases from abroad. The result is an origin-based tax, the idea being that the tax is levied on the total amount of stuff produced in the country in which it is levied.

In view of the strong equivalence between these two forms of tax—they are economically indistinguishable, apart from transition—it is clear that we must be careful in drawing intuitions from the destination- and origin- labels.

The choice between these two rules for treatment of trans-border sales has important implications; mostly relating to transitional incidence and incentives, but also relating to administrability. Indeed, this major element of a fresh design is one on which the balance of pros and cons is least clear.

Before turning to such relatively technical details, let us tick off some of the properties of a system based on national X Taxes, many of which offer solutions to those vexing problems in the present system.

### III. ADMINISTRATIVE PROPERTIES

#### A. *Financial Transactions Excluded from the Base*

A hallmark of the X Tax in a purely domestic setting is its administrative simplicity. It traditionally has been argued by many analysts, including myself, that a key property of the system contributing to its simplicity is its grounding in cash-

flow accounting. In the standard subtraction-method value-added tax, all that is required to calculate a firm's base is cash-flow information—sales less purchases from other businesses. In the interest of full disclosure, I should note I have concluded that it is preferable to modify this accounting system, to provide instead for something like conventional business income accounting, supplemented by deduction for the current cost of capital (an interest rate times business asset basis). My reasons relate to properties of the system in transition, which will be referred to again in connection with transition in the international context. Such a change in the accounting rules would cut into the simplicity of the X Tax business tax base, although not very significantly.

The really major simplifications achieved by the X Tax are due to the fact that financial transactions are excluded. In the case of businesses, this means no inclusion of interest or dividends received, no deduction for interest paid, and a host of similar changes in accounting, eliminating an equally large host of tax complexities. To mention one prominent problem that would disappear: No special rules are required for capital gains. Business assets are taxed on a cash-flow basis (perhaps as modified per my remarks above); financial assets and liabilities are out of the base.

#### *B. Border Adjustment and Transfer Pricing: A Major Tradeoff*

These administrative advantages extend to the international version of the system. New administrative problems are introduced, however, by the border adjustment in the case of the destination-based system. The exclusion of sales abroad will call for monitoring methods to assure that the payments in question really come from foreign purchasers. The disallowance of deduction for purchases from abroad will require monitoring the borders, in much the way required by the customs at present.

This disadvantage is offset by a major plus of a destination-based tax, its elimination of the transfer-pricing problem. The need to value purchases and sales among commonly owned domestic and foreign companies is a perennial problem in the existing income tax. The problem is magnified greatly by the ever-growing importance of intangible property in the generation of profit. Since the proceeds of sales to a foreign cus-

tomers are not in the destination-based X Tax base, the price that commonly owned businesses may use to account for the transaction has no impact on the tax base. The same holds for an import from abroad. The price does not matter because there is no deduction anyway.

Under the origin-based system, by contrast, there is no need to police the borders for imports (apart from customs requirements). This property becomes especially important when we take into account, as I shall discuss below, the possibility that consumers may cross borders. I call this "the tourism problem," with the caveat that the term risks distracting from its policy significance.

The price of dealing with the problem of monitoring the borders is, however, to bring back the transfer pricing problem. As mentioned above, the transfer-pricing problem probably is increasing in importance in a world economy where more and more value derives from intangible capital.

### *C. Residence of Firms*

The building blocks of an X Tax are business firms. We can think of it as a tax that consolidates transactions among some set of companies, with the base consisting of the net flows from that set of companies. In principle, there is considerable room for choice about the exact definition that places a company within or without the taxable circle. For present purposes, however, I imagine rules rather like the ones now used to determine the liability for domestic corporation or value-added taxes. Given such conventions, no distinction is made between domestic and foreign companies. All companies operating in the United States, for example, are treated alike.

### *D. Domestic vs. Foreign Source*

In the present system, in order to implement the system of crediting foreign taxes paid, subject to a limit, a distinction is needed between domestic and foreign-source income. The economic concept of income relates to a person, and is not naturally located other than by the location of the person.<sup>4</sup> Partly for

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4. Traditionally, income has been described as "regardless of source," not recognizing this emphasis is nonsensical, given the definition as the sum of consumption and change in net worth.

this reason, there is no fully satisfactory concept of source of income.

Under the X Tax, at least assuming a non-overlapping definition of firms subject to tax, there is no place for a foreign tax credit and no need for any distinction as to geographic source of a company's tax base.

### *E. Some Issues That Go Away*

In an X-Tax world, repatriation of earnings (a financial transaction) would have no tax consequences. Deferral would be a non-issue. Subpart F rules would be unnecessary.<sup>5</sup> Issues of interest allocation, related to the definition of source of income, would be gone. Financial arbitrage among taxable and tax exempt entities, such as foreign governments, that are deployed in many tax shelter schemes, would no longer pay off. I believe the list could be extended greatly by those more knowledgeable about the current system.

## IV. EFFICIENCY PROPERTIES

### *A. Generic Features of This Type of Tax*

This is not the place to go into an extended review of the efficiency properties of this type of tax. But we may, in passing, remind ourselves that it is neutral with respect to the timing of people's consumption. This well-known property of consumption taxes (with a constant rate over time) often has been taken (not by me) as the main ground for advocating such taxes as alternatives to income taxes.

An X Tax provides neutrality with respect to all financial margins. For example, there is no bias toward or against debt as opposed to equity finance of companies. There is no lock-in with respect to positions in financial assets, no bias toward or against particular assets based on their different patterns of realization relative to accrual. An X Tax is neutral with respect to all real investment margins (apart from human capital formation). The tax has no impact on the choice among different forms of depreciable capital, inventory investment, and intangible investment. These neutralities would hold for a

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5. An analogue might be called for, however, in connection with the tourism problem, to which I return below. See *infra* Part V.B.



perfect accrual income tax as well, but do not hold for a practical, realization-accounting tax, even less for a system with a classical corporation income tax.

An X Tax is non-neutral with respect to labor supply. In economists' jargon, the tax puts a wedge between the social payoff to an increment of work effort and the amount received by the supplier of that effort. Under an X Tax, the wedge would be zero for a worker within the zero bracket range of the compensation tax (negative if the worker is eligible for an earned income credit) and equal to the top rate for a worker in the top bracket range of the compensation tax. This non-neutrality is shared by income taxes.

### *B. Features Relating to the International Context*

#### *1. Neutrality with Respect to Location of Production*

Under either treatment of transborder transactions, an X Tax would be neutral with respect to the location of incremental real investment of the conventional sort. This is the type of investment that we usually think of in describing the objectives of capital export neutrality and capital import neutrality. We imagine an investor in the United States with a break-even investment opportunity in the United States that yields, say, ten percent before tax and some, possibly different amount, after tax. Capital export neutrality holds if the after-tax return to that investor is the same if it is located abroad. Capital import neutrality holds if the foreign investor encounters the corresponding equivalence between investing at home and in the United States. Because an X Tax does not put any wedge between the before- and after-tax rates of return at the margin, at home or abroad, it will satisfy these neutrality properties.

It may be helpful to have a numerical example. Imagine a world in which only the United States has a tax and it is at a rate of 20 percent, expressed on a tax-inclusive basis (so selling something for \$1.25 implies a tax liability of \$0.25). Exports are excluded from the destination-basis tax base, so competitive forces will tend to push the price of this illustrative good to \$1.00 abroad.<sup>6</sup> Similarly, a foreign-produced good that sells

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6. I neglect transportation cost.

for \$1.00 abroad will sell for \$1.25 in the United States. With an origin-basis tax, there is no exclusion of the sale to abroad from the domestic base, so competitive forces will tend to push the prices at home and abroad to the same level, say \$1.00 in this case.<sup>7</sup> A given investment opportunity, defined in terms of quantities of the good given up in the present and larger quantities of the good obtained in the future, is equally attractive, regardless of location and regardless of the choice between destination and origin principles for the tax.

Another important class of investment choices involves the location at which a new idea is exploited. Suppose a U.S. company has an idea for a new video game. To keep things simple, suppose it will cost nothing to produce the thing but duly licensed copies will trade freely internationally. Where should the inventing company have the thing produced? Since it does not cost anything to produce the good, taxes constitute the only locational factor.

Suppose an origin basis tax is used. Then copies of the game will sell for the same price at home and abroad. Specifically, suppose each copy will sell for \$100 and there is a market for 5,000 copies abroad and 5,000 copies in the United States, for a total value of sales of \$1 million. With proper transfer pricing, having the game produced abroad will produce \$1 million in payments from the foreign company for the rights. This will be treated as a sale by the U.S. X Tax, so the inventing company's owners net \$800,000 from the game, the same amount they would net if they produced at home and sold the copies themselves.<sup>8</sup>

Suppose, instead, that a destination-based tax is used. Thus, if the price of the game abroad is \$100 it will sell for \$125 in the United States. Again, the net-of-tax proceeds are the same, regardless of the location of production. If the thing is produced at home, the domestic sales net the company \$500,000, as do the foreign sales, for a total of \$1 million. It may appear that the inventor is better off under these arrangements, but that neglects the difference in U.S. price levels in the two examples, it being 25% higher in the second case. The

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7. The absolute price level is indeterminate in this little story.

8. If, on the other hand, the royalties can be understated, there will be a payoff to location of production abroad.

purchasing power of what the inventor nets is the same in both examples.

## 2. Neutrality with Respect to Location of Consumption?

I have mentioned the "tourism problem." This is my jargon for the incentive, under a destination-basis tax, to shop in the country with the lowest tax rate. If the boundaries can be monitored, this incentive is eliminated except to the extent that both the shopping *and* the consumption are done in the low-tax country. Hence, my term for the problem.

We can add this phenomenon to any of our illustrations above. Suppose our conventional good is produced by labor alone. The worker gets \$1.00 and the producer breaks even by selling the good for \$1.25 and paying \$0.25 in tax. In terms of this good, the worker's earnings on this deal at home are only 0.8; that is, he or she can buy just 0.8 units of the good with the wages earned in producing it. On the other hand, the worker who goes abroad with the wages earned can buy 1 unit of the good. This is the tourism problem. The country with the destination value added tax (VAT) penalizes visiting tourists and rewards its own citizens who shop abroad. (Note the importance in this example of the U.S. tax rate being higher than that abroad.)

The tourism problem is encountered in the U.S. tax system currently in the form of debates over an "expatriation tax." Because the U.S. system has substantial elements of accrual accounting and because changing citizenship is a much bigger deal than changing location of residence, the extent of the tourism problem is probably very much lower under present U.S. law than it would be under a destination-principle X Tax. Not only would the dot-com-generation inventors of our illustrative game have a significant incentive to migrate to a low-tax jurisdiction; ordinary people with ordinary retirement incomes might find it worth while as well.

## V. EQUITY ISSUES

### A. *Generic Features of This Type of Tax*

As indicated above, my view is that an X Tax is amenable to a wide range of degrees of progressivity. Since, as a matter of adminstrability, the top rate of compensation tax is limited

to the rate of business tax, and it is probably desirable, also as a matter of enforcement, not to have too high a rate of business tax, one might argue that the existing system is capable of imposing a heavier burden at the very high reaches of the income distribution. On the other hand, the fact that we have in the past had company tax rates in the neighborhood of 50%, suggests a range of possible policies that is not usually associated with the flat tax.

It probably will be objected that there is something inherently regressive about using a consumption, rather than an income, measure as the basis for discriminating among taxpayers. How can a tax system that exempts "income from capital" be as progressive as one that taxes income from capital? I will not rehearse the arguments that, starting from first principles (that is, not taking income as the right measure of ability to pay as a matter of definition), one is quite likely to conclude that excluding income from capital is plausibly appealing in its own right. Rather, I emphasize my view that there is a general misperception of *what* income from capital *is*. Most of what we regard as business income (for example, those fortunes accumulated by the dot-comers) would be subjected to tax by an X Tax. (Consider the tax levied on those copies of the games.) The realization slowly is spreading among those of us who think about tax policy (it dawned on me rather late in my career), that the difference between a well-designed income tax and just about any old consumption type tax is entirely in the taxation of the risk-free return to wealth. I argue that this does not amount to much in the context of the debate about the choice between systems. The other payoffs are taxed equally or missed by both types of tax.

### *B. Specific Features of the International Version*

I think the main equity issue raised by a possible X Tax world relates to concerns about equity among nations. I always have been uneasy with the notion that nations, as opposed to individual people, have tax equity claims. It may be, however, that there is a correlation between national welfare and the circumstances of residents of different countries that would unify the two perspectives. Rather than tackle this question, let us consider the implications for an X Tax regime of the traditional viewpoint that there is an ethical claim by a coun-

try to revenue associated with income produced within its boundaries (with, to be sure, a residual claim by the country of residence of the owner of that income).

It would seem to me—and I confess to be unsure whether this captures the right idea—that an origin-based X Tax would satisfy the demands of the traditional view. Basically, all business “income,” as defined by the X Tax rules, would be subject to tax in the origin country. That the income so defined excludes what amounts to the risk-free rate of return times the wealth tied up in the enterprise seems to me a minor matter quantitatively. I recognize that others may disagree with the quantitative assessment, which ought to be a valid subject of analysis and discussion.

If, however, the basic premise is accepted for purposes of discussion, the further conclusion follows from the economic equivalence of an origin- and destination-based X Tax that the latter equally satisfies the demands of international equity. In that case, a choice between them could be made on administrative grounds. Important among those administrative issues would be the “tourism problem.” If my illustrative inventor can locate its production in a country and its owners do their consumption abroad, they will avoid the tax unless a device can be developed to prevent it.

Another important set of administrative issues is raised by transition, to which I very briefly turn.

## VI. TRANSITION

### A. *Generic Features of This Type of Tax*

Transition to a consumption type tax, such as an X Tax, from an income type tax with current accrual accounting, such as the existing system, raises significant issues of incidence and efficiency. Most of those engaged in tax policy debates are familiar with the major point: Shifting from accrual to pure cash-flow accounting imposes a one-time tax on existing basis. Whether this is “fair” or not is debatable. It certainly presents significant incentive problems, since taxpayers can mitigate the burden of the transition impact, perhaps significantly, by increasing consumption in anticipation of the change in regimes. On both equity (accepting the premise that it is unfair to hit taxpayers with such a transition burden) and efficiency grounds, I concluded it probably would be attractive to adopt

the income style accounting for business activity that I briefly described above.

*B. Specific Features of the International Version*

The choice between origin- and destination- bases for an X Tax regime raises similar problems. We can get a feel for the issues by imagining what would be involved in making a switch from an origin- to a destination-basis tax.

If we think about the transactions involved we can see that the difference between a value-added tax with border adjustment, and one without, is to be found in the current taxation of net exports.<sup>9</sup> One way of elaborating on this point is to trace through the way a shift in the exchange rate between the home and foreign country currencies can assure precisely the same results under either system. Another way is to assume that the exchange rate is fixed (as it is, for example, between states in the United States, all of which use dollars). Then, the alternatives give rise to different price levels.

Another numerical illustration is perhaps worth the extra words as the route to understanding how things work out. Consider two countries with exactly balanced trade. Computers are produced in the first country, say the United States, a total output of ten million units, selling for \$1000 each, for a total output value of \$10 billion. One million of the computers are sold to France, for a total export value of \$1 billion, in exchange for one billion bottles of spring water at \$1 each. The United States has a 25 percent value-added tax of the consumption type, with no adjustment at the border. Computers are built entirely from labor services, so that the tax paid on the computers is \$2.5 billion and the workers are paid \$7.5 billion. The import of \$1 billion gives rise to a deduction of \$1 billion and the resale to U.S. customers to an inclusion of \$1 billion for no net tax. In France there is no tax; the \$1 billion paid for the spring water is paid in turn to French workers, who spend a total of \$1 billion for the computers.

To foster exports, the United States announces a switch to a system of rebating tax at the border, and charging tax on imports, giving effect to the new policy by allowing firms to exclude the export sales from their tax calculations, while

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9. I say "current" because the issue is one of timing.

disallowing the deduction of the cost of the bottled water to the importer.

Without any change in prices, the new situation cannot be in equilibrium. Exporting from the United States to France is highly profitable, while the U.S. importer suffers losses. Another set of prices will, however, restore balance. For example, as a result of a general decline in the price level in France, the price of a bottle of water drops to \$0.75. The price of computers in France also drops, to \$750. Nominal wages drop accordingly, so there is no change in real wages. Therefore, the French water company still is happy to supply the original quantity of water, the demand for which in the United States is unchanged, because \$0.25 in tax is now added to the price. The U.S. computer maker is happy to accept the \$750 offered by the French, even though computers still sell for \$1000 in the United States, since there is a \$250 tax saving upon export. The U.S. Treasury still collects \$2.5 billion in tax; U.S. workers still get \$7.5 billion in earnings that they still can spend on computers and bottled water at the original terms.

What has changed? The price level in France. With flexible exchange rates, things are even easier. Then, a simple exchange rate change, following the shift in policy, will restore the conditions of equilibrium, with no change in amounts produced or exchanged, no change in real wages, and no change in the effective price of the goods to their purchasers (workers and governments).

The same argument succeeds when the *status quo ante* is a situation of unbalanced current trade, in either direction.

I looked at a change from an origin- to a destination-based tax advisedly. If the existing system reasonably is approximated by accrual income taxation, then I speculate that adopting an origin-based X Tax would have relatively small incidence and allocation effects of the sort described above. Adoption of a destination-based X Tax would be like a shift from an origin-based to a destination-based tax. Since there are often transition rules that can neutralize effects of the sort involved here, clearly, the subject would merit a more careful study were the X Tax option to be taken seriously. But my preliminary conclusion is that adopting an origin-based system would generate much smaller transition effects than would adopting a destination-based system.

## VII. CONCLUSION

I conclude from this exercise that a general regime of national X Taxes offers major advantages over the existing system, cutting through a number of policy knots, producing results that are attractive from domestic and international equity points of view, and having remarkable neutrality properties in the service of efficiency. Of the two major variants, destination-based and origin-based, it appears that the origin-based approach is likely to present the preferred balance of virtues and vices, although a great deal of attention to design options would be called for to reach a conclusion on this design detail.



