How to Coordinate State and Local Sales Taxes with a Federal Value Added Tax

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> [F]ederal cooperation, while not essential, can both provide critical support to any provincial sales tax and an incentive to improve those taxes from both an economic and administrative perspective. – Bird and Gendron (this volume)

I. Introduction

There have recently been several high-profile proposals to add a sales tax to the fiscal arsenal of the federal government.[1] Michael Graetz has proposed to use revenues from a federal value-added tax (VAT) levied at a rate of about 15 percent to replace most of the revenues from the federal income taxes.[2] Under the so-called Fair Tax proposal, revenue from a federal retail sales tax (RST) levied at a much higher rate would be used to replace all federal revenues from payroll and estate and gift taxes, as well as the income taxes.[3] Alternatively, revenues from a VAT could be used to finance an expansion of health care[4] – or any other type of federal spending – or to reduce the federal budget deficit.[5] There is, however, no reason, in principle, why the "Fair Tax" could not be a federal VAT, instead of an RST,[6] or why the Graetz proposal,

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[*]The author expresses his gratitude to authors of other papers for sharing their views on some of the issues discussed here, but does not wish to implicate them in the conclusions drawn.

[1]The term "sales taxes" is generally used here to denote both retail sales taxes and value-added taxes, although it is sometimes used to refer only to the former. Meaning should be clear from context.

[2]Graetz (2002), (2008). Under this plan the tax threshold for individuals would be raised to about $100,000.

[3]Linbeck (2005)

[4]President Barack Obama has suggested this possibility. Bartlett (forthcoming, note 80 to chapter 7) cites other proposals to use a VAT to finance health care.

[5]McLure (1987), Metcalf (1995), Bartlett (2006), Tully (2008), and Penner (this volume).

[6]Indeed, a VAT (levied at both the federal and state/local levels) is far more likely to be able to stand the pressure of the extraordinarily high rates that would be required under the Fair Tax. The President's Advisory Panel on Federal Tax Reform (2005, chapter 9) estimated that, even assuming an evasion rate of only 15 percent, a federal RST rate of 34 percent (quoted on a tax-exclusive basis, as is common for sales taxes) would be required just to replace revenues from the income taxes. Combined (federal/state/local) sales tax rates would thus approach 45 percent in some states – and be even higher if, as is likely under the Fair Tax scenario, states were also to eliminate their income taxes and make up the lost revenues by raising their sales taxes. A higher level of evasion, more generous exemptions, or also replacing the federal payroll and estate and gift taxes would require a higher federal sales tax rate and thus a higher combined rate.

finance of health care, or deficit reduction (or any other use of sales tax revenues) could not rely on a federal RST, instead of a VAT.[7] While President George W. Bush's Advisory Panel on Federal Tax Reform could not agree to recommend a VAT, it concluded that a "... VAT is an option worthy of further discussion."[8]

Among the important questions that commonly arise when the possibility of a federal sales tax is discussed is how to coordinate state sales taxes with the hypothetical federal tax.[9] At the most basic level, the issue is whether the combination of a federal VAT or RST and state sales taxes, be they RSTs or newly enacted VATs, would pose an unacceptable burden of compliance and administration. How does the existence of local RSTs, which are levied in at least 30 states, affect the answer?[10] Could an RST be administered effectively if levied at the combined federal and state (and local) tax rates that might be required – approaching or exceeding 20 percent in some states? Would the answer be different if the federal tax – and perhaps the state tax – were a VAT? How could the burden of compliance and administration be relieved? The answers to these questions would clearly depend, inter alia, on the types of sales taxes levied at the two levels of government, the degree of conformity of the state and federal tax bases,[11] and the nature and extent of cooperation between federal and state tax administrations.[12]

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[7]Combined federal/state/local sales tax rates in some states would thus approach 25 percent. If the federal government were to adopt the high tax thresholds that are integral to the Graetz plan it seems almost certain that states would follow suite. If so they would need to raise sales tax rates substantially to maintain revenues. This seems less likely to be feasible with RSTs than with VATs.

[8]President's Advisory Panel on Federal Tax Reform (2005). The panel's report (chapters 8 and 9) discusses the VAT and RST options.

[9]The present author has considered this question in McLure (1971), (1980), (1987, chapter 9), (1988), and (2005b). Among other early discussions of this topic were Bird (1993), Cnossen (1983) and (1990), Mintz, Wilson, and Gendron (1992), and Poddar (1990). Other important issues include the distributional effects of a VAT; whether the VAT would be a money machine, leading to more rapid growth of federal revenues and expenditures; the federal preemption of what has traditionally been the fiscal preserve of state and local governments; and – most recently – whether a federal VAT should be of the standard credit-invoice variety or a subtraction-method tax. The President's Advisory Panel on Tax Reform (2005, chapter 8) examines the distributional implications of imposing a federal VAT, Keen and Lockwood (2006) consider the money machine question, and Grinberg (this volume) examines the choice between a credit- and a subtraction-method VAT. Metcalf (1995) surveys most of these issues. The present paper considers only VATs that are implemented using the standard credit-invoice method.

[10]The count of states with local sales taxes is somewhat imprecise. John Mikesell, in his comment on this paper (this volume), indicates that there are 36 states in which at lest one local government levies a sales tax. Harley Duncan (this volume) indicates that there are local sales taxes in 33 of the states that have state sales taxes (in addition to Alaska, where there are local sales taxes, but no state tax), but that in two of these the base of the local tax is quite narrow.

[11]The income taxes of many states take the federal definition of income as their starting point. There are two types of income tax conformity, "moving conformity" – conformity of state

Tax base conformity and administrative cooperation would be somewhat simpler if both federal and state governments used the same form of sales tax, whether the RST or the VAT. RST has the advantage of familiarity, but even in its ideal form it suffers from the difficulty of exempting all business to business (B2B) sales.[13] In addition to this serious inherent defect, which the VAT does not share, extant RSTs do not approximate "best practice," which requires attempting to eliminate (virtually all) tax on purchases by businesses,[14] as well as taxing most sales to households (hereafter business to consumer or B2C sales).[15] How likely is it that the federal government would follow "best practice?" Would best practice be more likely under a federal VAT than under an RST? If the federal government adopted best practice, how likely is it that states would improve their notoriously defective sales taxes – which tax many sales to business and exempt many sales to households – in the process of coordinating them with the federal tax? As explained in Section IV, adoption of best practice at both levels of government would facilitate administrative cooperation. Since deviations from best practice cause economic distortions, needlessly increase administrative costs, and make cooperation more difficult, should the federal government mandate conformity or provide incentives for it?

One crucial question is how states should treat interstate sales, especially if one or more states wanted to substitute a VAT for their extant RSTs. Subnational VATs were long thought to be infeasible,[16] but Quebec's experience with its version of a VAT, the Quebec Sales Tax (QST), now provides clear evidence to the contrary.[17] Canadian experience also shows that subnational

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law to the federal law for the current year, and "static conformity" – conformity to the federal law as of a given date in the past. See Hellerstein and Hellerstein (1998, ¶7.02) Under static conformity, the federal and state tax bases would not actually conform, once the actual federal base is no longer that to which the state base conforms. This paper thus uses the term conformity to mean moving conformity. See also section IV below.

[12]There is, of course, little reason to believe that all sales tax states would choose to continue impose RSTs, that all opt for a VAT, or that all would pattern their sales taxes after the federal tax, or that all would engage in administrative cooperation with the federal government to the same degree. See also the discussion in section IV below.

[13]This disability is arguably not as severe under the "Integrated Sales Tax" (IST), a conceptually pure form of RST to be described briefly in note 19 below and analyzed in detail in Sections III and IV.

[14]It may be desirable not to eliminate tax on all purchases that are made for business purposes. For example, Canada and Quebec do not allow input credits for tax paid on membership fees or dues paid to an association whose main purpose is to provide recreational, dining or sporting facilities (including fitness clubs, golf clubs, and hunting and fishing clubs). See Revenu Québec (2005, p. 16).

[15]For expositional convenience, this paper considers only sales to business and sales to households (and unregistered traders, which for most purposes are discussed as part of B2C sales), ignoring the taxation of sales to non-profit organizations and governments. See, however, Gendron (this volume).

[16]McLure (1971) and (1980), (1987), (1988) and Bird (1993).

[17]Bird and Gendron (1998), (2000), and (this volume); Bird (2005). The Harmonized Sales Tax (HST) employed by three Canadian maritime provinces provides evidence that seems

RSTs can coexist with a federal VAT, even if there is no federal/provincial coordination.[18] That being the case, should the states retain their RSTs or switch to VATs, if the federal government were to adopt a VAT? Should they adopt the "Integrated Sales Tax" (IST), a conceptually pure form of RST that relies heavily on federal administration for its integrity, an option to be analyzed in Sections III and IV?[19] Would carousel fraud, which concerns many observers in the European Union (EU), be of equal concern in the US, where there is an over-arching federal tax administration? Section III discusses this issue, as well as the large volume of refunds that states would be required to make if they were to adopt the VAT and treat interstate B2B sales as in Quebec and the EU.

The present paper addresses these and related questions. It examines several key issues of *tax structure*: the tax treatment of business purchases, the use of exemptions and zero-rating to reduce taxation of particular products bought by households,[20] and the achievement of destination-based taxation at the state and local level, which means that exports (from the nation, state, or locality imposing the tax) are not encumbered by sales tax and that imports (into the nation, state, or locality) pay the same tax as products originating there. The last issue lies at the heart of the problem under investigation here, as it involves the tax treatment of imports of goods

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to be less relevant for the US. Described in greater detail in Bird and Gendron (this volume), the HST involves a uniform-rate surcharge on the federal goods and services tax (GST) collected in those provinces, revenues from which are distributed among the participating provinces in proportion to estimated consumption expenditures. There appears to be no technical or legal reason that each of the three provinces could not choose its own tax rate; see Bird and Smart (2007) and Bird and Gendron (this volume). In its 2009 budget, the government of Ontario proposed that the federal government administer a newly enacted provincial VAT; see note 22. It seems unlikely, except in the (also unlikely) event of a federal mandate or strong incentives to do so, that the US states would buy into federal administration of state VATs, even if allowed to set their own rates.

[18]Bird and Gendron (1998), (2000), and (this volume); Bird (2005).

[19]To make the repeated mentions of the IST on intervening pages understandable, the following thumbnail description is provided: All domestic sales to registered traders, wherever located, would be zero-rated, as would exports, interstate sales, and B2B imports acquired from abroad. By comparison, domestic sales to households and unregistered traders (hereinafter lumped together as B2C sales) would be taxed. Registration for the federal VAT, perhaps supplemented by state registration for traders below the threshold for federal registration who do not voluntarily register, would be employed to distinguish zero-rated B2B sales and imports from taxable B2C sales and imports. The system could provide credits for tax paid on business purchases that do not readily lend themselves to exemption (e.g., railway tickets and minor retail purchases).

[20]The difference between exemption and zero-rating is crucial to understanding how a VAT works. If a sale is either zero-rated or exempt, it is not subject to tax. If a sale is zero-rated, the vendor is able to claim credit for input tax. (In effect, the sale is taxed, but at a zero rate.) If a sale is exempt, no credit is allowed for input tax associated with the sale. A vendor that makes both taxable (or zero-rated) and exempt sales must allocate input tax between taxable and exempt sales.

and services by both businesses (B2B imports) and consumers (B2C imports), sales by local merchants, and exports.[21]

The second types of issues examined are *administrative*. They include which level of government (federal, state, or local) should administer the sales tax imposed by each, how to coordinate federal and state tax administration, how problems of coordination depend on which form of sales tax the various levels of government choose, and the potential contributions of the Streamlined Sales Tax Project (SSTP), an ongoing state effort to make definitions of products for purpose of state and local RSTs more uniform across states and to simplify compliance obligations of taxpayers. It should be emphasized at the outset that the introduction of a federal sales tax has the potential to create an administrative benefit for the states not enjoyed by the EU Member States, which have long wrestled with the problem of how to tax trade between Member States: a geographically over-arching entity that could assist the states in implementing the destination principle and minimize fraud associated with interstate trade. In Canada there is such an over-arching VAT system, but only Quebec and the three provinces participating in the HST take advantage of it.[22]

Federal *legislative initiatives* (beyond mere imposition of the federal sales tax) may facilitate coordination of sales tax administration and induce improvements in the structure of state sales taxes. Most basically, federal exchange of information with the states, which could be beneficial, as in the income tax area, would require amendment of statutes providing confidentiality of taxpayer information. Beyond that, the federal government might employ carrots and sticks to induce the states to follow a cooperative approach, which would facilitate compliance and administration, and even to improve the structure of their sales taxes. For example, a legislative override of the *Quill* decision, to allow states to require remote (out-of-state) vendors to collect use tax under specified conditions that are less stringent than the "physical presence" test of current law,[23] which would be appropriate as a matter of principle if

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[21]That indirect taxation should be levied on destination principle is generally taken as given for present purposes. See Hellerstein and Keen (this volume) for a defense of this proposition. For both theoretical and practical reasons the case for destination-based taxation is less compelling in the case of local sales taxes. See McLure (in process).

[22]On March 26, 2009 the government of Ontario proposed to switch from its provincial RST to a value added tax that the federal government would administer in conjunction with its own value-added tax, effective July 1, 2010. The Ontario tax would exempt a few item that are taxed under the federal tax. See http://www.fin.gov.on.ca/english/budget/ontariobudgets/2009 and Bird and Gendron (this volume).

[23]In *Quill Corp. v. North Dakota*, 504 U.S. 298 (1992), the US Supreme Court upheld the principle, first announced in *National Bellas Hess v. Department of Revenue*, 386 U.S. 753 (1967), that a state cannot require remote vendors to collect use tax on sales made into the state, unless the vendor has a physical presence in the state. A use tax mirrors the sales tax, but is imposed on the buyer's use of products that cannot be subjected to sales tax because the sale occurs outside the taxing state. Since households are unlikely to remit use taxes, the tax is not likely to be collected unless remote vendors remit it. See Hellerstein and Hellerstein (1998, ¶16.01[2] and 19.02).

(and only if) compliance by remote vendors were to be simplified enough,[24] might be used to encourage states to adopt best practice or participate in administrative cooperation.

The case for state autonomy over tax rates is taken as axiomatic. Leaving aside the compelling conceptual arguments for state autonomy over rates, it seems that any system that compromised such autonomy would be politically unacceptable. Concern for state autonomy over tax rates rules out approaches such as that employed in Australia, where all the revenue from the VAT imposed by the federal government is distributed among the states according to a formula, and Canada's Harmonized Sales Tax (HST), in which a uniform provincial surcharge is added to the federal Goods and Services Tax (GST, the Canadian federal VAT) on sales made in the three participating provinces (New Brunswick, Newfoundland, and Nova Scotia), with revenues from the surcharge being distributed among those provinces in proportion to estimated consumption expenditures.[25] These schemes finesse the issues examined in this paper, but at the cost of considerable loss of subnational fiscal autonomy. In neither of them do the individual states and provinces control the tax rate applied to sales made to their residents. The Australian scheme is more akin to a system of grants financed by the federal VAT than to state taxes. The Canadian HST system of uniform provincial surcharges is economically equivalent to a system of tax sharing limited to the participating provinces. On the other hand, if each province could choose its own rate, the HST would more appropriately be categorized as a provincial tax that is administered by the federal government as a surcharge on the federal GST.

There is less concern in this paper for loss of state autonomy over the definition of the tax base, as differences in tax bases contribute significantly to complexity, departures from widely recognized "best practice" in this area impose economic costs and inequities, and substantial conformity with the federal sales tax base is crucial for efficient administrative cooperation. There is less concern for local autonomy over both the definition of the tax base and tax rates, as local autonomy over the tax base (found in only a few states) further increases complexity and administrative costs, local sales taxes are most efficiently collected as surtaxes on state taxes, as in all but four of the roughly 30 states where local governments impose RSTs, and the Streamlined Sales and Use Tax Agreement (SSUTA) already reduces local autonomy over both the definition of the tax base and tax rates in participating states. (By comparison, the SSUTA leave the choice of whether to tax particular products to the legislatures of individual states, requiring only that uniform definitions be employed to specify broad groups of products that are either taxed or exempt.)

Among the most important criteria for choosing among the alternatives considered are their administrative attributes, including ease of administration and compliance, for both local merchants and remote vendors, and their vulnerability to tax evasion. The achievement of destination-based subnational taxation, long the bugaboo of this subject, receives special attention. Also considered are familiarity of the alternative methods of collecting a sales tax and the potential contribution to good tax policy: non-taxation of most business purchases and uniform taxation of most purchases by households. Of course, these criteria are not mutually independent, as convergence to best practice would facilitate compliance and administration, and

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[24]See McLure (2000a).

[25]As indicated in note 17 above and explained in Bird and Gendron (this volume) uniform provincial tax rates are not an inherent feature of the HST.

the choice of means to implement destination-based taxation has implications for – and depends on – ease of compliance and administration.

The next section describes the advantages of the VAT as a form of indirect taxation, considers the advantages of a federal RST in the US context, and concludes that a federal VAT would be preferable to a federal RST. Section III considers issues that arise in deciding whether states should continue to impose the RST, a course they are likely to follow initially, or switch to the VAT, if only eventually. Of particular note is the description and analysis of the IST, a conceptually pure form of state RST that would rely heavily on administration of the federal VAT for its administrative integrity. Section IV describes how both state RSTs, including the IST, and state VATs could be made to conform to the federal VAT and the way administration of the federal VAT and state sales taxes could be coordinated. It examines questions of tax structure, administration, and federal legislation. Section V draws together conclusions.

II. Why a Federal VAT Is Preferable to a Federal RST

One can imagine the eight combinations of federal, state, and local choices between VATs and RSTs shown in Table 1.[26] Although coordination of state and federal sales taxes would be simplest under option 5, in which all three levels of government levy an RST, a federal RST seems inadvisable. [27] The remainder of this section explains this view, which would, of

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[26]In this table the state IST is a conceptually pure form of RST (introduced in note 19 above and explained further in Sections III and IV) that relies on the existence of a federal VAT for its administrative integrity. It is thus included (in parentheses) in the state line under options 1 and 2, but not options 5 and 6, which assume a federal RST. The local RST in option 1 could be either a standard RST or an IST; in either case the local tax would levied as a surcharge on the same type of state retail sales tax.

[27]Other papers arguing in favor of a VAT include Cnossen (1987) and (2002) and Bird

course, rule out options 6-8, as well as option 5.[28] Option 2 (federal and local VATs, but state RST, is totally impractical, as well as politically unlikely. The next section examines options 1, 3, and 4, which seem to be the most promising options. (The appraisals of options 3 and 4 in the last row are not likely to be comprehensible at this point.)

Table 1: Options for Coordinating State and Local Sales Taxes with a Federal Sales Tax

Federal Tax	VAT				RST			
State Tax	RST (including IST[a])		VAT		RST		VAT	
Local Tax	RST[b]	VAT	RST	VAT	RST	VAT	RST	VAT
Option Number	1	2	3	4	5	6	7	8
Disposition of option	Most likely, at least initially	Impractical	Feasible, with local IST[a]	Feasible, with local VIVAT[c]	Federal RST is not advisable, because of administrative and compliance problems and vulnerability to evasion			

(2007), which, despite it title, is equally applicable to the choice between the two forms of sales tax for use at the federal level.

[28]This is not the only liability of these three discarded options. Case 6 would involve a state RST, but local governments' reliance on the VAT, rather than the RST, which many now levy as surcharges on state RSTs. It would be difficult to implement local a VAT, in the absence of a state VAT. Cases 7 and 8 involve the politically unlikely combination of a federal RST with state reliance on the VAT, rather than the familiar RST. It would encounter the difficulties described in Section III below (the need to refund VAT on interstate trade if such trade is zero-rated and the risk of carousel fraud attendant thereto), but without the protection of an over-arching federal VAT.

[a]IST is the Integrated Sales Tax described in note 19 and explained in Sections III and IV.
[b]Could be a "standard" RST or an IST, as surcharge on same type state RST.
[c] The local VIVAT is a special form of VAT described in Section III.

A. Advantages of a Federal VAT

In their ideal forms, both the VAT and the RST avoid taxing purchases of business inputs, and thus tax only consumption by households.[29] The prototypical RST does this by exempting sales to registered traders, the VAT by allowing registered traders credits for tax paid on business purchases, which can be offset against tax liability on sales (and refunded, to the extent they exceed liability for tax on sales).

Administrative advantages. The most commonly touted advantage of the credit-method VAT is the fact that it is collected incrementally, as products move through the production-distribution process – and on imports – making it less vulnerable to evasion than the single-stage RST, where the tax collector gets only "one bite at the apple," and that at the final stage, which is much more fragmented (as indicated by the distribution of the tax base among small, medium, and large traders) and more difficult to monitor than prior stages. (This description applies to the prototypical or ideal RST, in which purchases by business are exempt but the tax base is otherwise comprehensive. Departures from the prototype that are found in practice are considered below.[30])

Under a VAT, vendors generally charge tax on all sales, except those of products that are exempt or zero-rated.[31] Exports, which are almost universally zero-rated, are the most commonly zero-rated type of sales. In the United Kingdom, most food sold for home

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[29]This 'textbook" explanation ignores the fact that a large number of small traders may not be registered for VAT. By comparison, registration of traders for RST is generally more nearly universal. This important difference and its implications for coordinating state sales taxes with a federal VAT are discussed further in Section IV.

[30]One significant and unusual departure from the prototypical RST can be mentioned at this point. Until recently (from 2005? to the end of 2008), Louisiana supplemented its standard system of exemptions of sales for resale based on resale certificates with a provision for crediting tax on certain types of business purchases of the type found in credit-invoice VATs. It required that "every manufacturer, wholesaler, jobber, supplier, or broker" who sold tangible personal property to retail dealers who resold the property to final users must collect advance sales tax, unless a resale certificate was obtained. The tax collected from the retailer was taken as a credit by the retailer when filing a monthly sales tax return. The amount paid by the dealer to the manufacturer, wholesaler, jobber, or supplier was an advance payment of Louisiana sales tax collected by the dealer on sales at retail. Advance payment was a means of facilitating collection. Interestingly, while local governments were generally prohibited from requiring advance payment of tax, parishes with populations in excess of 200,000 and other local governments located therein were allowed to require collection of advance tax if sellers and dealers are domiciled in the parish. See La. Rev. Stat. Ann. § 47:306(B) (Westlaw 2009) (repealed effective 1/1/09).

[31]Note 20 above describes the crucial difference between exemption and zero-rating.

preparation is also zero-rated. Like zero-rating (other than of exports[32]), exemption is rarely based on the attributes of buyers, except in the case of readily identifiable sales to financial institutions, governments and certain types of institutions (e.g., municipalities, universities, schools, and hospitals in Canada, the so-called MUSH sector, since renamed "MASH" in recognition that not all post-secondary academic institutions are universities). Credits for input VAT are used to eliminate tax on business purchases (and in the UK are used, in conjunction with zero-rating, to eliminate tax on sales of the type that might be exempt in some countries).

By comparison, even under an ideal RST, including the IST, liability for tax would depend on the attributes of purchasers, namely, whether the purchaser is a business or a household and, in the former case, whether the product in question is intended for business or personal use.[33] Even if this information could ordinarily be readily obtained, in some sectors marketing and distribution arrangements may preclude charging tax on some sales, but not others. Such difficulties are especially common in the service sector, e.g., telecommunications and passenger transportation.[34] But unless these distinctions are made, business inputs will be taxed (or some sales to households will be exempt) and cascading – repeated taxation of the same element of value added – will occur, perhaps on a massive scale.[35] At the very least, compliance with the VAT at the time of sales is less cumbersome and time-consuming since, subject to the qualifications noted above, vendors do not need to try to ascertain whether tax should be collected, depending on the nature of the purchaser or the intended use of the product, as under an RST. Moreover (at least in the absence of pre-retail exemptions), due to the use of credits for input tax, there is relatively little taxation of business inputs and cascading under the VAT.

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[32]Significantly, as Cnossen (2008) emphasizes, zero-rating of exports does depend on the nature (foreign or domestic) of the buyer. See also the discussion of Section III, where it is noted that the VIVAT (and the IST) distinguishes between B2B and B2C sales, but the CVAT distinguishes between interstate and local sales (and exports).

[33]Under existing state RSTs not all business purchases are exempt; see note 41. This is not mentioned in the text, although it also creates enormous problems of compliance and administration, as well as economic distortions and inequities, as it is not an inherent feature of RSTs.

[34]Suppose that a traveler buys a train ticket at a machine. There is no easy and fool-proof way to avoid taxing business travel while taxing personal travel. This is true even if the traveler buys a plane ticket from a travel agent or an airline. Or suppose that in a single transaction the owner of a small business buys supplies for the business, as well as products for personal use. It is, of course, possible to segregate the two types of products and exempt the former from RST while taxing the latter. In fact, it is cumbersome to do so. (In addition, there is the problem that "dual use" products ostensibly bought for business use might be diverted to private use. That is not the issue being examined here. See, however, the next paragraph of the text) Limiting RST exemptions to goods and services bought for resale helps minimize this problem, but creates cascading. See Cnossen (2002, pp. 232-34).

[35]See note 41 below.

Finally, long ago Carl Professor Shoup noted a potentially important difference between the RST and the VAT.[36] Under the RST a customer who wishes to make an exempt purchase for personal consumption disguised as a business purchase need only lie to the vendor, who generally lacks the ability to determine whether the customer is lying and has relatively little incentive to do so. By comparison, under the VAT, the purchaser must lie to the tax administration, by improperly claiming credit for input tax. Richard Bird and Sijbren Cnossen have raised a perhaps more important though related point. Under the RST the burden is on the tax administrator to collect tax due on improperly exempted sales of dual use products. By comparison, under the VAT the government has the money and it is up to the buyer to demonstrate that it is eligible to take credit for the input VAT.[37] All this suggests that costs of

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[36]Shoup (1969).

[37]Bird (2007, p. 820) observes:

> [U]nder an RST, if a registered entity purchases a product, no tax is collected. For the tax administration to determine if tax should have been collected, it must determine the facts of the case: Was the purchaser a legitimate (licensed) activity, and did it put the product purchased to a legitimate use? If some impropriety is uncovered, it is up to the authorities to chase down the guilty and attempt to collect any tax due. That is not easy, and it is not surprising that most RST administrations seem to do little along those lines. All the cost is borne by them, and successful outcomes are elusive.

He continues (2007, pp. 820-21):

> With a VAT, tax is collected on many more transactions, and the government keeps the revenue unless the taxpayer demonstrates that he is a legitimate taxpayer and that he has a legitimate claim to credit against tax due on his sales. The onus is on the taxpayer, not the government, to act. If the government doubts the legitimacy of a claim for credit, it can demand documentation (invoices) that by law must be maintained by the taxpayer. Further, it may also follow the chain of invoices by using documentation that should be readily available -- and if it is not available, the game is over for the taxpayer.

In a similar vein, Cnossen (2008) observes regarding the VAT:

> [F]or negative items, such as tax credits claimed under VAT on the strength of purchase invoices, the *onus probandi* lies with the taxpayer, who must prove, to the satisfaction of the tax authorities, that he is entitled to the tax credits shown in his return because the goods and services purchased have been used in the course of the business.

Although the last observation was made in a discussion of the use of a comprehensive system of reverse charging under the VAT (discussed in the next section), it is relevant here, since that approach would, in effect, convert the VAT into an RST.

administering a federal RST that reflects best practice – if it were even feasible – could well exceed those of administering a comparably ideal VAT.[38]

Reinforcing this difference is the fact that it is easier for tax administrators to link income tax and VAT records than to link income tax and RST records. For example, income tax administrators can require that an income tax deduction for the purchase of business inputs be supported by evidence that VAT has been paid on the purchase. By comparison, there can be no analogous support under an ideally structured RST, which should not apply to business purchases.

Theses features of the VAT are more important, the higher are tax rates. It is commonly suggested, with little supporting evidence, that evasion would make imposition of tax rates in excess of 10 percent, which are commonplace under the VAT, problematic under an RST.[39] Imposition of a federal RST of even 10 percent, in addition to existing state and local RSTs, would imply combined sales tax rates of nearly – or above – 20 percent in some states.[40]

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[38]Dungan, Mintz, Poschmann, and Wilson (2008, p. 5) have written, "[I]t is virtually impossible to develop a system of exemptions that eliminates most RST on business inputs without its becoming highly complex and subject to significant monitoring costs."

[39]See Tanzi (1995, pp. 49-51), citing Tait (1988, p. 18). Tanzi says (pp. 50-51), "The general view among experts, a view obviously shared by most governments, is that 10 percent may well be the maximum rate feasible under an RST." The International VAT Association (2007, p. 26) states, without providing any reference, "According to the IMF, this tax is only relevant for low tax rates of between 5 and 10 percent."

[40]According to data generously provided by Josh Barro of the Tax Foundation, states in which a substantial fraction of the population pays combined state and local sales tax rates in excess of 8 percent include those shown in the following table:

Political economy advantages. The VAT may have further advantages from a political economy point of view. First, in practice, the RST is more likely than the VAT to diverge

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Percent of zip codes in which the combined sales tax rate is at least:*				Unweighted average tax rate for the state**
	8 percent	9 percent	10 percent	
Alabama	70	36	13	7.9
Arizona	56	7	1	7.7
Arkansas	56	9	3	8.0
California	36	0	0	7.8
Colorado	17	1	0	6.5
Illinois	21	14	10	7.2
Louisiana	86	46	2	8.6
Missouri	10	0	0	6.8
New York	85	0	0	8.1
Oklahoma	74	25	2	8.2
South Carolina	12	0	0	6.9
Tennessee.	100	99	0	9.5
Texas	69	0	0	7.8
Washington	64	15	0	8.3

*In some cases "0" indicates that the tax rate applies in no zip code in the state; in others it indicates that rate applies in fewer than 0.5 percent of zip codes.
**The unweighted average tax rate is the simple average of tax rates that apply in all the zip codes in the state.

In four states not listed in the table the weighted average sales tax rate is at least 7 percent. Since the highest local sales tax rates are generally found in metropolitan areas, it can be expected that the percentages of the population paying a given extraordinarily high sales tax rate exceeds the percentage of zip codes in the state where that rate applies and that the weighted average tax rate would be higher than the unweighted average. In both cases the discrepancies could be substantial.

significantly from the prototypical versions described in textbooks. Extant state RSTs are notorious for taxing many business purchases,[41] even when exempting them would improve a state's competitive position and would entail relatively little administrative and compliance problems. Moreover, although the President's Tax Reform Panel apparently recognized the need to prevent cascading, it did not say that all sales to business should be exempt, as under a conceptually attractive RST. Rather, it said of the RST it examined, "... it would not apply to purchases of goods and services by business *that are used to produce other goods or services for sale to households*." (Emphasis supplied.) Whether intentionally or not, the italicized words describe all too well the type of limitations placed on exemptions for business purchases found in all state RSTs. It is thus entirely possible that a federal RST would also exhibit this unfortunate feature.[42]

On the other hand, extant VATs levied by developed countries follow rather closely the prototypical model, by allowing registered traders credits for essentially all taxes paid on purchased inputs, and it seems likely that any VAT adopted by the federal government would also do so and would retain that feature.[43] The next section thus assumes that the federal VAT

[41] Exemptions may be limited to sales for resale or extended to consumables and fuels and/or machinery and equipment. See Due and Mikesell (1994, chapter 3) and Mikesell(2001). Ring (1999) estimated that in 1989 sales to consumers accounted for only 59 percent of state RST revenues, with most of the remaining 41 percent being attributable to sales to business. More recently Cline, Mikesell, Neubig, and Phillips (2005) estimated that in 2003, 43 percent of revenues from state sales taxes came from taxation of business inputs. Kuo, McGirr, and Poddar (1988, p. 662) estimate that in 1980 taxes on business inputs accounted for almost 37 percent of provincial RST collections in Canada. Dungan, Mintz, Poschmann, and Wilson (2008) have estimated more recently that a third of Ontario's RST is levied on intermediate and capital goods. Because of the taxation of business inputs, the Ontario tax, levied at a statutory rate of 8 percent, imposes additional burdens on business ranging from 3.6 percent on nonresidential construction to 4.5 percent on manufacturing and equipment. Chen and Mintz (2003) calculate that eliminating the taxation of business inputs would have had a greater positive effect on business investment than reducing the provincial corporate income tax from 12.5 percent to 8 percent.

[42] President's Advisory Panel on Federal Tax Reform (2005, p. 209). It is, unfortunately, unclear exactly what the panel intended the italicized words to mean. It would be difficult to interpret them to imply exemption of (virtually) all sales to registered traders.

[43] The definition of the base of the VAT may be more resistant to change than that of the income tax, which is notoriously inconstant, because the prototypical VAT provides a clear benchmark in at least two respects: credit for all input tax paid by registered traders and destination treatment of foreign trade. (The third component of the prototypical VAT, taxation of almost all household consumption at a uniform rate, is subject to more variation, as reflected in the laws of various countries.) By comparison, the proper benchmark for an income tax is much more controversial. For example, what is the economic life of a particular asset? Should deductions for depreciation, depletion and amortization, the basis for calculating capital gains, and the principal value of debt be adjusted for inflation, so as to make the calculation of taxable income immune from inflation? Should the corporate and individual income taxes be integrated?

It might be noted in passing that prototypes of direct consumption-based taxes such as the

would provide input credits for (virtually) all taxes on business purchases by registered traders.[44] Such a federal VAT would provide an excellent basis on which to conform state and local sales taxes, and conformity to that standard would greatly improve those taxes, as well as facilitating cooperation between federal and state tax administrators.

The second potential political economy advantage of the VAT is perhaps more controversial. State RSTs exempt a wide range of products consumed by households, especially services and food, and there would likely be pressures to include similar exemptions under a federal RST.[45] By comparison, services are commonly included in the base of VATs levied by developed countries, but food and other "necessities" are often subject to lower than standard VAT rates.[46]

This difference in coverage of typical RSTs and VATS is probably explained in part by differences in the way the two taxes operate.[47] Since an RST exemption implies unequivocally

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flat tax (described in Hall and Rabushka, 1985) and the X tax (described in Bradford, 1986) avoid all the above questions. This suggests that their bases might be more constant than that of the income tax, if ever enacted. On the other hand, the distributional consequences of such schemes may be so controversial that the whole package would be scrapped in favor of a return to a conventional income tax. Moreover, rather than being enacted as proposed, one of these schemes might incorporate elements more appropriate for an income tax, such as the deduction for interest. In that case, the economic effects (e.g., those resulting from a negative marginal effective tax rate on income from capital) might be so undesirable that the law would be changed.

[44]The primary problem with allowing credit for input taxes paid on all purchases by registered traders is the risk that purchases intended for personal consumption will be disguised as business purchases. Analogous problems plague administration of RSTs and income taxes. It would be possible to make VAT on some business purchases (e.g., certain types of motor vehicles, restaurant meals, and memberships in clubs) ineligible for credit. Experience with limits on deductions for such expenditures under the income tax demonstrates the inherent limitations of such policies.

[45]The report of the President's Tax Reform Panel (2005, pp. 215-16) considered the possibility that an RST enacted as part of the Fair Tax proposal would reflect such features.

[46]For tax rates in the EU, see Commission of the European Communities (2009). For rates in a wider range of countries, see OECD (2008). Exemptions and zero-rating are commonly limited in the EU to health, education, and activities of non-profit organizations; see Article 132 of the EC VAT Directive (Council Directive 2006/112/EC of 28 November 2006). Either purchases or sales of such organizations (or both) can be exempt or they can be zero-rated. See Gendron (this volume) for the implications of alternative treatments. Financial services, another thorny area for VAT design, may also be subject to exemptions and/or zero-rating; see Schenk (this volume). For a trenchant indictment of the use of exemptions for distributional or other social reasons, see Crawford, Keen, and Smith (2008, p. 29-30).

[47]This difference – and the difference in the treatment of sales to business – may also be explained in part by historical accident. State RSTs "just growed," without their design being underpinned by the type of economic analysis that is now standard. At the time the first RSTs were adopted, beginning in the early 1930s, goods were relatively much more important than

that tax is lower than it would otherwise be, there are political pressures to provide exemptions. Under a credit-method VAT, on the other hand, vendors who sell to other businesses that are registered for VAT prefer not to be exempt, because under those circumstances exemptions increase taxes, rather than reducing them, by breaking the chain of tax credits.[48] Voluntary registration is commonly allowed, in order to avoid this problem. It is thus only providers of products utilized primarily by households (and non-registered traders) that would want to be exempt from VAT on their sales. (Such vendors would like even more for their sales to be zero-rated, as that, unlike exemptions, would eliminate tax paid at earlier stages. For the same reason, zero-rating of such products is more expensive, in terms of lost revenue, than exemption. Absent fraud, zero rating applied to sales to registered businesses has no impact on the amount of ultimate tax liabilities.) This implies that the VAT base is likely to be more comprehensive than an RST in its coverage of sales to households. Section IV assumes that the federal VAT would be quite comprehensive, again providing a good basis for conforming state sales taxes.

B. Advantages of a Federal RST

The most obvious advantage of the RST in the US context is its familiarity. This form of

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now, the economic importance of exempting all sales to business was presumably not recognized, and it may have seemed natural, as well as much easier, to tax only goods, including those sold to businesses. Once defective treatment is on the books, inertia, in the form of revenue loss of exempting more business inputs and political opposition to expansion of coverage to include services, takes over and perpetuates it. On this history, see Due and Mikesell (1994, chapter 1).

By the late 1960s, when the original six members of the EU (then the European Common Market) began to adopt the VAT, services were relatively more important and the importance of taxing all consumption and not taxing sales to business was better understood. Although EU adoption of the VAT predated the publication of Diamond and Mirlees (1971a), (1971b), which can be interpreted as providing a rigorous analysis of the disadvantages of cascading sales taxes, one of the crucial reasons for replacing the turnover taxes that were then common was recognition of the economic distortions and inequities caused by cascading. See Neumark Committee (1963). The VATs employed by members of the European Union, which were the earliest and most important nations to adopt VATs, were thus designed explicitly to meet a specified policy objective, namely relatively *comprehensive destination-based* taxation of *consumption*. New Zealand and Australia, which are widely recognized as having the best VATs, having the advantage of much more international experience and appreciation of the economic benefits of neutrality, adopted VATs that come even closer to best practice. Moreover, contrary to the situation at the state level, many developed countries that impose VATs have systems of low-income support (e.g., family allowances) that reduce the perceived need to provide relief to low-income families by exempting "necessities" or taxing them at low rates. Denmark, for example, with its comprehensive system of low-income support, has only one VAT rate.

[48]Neither the vendor nor the purchaser can claim credit for VAT a tax-exempt vendor pays on inputs. McLure (1987, p. 73) provides a numerical example of the effects of a pre-retail exemption.

sales tax is already employed by 45 states and many local governments. Its adoption by the federal government would thus require relatively little retraining for business. By comparison, businesses, especially those not operating in countries that have VATs, which tend to be small, would need to learn how to comply with a federal VAT. Federal tax administrators would need to learn to administer a new tax in either event. Since well over 100 other countries, many of them with business firms and tax administrations that are much less sophisticated than those in the US, successfully employ the VAT, this does not seem to be a major obstacle to federal adoption of a VAT.

It does not seem that states would quickly switch from the RST to the VAT, although they might eventually do so. This being the case, compliance and administration – including cooperation between federal and state tax administrators – would initially be somewhat simpler if the federal government were also to adopt an RST, rather than a VAT. But Section III suggests that if the states wish to retain the RST, the best way of doing so is probably to shift to the IST. Since the IST relies on the existence of the federal VAT for its administrative integrity, there seems to be little if any reason to prefer a federal RST on these grounds. Of course, federal adoption of a VAT would facilitate state adoption of a similar tax.

Most VATs provide small business exemptions.[49] That is, traders with sales below some threshold are not required to collect VAT on their sales. Given the nature of the VAT, under which the lion's share of revenue is collected on transactions before the sale to the final consumer, small business exemptions entail relatively little revenue loss.[50] By comparison, small-business exemptions generally do not exist under state RSTs, although there may be substantial amounts of evasion by small traders. Avoiding the need for small-business exemptions could provide a further, but relatively unimportant, reason to prefer a federal RST.[51] On the other hand, as explained further in Section IV, it would be more difficult to mesh registration requirements for a state RST with those for a federal VAT, especially one with a relatively high exemption threshold, than with those for a federal RST.

Adopting a "best practice" tax base at both the federal and state levels that approximated the prototypical base (or that was identical at both levels, even if it departed from best practice) would greatly facilitate compliance, administration, and administrative cooperation, making it much more likely that a combination of taxes with a relatively high combined rate could be administered effectively. There is, however, little reason to hope for such a development if the federal government were to adopt an RST. This being the case, the federal government should adopt a best practice VAT. It could then either let the states go their own way, in which case some might eventually adopt a VAT patterned after the federal tax, or provide incentives for

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[49]Table 7 below provides exemption thresholds in the EU Member States, Australia, Canada, and New Zealand.

[50]Indeed, as noted above, exemption of sales to VAT-registered traders can result in increased taxes, because the seller cannot claim input credits for taxes paid on purchases. Traders who would qualify for a small-business exemption are commonly allowed to register voluntarily, collect tax on sales, and claim input credits.

[51]As noted below, the existence of a threshold for the federal VAT creates a problem, albeit perhaps not an insurmountable one, for administration of the IST.

conformity. As explained below, the most promising avenues for conformity would be either the IST or a conventional VAT of the type levied by Quebec.

C. Balancing the Pros and Cons

It appears that, all things considered, a federal VAT would be vastly preferable to a federal RST. The administrative advantages of the VAT, including the greater ability to administer sales taxes with combined rates near or above 20 percent, and the built-in capacity to automatically eliminate taxation of sales to business outweigh the familiarity of the RST and the somewhat greater simplicity of coordinating a federal RST with state RSTs. The discussion that follows thus focuses on evaluating options 1, 3, and 4 in Table 1.

III. Would State VATs Be Preferable to State RSTs?

Despite the well-known advantages of a VAT over the RST, in the US context, continued state use of RSTs seems likely in the short run, even if the federal government were to adopt a VAT. Over time some states might shift to the VAT, but state RSTs might be preferable to enactment of state VATs even in the long run, especially if the RST were implemented using the IST scheme described below. The need to ensure destination-based treatment of interstate trade may make the VAT a questionable choice for state governments, because of the need to make enormous refunds on interstate trade. In the EU the risk of "carousel" fraud associated with such refunds (to be explained below) has garnered a great amount of attention. On the other hand, the experience of Quebec suggests that these concerns, especially regarding carousel fraud, may be unwarranted in the US context.

The imposition of local RSTs as surcharges on state sales taxes in more than 25 states, a practice that has no analog in Canada, might seem to reinforce the reluctance to propose that states introduce VATs, because of the perceived difficulty of implementing local VATs. In that case option 1 state RST (or IST) with local RST (or IST) surcharges would be the only viable one. In fact, as explained below, it appears that local surcharges could be implemented in some states that levied VATs, as either a local IST (option 3) or a local VIVAT or CVAT (option 4), forms of VAT that will be described below.

For this purpose it will be useful to divide option 1 into two polar extremes. In option 1A a state and its local governments would both employ the "traditional RST" – one that taxes many B2B sales and exempts many B2C sales. Registration for state sales tax purposes might be independent of federal registration. In option 1B a state and its local governments would both employ the Integrated Sales Tax (IST), a conceptually pure retail sales tax in which the base of the state and local tax would conform to the federal base and registration would be closely integrated with registration for the federal VAT. Any given state and its localities could, of course employ a sales tax lying in the range between these extremes that exhibited features of both options.[52] Options 3 and 4 both assume a state VAT of the type imposed in Quebec. In option 3 local governments would employ the IST and in option 4 either the VIVAT (option 4A) or the CVAT (option 4b). See Table 2.

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[52]It is assumed that, for the most part, a state and its local governments would follow the same approach: the traditional RST, the IST, or the same hybrid. This might not occur in some home rule states.

Table 2: Viable Options for Coordinating State and Local Sales Taxes with a Federal VAT

Option	1A	1B	3	4A	4B
State Tax	"Traditional" RST	IST[a]	VAT		
Local Tax	"Traditional" RST	IST[a]	RST	VIVAT[b]	CVAT[b]
Disposition of option	Suboptimal; most likely initially	Optimal way to implement option 1	Feasible, with local IST[a]	Feasible	Feasible

[a]IST is the Integrated Sales Tax described briefly in note 19 and explained further below
[b]The local VIVAT and CVAT are special forms of VAT described below.

A. Difficulties of Implementing a Destination-based State VAT

The discussion of how – and even whether – to implement a "subnational" destination-based VAT goes back almost a half-century, to just after the founding of the European Common Market, now the European Union.[53] Much of that literature is not relevant for the United States and will be reviewed here only briefly, if at all.[54] Instead, the discussion focuses on problems

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[53]The states of Brazil introduced the VAT in 1967, before most of the original six Member States of the European Common Market. (France had a rudimentary form of VAT well before then.) But the Brazilian system relied (and still relies) on origin-based taxation of trade between the states, alongside destination-based treatment of foreign trade. This so-called "restricted origin system," which was apparently adopted with little attention to its economic consequences, has been the subject of controversy ever since. For a brief description and analysis of the Brazilian "system" and its faults, as well as references, see Bird (2008) and Perry (this volume). As Bird, Mintz, and Wilson (2006, p. 890) argue, "It seems unlikely that there is much the US can learn from Brazilian experience."

[54]Cnossen (2008) or (this volume) reviews much of this literature. It had been noted, even before the founding of the European Common Market, that the origin and destination principles produce the same results under certain (quite stringent) assumptions. Those assumptions are so unrealistic that the choice is far from irrelevant. Moreover, unlike the destination principle, implementation of the origin principle requires the use of transfer prices to value imports and exports passing between affiliated companies – or within companies, in the domestic US context. See Hellerstein and Keen (this volume). Also, it seems almost certain that the perception of unfairness to domestic producers under the origin principle, in which exports would bear the US tax, in addition to the VAT of many destination nations, and imports would not bear either, would doom that approach politically at the national level. One would expect the same result at the state level, despite the continued taxation of business inputs under existing RSTs. Finally, many American businessmen and politicians cling to the mistaken belief that, because of border tax adjustments the VAT provides US producers with a competitive advantage

with the system currently in use in the EU, proposals to deal with them, and how the existence of a federal VAT could mitigate the problems. The next section discusses other issues related to implementing a destination-based state sales tax (RST or VAT) in the US context.

1. The Mechanics of Border Tax adjustments

It will be useful, before discussing the need for refunds and the risk of carousel fraud, to describe the mechanics of border tax adjustments. The standard way to implement a destination principle VAT is to tax imports at the border and zero-rate exports. That is, no tax is collected on exports, but credit is allowed for tax paid on inputs purchased by the exporter; if input credits exceed the amount of tax due on the exporter's taxed (domestic) sales, the difference is refunded.

The top panel of Table 3 illustrates this practice for the situation in which the exporter makes no domestic sales. It shows purchases and sales (or exports) by a vineyard and a vintner/exporter in an exporting country and purchases (or imports) and sales by an importer and a retailer in an importing country. The VAT rate is 15 percent in the exporting country and 10 percent in the importing country.

The vineyard makes sales of 200 to the vintner/exporter, on which it pays VAT of 30. The vintner/exporter pays no tax on its exports of 500, which are zero-rated, but receives a refund for the VAT of 30 paid on its purchases from the vineyard. Thus exports occur VAT-free.

The importer pays tax on the 500 of imports, makes sales of 700 to the retailer, on which it owes VAT of 70, takes credit fo the 50 paid at import, and remits 20. The retailer makes sales of 1,000, on which it owes 100, takes credit for VAT of 70 on its purchases and remits 30. The total amount of VAT paid is thus 100 (50 paid at import, 20 remitted by the importer on its sales, and 30 remitted by the retailer).

The bottom panel of the table illustrates the situation if imports are subject to deferred payment or reverse charging, as in the case of trade between EU Member States. As in the standard case, exports are zero-rated and may result in refunds. If tax on imports is merely deferred, no tax is collected at the border and the importer owes the entire 70 of tax due on its sales. Refunds would be required if input credits for tax paid on local purchases and on imports not eligible for deferred payment (e.g., those from outside the EU) exceeded the amount of tax due on the importer's taxed sales. Under reverse charging the importer assesses itself tax of 50 on its imports, for which it is allowed credit against tax of 70 on sales. Though the importer's liability for tax is divided formally into tax on imports and net liability for tax on sales, the economic result is the same as in the case of deferral without reverse charging. In either event the importer remits 70, for which the retailer takes credit.

– something that probably few would say of the economically identical RST (i.e., levied in its ideal form).

Table 3: Border Tax Adjustments (in Bold) for International Trade

	Exporting nation (15% VAT)			Importing nation (10% VAT)			
Stage of production	Vineyard	Vintner/ Exporter	Total	Importer/ Wholesaler		Retailer	Total
Sales/exports	200	500		700		1000	
Purchases/imports	0	200		500		700	
Standard BTAs for International Trade							
Tax on imports				**50**			50
Tax on sales/exports	30	**Zero**		70		100	
Input tax credit	0	30		50		70	
Net tax liability	30	**-30**	0	20		30	50
Total							100
BTAs on Trade between EU Member States, under Deferral and Reverse Charging							
				Deferred payment	Reverse charge		
Tax on imports				**None**	**50**		
Tax on sales/exports	30	**Zero**		70	70	100	
Input tax credit	0	30		0	50	70	
Net tax liability	30	**-30**	0	70	20	30	
Total				70		30	100

2. Refunds

VAT refunds associated with exports can absorb a significant fraction of gross VAT collections.[55] Thus, for example, Harrison and Krelove find that, during the period 1998-2001, refunds by Canada, New Zealand, and the Member States of the European Union covered by their survey absorbed 50.3 percent, 35.5 percent, and 38.1 percent, respectively, of gross VAT

[55]Exports are, of course, not the only reason refunds may exist. The most obvious other reasons are zero-rating of sales (e.g., of food, as in the UK) and input credits for VAT on large capital expenditures, especially by young and growing companies.

collections.[56] While these authors lack complete information on the composition of refund claims in those countries, they note that in the countries for which they do have complete data – unfortunately, countries that are quite dissimilar from the ones listed above – refund claims (in terms of value, as well as the number of claims) are dominated by refunds associated with exports.[57] Quite unbelievably, the Ministry of Finance of Quebec does not seem to know the extent of QST refunds associated with interprovincial exports.[58]

It seems likely that, given the nature of the US economy, zero-rating of interstate exports would produce enormous claims for refunds of state VAT, aside from those associated with foreign trade. By comparison, a properly designed RST would apply only to purchases by in-state households and unregistered traders.[59] The tax of the state of origin would not be imposed on either sales to registered traders or (interstate or international) exports, and refunds would be virtually non-existent. It does not seem desirable to create the cross-hauling of funds involved in collecting state VAT and then refunding a substantial fraction of the amount collected, if this can easily be avoided. This is especially true, since, as Crawford, Keen, and Smith (2008, p. 40) have noted, "Export zero-rating requires substantial amounts of VAT to be paid back as refunds, and a system that requires refunds on such a large scale creates opportunities for correspondingly large-scale revenue fraud."

In making this judgment it should be remembered that extant state RSTs do not achieve destination-based taxation, because of the RSTs on business purchases embedded in costs of exporters and firms competing with imports. If the only alternative to state VATs were traditional RSTs, the cost (on business and the tax administration) of handling refunds and the risk of fraud might well be worth paying to avoid the costs inherent in taxation of business inputs. (See Smart and Bird, 2008.). It appears, however, that the IST offers the possibility of introducing a state RST that does not pose this dilemma.

3. Carousel Fraud

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[56]Harrison and Krelove (2005, Table 1). The analogous figures they report in Table 2 for the Netherlands, Sweden, and the United Kingdom were 50.0, 48.6 percent, and 40.9 percent, respectively. By comparison, in France and Ireland they were 21.2 and 24.0 percent.

[57]Harrison and Krelove (2005, p. 11). The countries they list in Table 3, with export refunds as a percent of all refunds, are Cameroon (60), Kenya (70), Morocco (80), Cambodia (76), Slovakia (56), Kazakhstan (100), Bolivia (100), Chile (64), Colombia (53), El Salvador (100), and Peru (100). These figures may say more about limitations on the payment of refunds other than to exporters (e.g., for VAT paid on capital expenditures), than about the role of exports in the economies of these countries. See Ebrill et al. (2001) for a simple formula that can be used to estimate the quantity of VAT refunds to be expected, given the openness of an economy.

[58]E-mail message from Julie Monaghan of Revenu Quebec to the author, dated 18 March 2009, available from the author.

[59]As explained further in the next section, vendors exporting directly to households in other states would ideally be required to collect the RST or VAT of the state of destination. The issues involved are essentially the same, regardless which of these taxes is involved.

The value added tax is vulnerable to "missing trader" fraud, in which traders collect VAT on sales, but "go missing" before remitting the tax collected to the government. If only domestic transactions are involved, the loss of revenue is limited to the VAT that should be collected on the value added by the missing trader. (This is explained further below.) Of course, vendors can also go missing before remitting RST, but the revenues at stake are not likely to be very large, due to the concentration of sales in identifiable retail establishments, many of them quite large.[60]

The way the VAT operates in the EU creates the opportunity for a much more virulent form of abuse, commonly called carousel fraud.[61] Carousel fraud exploits the fact that exports from one EU Member State to another (like other exports) are zero-rated but are not subject to the tax by the importing Member State at the time of import. Rather, tax is "deferred" until the first taxable transaction after the import stage. (The sale at that stage is taxed. Since there is no credit for tax on imports, the value of imports, as well as value added at this stage is taxed. Reverse charging of VAT by the importer does not significantly change this. See the bottom panel of Table 3.)

In a prototypical case of carousel fraud, illustrated in Table 4, a fraudster in country B imports goods from country A; because of their high value, relative to weight and volume, cell phones and microchips are said to play a particularly prominent role in these schemes.[62] The fraudster pays no tax on the imports, but collects tax when the goods are sold to a "buffer," another registered trader located in state B, but disappears without remitting the tax to the fiscal authorities. Eventually, perhaps after passing through the hands of other buffers, the goods are acquired by an accomplice of the fraudster and re-exported. Because the export is zero-rated, the accomplice obtains a refund of the input tax, even if the fraudster does not remit the tax collected on the sale to the first buffer. The goods can then be put back on the carousel for another ride – but one with a negative fare. By comparison, since no tax is collected until sales are made to households, carousel fraud cannot occur under an RST.

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[60]The risk or missing trader fraud is actually greater in a well-designed RST than in a poorly designed one, because in the latter substantial amounts of tax are paid on business purchases by large and well established firms. In either type of RST system firms may go bankrupt without remitting tax, but they cannot obtain refunds by going missing.

[61]The description that follows is based on the so-called "transitional" EU system for dealing with intracommunity trade. For a description of the so-called "definitive" system, which may never come into effect, see Genser (2003).

[62]This a quite elementary version of carousel fraud, which can be much more complicated and hard to identify. Keen and Smith (2006) and Tumpel (2007) provide more detailed explanations of carousel fraud and International VAT Association (2007) describes much more elaborate schemes. In principle, carousel fraud can involve trade with countries outside the EU. While border controls on international trade, which do not exist within the EU, impedes this, they may not prevent it; see International VAT Association (2007).

Table 4: Illustration of Carousel Fraud in the EU

	Importing Member State				
Stage of production	Importer ("fraudster")		"Buffer"	Re-exporter	Total
Sales/exports	700		800	1000	
Purchases/imports	500		700	800	
	Deferred payment	Reverse charge			
Tax on imports	**None**	**50**			
Tax on sales/exports	70	70	80	**Zero**	
Input tax credit	0	50	70	80	
Net tax liability	70	20	10	-80	
Total tax liability	70		10	-80	0
Remitted	0		10	-80	-70

Carousel fraud is thought by some to be a significant problem in the EU.[63] On the other hand, Cnossen (2008) has observed, "It is also hard to avoid the conclusion that the attention devoted to carousel fraud committed at state borders, so similar to insolvency fraud on the domestic scene, is out of proportion to the significance of the issue." Like the International VAT

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[63]Commission of the European Communities (2004), where it is suggested that some EU Member States may lose as much as 10 percent of potential net VAT revenues from fraud, not all of which would involve carousel fraud. See Keen and Smith (2000) for an appraisal of these estimates. They note (p. 872) that "there is strikingly little hard evidence – publicly available, at least – on the extent of non-compliance (including outright fraud) under the VAT." They include the following estimates of the composition of revenue loss due to fraud in the UK for 2001-02:

Type of non-compliance	Estimated revenue loss (£ billion)	Estimated revenue loss as percent of full-compliance VAT revenues
Missing trader (MTIC) fraud	1.77 – 2.75	2.5 - 3.9 percent
"Artificial" tax avoidance	2.5 – 3.0	3.6 - 4.3 percent
Non-registration for VAT	0.4 – 0.5	0.6 - 0.7 percent
General non-compliance by VAT-registered firms	2.5 – 4.0	3.6 - 5.7 percent
Total	7.17 – 10.25	10.2 - 14.6 percent

Source: National Audit Office (2004), page 11

Association, he believes that greater cooperation among tax administrations, including more robust exchange of information, is the key to preventing carousel fraud in the EU.[64]

a. Proposals to deal with carousel fraud in the EU

The EU has considered various means of fighting carousel fraud. The bare bones of some of these proposals are described here.[65] None of them seems suitable for introduction at the state level in the US context, even if carousel fraud were thought to be a problem. It may, however, be useful to consider modifications of several of these for other reasons.

Joint and several liability. One approach that has been attempted is to make buffer entities jointly and severally liable for the tax liability of the fraudster. Not surprisingly, the European Court of Justice has ruled that this remedy can be invoked only against buffers who know, or have reason to know, that they are involved in a fraudulent scheme.[66] Of course, this has been difficult to prove in complicated schemes, especially since some buffer entities may actually be innocent of wrongdoing.

Payment now, refund later. Experts at the CESifo in Munich have proposed a scheme in which buyers would transfer VAT into special accounts at the time of a sale (rather than periodically, as now) and input credits would be available only if supported by evidence that VAT has been paid.[67] This scheme has generally been rejected because of its complexity and the cash-flow disadvantage of having to make VAT payments at the time of sale, rather than when returns are filed.[68] It seems "a bridge too far" in the context of state consideration of a newfangled VAT.

VIVAT. Under the imaginative VIVAT (viable integrated VAT) scheme devised by Keen and Smith, each EU Member State would levy a VIVAT at a rate that is uniform throughout the EU on all EU sales to VAT-registered traders, regardless of their location, and a VAT at a rate of its own choosing on other domestic sales (including sales to unregistered traders).[69] Since the

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[64]International VAT Association (2007), Verwaal and Cnossen (2003), and Cnossen (2008).

[65]Genser (2003), Keen and Smith (2006), International VAT Association (2007), Steenekamp (2007), Crawford, Keen, and Smith (2008), and Cnossen (2008) describe and appraise these and some of the other approaches not described here and provide further references to the literature.

[66]ECJ judgment of Jan. 12, 2006, *Optigen Ltd, Fulcrum Electronics Ltd and Bond House Systems Ltd v. Commissioners of Customs & Excise*, joined cases C-354/03, C-355/03, and C-484/03; ECJ judgment of July 6, 2006, *Axel Kittel* and *Recolta Recycling SPRL*, joined cases C-439/04 and C-440/04; and ECJ judgment of May 11, 2006, *Federation of Technological Industries and Others*, Case C-384/04. Tumpel (2007) discusses these cases and notes that a price that is below what might reasonably be expected is among possible indicators that buffers have reason to know that all is not right.

[67]See Sinn, Gebauer, and Parsche (2004).

[68]See, for example, Keen and Smith (2006).

[69]See Keen and Smith (1996) and (2000). As noted below, the IST can be thought of as a special case of the VIVAT scheme – one with no tax on sales to registered traders, only a tax on other domestic sales. Although Keen and Smith employ the term "VIVAT" to describe their

tax on sales to registered traders would be creditable, sales to households would ultimately bear only the VAT levied by the country of destination. A clearing arrangement would be needed to channel part of the revenues collected on sales to VAT-registered traders from countries of origin of such sales to countries of destination.[70] Table 5 illustrates this scheme.

Table 5: Illustration of VIVAT
8% tax on (B2B) sales to registered traders and 10% tax on other (B2C) domestic sales

	Exporting nation			Importing nation		
Stage of production	Vineyard	Vintner/ Exporter	Total	Importer/ Wholesaler	Retailer	Total
Sales/exports	200	500		700	1000	
Purchases/imports	0	200		500	700	
8% tax on B2B sales	16	40	56	56	---	
10% tax on B2C sales	---	---	---	---	100	
Input tax credit	0	16	16	40	56	
Net tax liability	16	24	40[a]	16	44	60
Total						100

[a]Transferred from origin to destination Member State

The VIVAT scheme is considered by some to offer the most promise for dealing with carousel fraud in the EU.[71] Besides avoiding the break in the chain of tax credits that opens the door to carousel fraud, the VIVAT allows Member State sovereignty over tax rates on sales to households, avoids the need for an overarching (e.g., EU) fiscal authority, is incentive-

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scheme, that term is sometimes used here to refer only to the tax on sales to registered traders, the term "VAT" being used to refer to tax on B2C sales. Meaning should be clear from context. The explanation in the text ignores "remote" B2C sales, those made directly to buyers in other Member States. See notes 72 and 76.

[70]Keen and Smith (2000) and references cited there and Commission of the European Communities (2006).

[71]See, for example, Genser (2003), who notes that the VIVAT makes relatively little use of a clearing mechanism, a feature of proposals based on more elaborate clearing schemes that are also generally incentive-incompatible. These clearinghouse-based proposals are not discussed here, as they seem totally unrealistic for consideration by the US states. Bird and Gendron (2000) and Cnossen (2008) provide less sympathetic assessments of the VIVAT.

compatible (meaning that tax administrators in both Member States have an incentive to enforce the tax), and provides "compliance symmetry" – the same treatment of sales to registered traders, whether located in the Member State where the seller is located or in other Member States[72] a feature whose importance the European Commission has emphasized.[73] It would, of course, as the designers of the VIVAT acknowledge, be necessary to distinguish between B2B and B2C sales.[74] That could be accomplished by requiring buyers to provide evidence of VAT registration
in either the Member State of the seller or another Member State, as is the current practice. Effective enforcement of this requirement would necessitate substantially increased exchange of information between tax administrations, perhaps on a real-time basis.

The VIVAT, as originally conceived – that is, one with a positive rate on all sales to registered traders – would not be appropriate for the United States. Since not all states have RSTs and (unlike the situation in the EU, where imposition of the VAT is a condition of membership) it cannot be assumed that all would enact VATs, there might be no destination-state VAT against which to claim credit for the VIVAT collected on interstate sales to registered traders located in those states.[75] Such sales could be zero-rated, but that would destroy the

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[72]Compliance symmetry might not extend to B2C sales. That would depend on the tax treatment of cross-border ("remote") B2C sales by the state of origin. At present, remote B2B sales are zero-rated, but remote B2C sales are taxed by the Member State of origin.

[73]The European Commission has emphasized compliance symmetry in, for example, Commission of the European Communities (1996, p. 14). Bird and Gendron (2000) question the importance of compliance symmetry, an issue also raised in McLure (2000b). Regarding the VIVAT, the CVAT, and the dual VAT, Bird and Gendron also emphasize (p. 759), that "The three proposals ... were originally conceived for quite different situations." (The VIVAT is the only one originally conceived as suitable for the EU, which lacks the higher-level VAT on which the other two rely. The CVAT and the dual VAT were designed for use by subnational governments where there is a higher-level tax, the former for use in developing countries and the later for developed countries.) Even so, in Crawford, Keen, and Smith (2008, p. 73) the authors of the VIVAT scheme suggest that "in the absence of an over-arching EU VAT" the VIVAT and the CVAT are "the most appealing ways" to "strengthen the implementation of destination-based taxation...."

[74]See Keen and Smith (2000). McLure (2000b) argues that this requirement would be more onerous than the requirement under the CVAT, to be discussed below, to distinguish between in-state sales, out-of-state domestic sales, and international exports. By comparison, Crawford, Keen and Smith (2008, p. 63) argue that the distinction between B2B and B2C sales "is in any event likely to become increasingly important in the operation of the VAT." An important reason for the growing importance of this distinction is the increasing importance of cross-border sales of intangible products and services. See the description of the EU treatment of remote sales in note 72 and the discussion of implementing the destination principle in the next section.

[75]Bird and Gendron (2000, p. 758) anticipates this concern. Regarding the VIVAT and the CVAT, they speculate, "Would either of these approaches work as advertised unless all the relevant jurisdictions took part? Although the question needs closer study, at first glance the

compliance symmetry that is considered to be one of the most attractive features of the VIVAT. (Compliance symmetry is arguably not particularly important in the US context, as current RSTs do not exhibit it.) Perhaps more important, the VIVAT anticipates a level of cooperation among states in choosing the tax rate on sales to registered traders (and perhaps in defining the tax base) that is unlikely in the US. Finally, there is no precedent for the clearing arrangement that would be required. On the other hand, the IST, a particular version of the VIVAT – one with a zero-rate on sales to registered traders, may be appropriate for the United States, given the American tradition of state – and local – RSTs.[76] The IST is described below.

CVAT Under the CVAT proposal, each participating state would tax in-state sales (to both VAT-registered traders and unregistered traders and households) at a VAT rate of its own choosing and collect a uniform-rate "compensating value added tax" (CVAT) on all exports to other participating states.[77] Like the VIVAT, the CVAT imposed on sales to registered traders would be creditable against tax in the state of destination. Unlike the VIVAT, it would constitute a final tax on remote sales to households and unregistered traders located in other states. A mechanism would be needed to distribute the revenues from such sales among the participating states.[78] Thus destination-based taxation would be achieved exactly only for sales made by traders registered in the state where sales to households occur.[79]

Although the CVAT has been considered as a possible solution to the carousel fraud problem in the EU, it was conceived for the very different context of a developing country in which a higher-level government with a national VAT (or a consortium of states) would implement the CVAT on interstate sales on behalf of the states. It is thus not surprising that the CVAT is generally thought not to be appropriate for adoption by the Member States of the EU.[80] While it would accommodate state sovereignty over tax rates applied to B2C sales and avoid breaks in the chain of tax credits, it would not exhibit compliance symmetry or incentive compatibility. Also, it would require an overarching fiscal authority (or a consortium of states) that does not exist in the EU to administer the tax on interstate sales.

The CVAT would not be appropriate for the United States. Even if the federal government were to impose a VAT, it is unlikely that the states would wish it to implement the CVAT on their behalf. Although the states have created a sort of consortium to oversee implementation of the International Fuel Tax Agreement (IFTA), it is doubtful that that

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answer appears to be negative."

[76]The IST would not solve the problem of taxing remote B2C sales by the state of residence of the purchaser.

[77]The CVAT scheme first conceived by Ricardo Varsano, who describes it in Varsano (2000), and was elaborated in McLure (2000b).

[78]In the developing country context for which the CVAT was originally conceived, the need for redistribution of revenues might be relatively small. That need not be the case in the EU.

[79]In this sense the CVAT and VIVAT are similar.

[80]See Genser (2003). Hellerstein and Keen (this volume) note, however, that the European Commission has recently suggested that a uniform 15 percent VAT on trade between Member States be considered. See Commission of the European Communities (2008b).

experience would be duplicated in the case of the CVAT.[81] Besides the problems noted above, there would be an extra element of compliance asymmetry, since not all states have sales taxes and some are unlikely to adopt VATs. (It would be necessary to distinguish out-of state domestic sales to participating and non-participating states, as well as in-state and international export sales.)

Reverse charging. Under the conventional VAT, a vendor collects tax from its customers and remits it to the fiscal authorities. Customers that are VAT-registered traders charge tax on their sales, take credit for tax on purchased inputs, and remit the difference. Missing trader fraud, including carousel fraud, occurs when the first vendor in this scenario does not remit tax.

Under "reverse charging," which is analogous to direct pay under RSTs in the US, the first vendor in the above description of carousel fraud (the fraudster) would not collect tax on sales to registered traders. Rather, its VAT-registered customer would self-assess the tax on its purchases and simultaneously take credit for the self-assessed tax, remitting VAT on the entire amount of the sale (at least in the case of sales not made to other VAT-registered customers who reverse-charge VAT). Since the first vendor does not collect the tax, the type of missing trader fraud described earlier is not possible. Of course, the VAT-registered customer in this story could go missing, so an extreme version of reverse charging would extend all the way to the retail level – producing what is, in essence, a retail sales tax in disguise. The IST is functionally equivalent to comprehensive reverse charging that extends to the retail level, but relies on zero-rating of B2B sales rather than reverse charging.

The European Commission has approved use of reverse charging in certain sectors that are prone to abuse, such as construction, but not its general use, as that would seriously compromise the basic "fractional collection" structure of the VAT.[82] In its appraisal of generalized reverse charging, the International VAT Association (2007, pp. 22-26) notes, inter alia, the need to verify the status of the customer – the bane of RSTs – and argues that new forms of abuse would arise, including disappearance of the last trader in a chain. Based on a review of problems with this system, Cnossen (2008) concludes his negative appraisal of proposals for reverse charging as follows, "In sum, it is hard to escape the conclusion that generalized reverse

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[81]Federal legislation, enacted at the request of truckers to bring order to chaos in state taxation of the motor fuel, essentially mandated state participation in the IFTA. See McLure, Pitcher, and Turner (2007). There is not likely to be a similar groundswell of taxpayer advocacy of the CVAT or federal legislation demanding that the states adopt it.

[82]See Commission of the European Communities (2006). Austria and Germany have proposed a modified approach in which all sales to VAT-registered traders above a threshold would be subject to reverse charging, with other sales being subject to the conventional VAT regime. In the German proposal the threshold would be individual sales to VAT-registered traders in excess of €5,000. The Austrian proposal would supplement a threshold of €10,000 for individual sales to such traders with an aggregate monthly threshold of €40,000 for sales to any one registered trader. See Tumpel (2007). This system would convert the VAT into a strange mixture of RST and VAT. The European Commission has also not been receptive to this approach, which would be complicated and create competitive imbalance, as well as undermining the structural integrity of the VAT. This approach seems totally inappropriate for adoption by the states.

charging would throw the baby out with the bathwater." Whether this judgement is applicable in the US setting, where it is assumed that the IST (or less harmoniously, traditional RSTs) would (or at least could) be supported by administration of a federal VAT, is discussed further in the next section and requires further consideration.

Summary. If states are considering the VAT and carousel fraud is thought to be a significant issue, none of the proposals discussed here offers much promise as a means of preventing that problem. On the other hand, experience shows that the dual VAT employed by Canada and Quebec (discussed next) offers a workable solution. But the IST may be even more appropriate for adoption in the US. It can be seen – and is treated here – as an ideal form of RST that could easily be coordinated with the federal VAT, on which it relies for its administrative integrity. Moreover, as discussed below, it lends itself to imposition as a local tax in states that employ either a standard VAT or an IST.

b. Carousel fraud in the context of a dual federal/state VAT

If (some of) the states were to adopt a VAT similar to that in the EU, the existence of a federal VAT would offer a weapon to fight carousel fraud that does not exist in the EU, but does exist in Canada. One way to prevent missing trader fraud is to deny federal VAT registration to those suspected of intending to "go missing."[83] If the fraudster in the above example were to remit neither federal nor state VAT, what is carousel fraud in the state VAT would be accompanied by simple missing trader fraud in the federal VAT. The federal government's incentive to ferret out fraud would presumably make it less attractive. Bird and Gendron opine, "many of the highly publicized administrative problems currently bedeviling EU VATs do not arise to the same degree with respect to subnational VATs in Canada precisely because there is an overriding federal GST."[84]

It should be noted, however, that, although the federal government would have "a dog in the fight," in relative terms its dog would not be as big as the state dog, leaving aside differences in tax rates. Because of the zero-rating of interstate sales under a state VAT, carousel fraud would involve a refund of the entire amount of tax charged by the fraudster on goods imported from another state. By comparison, because interstate sales would not be zero-rated for purposes of the federal VAT, in its role as missing trader under the federal VAT the fraudster would evade

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[83]Crawford, Keen, and Smith (2008) emphasize this, mentioning the role of on-site visits in determining intentions.

[84]Bird and Gendron (this volume). Similarly, Julie Monaghan of Revenu Quebec, in an e-mail message to the author dated 18 March 2009 (available from the author), suggests, "[C]arousel fraud does not seem to be a problem with respect to the QST." But Bird (2007, p. 822) also strikes a cautious note:

> Canadian experience to date suggests that interstate sales create few, if any, more problems for a VAT than an RST, but it is not yet entirely clear to what, if any, extent, this happy outcome depends on the existence of a federal VAT in Canada. It is, I think, that issue above all that likely needs close and detailed consideration by any state that might consider replacing its VAT with an RST.

only the tax on its value added, which may be a relatively small amount.[85] For this reason, the federal government may have relatively little incentive to attempt to ferret out this type of fraud.[86]

B. The Integrated Sales Tax

The IST can be seen as an RST that follows best practice and relies on federal registration for its administrative integrity. There would be a zero rate on sales to registered traders, wherever located, and a positive rate of the state's choosing on intrastate B2C sales. (Imports from abroad by registered traders would also be zero-rated. Those by households and unregistered traders would be taxed.[87]**)** The IST would exhibit incentive-compatibility and compliance symmetry (except in regard to B2C sales and imports) and would accommodate state sovereignty in setting the tax rate on B2C sales. Because of the zero-rating of sales to registered traders, there would be no need for refunds of state tax, no risk of carousel fraud, and no need for a clearing arrangement. Moreover, there is no reason the IST could not be adopted by only a subset of states. (Thus some states might continue to rely on traditional RSTs, some might reform their RSTs along the lines of the IST, some might impose a VAT, and some may continue to have no sales tax.) Finally, unlike extant RSTs, the IST would presumably rely heavily on administration of the federal VAT for registration and verification of eligibility for zero-rating of B2B sales. (This would prevent consumers in both participating and nonparticipating states from masquerading as registered traders, in order to make tax-free purchases.) The federal VAT registration threshold might thus properly be set at a lower level than would otherwise be optimal.[88] The next section examines certain aspects of the IST in greater detail.

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[85]It has been noted that carousel fraud may actually involve little value added at this stage, since the primary objective – together with the fraudster's failure to remit the tax – is to create the chain of transactions that will eventuate in the claim for refund of tax on exports.

[86]Incentives for the combat of carousel fraud in the arrangement under which Quebec collects the Canadian federal GST, as well as the provincial QST, are worth noting. Leaving aside differences in federal and provincial tax rates, Revenu Quebec has a greater incentive to devote resources to this problem than would Revenue Canada, if it were in charge of collecting both the GST and the QST. It is unlikely that state governments would be asked to administer a federal VAT.

Experience under the HST, which is administered by the Canadian government (and by Quebec, within the province) is not relevant. Nor will the Ontario VAT to be introduced in 2010 shed much light on this issue, as it will be administered by the federal administration. Experience under the QST, the only provincially administered provincial VAT, is all that is relevant.

[87]In the Canadian context the IST would be equivalent to zero-rating B2B sales under the QST. This would convert the QST to an RST, but one that is very different from the ones imposed by other provinces or the US states. In particular, registration for the GST/IST would replace (resale) exemption certificates. Since the current exemption level ofr the GST and QST is only C$30,000, relatively little revenue would be lost if the same threshold were used for the IST.

[88]See also the discussion in the text at note 93.

C. Local Sales Taxes

Hundreds of local governments in more than 30 states impose retail sales taxes.[89] It is thus crucial to examine techniques for implementing destination-based local sales taxes under various state sales tax options.[90]

Table 2 described five combinations of state and local sales tax systems that seem worth considering. The first two (options 1A and 1B) utilize the traditional RST or IST structure at both state and local levels. The other three utilize an ordinary state VAT of the type found in the EU and Quebec, in which intrastate transactions are subject to VAT, but interstate sales are zero-rated. The local tax is, alternatively, an IST (option 3), a VIVAT (option 4A), or a CVAT (option 4B). In all but four of the states that currently impose RSTs, local RSTs take the form of surcharges on the state taxes, and the Streamlined Sales Tax Project contemplates continuation and improvement of this practice. It is thus assumed under all five options that the state would administer the local tax. Also, the state and local sales taxes would be imposed in the context of a federal VAT that applied to all domestic sales and zero-rated exports. International exports and interstate sales would also be zero-rated (or exempt) at both the state and local levels in all five options. In all cases a separate regime would be required to collect use tax of the destination state on B2C sales. The same is true of local use taxes, except in option 4B (state VAT and local CVAT).

If a state were to continue to impose a traditional RST, it is only natural that its local governments would continue to impose surcharges on the state RST, as in option 1A of Table 2. If a state were to adopt the IST, its local governments would probably do the same, in effect creating a system (option 1B) in which the sales taxes of all three levels of government are coordinated. Under both of these option some in-state B2B sales to registered traders would be exempt (traditional RST) or almost all would be zero-rated (IST). In-state B2C sales would be subject to state and local RST or IST.

Outgoing remote B2C sales would be exempt or zero-rated. Incoming remote sales would pose a problem, especially for local sales taxes. Vendors who are not protected by *Quill* could be required to collect both state and local use taxes, but those who are protected could not be required to do so, although they might do so voluntarily. The purpose of the SSTP is to simplify compliance and perhaps induce greater voluntary compliance and even a Congressional override (or US Supreme Court overturn) of *Quill*.[91] This description of the treatment of remote commerce also applies to the other options.

If a state were to impose a standard VAT, local VAT surcharges of the conventional (EU/QST) type would probably be impractical, because of the problems inherent in implementing the BTAs required for destination-based taxation. The key problem would be the

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[89]As noted earlier, Duncan (this volume) and Mikesell (this volume) provide somewhat different counts of the number of states in which there are local sales taxes.

[90]The SSUTA assumes destination-based local taxation of interstate sales, but provides that states can choose whether local taxes will follow the origin or the destination principle with regard to intrastate transactions.

[91]Hellerstein and Keen (this volume) describe the technical and political difficulties of achieving destination-based local sales taxation.

need to zero-rate intrastate sales to other local jurisdictions, as well as interstate sales and international exports. (Taxation of B2B imports into a locality could be handled by deferred payment, perhaps with reverse charging.) This would be compliance asymmetry on steroids. While there might not be much risk of carousel fraud, because of the existence of the state and federal taxes, extremely large refunds, as a percentage of VAT collections, might commonly be required. On the other hand, it may be possible, in the context of a state VAT, to utilize the IST to implement what is essentially an improved local RST (Option 3) or to use the VIVAT or CVAT mechanism to implement a local VAT (options 4a and 4B).

Table 6 describes the combinations of state and local tax rates on various types of transactions that would be required under each of the last four options (For convenience, option 1A, traditional RST at both state and local levels, is suppressed; its entries would resemble those for option 1B. The most important difference is that the state and local RSTs would apply to many more B2B sales and fewer B2C sales.) Under option 1B, IST at both the state and local levels, (almost) all B2B sales, all interstate sales, and (for local IST purposes only) all interlocality sales are zero-rated, but in-state (intralocality) B2C are subject to the state (local) IST. This option relies heavily on federal registration to make the distinction between zero-rated B2B sales and taxed B2C sales, but federal registration is likely to need to be supplemented; see th discussion in the text at note 96). Option 3 combines a local IST with an ordinary state VAT. The preceding description of effects of the local IST under option 1B is thus directly applicable.

Under option 4A, which combines a local VIVAT with an ordinary state VAT, local governments would levy a VIVAT at a common state-determined rate on all in-state sales to registered traders, along with a VAT rate of its own choosing on local B2C sales (those to households and unregistered traders). State and local tax on B2B imports into the locality from another state or from abroad would be deferred.[92] Tax on B2C sales and imports made by out-of-state vendors would be subject to the strictures of *Quill*, unless that decision were overridden by Congress or overturned by the US Supreme Court. Both local taxes would be administered by the state as surcharges on the state VAT. The state would pass on to local governments the revenues from the VAT on local B2C transactions, but not revenues from the VIVAT. (There should, in principle, be no net revenue from the VIVAT.) In-state vendors would be allowed input credits for the local VIVAT, as well as the state VAT, regardless of where within the state the trader claiming credits makes sales. Thus in-state consumers would pay the local VAT rate on all taxed purchases from local vendors. Trade between localities within the taxing state would create no refunds or opportunities for carousel fraud.

This option exhibits intrastate compliance symmetry, in that all intrastate B2B transactions (i.e., both interlocality and intralocality sales) are subject to the same tax treatment (the local VIVAT), as well as the state VAT. Like options 1B and 3, it requires that traders distinguish between B2B and B2C intrastate sales for local tax purposes and treat the latter differently, collecting tax on intralocal sales, but not on interlocality sales.

The feasibility of this approach may depend on the nature of local reliance on sales taxes in a particular state. The above example assume implicitly that there is only one local surcharge, for example, to finance municipal governments, and that it is levied by all local governments of

[92]Deferral of tax on imports from abroad avoids the difficult task of imposing the local tax discussed more fully in the next section.

that type. Whether the existence of several surcharges and less than comprehensive coverage of all jurisdictions of a given type would pose a problem deserves further attention. It seems, however, that it would not, although less than universal coverage might affect the choice of VIVAT rate on in-state B2B sales. This rate presumably would be chosen to be representative of the aggregate rate of all local VATs in the state; it might be the (weighted or unweighted) average of such rates. Since the state would be administering all local taxes, vendors subject to local VAT on their sales would be allowed credit for all local VIVAT charged on their purchases, without any attempt to match the VIVAT paid to the liability for the VAT of a particular local government.

Under option 4B, which combines a local CVAT with a state VAT, traders would apply the local VAT to all intralocality sales and the CVAT to all interlocality (but intrastate) sales (and, of course, all interstate sales would be zero-rated, as under the other options). Credit would be allowed for both the VAT and the CVAT paid on B2B sales. This option does not exhibit intrastate compliance symmetry regarding B2B sales, but it appears to have the virtue of not requiring traders to distinguish between B2B and B2C intrastate sales. This combination has the additional advantage, not shared by any of the other options, that interlocality B2C sales are subject to the CVAT, but this may not be allowed under *Quill*. (The state could distribute these revenues among localities.) The CVAT is arguably superior on these grounds to the local IST and VIVAT options. But the virtue of not requiring traders to distinguish between B2B and B2C sales (for purposes of the CVAT on interlocality trade or the VAT on local sales) may be more apparent than real. For revenues from the local VAT on intralocality sales to flow to the "right" local jurisdiction, it is necessary to know, for each locality, how much revenue was collected on B2B sales and how much on B2C sales.

Options 1B (state and local ISTs) and 3 (state VAT and local IST) both seem vastly superior to either option 4A and or option 4B, both of which seem quite complicated and cumbersome. It would be far simpler to zero-rate sales to registered traders under the local IST than to introduce the procedures required to implement either the local VIVAT or the local CVAT. In short, the local sales tax of choice is the IST, regardless of whether the state also adopts the IST or opts for a VAT.

Table 6: State and Local Tax Rates Applicable to Various Domestic Transactions, under Alternative Combinations of Destination-based State and Local Sales Tax Instruments

	State Tax Rates				Local Tax Rates					
Destination	Intrastate		Interstate		Intra-local		Intrastate; Interlocal		Interstate	
Buyer	B2B	B2C	B2B	B2C	B2B	B2C	B2B	B2C	B2B	B2C
Option 1B: State IST; Destination-based Local IST										
Tax rate	Zero	IST-S	Zero*		Zero	IST-L	Zero*		Zero*	
Option 3: State VAT; Local IST										
Tax rate	VAT-S		Zero*		Zero	IST-L	Zero*		Zero*	
Option 4A: State VAT; Local VIVAT										
Tax rate	VAT-S		Zero*		VIVAT	VAT-L	VIVAT	Zero*	Zero*	
Option 4B: State VAT; Local CVAT										
Tax rate	VAT-S		Zero*		VAT-L		CVAT**		Zero*	
Option 1C: State IST; Origin-based Local IST										
Tax rate	Zero	IST-S	Zero*		Zero	IST-L	Zero	IST-L	Zero*	
Option 3C: State VAT; Origin-based Local IST										
Tax rate	VAT-S		Zero*		Zero	IST-L	Zero*	IST-L	Zero*	

B2B transactions are sales to registered traders.
B2C transactions are sales to households and unregistered traders.
IST-S is the state IST rate
IST-L is the local IST rate
VAT-S is the state VAT rate.
VAT-L is the local VAT rate (applied only to B2C sales, in the case of the local VIVAT).
VIVAT is the local tax rate applied to all intrastate (including interlocal) B2B sales.
CVAT is the local tax rate applied to all (both B2B and B2C) interlocal intrastate sales.

*A separate regime is required to collect use tax of the destination state or locality on B2C sales.
**States would distribute revenues from B2C transactions among localities.

D. Evaluation

It seems likely that the states will initially continue to impose RSTs, perhaps without eliminating the defects described earlier. They may, however, move over time to improve those taxes, especially by expanding exemptions for purchases by registered traders. The IST represents the ultimate ideal form of state retail sales tax. At the local level the IST could be implemented in conjunction with either an IST or a VAT levied by the state. Whether states

should eventually shift to the VAT depends in part on the size of refunds of tax associated with interstate trade that would be required and the perceived risk of carousel fraud. The state IST seems to combine the best features of the RST and the VAT. In particular, it could rely directly on federal VAT registration, while avoiding the need for refunds and the risk of carousel fraud associated with interstate trade under the conventional VAT. These issues require further research. Both state options – IST and VAT (with a local IST surcharge in either event) – share one significant problem: the difficulty of implementing destination-based taxation of remote B2C sales. This is much more difficult for local taxes than for state taxes.

IV. Coordinating State and Local RSTs and a Federal VAT

It is assumed that states will continue, at least initially, to rely on the RST. While some may do so even in the long run, some may eventually switch to a VAT. It would be desirable if the federal VAT were to reflect best practice, especially elimination of (virtually all) tax on sales to business, and state and local RSTs or VATs were to conform to the federal treatment of B2B sales, coverage of sales to households, and the registration of vendors.[93] (The last criterion may need to be modified for states that continue to employ RSTs, especially if there is a relatively high threshold for mandatory registration for the federal VAT; see the discussion below.) Moreover, state (and local) sales taxes would ideally achieve destination-based taxation of consumption – that is, taxation by the state (and the local government) where consumption occurs.[94] Finally, there would ideally be close cooperation between federal and state tax administrators. The last objective can be realized only if the federal and state tax bases and registration requirements exhibit sufficient conformity.

There is no reason to expect – at least, in the absence of federal use of carrots and sticks to encourage conformity with a particular model, an issue that is considered below – that the

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[93]There are an infinite numbers of possible structures for a federal VAT to which state and local RSTs or VATs might be conformed, but one stands out as the appropriate starting point for discussion: a destination-based federal VAT that provides input credits for taxes on virtually all sales to registered vendors and is relatively comprehensive in its coverage of sales to households. The first feature would assure that the federal tax base equals consumption and does not distort production decisions or cross-border trade (between nations, states, or localities), and comprehensive coverage of consumption would minimize complexity and avoid both distortion of consumer choices and horizontal inequities. Besides furthering the same objectives, conformity of the base of state RSTs or VATs to that base would greatly facilitate compliance, administration, and cooperation between federal and state tax administrators. Comprehensive coverage of sales to households is, however, less important than the elimination of (virtually all) tax on sales to registered traders (required for economic efficiency), conformity of the federal and state tax bases with regard to B2C sales (required to facilitate compliance and administration), and consistency of registration requirements. Thus emphasis is on these aspects of coordination.

[94]The SSUTA originally specified destination-based local taxation of intrastate sales. In response to outcries over the complexity and shifts in revenues that would be entailed by shifting from origin-based taxation an option for origin-based taxation has been added. See the text at note 122.

taxes of all sales tax states would conform to the federal VAT, especially initially, or that all these states would choose to employ the same method of taxing sales. Since this section is devoted to the coordination of state sales taxes and the federal VAT, it will say no more about state sales taxes that exhibit little or no conformity to the federal VAT and little state/federal cooperation. Suffice it to say that the Canadian experience demonstrates that non-conformity and a lack of cooperation are tolerable, if not desirable. Instead, the discussion focuses on how to make state (and local) RSTs and VATs exhibit substantial conformity to the base of the federal VAT, especially in regard to the tax treatment of B2B sales, and the type of administrative cooperation that would be desirable.

Coordination of state (and local RSTs) and the federal VAT receives most of the attention; coordination of federal and state VATs along the lines of coordination of the Canadian GST and the Quebec QST requires little discussion. The IST described in the previous section is considered as a special case of an RST.[95] The discussion is divided, somewhat artificially, into structural issues, administrative responsibility, and legal issues. Of course, solutions to structural problems inevitably involve administrative cooperation and they may imply the need for adjustments of legal frameworks.

A. Structural Issues

This subsection discusses registration of traders, conformity of the federal and state tax bases, the problems posed by dual use products (those that are suitable for both business and household use, such as travel, television sets, and computers), conformity of coverage of B2C sales, and implementation of the destination principle.

1. Registration of Traders

Ideally, registration requirements would be roughly the same under state and federal VATs, as they are for the Canadian GST and the Quebec QST.[96] (The primary exception appears to involve traders who benefit from the physical presence test of *Quill*. As noted in the discussion of legal issues, Congress could eliminate this test, for example, for states whose sales taxes conform closely enough to the federal model.) This issue is thus not considered further.

Registration looms large in any discussion of how to coordinate state RSTs, including the IST, with the federal VAT, as it determines which businesses required to collect each tax, which are eligible to make tax-free purchases under RSTs, and which are allowed credits for taxes paid on inputs under a VAT. Conformity of – or at least consistency in – state and federal registration requirements is essential for coordination, especially in state sales tax schemes that rely on exemption or zero-rating of B2B sales. The difference in typical registration requirements, which reflect the way RSTs and VATs operate may make it substantially more

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[95]The IST could, of course, be classified as a VAT, rather than an RST, a VAT with comprehensive reverse charging could be classified as an RST, and either could be considered to be a hybrid. How a tax is classified is not significant.

[96]In Canada the threshold for mandatory registration under the GST and the QST are the same, annual turnover of C$30,000. Businesses with lower turnover can register voluntarily; those doing business in Quebec most register for both taxes if they register for either.

difficult to guarantee coordination with the federal VAT administration for state RSTs than for state VATs.

States could simply accept federal VAT registration as a substitute for RST exemption certificates (first option) or – perhaps more likely, especially initially – states could issue such certificates to most VAT- registered traders, including those that voluntarily register for VAT, but selectively deny state registration of VAT-registered traders who are found repeatedly to be out of compliance with the RST and extend registration to some traders not registered for the VAT, namely those with turnover below the threshold for VAT registration (second option). (Unregistered traders will be lumped together with households in what follows.) Under the second approach state exemption certificates would ideally contain the federal VAT registration number of the trader, if there is one. The two approaches could coexist, with some states adopting one and some the other.

It is possible that registration for state RSTs (or the IST) should not be based solely on registration of traders for the federal VAT. It is common for VATs to provide thresholds levels of turnover, below which registration is not required, although traders may register voluntarily. Table 7 indicates the thresholds for registration in EU Member States, Australia, Canada, and New Zealand.[97] Because VAT is collected as goods and services move through the production-distribution process, a threshold allows a reduction in the number of registered traders with relatively little loss of revenue.

Half of the thirty countries included in Table 7 have thresholds for VAT registration that are equivalent to annual turnover of less than \$25,000, and 80 percent have thresholds equivalent to less than \$50,000. Of these, three (the Netherlands, Spain, and Sweden) have no threshold, and two more have positive thresholds of less than \$10,000. Only two (New Zealand and the UK, have thresholds in excess of \$100,000. Given US experience with mandatory RST registration for all traders, it does not seen unreasonable to set a relatively low threshold – one that would avoid serious loss of RST revenues while simplifying registration requirements, via conformity.

State RSTs ordinarily do not have explicit registration thresholds for vendors, although they typically have rules and practices that, to some extent, serve the same purpose. If registration for the federal VAT also constituted registration for state RST (or the IST), a relatively high threshold for registration under the federal VAT could pose revenue problems for the states and create competitive imbalance between registered and unregistered traders, as it would leave vendors with sales below that threshold who do not voluntarily register for the federal VAT out of the state tax collection system. As noted, it may thus be necessary to provide a supplementary state registration system for traders not registered for the federal VAT. To minimize this complexity, it may be desirable to have a lower federal threshold than would otherwise be appropriate.[98] Alternatively, or in addition, states could – and should – eliminate

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[97]Conversion of thresholds into US dollars is, of course, dependent on the exchange rate used to make the conversion. For a table of thresholds in dollar equivalents, see OECD (2008, Table 3.9).

[98]Keen and Mintz (2004) provide a rigorous analysis of the optimal level of exemption threshold for small business, based on the level of compliance and administrative costs, the marginal cost of public funds, the VAT rate, and the ratio of value added to sales. All else equal,

registration for really small traders. Table 8 provides information on the size distribution of sales-tax registered vendors in 14 states that were surveyed as part of the SSTP. It shows that, for the aggregate of these states, vendors with less than $100,000 in sales made up more than 2/3 of all vendors, but accounted for less than 2½ percent of sales. This suggests that not much state revenue would be lost by instituting an RST or IST exemption of that level. Of course, the reduction in compliance burden would be enormous, as compliance is far mor costly, as a percentage of sales, for small vendors than for large ones.

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it may be desirable to have a lower threshold for the federal VAT, if registration for the state RST or IST depends on it.

Table 7: Threshold for Small Business Exemptions: EU Member States, Australia, Canada, and New Zealand (Annual Turnover)

EU Member State	Exemption Threshold*		**Member State**	Exemption Threshold *	
	In Euros	In US$		In Euros	In US$
Belgium	5,580	7,254	Luxembourg	10,000	13,000
Bulgaria	25,565	33,235	Hungary	19,700	25,610
Czech Republic	37,622	48,909	Malta	35,000	45,500
Denmark	6,705	8,717	Netherlands	None	None
Germany	17,500	22,750	Austria	30,000	39,000
Estonia	15,978	20,771	Poland	13,883	18,048
Ireland	70,000	91,000	Portugal	9,976	12,969
Greece	10,000	13,000	Romania	32,702	42,513
Spain	None	None	Slovenia	25,000	32,500
France	76,300	99,190	Slovakia	44,642	58,035
Italy	30,000	39,000	Finland	8,500	11,050
Cyprus	15,600	20,280	Sweden	None	None
Latvia	14,347	18,651	United Kingdom	87,098	113,227
Lithuania	28,962	37,651			
Non-EU Nations	In Local Currency		In US$		
Australia	A$75,000		53,426		
Canada	C$30,000		24,406		
New Zealand	NZ$40,000		103,243		

*Where the source document lists more than one threshold, that for sales of goods is used. Some EU member States have lower thresholds for providers of services.

Sources:

For EU Member States, European Commission, Directorate-General Taxation and Customs Union, "VAT in the European Community: Application in the Member States, Facts for Use by Administrations/Traders Information Networks Etc." TAXUD/1032/07-EN Part 15, available at: http://ec.europa.eu/taxation_customs/resources/documents/taxation/vat/traders/vat_community/dec2007/vat_ec_be-en.pdf. The exchange rate used was that of January 22, 2009, US$1.30 to the Euro.

For Australia, Canada, and New Zealand, United States Government Accountability Office, Value-Added Taxes: Lessons Learned from Other Countries on Compliance Risks, Administrative Costs, Compliance Burden, and Transition, GAO-08-566, April 2008.

Table 8: The Size Distribution of Sales-Tax Registered Vendors in 14 States, 20007-2008

State	Less than $100,000		$500,000 - $999,999		$1,000,000-$4,999,999		$5,000,000 and more	
	%Vendors	% Sales	%Vendors	% Sales	%Vendors	% Sales	%Vendors	% Sales
Colorado	58.4	1.0	22.1	5.0	8.9	15.7	2.7	73.0
Illinois	75.7	1.6	14.8	6.7	4.3	17.1	1.0	68.8
Kansas	59.0	2.3	21.0	6.6	9.2	18.8	3.7	66.3
Maine	69.7	1.7	15.8	6.1	6.7	17.7	2.7	69.0
Michigan	62.7	1.7	22.8	6.8	6.3	15.6	1.7	70.3
Minnesota	52.1	1.6	22.5	7.1	11.8	23.8	5.2	60.5
Missouri	65.7	1.6	20.4	6.4	6.1	16.4	1.8	69.8
Nebraska	81.7	3.2	11.9	10.8	2.7	21.4	0.6	56.2
Nevada	95.0	12.7	3.6	16.7	0.7	30.1	0.1	30.7
North Carolina	45.9	1.5	29.9	8.9	10.3	19.6	2.3	62.2
Pennsylvania	77.1	2.7	14.9	8.4	3.6	16.9	0.8	66.0
Tennessee	50.5	1.2	23.0	6.7	13.2	26.5	4.0	57.9
Virginia	69.2	1.5	18.2	6.7	5.6	16.1	1.4	70.1
Washington	66.8	2.3	21.1	8.4	5.2	17.7	1.5	65.0
TOTAL	67.2	2.4	18.6	7.8	6.4	18.3	1.9	63.9

Source: Data gathered by the Small Seller Task Force of the Streamlined Sales Tax Governing Board, August 2008, available as "Survey Results" at: http://streamlinedsalestax.org/Small%20Seller%20Task%20Force%20Committee/Prior%20Meetings/9_29_08/9_29_08.html.

An RST registration system based largely on registration for the federal VAT would place considerable reliance on federal registration to protect the tax base of state and local governments from those who would register illegitimately, in order to make purchases for private use without paying state and local RST. Whether this protection would be adequate deserves further attention. The federal tax administration might have less interest than states in preventing illegitimate VAT registrations.[99]

Reliance on federal registration could also pull too many traders into the state registration net. Most obviously, it would be unconstitutional to require state registration of a vendor protected by the physical presence rule of *Quill*. As noted the Congress could eliminate this problem.

Verification of state registration of out-of-state B2B purchasers not registered for federal VAT would be problematic, in the absence of an integrated multistate system that allowed real-time verification of out-of-state registration. The need for verification would, however, be avoided if, as is likely, all exports from a state, rather than only international exports and B2C sales to purchasers in other states, were to be exempt (or zero-rated). While this would violate compliance symmetry, it would be consistent with current practice under state RSTs. On the other hand, if there were a desire to have states of origin collect use taxes on interstate B2C sales, but not B2B sales, verification of out-of-state registration would be required. This issue is considered further below.

2. The Tax Base I: the Potential Identity of VAT and RST Bases

It is quite obvious that compliance and administration are facilitated if the bases of the state and federal sales taxes are identical, except to the extent inherent in the way the RSTs and VATs operate. Identity, and thus administrative cooperation, is clearly easiest to achieve if both levels of government impose a VAT.[100] Yet Canadian experience, with differences in the GST and QST bases, which have been narrowing over time, shows that identity is not absolutely essential.

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[99]In the extreme case fraudulent registrants might claim refunds. Claims for refunds, except by exporters, is commonly seen as a red flag indicating that further scrutiny is in order. The discussion of carousel fraud is a precautionary warning to those who would underplay the risk of fraudulent registrations, as the entity that claims the refund may not be the one that is improperly registered and goes missing. Of course, carousel on interstate trade would not exist under the federal VAT, but other types of missing trader fraud could.

[100]This can be illustrated by modifying slightly the following statement from Revenu Québec (2005, p. 26):

> To determine the GST and QST payable, use two columns in your sales book to enter the GST and QST that you billed on taxable sales (excluding zero-rated sales) for the reporting period concerned, and two columns in your purchase book to enter the GST and QST for which you were billed during the same reporting period (and which entitle you to

It is commonly thought that it would be difficult for the VATs and RSTs to have identical bases, even if both taxes took their ideal forms. (An ideal VAT would apply to virtually all sales, but an ideal RST would exempt or zero-rate sales to registered traders.) Bird and Gendron capture this viewpoint when they state, "it is extremely difficult to impose an RST on exactly the same base as a VAT – or at least no one, anywhere, has yet managed to do so."[101] In fact, the use of the IST – or any RST that followed similar principles – could come close to doing this for much of commerce. Suppose that the base of the state IST were identical to that of the federal VAT. The zero-rating of B2B sales would perform the same function as input tax credits under the conventional VAT. The part of the tax base that would be taxed without benefit of either zero-rating under the state IST or input credits under the federal VAT would be virtually identical. (The previous sentence includes the word "virtually" because of the difficulty of zero-rating some B2B transactions.) In that case, administration – and cooperative efforts between state and federal tax administrators – could concentrate on eligibility for zero-rating and input credits, and not on problems caused by differences in the base. Of course, other departures from the ideal form of either tax would impede administration and cooperation. We now address that issue.

3. The Tax Base II: Exemptions and Zero-rating of Sales to Households

It is, of course, realistic to recognize that the two taxes may not be comprehensive in their coverage of sales to households and unregistered traders. But if state RST exemptions mirrored exemptions and zero rating under the federal VAT, day-to-day compliance by vendors subject to both taxes – and the task of tax administrators – would be relatively simple. Sales not made to a registered trader would either be subject to both taxes or subject to neither.[102] Of

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> ITCs and ITRs). [Author's explanation: ITCs are the input tax credits available under the GST and ITRs are the input tax refunds available under the QST. Despite the difference in terminology, they operate identically.]

If the bases of the QST and GST were identical, ignoring things like interprovincial trade, to which the QST does not apply for constitutional reasons, this statement might well read (using italics to highlight crucial differences from the earlier statement):

> To determine the GST and QST payable, use *one* column in your sales book to enter *the amount of taxable sales* on which you billed GST and QST for the reporting period concerned and multiply the totals of sales liable for GST and QST by the applicable tax rates. Also, use two columns in your purchase book to enter the GST and QST for which you were billed during the same reporting period (and which entitle you to ITCs and ITRs).

Although the second set of words requires an extra step (one that would have been performed each time a sale was made), it shows the advantage for both compliance and tax administration of having an identical base for the GST and the QST – and, of course, a single rate for each tax.

[101] Bird and Gendron (this volume, note 115).

[102] Exemption from the federal VAT would entail more complexity than zero-rating, due to the need to pro-rate input credits between taxable and exempt sales – a problem that would not

course, the greater the difference in federal sales tax and state and local RST bases, the more burdensome would be compliance and administration.[103] Definitions contained in the Streamlined Sales and Use Tax Agreement (SSUTA) could be used to distinguish products that are taxed and exempt in each state or by the federal government.

As in the discussion of dual-use products that follows, a comparison of sales that are fully taxable under the federal VAT (those that are neither exempt nor zero-rated) with taxable sales under the state RST would reveal whether there are discrepancies that are worth scrutiny (providing, of course, that the bases of the two taxes conform), but not whether such sales have been understated for both taxes. A comparison of purchases and sales would help determine whether fully taxable sales are understated.

4. The Problem of Dual-use Products

High combined federal/state/local sales tax rates, combined with the posited expansion of exemptions for business purchases under state RSTs, would put tremendous pressure on state and federal tax administrators (and perhaps on vendors). The potential problems include illegitimate use of exemption certificates by legitimate businesses, e.g, to make exempt purchases of "dual use" products for personal consumption.

Fraudulent RST exemptions for dual use products could potentially pose a much greater threat to state and local tax revenues under a "best practice" RST than under current RSTs. Whereas many such products would be subject to tax under current law, whether bought by a registered trader or by a household or unregistered trader, under the expanded system of exemptions envisaged here they would be taxed only if bought by a household or unregistered trader – or by a registered trader for personal use. There would thus be greater incentive and opportunity than under current law to claim RST-exempt status for products bought for personal use. On the other hand, state tax administrators would have assistance from the federal tax administration that they now lack. That assistance would, of course, be of most use if the tax bases were identical, except in their treatment of sales to registered traders.

The key to preventing this type of abuse would be the information reported on tax returns filed with federal and state tax administrators and supported by invoices (or cash register receipts). Consider for convenience the situation of a business operating entirely within one state and making only in-state purchases. If the bases of the federal VAT and the state RST conformed exactly and traders were required to report RST-exempt purchases, the result of dividing the amount of credits for input VAT by the federal VAT rate should equal the amount of RST-exempt purchases made by a registered trader. Discrepancies between these two figures should indicate to federal or state auditors that something is amiss and should be investigated further. A more detailed audit might reveal that the business had not claimed input credit for VAT on a purchase for which it had claimed an RST exemption (or the reverse).[104] Examination

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arise under zero-rating or under the RST. Complexity would extend to day-to-day compliance, because of the need to distinguish between exempt and taxed (or zero-rated) sales.

[103] For a similar argument in the Canadian context, see Mintz, Wilson, and Gendron (1994).

[104] The example in the text would be analogous to a taxpayer claiming an income-tax deduction for the purchase of a dual-use product in calculating state income tax, but not in

of the purchase(s) in question would reveal whether the taxpayer had overpaid the VAT (by failing to take the credit for input tax) or had underpaid the RST. Of course, the greater the differences in the bases of the federal VAT and state and local RSTs, the more difficult it would be to identify discrepancies such as this.

Returning to the point made by Professors Shoup mentioned in section II above, if the taxpayer is going to lie to the vendor in order to make RST-exempt purchases, it is necessary also to lie to the (federal and state) government. The existence of the federal VAT should assist administration of the state RST, because improperly taking input credit for tax on a dual use purchase would presumably be easier to detect (albeit not easy) than evasion of the state RST by lying to a vendor.

While the existence of the federal VAT would help identify evasion where credits for input tax and RST exemptions failed to be mutually consistent, it is, of course, possible that there would no inconsistency, because the taxpayer was evading both taxes on dual use purchases. Audit by state or federal tax administrators not triggered by discrepancies between federal VAT and state RST returns would be required to detect this form of evasion. To facilitate such audits, vendors might be required to record and retain the names and registration numbers of buyers making RST-exempt purchases of products most likely to be diverted to private use, along with a description of the products purchased. In Canada GST invoices for sales of C$150 or more must contain the purchaser's name and a description of goods and services and QST invoices must contain the descriptive information, regardless of the amount of the sale.[105]

Given the attention paid to business deductions for dual use products in the federal income tax, it would be important for administrators responsible state and local RSTs to exchange information with each other,[106] with those responsible for the federal VAT, and with income tax administrators, especially at the federal level. This would, as described further below, require amendments of the Internal Revenue Code and probably the tax laws of most states.

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calculating federal income tax (or the reverse). In states whose income tax base conforms to the federal base (or takes the federal base as its starting point), this type of evasion would be unlikely – or would be quite obvious. Improperly claiming a deduction on both tax returns would be harder to spot.

[105]See Revenu Québec (2005, p. 14).

[106]Harley Duncan, former Executive Director of the Federation of Tax Administrators, has noted in correspondence with the author:

> There is very limited exchange of information among states in the sales tax arena. It is focused almost entirely on shipments from one state to another where tax was not collected by the seller. An auditor from state that discovers a large untaxed sale when doing an audit may share the information with another state to which the item was shipped to insure that it gets picked up as purchaser's use tax. Some states routinely share information on shipments to consumers in other states when they would audit art dealers and high-end jewelry dealers. But, there is nothing systematic about it, and it is the exception rather than the rule.

5. Achieving Destination-based State (and Local) RSTs

Achieving a destination-based state RST requires solving a multifaceted puzzle.[107] First, destination-based taxation needs to be achieved for both international transactions and interstate domestic transactions. Second, it is important to distinguish between business to business (B2B) sales and business to consumer (B2C) sales. B2C sales, especially remote sales of services and intangible products directly to consumers, pose particular problems. The existence of the federal VAT could facilitate achievement of destination-based taxation of both types of interstate sales.[108] Finally, in theory it is not be enough to identify the state of destination and collect its tax; ideally local sales (or use) taxes should also be collected on a destination basis, but this may be an unachievable counsel of perfection in some instances, especially for remote commerce.

a. International trade

Exports of both goods and services/intangibles would be zero-rated under a federal VAT and exempt under state RSTs. The primary issue would be verification that export occurs. Verification of export of goods for purposes of the federal VAT and state RSTs could be done at the same time and would be relatively simple. It is, however, much more difficult to verify export of services and intangible products. Such products do not stop at the border, and information on purchases of inputs does not necessarily provide a sound foundation for calculating the total amount of such sales, as it often does in the case of tangible products.

Imports of goods, whether by registered traders, households, or unregistered traders, would presumably be subject to federal VAT at the border (perhaps subject to a de minimis rule). Given the relatively little attention currently devoted to collecting customs duties – and the

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[107]On the topic of this section, see generally, Hellerstein and Keen (this volume).

[108]In the passage quoted in the headnote, Bird and Gendron (this volume, text at note115) continue: "Federal cooperation may ... supply two important supporting props to provincial sales taxes:

> First, the federal government controls the international border. Hence, if provinces want to tax imported goods flowing to the residents, they need federal cooperation to do so. Note, however, that it does not matter what kind of provincial sales tax is imposed: as noted earlier, the federal government in Canada collects provincial sales taxes of all varieties at the border (for noncommercial imports) under certain conditions.
>
> Second, and more importantly, the existence of sales taxes at a higher level of government in principle (and to some extent in practice) makes it simpler for provinces to tax their own residents effectively in the face of extensive interprovincial trade in goods and services. Such federal-provincial cooperation is automatic in the case of the HST. It can be achieved to substantial extent through close cooperation between the federal and provincial tax authorities as the case of the QST demonstrates. However, it does not work with respect to the existing RSTs in five provinces essentially because the base of these taxes is totally different than the base of the GST.

substantially greater attention to security from terrorists – this would necessitate substantially increased federal administrative resources, or at least a significant reorientation of attention. VAT paid on imports by registered traders would, of course, be eligible for credit against tax on sales. For this reason B2B imports could, in theory, be subject to deferral, perhaps with reverse charging, since tax not collected at import would be collected at the time of the first domestic sale. In fact, this would be an open invitation to tax evasion, unless limited to gold-star importers, in which case it would create competitive imbalance.[109]

Imports of intangible products and services by registered traders should, in principle, pose relatively little problem, as they be handled by reverse charging under the VAT and (except of dual use goods destined for private consumption) should be exempt under an RST.[110] In the case of dual use imports, as in the case of similar domestic transactions, analysis of VAT input credits could serve to verify the legitimacy of RST exemptions.

It is difficult to collect either a VAT or an RST on imports of services and intangible products by households or unregistered traders, since such imports do not stop at customs houses or post offices.[111] No effort is made here to solve that thorny problem.

Households and unregistered traders can import taxable goods in either of two ways: by bringing them into the country with them (e.g., as tourists) and by having them shipped to them. In either event, the imports should be subject to RST. Since there is currently no federal VAT and most imports are not subject to customs duties, the federal government does not now assist states in collecting RST. This conceivably could change with the adoption of a federal VAT,[112] but collecting state RSTs (strictly speaking, use taxes) on imports would be more challenging than collecting the federal VAT, because of the need to know the state of destination of the goods and the tax base and tax rate of the destination state.

Federal tax administrators could collect state RSTs, along with the federal VAT, on B2C imports of goods that are shipped. The destination address could be used to determine which state RST should apply, and federal VAT agents could be provided with the type of software being developed under the Streamlined Sales and Use Tax Agreement (SSUTA) to determine whether the goods were taxable or exempt in that state and the relevant tax rate.

Taxation of imports by tourists and business travelers would be more problematical. Federal agents could use addresses reported on immigration/customs/VAT forms and SSUTA

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[109]See Cnossen (2008).

[110]Not all purchases of business inputs by registered traders are now RST-exempt. Imported business inputs are now subject to RST, if at all, via direct pay, in which the purchaser remits tax directly. In principle, the federal VAT administration could collect state RST on business imports, but the kinds of problems described in the text with reference to imports by households and unregistered traders would exist. It may be best, if states wish to continue this undesirable practice of taxing business inputs, to let them do so in the same way as now.

[111]See Hellerstein and Keen (this volume), including references to efforts of the OECD to solve this problem.

[112]Bird, Mintz, and Wilson (2006, p. 892) note that most Canadian provinces have recently concluded agreements under which the federal government will collect RST on imports. They do not say how the problems of knowing the destination, taxable/exempt status of the import, or the appropriate tax rate are handled. There are no local sales taxes in Canada.

software to implement state RSTs on such imports. (If there is a de minimis amount for imposition of the federal VAT, it seems unlikely that VAT agents would collect RSTs on imports below that amount.) However, since the federal government would have no interest in the accuracy of such information for fiscal purposes, it does not seem unlikely that travelers would provide false information, unless they thought (perhaps correctly) that the Department of Homeland Security had an interest in accurate reporting.

It would probably be impractical to attempt to impose local RSTs on imports. This would entail, at the least, channeling revenues to the right local jurisdiction, and it might involve knowing local tax rates, which are not uniformly applied to sales to purchasers in all localities in some states.[113] On the other hand, if state-specific RSTs were to be collected, it would be simple – except as a matter of constitutional law– also to impose state-specific surcharges that were not locality-specific, leaving the various states the task of dividing revenues from the surcharge among their localities.[114]

b. Interstate trade

Under the federal VAT interstate sales would be treated no differently than intrastate sales, whether made to households, unregistered traders or registered traders; all sales that are not exempt or zero-rated would be taxed, and input credits would be allowed for tax on purchases by registered traders. By comparison, even under an ideal RST that exempted all business purchases, it would be necessary for the vendor to distinguish between sales to registered traders and those to households and unregistered traders (B2C sales) and, in the latter case, to determine the destination of sales. Sales to registered traders would be exempt, whether made to in-state or out-of state buyers. (As noted earlier, this distinction could be based on exemption certificates geared to registration for the federal VAT, as modified to require RST registration of small vendors with sales below the registration threshold for the federal VAT that do not register voluntarily for the VAT and exclude vendors protected by *Quill*.)

In-state B2C sales could be either taxable or exempt from RST. In order to implement the destination principle, interstate sales would be exempt from the RST of the exporting state and interstate sales to households and unregistered traders (above a de minimis amount) should (if not exempt) be subject to the state RST (more precisely, the use tax) of the state (and, ideally, the locality) of destination. Since B2C buyers cannot be expected to remit the tax on purchases from out-of-state vendors voluntarily, the tax is likely to be paid only if it is collected by vendors.[115] Requiring remote vendors to collect use tax for the importing state would necessitate

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[113]Under current law it would even require knowledge of the local tax base in some states (e.g., Colorado).

[114]As Hellerstein and Keen (this volume) point out, a state-specific surcharge that exceeded the use tax imposed by particular local governments on sales by local vendors could face constitutional challenge as discriminating against interstate trade. The Congress could, of course, relax this constraint.

[115]Interstate imports by RST-registered traders would pose a similar administrative problem for states that continue to tax business inputs, but in that case direct pay and audits would help assure compliance, as now.

Congressional or judicial reversal of the Supreme Court's decision in *Quill*, to be discussed further below.

Whether *Quill* should be reversed, for which states, and under what conditions, is beyond the scope of this article.[116] It seems reasonable to believe, however, that requiring remote vendors to collect use taxes would not impose an overly onerous burden on interstate trade if the bases and administrative requirements of state (and local) RSTs were sufficiently similar, the requirement were subject to a de minimis threshold, and it was not necessary to "source" sales to the local level. The last proviso implies that the Congress may need to enact legislation legalizing blended rates.

In principle, the above discussion applies equally to sales of goods and of services and intangible products. In practice, it may be difficult for tax administrators (and perhaps for vendors) to determine the destination of services and intangible products.[117]

6. Conformity and Constancy of Tax Bases

Conformity of the federal VAT and state and local RSTs (including ISTs) and VATS is probably more important than conformity of federal and state income taxes. Whereas non-conformity of the bases of accounts-based income taxes is primarily a problem once a year, when tax returns are filed,[118] non-conformity of the bases of transactions-based sales taxes would negatively affect compliance throughout the year.

a. Static and moving conformity

Frequent changes in the definition of the federal income tax base have meant that states that choose to conform to that base must choose between "moving conformity" – conformity to the federal law for a given year, or "static conformity" – conformity to the federal law as of a given date. Although moving conformity would cause state tax bases to change with changes in the federal base, at least the two bases would conform. Static conformity would be even more troublesome for sales taxes than for income taxes, as it would mean that the two bases would not actually conform, except in years when the two bases had not yet diverged. This explains why this paper takes conformity to mean moving conformity.

b. Prospects for conformity and constancy

It might seem relatively easy for the federal government and the states to agree to follow "best practice" in the design of their sales taxes: a) exemption of sales to business under the RST and allowance of credits for input taxes under the VAT and b) taxation of (virtually) all sales to households. But under current state practice, many sales (especially of services) are exempt and substantial fractions of state and local RST bases consist of sales to business. Eliminating tax on B2B sales would entail enormous reductions in tax bases, and including more B2C sales in the

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[116]See, however, McLure (2000b).

[117]See Hellerstein and Keen (this volume) and references cited there.

[118]Non-conformity of income taxes also complicates tax planning as well as the periodic calculation and reporting of estimated income taxes. Non-conformity also affects the recording of receipts and expenditures under the income taxes and would affect the recording of sales and purchases under the sales taxes.

tax base would be politically unpopular, as would the higher tax rates required to maintain revenue-neutrality.[119] This suggests that conformity with best practice would be hard to achieve, despite this benchmark. Even so, it seems safe to bet that if conformity based on something approaching best practice were ever to be achieved for B2B sales, it would be maintained.

Conformity in the tax treatment of products bought primarily by households seems more difficult to achieve and maintain. As noted earlier, although the SSTP has produced agreement on definitions of products that a state might either tax or exempt, because of concerns over state fiscal sovereignty, agreement has not extended to which products should be taxed or exempt in all states. Specifically, there is no agreement that (almost all) B2C sales should be taxed.

If conformity were ever achieved, it would clearly be facilitated by constancy in the definition of the federal tax base. The notorious inconstancy of the federal income tax suggests that maintaining constancy, especially in the taxation of sales to households, may be a daunting challenge, because of political pressures to introduce preferential VAT treatment of various household expenditures. The same forces would continually threaten conformity from the other (state RST, IST, or VAT) side, even if the definition of the federal tax base were to remain unchanged.

It may be instructive to note that conformity of the federal and state income taxes did not come about simply because it constituted good public policy. Rather, it occurred because business demanded it, so as not to need to comply with divergent federal and state tax bases.[120] It is an open question whether business would bring similar pressure for conformity of sales taxes, – and whether such pressure would be effective. It is, after all, only recently that the states have even attempted, through the SSTP, to adopt, inter alia, uniform definitions. Those efforts had their genesis in state fears of revenue losses resulting from the growth in electronic commerce facilitated by the development of the Internet, not long-standing business complaints about non-uniformity.

c. The potential contribution of SSUTA to conformity

It would facilitate administrative cooperation a) if products that are exempt under state a RST were the same as those benefitting from exemptions or zero-rating under the federal VAT and b) if such products were defined in the same way for purposes of the two taxes (and the same way in all states). The Streamlined Sales and Use Tax Agreement (SSUTA) could further conformity by providing uniform definitions of products. It would not, however, guarantee that all states chose to tax the same products that are taxed (at a positive rate) under the federal tax. One of the explicit politically imposed constraints on the Streamlined Sales Tax Project (SSTP) was to leave to individual states the choice of which (commonly defined) groups of products would be taxed or exempt.[121]

SSUTA contains destination-based rules for determining where transactions should be taxed. It also provides that local sales taxes should be imposed as surtaxes on the state tax base

[119]Higher rates would be required, because the revenue loss from eliminating tax on B2B sales would exceed the revenue gain from taxing more B2C sales

[120]See Hellerstein and Hellerstein (1998, ¶ 7.02).

[121]See Hellerstein and Swain (2008), Hellerstein and Hellerstein (1998, chapter 19A.), or, for a more condensed treatment, Hellerstein and Keen (this volume).

and collected by state tax administrations. The SSUTA originally provided that destination-based rules for attribution of taxing jurisdiction would apply to local sales taxes as well as state RSTs. However, because shifting from the present origin-based rules for intrastate sales found in many states to this destination-based regime would entail substantial shifts in tax revenue between localities. As a result, the SSUTA now gives states the option to retain origin-based taxation of intrastate sales. Whether this option would pass constitutional muster remains to be seen. The federal government could, of course, sanction this rule.[122]

B. Administrative Responsibility

The prospect of combining a federal sales tax with state RSTs raises several types of administrative issues. First, should the state and federal governments each administer their own taxes, or should one level of government administer the other's tax, as well as its own? How is the answer affected by the fact that some states have no RST and in some states there are local sales taxes? Second, how is registration handled, especially if states continue to employ RSTs or switch to the IST, rather than adopting VATs?

Bird and Gendron have observed:

> With good tax administration it is thus perfectly feasible to operate a VAT at the subnational level on a destination basis, at least for large regional governments. In principle, it is immaterial whether there are two separate administrations or one; or, if there is one, which level operates it. Clearly, a single central administration and a common base is likely to be more efficient, but this degree of convergence in this respect is less essential than a high degree of intergovernmental cooperation e.g. through unified audit or at least through a uniform VAT registration system and a very high level of information exchange. Most importantly, from the perspective of improving accountability, each taxing government should be able independently to determine its own VAT rate.[123]

1, Federal Administration of the Federal VAT

It is assumed – and recommended – that the federal government should administer the federal VAT. It is hard to conceive that the federal government would cede administration of this important new source of revenue to the states. Nor should it. Consider first the case of states that continue to employ traditional RSTs. It would make no sense (and would be unrealistic) to expect states to administer an unfamiliar new federal VAT along with their own quite different RSTs. (This comment would be only marginally less applicable for states that adopted the IST.) Even if some states were eventually to adopt the VAT and thus be somewhat more capable of collecting the federal VAT, that tax would initially be imposed only by the federal government (and perhaps a few state "pioneers"). There is thus no alternative to federal

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[122]See Swain and Hellerstein (2005), Hellerstein and Swain (2008), Hellerstein and Hellerstein (1998, chapter 19A 06[8]), or, for a more condensed treatment, Hellerstein and Keen (this volume)

[123]Bird and Gendron (this volume, text just after note 117).

administration of its VAT in the short run and it is unlikely that administrative responsibility would shift in the long run.

Reenforcing this conclusion is the fact that not all states have RSTs, and some states may have neither an RST nor a VAT for the foreseeable future. That being the case, the federal government would need to introduce the administrative apparatus required to collect the VAT on sales that registered traders make in those states. In addition, since the quality of state tax administration almost certainly varies from state-to-state, the federal VAT probably would not be administered uniformly if administration were left to the states, unless state administrators were subject to (unwelcome) federal scrutiny. Beyond that, all states would have an incentive to "go easy" in administering the federal VAT on local retailers, in order to reduce their states' shares of federal tax collections.[124] (It might be necessary also to "go easy" in administering the state tax on the same vendors, making up the lost revenues from other taxes or even higher sales tax rates on the diminished base.)

The experience of Canada, where Quebec collects the federal GST, is worth reviewing. First, the Canadian federal government has not relinquished collection of the GST to the provinces that have RSTs or no sales tax – nor is it likely to. Second, Quebec is the only Canadian province that has a VAT that is fully separate from the federal GST. (As noted earlier, the federal government administers the HST, which is best thought of as a form of tax-sharing.) It remains to be seen what would happen if more provinces switch to the VAT and want to collect the GST along with their newly imposed provincial VATs. That would raise the questions of uniformity and incentives described above. And those provinces would not have the same political cards to play that French-speaking Quebec was threatening to play at the time the GST was introduced in Canada. Of course, no US state is characterized by the cultural, linguistic, and political uniqueness of Quebec. It is worth noting that the government of Ontario has proposed federal administration of its new VAT, rather than administering it (and perhaps the federal tax within Ontario) itself.

2. State Administration of State and Local Sales Taxes

It is also assumed – and suggested – that the states should administer their state and local sales taxes, be they RSTs (or ISTs) or VATs. First, it is likely that the states would resist federal administration. Second, the federal government would probably be willing to collect only state VATs – and those only if there were (nearly) exact conformity between the registration requirements and base of the federal VAT and state taxes. Despite the manifest advantages of conformity, it cannot be assumed, especially given the short-run revenue effects of moving to conformity. It seems unlikely that the federal government would be willing to administer state RSTs. Finally, even though technological advances create the possibility of potentially large economies in tax administration[125] **federal administration seems especially unlikely for states that have local RSTs, even if state and local tax bases are identical.**

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[124]It been asserted that some German laender have attempted to attract business by offering to be more lenient than others in their enforcement of the federal VAT.

[125]See OECD (no date).

It is assumed – and suggested – that the states should administer local sales taxes, which are most efficiently imposed as surtaxes on the state base. The advantages of state administration have already been recognized in the SSUTA.

3. The Need for Administrative Cooperation

The earlier discussion suggest that states could rely heavily on federal registration, especially under the IST or dual VAT models. States imposing standard RSTs could also rely in part on federal registration to determine whether a business should be RST- registered and thus required to collect tax and be allowed to make tax-exempt purchases. Also, it would be important to have exchange of information between the federal government and the states that would allow comparison of a) input credits under the federal VAT with input credits under state VATs and exempt business purchases under state RSTs and b) fully taxable sales under the state and federal taxes.[126] Federal involvement could also assist in the implementation of destination-based taxation of imports and remote sales to households.

C. Federal Legislative Issues

Federal legislation is likely to be useful, beyond the mere enactment of the VAT.[127] Such legislation would be required to permit certain forms of administrative cooperation with the states, and it might be desirable to encourage greater conformity.

1. Administrative Cooperation

Legislation enacting a federal sales tax would need to include provisions for administrative cooperation with the states. Particularly important would be modification of the rules on confidentiality to allow sharing of VAT information, as well as income tax information, with state agencies administering RSTs (including ISTs) and VATs. Under §6103(d)(1) of the Internal Revenue Code authority to disclose taxpayer information to state officials is limited to returns filed under certain enumerated chapters of the Internal Revenue Code. A federal VAT would presumably constitute a new chapter and thus authority to disclose provided by §6103 would need to be expanded. Internal Revenue Code§6103(b) prohibits IRS disclosure of either taxpayer identity or the possibility that such person may owe tax. It would, as noted earlier, greatly assist administration of either state RSTs or VATs if states were be able to know the identity and VAT registrations numbers of taxpayers. Beyond that, this section may need to be amended so that registered traders can verify whether their customers are registered for the federal VAT.

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[126]Regarding the reliance of Canada on the tax administration of Quebec, which they characterize as "a sophisticated and aggressive tax authority," Bird and Gendron (this volume, text just before note 99) note, "With good information exchange, hitching the QST to the GST may have helped both governments protect their revenues." Of course, if the Canadian government administers the new Ontario VAT, as proposed, administrative cooperation will be automatic – if that concept is even meaningful in such a context.

[127]Needless to say, the need for far-reaching state legislation is also implied by the discussion above.

2. The Use of Federal Carrots or Sticks to Gain Conformity

Experience suggests that states may not be anxious to conform their state and local RSTs or VATs to the federal VAT. Generally speaking, the states have been interested in uniformity only when faced with an external threat, most commonly federal legislation.[128] State interest in the SSTP can be traced to federal enactment of the Internet Tax Freedom Act and the efforts to deal with non-uniformity that it spawned (specifically, the NTA Project and the Advisory Commission on Electronic Commerce[129]). This raises the question of whether the federal government should either encourage or mandate conformity and what carrots or sticks (aside from a mandate) it might use for that purpose.

On the one hand, state fiscal autonomy is valuable. But it can be argued that autonomy over tax rates is what really matters, as that is what determines how much public services state and local governments can provide; that irresponsible exercise of autonomy has produced a degree of diversity of tax bases and administrative practices that is unacceptable; and that there is therefore a national interest in conformity that the federal government should foster.[130]

a. The federal interest in conformity

The federal interest in conformity goes beyond facilitating compliance by those who must deal with the federal VAT and the sales tax levied by any one state government. Conformity is also needed to reduce the waste of resources involved in the needlessly complicated compliance and administration that results from the diversity of state sales taxes. That is, conformity of federal and state taxes is desirable not only for its own sake but because it could create the basis for uniformity across state taxes.

There is also a federal interest in conformity that is based on economic efficiency, growth, and competitiveness. States that tax sales to business do not only "shoot themselves in the foot."[131] Rather, sales taxes on business inputs distort production decisions and interstate trade, discourage saving and investment, reduce national output, and place US producers at a

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[128]For a survey of experience, including that with income and motor fuel taxes, see McLure (2008).

[129]For documents related to the NTA Communications and Electronic Commerce Tax Project, including the final report, see the website of the National Tax Association, http://www.ntanet.org/. For those related to the Advisory Commission on Electronic Commerce, see http://govinfo.library.unt.edu/ecommerce/index.htm.

[130]See McLure (2005a).

[131]Bird (2007, p. 814) describes the folly of state taxation of business inputs as follows:

> [I]t is clear that firms located in jurisdictions that impose relatively heavier taxes on business inputs are penalized compared with firms in areas that tax those inputs less heavily. Why any state should want to shoot itself in the foot by thus hampering the competitiveness of its firms is not clear. But that is exactly what an RST does, and ... the evidence from Canada, where four provinces have recently adopted VATs, suggests that those effects may be significant.

For that evidence, see Smart and Bird (2008).

competitive disadvantage in export or domestic markets.[132] Conformity based on 'best practices' would avoid these undesirable effects. Again, conformity is only the proximate goal, the ultimate goal being economic efficiency, growth, competitiveness,

Finally, the achievement of destination-based state sales taxation, by collecting use taxes on remote sales, reduces clear inequities, most notably against main street merchants, who must now compete with remote vendors protected by *Quill*, whose sales generally evade use taxes.

b. Techniques for achieving conformity

There are several ways the federal government could encourage conformity, rather than simply mandating it. First, it could offer to collect RSTs for states that agree to conformity. Experience with a similar offer to collect state income taxes suggests that states would be unlikely to accept such an offer.[133] Moreover, as noted above, the federal government is unlikely to want to make the offer, especially given the existence of local RSTs.

Second, it could condition exchange of information on adoption of conformity. While states would probably find this a more attractive offer, there is no certainly they would accept it. After all, they have long operated their sales taxes (some since the 1930s) without federal assistance. Moreover, none of the Canadian provinces that retain their RSTs conform their tax bases to that of the GST, and they do not rely on exchange of information with the federal government in administering their RSTs.

A third, more promising, approach would be to override *Quill*, but make conformity a condition of the over-ride's applicability to a given state.

c. Overriding *Quill*

Under current judicial interpretation of the Commerce Clause of the US Constitution, a state cannot require a vendor that does not have a physical presence in the state to collect its use tax on sales made into the state.[134] This rule is understandable and appropriate, given the complexity of complying with the sales and use taxes of multiple states and their many localities,

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[132]Canada, Department of Finance (2008, p. 77) states, "The Government is encouraging provinces to help enhance Canada's position as a country of choice for new investment, by replacing harmful provincial retail sales taxes with value-added taxes harmonized with the federal goods and services tax (GST) and reducing provincial corporate income tax rates."

Dungan, Mintz, Poschmann, and Wilson (2008, p. 15) assert, "[T]he federal government is strongly motivated, precisely because of its interest in a strong economic union, to seeing that the remaining RST provinces adopt a VAT similar to the RST."

It can, of course, be argued that, on average, competitiveness effects of the origin-based component of RSTs inherent in the failure to exempt business purchases will be offset by movements in exchange rates. Such movements will not compensate for distortions and effects on competitiveness resulting from origin-based taxation that is not uniform.

[133]In 1972 Public Law 92-512 added Sections 6361-6365 to the Internal Revenue Code, providing federal administration of income taxes for states that met prescribed conditions. As no states had expressed interest in federal administration, the provisions were repealed in 1990 by Public Law 101-508.

[134]*Quill Corp. v. North Dakota*, 504 U.S. 298 (1992).

which differ substantially in material ways, and the historic unwillingness of the states to reduce the complexity by adopting sales taxes that are more nearly uniform.[135] But the rule creates economic effects that are clearly undesirable. In particular, sales tax revenues of state and local governments are reduced, local merchants are placed at a competitive disadvantage, relative to out-of-state vendors that lack a physical presence in the state, and both horizontal and vertical equity suffer, as not all are equally well-equipped to buy from remote vendors.[136] It would be desirable for Congress to override the decision in *Quill*, but only if compliance by remote vendors is sufficiently simplified.

Conformity of administrative practices among states adopting SSUTA has the potential to reduce complexity and compliance costs. States may argue that compliance by remote vendors would be simplified enough that *Quill* should be over-ridden, at least for these states.[137] But perhaps the over-ride should be limited to states that adopt moving conformity to the federal sales tax base (and perhaps base their registration systems on registration for the federal VAT), as well as SSUTA.

V. Summary and Conclusion

It may be useful at this point to recapitulate a few key points.

1. The VAT is the best form of sales tax for use by the federal government, because of the complications of compliance and administration, the risk of cascading, and opportunities for evasion inherent in the RST.

2. While states probably will not quickly switch to a VAT, some may do so over time. This would facilitate administrative cooperation with the federal government and allow them to avoid the taxation of business inputs, which is pervasive in extant state RSTs.

3. Whether states should switch to the VAT depends in part on the need to make massive refunds on interstate trade, which does not plague the RST, and the possibility of improving their RSTs, for example, by implementing the IST, which can be seen as a special form of RST.

4. Conformity, or at least general consistency, of requirements for registration is crucial for administrative cooperation. Conformity is obviously desirable for a state VAT and it would facilitate implementation of state sales tax systems that rely on the distinction between sales to registered traders and those to households and unregistered traders, such as an RST that reflects best-practice, such as the IST. Conformity is clearly easiest to achieve and produces the best result if both federal and state governments rely on the VAT or the IST. Under a standard RST, registration for the federal VAT would probably need to be supplemented by a state RST

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[135] Administrative requirements, as well as tax bases are different. Moreover, compliance with local use taxes would require knowledge of the location of purchasers within states, as well as the appropriate local tax rate(s). While many remote vendors may be able to deal with these requirements in a digital age, doing so would clearly have been onerous for all vendors in 1967, when the U.S. Supreme Court decided *National Bellas Hess v. Department of Revenue*, 386 U.S. 753 (1967). Thus in *Quill* the Court relied in part on *stare decisis*, citing the need for "settled expectations."

[136] Vertical equity suffers because of the "digital divide:" low-income households have the least access to computers and the Internet.

[137] See also Hellerstein and Keen (this volume).

registration system. The threshold for registration under the federal VAT may need to be set lower – and that for state RSTs and ISTs higher – than might otherwise be desirable.

5. Compliance, administration, and administrative cooperation would be easiest if the bases of state RSTs or VATs and the federal VAT conformed. One hopes that conformity would be on the basis of "best practice" – no unrelieved tax on sales to registered businesses and relatively comprehensive taxation of sales to households and unregistered traders, as that would eliminate the insane line drawing (e.g., between types of sales to business and between types of products bought by households) that is necessary under current RSTs.

6. Contrary to the conventional wisdom, it appears that local reliance on RSTs is not a barrier to state adoption of the VAT. A local VIVAT could be piggy-backed on a conventional state VAT, and a local IST could co-exist with either a conventional state VAT or a state IST.

7. The federal government probably could – and perhaps should – encourage state conformity by over-riding the *Quill* decision (which limits vendors' duty to collect tax on remote sales) only for states whose sales taxes conform sufficiently closely to the federal VAT.

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