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# Taxing Electronic Commerce:

A Revolution in the Making

Richard Bird

#### In this issue...

What does the growth of e-commerce mean for the taxman? Few topics arouse more passion in public discussion than taxation. Few subjects have given rise to more discussion among those concerned with tax matters in recent years than electronic commerce. Taxing e-commerce may force all of us to accept greater transparency in the way we conduct our business — and our lives.

#### The Study in Brief

Few topics arouse more passion than taxation, and few subjects have led to more passionate discussion among tax experts in recent years than electronic commerce. The result has been a mountain of material from governments, international organizations, and pundits on the taxation of e-commerce. What does this new frontier in tax policy mean for Canadians?

This Commentary argues that that despite all the sound and fury of the international discussion about taxing e-commerce, the issues raised are as yet not too important for Canada. Owing largely to the adoption of the value-added-tax form of sales tax - the GST/HST, as well as the QST in Quebec - at both the federal level and in several provinces some years ago, Canada has an easier road to travel in this new era than either the U.S. or the European Union.

Still, Canadians may have to face some fairly drastic changes in taxation to cope adequately with the new tax reality. First, all provinces should adopt the VAT form of sales tax. Secondly, the provinces are also going to have to work closely with the federal government to reform their apportionment rules. And, finally, the federal government is not only going to have to continue to monitor closely international developments in business taxation, but also in all likelihood over time make more basic changes in the international aspects of both consumption and, especially, income taxation than it seems as yet willing to contemplate. Tax experts, like most of us, may like a quiet life, but, as all pioneers soon learn, life on a frontier is seldom tranquil.

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\$12.00; ISBN 0-88806-607-4 ISSN 0824-8001 (print); ISSN 1703-0765 (online) f you have just purchased an air ticket or a book over the Internet, you are not alone. Last year, Canadians spent \$13.7 billion on goods and services purchased online. In 2000, 24 percent of all individuals using the Internet ordered something, with the average sale being \$121.2 In total, 1.5 million households spent about \$1.1 billion on Internet purchases in that year. In 2001, 2.2 million households spent close to \$2 billion on such purchases (Strauss 2002). By 2002, Canadian consumers purchased a total of \$3.7 billion electronically, an increase of 58.5 percent over the previous year.

Such Business-to-Consumer (B2C) sales, however, accounted for only 27 percent of total electronic-commerce (e-commerce) sales in 2002. The bulk of e-commerce is Business-to-Business (B2B). Three-quarters of Canadian companies now use the Internet, about one-third of all businesses have a website and roughly the same proportion made online purchases. Only 7.5 percent of companies, however, reported selling goods and services online in 2002. E-commerce sales remain small in relative terms, accounting for only 0.6 percent of total private-sector operating revenue in 2002. Still, this share was three times larger than the corresponding figure in 1999. Though the new-economy collapsed, the growth of electronic commerce appears unstoppable, with Canada being among the world leaders in this respect (OECD 2002).

What does the growth of e-commerce mean for the taxman? Few topics arouse more passion in public discussion than taxation. Few subjects have given rise to more discussion among those concerned with tax matters in recent years than electronic commerce.<sup>3</sup> Governments, international organizations and pundits have poured forth reams of material — much of it, unsurprisingly, available on the Internet — on this subject. My aim in this paper is simply to extract from this mountain a few nuggets for Canadians about what this new frontier in the fiscal wars may mean for them in the near future.

In the next section, I outline some of the sharply contrasting — and as yet not converging — views of what the growth of e-commerce means for taxation. I then discuss briefly just why the question is important and set out some of the key points at issue, comparing the situation in Canada with that of the United States and the EU. Next, I consider briefly whether technology may offer solutions as well as problems for those in the tax business.

In the end, I conclude that the sound and, at times, the fury of the international discussion about the taxation of electronic commerce considerably exceed its significance for governments and citizens in Canada — for now. However, we will

I am grateful to Arthur Cockfield, Kevin Doyle, Walter Hellerstein, Jinyan Li, Charles McLure, Jack Mintz, Finn Poschmann, William Robson, Scott Wilkie, George Zodrow, and Eric Zolt for helpful suggestions on earlier versions of this paper. Of course, none of those mentioned is in any way responsible for what is said here.

<sup>1</sup> Unless otherwise cited, the data in this and the next paragraph come from Statistics Canada (2003).

<sup>2</sup> Based on an earlier Statistics Canada survey reported in OECD (2002, 66).

This is not the place to go into details about just what is meant by electronic commerce. See the Glossary at the end of the paper. For more elaborate discussions, see McLure (1997) and Li (2003). E-commerce may include the advertising and sale of tangible products, such as those in TV shopping, telemarketing, electronic buying or web ordering, the sale of services, including financial services, and intangible digital products, including software, music and video, as well as telecommunications and Internet access services.

not be able to rest on our laurels for long. The continued expansion of Internet-based economic activity will force Canadians, like everyone else, to confront some fundamental questions. Coping with long-standing problems in taxing cross-border income flows that are exacerbated by the new technology may, for example, require new forms of international fiscal cooperation and an inevitable reduction in national fiscal sovereignty. Internally, the concept of individual privacy may be severely tested as governments struggle to maintain their revenues in the face of new pressures to expand the underground economy, with its concomitant tax evasion. When it comes to the implications of e-commerce for taxation, we may perhaps be at the end of the beginning, but we are still a long way from the end. An interesting irony of e-commerce, in fact, is that both consumption and income taxation seem to be equally threatened.

#### **Approaches to E-Taxation**

Whether and how to tax electronic commerce is a controversial subject. Some tax experts have said it should not be taxed at all and that it should, indeed, be subsidized. At the other extreme, some see it as offering a potentially new and promising tax base. As the e-economy soared in the late 1990s, many governments and international organizations issued reports on the taxation of electronic commerce and a large academic and popular literature developed.<sup>5</sup> Despite the bursting of the new-economy bubble, the flood of literature continues.

Canada has been no exception in this publishing maelstrom. A major official report on the subject was published in 1998 and, after a considerable delay — officially attributed to the characteristic Canadian feature of waiting-for-the-OECD — some more definitive utterances have begun to emerge. Still, the appropriate tax treatment of electronic commerce remains very much in flux in Canada, as elsewhere. No one and no country appears as yet to have found the silver bullet that will solve all the fiscal problems to which the growth of the borderless economy of cyberspace potentially gives rise.

This failure is not surprising. The issues are complex, the context is changing daily and no single solution seems likely to be suitable or sustainable in all circumstances. The problems arising from electronic commerce are not going to go away; they are only going to get worse. The recent collapse of the dot.com economy after the explosion of the dot.bomb has not altered the new reality of the business world or of the tax world. We do not have the choice of doing nothing, so something will have to be done. It is critical both from the perspective of growth, innovation and competitiveness and from that of maintaining a viable and effective fiscal basis for the state that we do the right thing. What that right thing might be is maddeningly elusive.

<sup>4</sup> For a detailed analysis of the underground economy in Canada, see Giles and Tedds (2002).

For example, *The Economist* had a supplement on the issue (Bishop 2000). For extensive references to official reports by the U.S., Australia, the EU, the OECD and others, see Doernberg et al. (2001) and Li (2003).

<sup>6</sup> Canada (1998a, 1998b, 2001, 2002); Li (1999a, 1999b, 2001, 2002, 2003); Bernstein (2000); and Cockfield (1998, 2002a), among others, have made useful contributions to the Canadian discussion.

*Don't Tax E-commerce*. At one extreme, some — notably in the United States — argue that the new forms of business being transacted on the Internet should be exempt from taxation either permanently or at least for an initial period, in order to facilitate and encourage the spread of the e-economy. Taxes on e-commerce are, in this view, taxes on innovation and are likely to cripple the development of the new economy. Countries that pursue the pernicious policy of taxation, members of this school say, hamper their ability to compete effectively in the emerging new economy.<sup>7</sup>

Broadly, the economic argument supporting this position is that there are special so-called network externalities that deserve favorable treatment to foster the early stages of growth in this sector. As Zodrow (2000) shows, however, the evidence in support of this proposition is quite tenuous. In reality, as Goolsbee (2001, 19) says, it appears that "most arguments regarding externalities are based on politics, not economics." Nonetheless, even some who recognize both that the case for taxation exemption is at best transitory and that governments are unlikely to surrender tax base willingly, appear to take solace in the view that, try as governments might, the combination of e-commerce, financial innovation, and globalization will provide at least some temporary tax relief for this innovative sector.

Tax It Like Anything Else. In sharp contrast, most governments, led by the OECD, argue that it is critical to develop and enforce effective methods of taxing electronic transactions, both in order to ensure a level playing field for bricks-and-mortar competitors and to be able to finance needed public-sector activities. <sup>10</sup> Specifically, the OECD has argued that taxation should be neutral and equitable between all forms of commerce, that compliance and administrative costs should be minimized and that the potential for tax evasion and avoidance should be minimized. Throw in some concern for equity, and most people would no doubt agree with these principles. Add enough revenue to finance programs and so would most governments. General criteria for a good tax system are usually easy to state, and even to agree to. Implementing them effectively, however, can be quite another matter. <sup>11</sup>

Some have suggested that this aim may be accomplished satisfactorily only by increased co-operation among national and sub-national governments, and perhaps

For a strong statement of this view, see the e-Freedom Coalition's proposal (available at www.e-freedom.org). The legislative expression of this position came in the U.S. Internet Tax Freedom Act of 1998, which, in effect, limited differential taxation of electronic transactions as such. The Internet Tax Nondiscrimination Act of 2000 extended this moratorium through November 1, 2003. The impending termination of this Act has again given rise to renewed efforts for its permanent extension (Catts 2003).

<sup>8</sup> Something similar may perhaps be said of efforts through tax incentives to foster new-economy industries, whether in Malaysia (Kasipillai and Wong 2003) or Quebec (Bird and Vaillancourt 2001), but this point is not further explored here.

<sup>9</sup> This appears to be the view of Goolsbee (2000).

<sup>10</sup> See the extensive OECD reports on this subject at www.oecd.org. and discussed in detail in Doernberg et al. (2001, 512–29). For an update, see Kirkell (2002).

<sup>11</sup> For example, Bentley (2003) notes that while the OECD working group agreed that the tax should be imposed by the "place of consumption," it did not actually define what this meant. Similarly, although it was agreed that a server may constitute a permanent establishment in some circumstances, there remains much room for debate as to what those circumstances are. In international tax matters, it is often a very long way from agreement in principle to concrete action.

even by the adoption of explicit base-sharing arrangements.<sup>12</sup> Experience tells us, however, that this road of good intentions can lead to perdition. For example, it took many years for Canada's provinces to reach an agreement on allocating the corporate income tax base (Smith 1998), and no such agreement has as yet proved possible internationally.

Really Tax E-commerce! Finally, a few proponents of taxing e-commerce have even taken the view that electronic commerce offers not so much a challenge to the sustained productivity of the existing tax system as an opportunity to exploit a new one — the so-called bit tax (Cordell et al. 1997). Bit-tax supporters recommend levying a small charge on the transmission of information (bits) by electronic means. Others suggest limiting such taxation only to encrypted information, or taxing the capacity to receive such information.

Whether the idea is to impose a tax on the flow through the pipeline, the size of the pipeline, or the size of the connection, it has little merit. It may be politically attractive to generate a lot of revenue by levying a small charge on a large flow, not least when much of the tax would likely be collected from a few large companies. Indeed, it may even be argued that the incidence of such a tax might be progressive to the extent there is a so-called digital divide, with the better-off in society making much more use of electronic commerce than the less fortunate. Nonetheless, most such taxes would be levied on intermediate flows, not final consumption, with consequent efficiency losses. As well, the very lack of transparency as to who is paying what that makes such levies attractive politically, makes them undesirable in democratic terms. Is

#### The Nature and Importance of the Problem

On balance, the middle way of trying to tax electronic commerce like any other form of commerce seems most sensible. The difficulty, though, is how to identify the tax base, measure its size, allocate it jurisdictionally and enforce tax liability when who is buying, who is selling and where all this is taking place may all be, in an almost literal sense, up in the air. In the words of one commentator: "How does one mark territory in a seamless, digital world? How does one map nations and

<sup>12</sup> For example, McLure (2000a). For related arguments, although not explicitly with respect to electronic commerce, see Bird and Mintz (2003).

<sup>13</sup> Vording (1997) also expresses some support for this idea. For counterarguments, see Beck and Prinz (1997) and McLure (1997). Although some earlier UN work (UND 1999) seemed sympathetic to this idea, the bit tax is not mentioned in a later UN document bearing on this subject (UN 2001). Interestingly, Doernberg et al. (2001, 384n. 379) report that the Cayman Islands has actually contracted with Cable and Wireless to collect such a tax from its high-volume customers with permanent connections.

<sup>14</sup> This is analogous to the argument commonly made against similar "small" taxes on financial transactions (see, for example, Coehlo, Ebrill, and Summers 2001).

<sup>15</sup> A partial exception might be for a tax on encrypted transactions because, like bearer bonds, it can be argued that such transactions are unlikely to have a public-purpose value sufficient to offset the extent to which they facilitate tax evasion.

taxing jurisdictions in a world that is not based on geography? This throws the application of tax laws into disarray." <sup>16</sup>

In Canada, the answer to this question has been that "existing principles of taxation should, to the extent possible, be applied to electronic commerce.... CCRA is confident that the willingness of tax authorities to cooperate amongst themselves and to work with businesses will overcome these challenges." CCRA—the Canada Customs and Revenue Agency—may be right. However, countries around the world are puzzling over how best to cope with the implications of electronic commerce for taxation and are moving in a variety of directions.

New Zealand, for example, proposed charging GST on imported services, including digitally downloaded software and telecommunications services. <sup>18</sup> To cite a few other examples, Latvia is reported to be adjusting its tax system to the realities of e-commerce (Repss 2000), as is Argentina (Sanusian 2000). Hong Kong, Australia, the United States, the Netherlands, India, and other countries have, like Canada, all issued major reports on the subject, as have the European Union and the OECD. <sup>19</sup> On July 1, the EU began requiring that any non-EU business that supplies online services to consumers resident in the EU must collect value-added tax (VAT) at the rate applicable in the resident state (Gnaedinger 2003).

#### Revenue Matters

There is little evidence that e-commerce has as yet significantly affected tax revenues anywhere. Nonetheless, the threat for the future seems real. In an interesting recent book, Tanzi and Schuknecht (2000) argue that citizens have, on the whole, received relatively little value for expansions of the state sector much beyond 30 percent of GDP. They may be right. Yet, unless major changes are made soon in pension and health systems, demography alone seems likely to lead to still further expansion of the state in many countries.

Canada is no exception. Robson (2001), for example, recently argued that with unchanged policies, health care alone may sop up another 4 percent of GDP in Canada. An OECD study (Dang, Antolin, and Oxley 2001), taking into account other age-related spending — mainly public pensions — raises the expected increment in spending to almost 9 percent of Canada's GDP. Of course the validity of all such projections may always be questioned and, in reality, increases of this magnitude

<sup>16</sup> Ajay Thakkar, as quoted in Dressler and Goulder (2000, 2333).

<sup>17</sup> Bernstein (2000, 263, 264).

<sup>18 &</sup>quot;Finance Ministry Considers Applying Tax to E-Imports," Tax Notes International 23 (July 9, 2001): 186.

<sup>19</sup> See Lambooij, Sinyor and Chew (2001) for a review of the various OECD reports up to April 2001. Li (2003) reviews developments in Canada, China, Hong Kong, Japan, Singapore, and the United States in detail.

<sup>20</sup> The best estimates are for state sales taxes in the United States. Bruce and Fox (2000) estimated that e-commerce and other factors had decreased state sales tax revenues to the point where, in the near future, either the size of government will have to be cut, or sales tax rates increased by up to 1 percentage point, or personal income taxes increased by about 10 percent. Since e-commerce in Canada is considerably less important and, for reasons discussed later, the expected loss of revenue considerably smaller in any case, the revenue impact here is undoubtedly considerably smaller. But it will grow.

would imply a large and unsustainable deficit, a major cut in programs, a substantial increase in taxes or, most likely, some mixture of all these approaches. Still, what seems clear is that significant reductions in the size of the tax bill facing Canadians appear unlikely in the near future.

Faced with such pressures, countries do not need the additional worry that their tax base is being steadily eaten away by what Tanzi (2000) has colorfully labelled "fiscal termites." In his view, the most voracious termite in the long run may be electronic commerce. The effect of e-commerce on tax revenue, though so far not relatively large, is thus not a small technical point, but rather a potentially critical influence on the development of future public policy. It deserves close attention.

#### The Main Issues

Only a few years ago, much discussion of future developments in taxation assumed that the day of the income tax was passing and the dawn of a new era of consumption-based taxes was upon us.<sup>21</sup> Although the facts suggest that no country has ever paid much attention to this message (Messere, de Kam, and Heady 2003), many fiscal analysts for some years have argued that it is only a matter of time before consumption taxation would replace income taxation as the dominant tax source in most developed countries. Now, both consumption and income taxation seem to be in peril as a result of the growth of e-commerce.

Most discussion of the danger focuses on three distinct issues:

- the problems arising under retail sales taxes;
- the problems arising under VATs; and, finally and most complicated,
- the problems with respect to the attribution and characterization of income arising in international operations.

Consider first the implications of e-commerce for consumption taxation. The VAT issue has, understandably, been most discussed in the European Union, as has the retail sales tax in the United States. Since Canada is the only country in the world with both a VAT — indeed VATs, since four provincial sales taxes are also VATs — and retail sales taxes, we should presumably be able to learn from each of these discussions. What might we learn?

## When It Comes to Taxing Consumption, Canada Is Not the European Union...

Does Canada face problems like those the EU has been wrestling with in dealing with e-commerce? Surprisingly, it does not — or at least not exactly. The situation in Europe is equivalent to what would prevail in Canada if it had only provincial VATs with no overriding federal VAT. Because Canadians are, so to speak, twice blessed in having VATs at both levels of government, we are free from some of the problems bedeviling Europe these days.

<sup>21</sup> For an example, see the various papers in Cnossen and Bird (1990).

But perhaps our biggest stroke of luck, if one can call it that, is that we have a VAT — the GST — at all. That is because no special problem arises under a VAT with respect to the B2B services that at present constitute at least 75 percent of all e-commerce transactions<sup>22</sup> since they can be handled by what the EU officials call the "reverse charge" mechanism (Doernberg et al. 2001, 117–18). Under this system, tax authorities rule that such services as telecommunications are supplied where they are received and the buyer is liable for the tax. In practice, with respect to cross-border transactions, since no tax is imposed on the import of such services, there is no input tax credit against subsequent output taxes. Buyers are thus taxed indirectly, effectively paying the tax on both the value added by these purchases and that added by their sales when they make them.

This mechanism requires sellers to have information on the nature of the buyers and, in particular, their VAT identification, if they have one. Ideally, as Doernberg et al. (2001, 434) note, this could be done electronically if there is an online real-time central registry of all registered VAT taxpayers. Such a system already exists in Singapore (Bird and Oldman 2000). When purchases are made from unregistered nonresident vendors, in principle the reverse charge is paid directly by the buyer, as with the "use tax" familiar from U.S. retail sales taxes. Both these levies depend on individual initiative and are hence unlikely to be effective in practice.

Canadian Internet access and web hosting services are subject to GST, regardless of whether the persons receiving the services live in Canada or abroad, because CCRA has explicitly characterized servers to be telecommunications facilities and subject to GST. Because unlike most exported services, zero-rating is not applicable to telecommunications services, Canadian suppliers are required to charge GST on supplies to nonresidents unless the latter are also in the business of supplying telecommunication services (Vincze and Schwartz 2000).

Of course, enforcing VAT even on B2B transactions rests on the efficacy of tax audit. Traditionally, tax audit generates a mountain of paper. Invoices, however, are increasingly likely to be electronic, not least with respect to B2B transactions. Unless there are paper forms underlying the digital data to confirm when, where, and between whom a transaction takes place, traditional audit may become problematic in these circumstances (Strauss 2000). If, as under the EU system, VAT taxpayers are responsible for ensuring that zero-rated sales are in fact made to eligible recipients, a harmonized system of VAT invoices, with specific information requirements, such as the quotation of the VAT registration number of the purchaser, seems necessary.

At present, there is wide divergence in the EU on such matters: Greece, for example, does not allow electronic invoicing, while Sweden and Finland accept it with virtually no preconditions.<sup>23</sup> An EU proposal of June 2000 would have required nonresident sellers to have a single EU registration, if total EU sales exceeded 100,000 euros. Strauss (2000) made a somewhat similar proposal with respect to

<sup>22</sup> In addition to the Statistics Canada estimates cited earlier, see www.emarketer.com/ereports/ ecommerce, which reported B2B estimates for 2001 ranging from \$449 billion and B2C estimates of \$101 billion (as of July 29, 2001).

<sup>23 &</sup>quot;VATForum Conducts VAT Conference," Tax Notes International 22 (May 7, 2001): 2324.

U.S. sales taxes.<sup>24</sup> In Canada, the federal GST already plays this role, as Bird and Gendron (1998) show, but there is no similar overriding EU VAT.

Taxing B2B is thus not a big problem where there is a VAT like the GST or its provincial sisters. Still, even VATs have trouble in dealing with sales of digitized goods and services to non-registered taxpayers — the so-called B2C transactions. The issue is exactly the same as arises under any form of distance selling, such as mail order, although in practice the administrative problems of collecting the tax are generally greater. The seller — who may not even know where the buyer is located — cannot easily be required to register for VAT, let alone collect and pay the tax to the authorities. Nor is it possible (or, in fact, desirable) to register all those who purchase such services as VAT taxpayers and require them to self-assess the tax and pay it. If goods are delivered across borders, they must pass through customs and might in principle be assessed, but there is no such possibility with services.

Perhaps credit card companies could be used as intermediary tax collectors when such services are charged on cards, as is probably the norm — in the absence, as yet, of an accepted e-cash system — but this would appear to impose an unreasonable obligation on such firms and would require them to introduce a very different information system than they now have.

Credit-card firms could be used as intermediary tax collectors, though this might be an unwanted burden.

As mentioned, on July 1, the EU introduced a system under which non-EU vendors who sell online to EU consumers are required to register for VAT in the EU and collect and remit tax. But what tax? There are 15 member states in the EU, all with different VATs. If a seller is already established in any one EU country, it is to apply the VAT of that country. If it is established in more than one country, it can apparently choose which rate to apply. If a seller has no EU establishment, however, it will be required, first, to determine if its EU customer is a consumer or a business. If the purchaser is a consumer, the online seller must then register in an EU member state, and file and pay VAT to that country. However, the tax charged appears to depend on the rate of the country of residence of the buyer, thus obliging the seller to apply 15 tax systems and supply information on its sales to all 15 member countries, presumably so that the tax payments made to the country of registration can later be divided among the states of residence. In contrast to all this complexity, an EU online seller simply applies his home country's VAT to all sales within the EU (Gnaedinger 2003).

In short, the EU has put in place a rather strange and in all likelihood unsustainable way of dealing with B2C sales. Within the EU, such sales are taxed on what is called the origin basis, that is, by the country of the seller. Suppliers outside the EU, however, are faced with higher compliance costs since they, in effect, are taxed on a residence (country of consumer) basis. It is not surprising that Portugal, which has the lowest VAT rate in the European Union (13 percent in the autonomous region of Madeira Island) is reportedly preparing to receive a horde of new non-EU vendors establishing an EU subsidiary or branch and thus putting themselves in a position to be treated like EU sellers (Heredia and Fernandes 2003).

In Canada, the CCRA has also apparently chosen what seems to be a probably unsustainable approach to the digital B2C problem. It has pivoted its application of

<sup>24</sup> In contrast, most proposed reforms in the U.S. are careful to ensure that there is no liability on the remote seller if the purchaser provides misleading information.

the GST to electronic commerce on the rather odd ground of the characterization of the transaction as a good or service (Canada 2002). Goods are defined as transactions that include the right to use a product (software), or to use something that has already been created (database), while services are transactions in which no such rights are provided, or there is an actual human being involved. To illustrate, if a user consults online documentation for technical support, it is a good, while direct interaction with a technician to obtain the same information is a service. Even more than with the EU's attempted solution, this appears to be a line drawn in sand and the tide of change is all too likely to wash it away soon.

An additional problem arises from the apparent implication of the new rules that Canadians who use Canadian Internet companies — which, as noted earlier, must collect GST — will, if they are smart, soon shift to non-resident suppliers who are not, according to the policy, "carrying on business in Canada" and hence do not need to register for GST purposes. One can already hear justified roars of discontent about this from affected Canadian providers (Geist 2002; KPMG 2002). It seems likely that the new policy, although the outcome of over three year's discussions, is far from the last word on the subject.

#### ... Nor is Canada the United States

"To Tax or Not to Tax Electronic Commerce — Is That the Question?" asks a recent report on the U.S. situation (Anderson and Monzingo 2001, 1027). Only in the United States — where, as Bourgeois (2000b) noted, some people seem to interpret the www of the worldwide web addressing system to stand for the wild, wild (and supposedly tax-free) West — is this question being raised, however. Even there the answer is almost invariably that of course it is to be taxed. The real question is how to do it.

Although Canadians seem often to be guided largely by what goes on in the U.S., it is important to remember that the two countries are very different in several relevant respects. For one thing, the U.S. is the only major country without a national VAT. For another, it is also the only country in which there are thousands of differing state and local retail sales taxes. Finally, such taxes are, quite legally, not imposed on distance selling, such as mail-order sales. While the U.S. is also the country in which e-commerce is by far the most important, these facts mean that much U.S. discussion of the impact of electronic commerce on consumption taxes is of little relevance to Canada.

Of course, the basic issue of establishing a level playing field in terms of comparable tax treatment of competitive suppliers is important in both countries. The problem is less serious in Canada than in the United States, where past court decisions have made the treatment of distance selling exceptionally illogical — it is still possible for example, legally to buy tax-free a CD, book, video, or other product from a supplier located in another jurisdiction, while the same item bought from the corner store is taxable. Corner stores that wish to stay in business will, in these circumstances, soon have to become online stores themselves.

Technically, the question is what constitutes "nexus" for a provincial sales tax — that is, when can a province tax a transaction — and what is the "situs" of a transaction — that is, where does a transaction occur. The traditional guidance is

that those who "carry on business" in a province are liable and that the situs is, essentially, where the buyer is located. While these issues are no clearer on either side of the border, in practice most major electronic retailers based in Canada appear to be levying all applicable domestic taxes on sales. By doing so, however, they are clearly disadvantaged relative to foreign suppliers and the long-term viability of the system seems suspect, as mentioned above in connection with the new GST rules on the treatment of cross-border e-commerce.

A second important issue is that most so-called retail sales taxes in fact impose significant taxes on business inputs (Kuo, McGirr, and Poddar 1988). B2C and B2B sales thus give rise to problems for both revenue and efficiency under the retail sales tax (RST). Most who have considered this issue in the U.S. context appear to agree with McLure (2000c) that only radical reform of the present chaotic retail sales tax scene in that country will serve to rescue the tax.<sup>26</sup>

In Canada, the more obvious solution would be for the remaining retail tax provinces to move to a VAT. But which VAT? The QST (Quebec sales tax) or the HST (harmonized sales tax)? As Bird and Gendron (2001) argue, and as experience demonstrates, either model is viable, and each may operate simultaneously in different provinces. Manitoba, Prince Edward Island, and perhaps Saskatchewan may, for example, eventually join the HST system, while Ontario and British Columbia — possibly joined some day by Alberta — might want to retain more independent sales taxes and follow the QST model.

A third aspect concerns what may be called the characterization problem.<sup>27</sup> Under the RST, businesses are required to "self-assess" taxes on goods and services acquired for their own use, regardless of their origin. In contrast, under the GST and the provincial VATs (HST, QST) such self-assessment is required only when businesses are not engaged in commercial activities (Vincze and Schwartz 2000). So far, tax officials appear to assume that normal audit suffices to check any abuse in this respect. Since consumers are not subject to audit, however, this check is of course not in place, so the potential for tax loss (and competitive effects) is much greater.

Currently, CCRA collects provincial sales taxes (whether RST or VAT) at the international border for all sales-tax provinces except P.E.I. (the only province which does not border on a foreign country) and Saskatchewan. B.C., Quebec, and Manitoba have attempted to force outside suppliers to register and impose tax on sales to residents, but there is no effective enforcement mechanism for such requirements. Most provinces have defined downloaded digitized products to be tangible personal property, and hence taxable, but again there is no way to enforce tax on such transactions.

In Canada, a more obvious solution would be for the retail-tax provinces to move to a VAT. But which VAT?

<sup>25</sup> Friedman et al. (2000) discuss the varied legal history of the interpretation of these requirements in Canada. See also Li (2002, 2003).

<sup>26</sup> As Noonan (2001) notes, one approach being followed in the U.S is to adopt a model state sales tax law with uniform definitions. Although by 2003, 20 states had adopted implementing legislation for this "Simplified Sales Tax Project" (Setze 2003), this approach, while it would reduce compliance costs, does not resolve the basic problem that companies can still legally sell tax free if they do not have "physical presence" in the jurisdiction.

<sup>27</sup> As Friedman et al. (2000), point out, RSTs, like income taxes, suffer from "characterization" problems — in this case owing to the obscurity of the distinction between goods and services with respect to many digital products, as evidenced, for example, by the divergent treatment of computer software.

All provinces except Ontario have imposed PST on Internet access fees.<sup>28</sup> In 2000, for example, Saskatchewan extended its sales tax to a wide variety of services including charges for accessing a database, data entry and other computer-related services. Ontario, like B.C., treats website hosting as a nontaxable service, although B.C. taxes it if the service includes e-mail, which it views as a telecommunications service. Quebec goes further and, mirroring the GST, considers all web site hosting to be such a service, hence taxable. This imposes a substantial fiscal penalty on Quebec suppliers because, as with the GST, telecommunications services are zero ratable only if supplied to those in the telecommunications business.<sup>29</sup>

The fear that haphazard state grabs for revenue would hamper the development of new economic activity was one factor behind the U.S. Internet Tax Freedom Act of 1998 and its subsequent extension in 2000. While interstate tax competition is not unknown in Canada, it is considerably less important than in the United States, for a number of reasons (Brown 2001). Canadian tax policymakers start from a different place.

The tortuous history of the taxation of distance selling in the U.S., for instance, has no parallel in Canada. For a variety of reasons, the current practice in most cases is that out-of-state vendors are not required to collect destination state sales taxes, whether they operate over the Internet or in other ways. Unless they have a bricks-and-mortar presence in a state, distant sellers in the U.S. do not need to charge sales tax.<sup>30</sup> While in principle purchasers are liable to pay such taxes — this is the so-called use tax — unsurprisingly they seldom report such purchases to the authorities unless, for example, they have to register something like an automobile.

It is this hole in the revenue system that has been widened by the expansion of e-commerce and that gives rise both to a range of estimates of potential revenue losses (Goolsbee 2001; Bruce and Fox 2000) and to the need for radical simplification and harmonization of state and local sales taxes if they are to survive (McLure 2000c). Canada suffers from some of the same problems in collecting taxes on taxable goods purchased out-of-province, but has to some extent been saved by its geography and its courts. Most Canadians outside of the National Capital Region do not live near a provincial border, and our courts have been kinder to tax collectors with respect to mail-order sales. Provincial sales tax administrators thus start from a considerably stronger position than their U.S. counterparts.

As Strauss (2000) notes, the U.S. retail sales tax problem could be resolved much more easily if there were some overriding federal role in its administration. As Bird and Gendron (1998, 2001) show, Canada is already in this fortunate position. Even without a good national VAT, various systems may be conceived to

Ontario and B.C. treat website hosting as a nontaxable service, although B.C. taxes it if the service includes e-mail.

<sup>28</sup> Ontario also explicitly exempts electronic sales of digitized products other than computer programs; see Ontario (2001).

<sup>29</sup> On the other hand, consistent with its general tendency to utilize industry-specific incentives (Bird and Vaillancourt 2001), Quebec has also allowed large businesses that are not normally able to claim input tax refunds for telecommunications services to claim such refunds for Internet access and web hosting services.

<sup>30</sup> To some extent, the U.S. discussion is driven by fear of excessive compliance costs since there are actually over 7,000 separate jurisdictions with sales taxes — although many local sales taxes are administered by state governments (Due and Mikesell 1994).

make destination-based sales taxes workable.<sup>31</sup> Canada, however, does not have to explore such refinements, nor does it have to worry too much as yet about the problems driving the sales tax discussion in the U.S., largely because not only is there already a well-functioning national VAT (the GST), but there are provincial VATs in four provinces, as well.

#### **Canada Has Its Own Problems**

As already discussed, Canadians, like everyone else, face problems at both federal and provincial levels in collecting taxes equitably and efficiently on digitized services sold directly to consumers by vendors located outside the country. An additional aspect of the sales tax discussion that has been unduly neglected in the academic literature but is often dominant in the real world of policy relates to visibility. It is clear, for example, that the GST has had a much more troubled history in Canada than the much higher VATs in the EU largely because it is so visible to consumers. It is equally clear that the visibility issue has been a major reason why provinces such as Ontario have been so reluctant to discard their retail sales taxes for VATs.

Economists may like the efficiency implications of removing taxation from intermediate goods, but as Strauss (2000, 11) notes, the main argument for such a change is not really efficiency as much as improved political transparency:

When state officials engage in hand wringing over what might happen if business inputs are no longer taxed, they are not expressing concern about the possibility that economic welfare may fall because dead weight losses may rise....Rather, they are wondering how voters will feel once they see how much taxes must be on final consumption to achieve the same level of budgetary revenues.

Provincial officials in Canada, having seen the fate of the federal Progressive Conservative Party after it replaced an invisible manufacturers' sales tax by a visible VAT (Bird 1994), probably have less need to wonder.

Even Quebec, which has taken the VAT leap, did so in stages, first imposing a lower-rate tax on services and still denying full input tax credit to larger enterprises. The three HST provinces were, in effect, bribed by a significant federal transfer to induce them to agree (Bird and Gendron 1998). Canada still has five provinces levying retail sales taxes that are not backstopped by the federal GST. Money matters, and increases in taxes that are visible to citizens matter a great deal to politicians. Achieving a workable and acceptable solution to the B2C tax problem even within Canada's borders will not be politically easy.

To sum up, with respect to consumption taxes, Canada has some problems like those in the U.S., some like those in Europe and some that are unique. To put a more positive spin on matters, however, it also does not have some U.S. problems and similarly escapes some European problems. Unfortunately, with respect to income taxes, everyone seems to be in the same leaky boat.

<sup>31</sup> See the discussions in Keen and Smith (1996, 2000); Keen (2000); Varsano (2000); McLure (2000b); and Bird and Gendron (2000).

### When It Comes to Income Tax, We're All in the Same Boat

Broadly, two lines of approach to the income tax problems arising from e-commerce can be considered at each level of government — independent action or coordinated action. At the provincial level, for example, taxes might be reformed and new efforts might be made at harmonization, both with other provinces and with the federal government. More basically, tax assignment might be reconsidered, together with some rebalancing of welfare-state expenditure responsibilities. At the federal level, some tax reform options might be considered, as well as the possibility of more international co-operation. Various administrative options and incremental changes in existing policies and practices with respect to both income and consumption taxes might also be studied.

Most discussion to date has focused on three problems: How can we attribute income arising in cyberspace to a particular jurisdiction? How can we characterize such income? And, most importantly, how can it be taxed? As Bernstein (2000, 263) says: "[E]very country wishes to benefit from its fair share of taxation on the profits." Yes, but what is a fair share and, even more basically, what are the profits that are subject to tax?

One way to deal with these problems may be to reduce the importance presently attached to the characterization of income in determining its tax burden. Under present conditions, distinguishing a royalty from a service fee from interest from dividends from a management fee is often an exercise in futility, with the best lawyer and accounting firm winning. Nonetheless, considerable attention has been paid, notably in the OECD working groups, to this issue.<sup>32</sup>

Some forms of income have been characterized as profits (web site hosting and online auctions) and some as royalties (downloading with rights of reproduction). The importance of this distinction is that profits are, under existing rules, primarily subject to tax in the country of source, while royalties are taxed in the country of residence, although subject to source withholding. Although some degree of agreement has been reached in principle on some of these matters at the OECD, experience demonstrates that it can be a very long way from principle to practice in international tax matters.

Considerable attention has thus been paid to the problem of how to source income from e-commerce. Some tax authorities have attempted to reformulate source rules to capture cyber income (Li 1999a, 1999b). Some have attempted to extend residence rules for the same purpose (United States 1996). Some have focused on the permanent establishment concept currently used to establish "nexus" — the legal basis for imposing tax — and argued that it can (or cannot, depending who is doing the arguing) be altered to accommodate the new realities.<sup>33</sup> Others have argued for formulary apportionment approaches.<sup>34</sup> Still others have focused

<sup>32</sup> Bourgeois (2000a) provides a detailed discussion of the state of play as of 2000 with respect to "characterization."

<sup>33</sup> See, for representative views, McLure (2000d); Skaar (1999); and Tadmore (2001). A recent Canadian treatment is Krishna (2001).

<sup>34</sup> For example, Mintz (1999) and Bird and Wilkie (2000).

on the need for improved information exchanges (Tanzi and Zee 1999; Radler 2000). Finally, others have more or less thrown up their hands and said that there is no solution short of creating some new international tax organization with worldwide authority (Tanzi 1999; UN 2001).

In the real world of tax officialdom, most attention has been paid so far to attempts to hammer and bend the long-standing "permanent establishment" concept to fit the new world of e-commerce. Unfortunately, little real agreement seems to have been reached as to whether a web page or a server constitutes a permanent establishment. The new OECD commentary, for example, says that servers constitute a permanent establishment "in some circumstances", but websites do not (although Spain and Portugal dissented). As Bourgeois (2000a) notes, it seems unlikely that the divergent views on this, presumably held in accordance with national interests, can easily be reconciled at the international level.

Transfer pricing, already suspect in the eyes of many (Bird and Brean 1986), becomes even more difficult in the digital world, to the point where Li (2001) suggests that the only solution is likely to lie in some formulation for profit splitting. Perhaps e-commerce may — like rock stars or international transportation — be subject to special sourcing rules (Doernberg et al. 2001, 348). Perhaps it may even be subjected to a low-rate gross withholding tax (ibid., 354–365). This approach would have the advantage of sidestepping the characterization problem. However, this approach also, like the bit tax discussed earlier, has the disadvantage of taxing too large a base at too low a rate, with the consequent problems of cascading, inefficiency, and non-transparency.

The problem of establishing taxable jurisdiction arises with respect both to subnational and national income taxes. As McLure (2000a) notes, the already complex and inefficient state corporate income tax situation in the United States, for example, is made still more complex and inefficient when faced with these new difficulties. McLure's conclusion (p. 1269) can be generalized to the international setting: "[T]here are no good answers to many issues investigated in the paper. The best that can be achieved may be a set of arbitrary rules that are reasonable and mutually consistent (e.g., nexus rules that are consistent with apportionment rules)."

Although, as with the sales tax issue, some of these problems are considerably less severe in Canada than in the U.S. because of the existence of a uniform apportionment system (Smith 1998), this does not mean that they do not exist, as recognized, for example, by the Alberta Business Tax Review (2000). Perhaps, as that report indicates, part of the answer may lie in moving away from the present provincial corporate tax system — for instance in the direction of the "business value tax" recently proposed by Bird and Mintz (2000) and further developed by Bird and McKenzie (2001). Such a tax — essentially a low-rate, income-type, origin-base, value-added tax — would not resolve all such problems, but it would reduce their magnitude.

In the end, however, "the real tax policy issue...is how governments agree to allocate tax revenues from cross-border transactions" (Goulder 2001, 360). Revenue may not be the main issue for economists, who focus more on the impact of taxes

Unfortunately, there is little agreement as to whether a web page or a server constitutes a permanent establishment.

<sup>35</sup> For a review, see Cockfield (2002c).

<sup>36</sup> For an earlier suggestion along similar lines in a different context, see Oldman and Bird (1977).

regardless of who they are paid to, but it certainly matters to policymakers. Countries like the United States that would gain from extending residence concepts to encompass e-commerce income, unsurprisingly favor extensions of the concept (United States 1996). Countries that would gain from more source-based rules tend, equally unsurprisingly, to favor such rules. As Bird and Wilkie (2000) argued, however, what is at issue is not really whether source or residence countries should, in principle, have first claim on income, but the more basic issue of who can best identify, measure, assess and effectively tax income. From this perspective, what seems most important is not so much to establish the correct principles, but to determine what can be done and then, within the limits set by feasibility, to determine how it should be done, by whom and in what way.

#### **Technology: Problem or Solution?**

There is nothing new about technology affecting taxation. As McLure (1997, 292) notes, taxation has always been the art of the possible. Changes in tax policy and tax structure reflect changes in administrative realities as much or more than they do changes in policy objectives. Early tax systems depended mainly on placing levies on items subject to physical control, count and verification — these were primarily land and excise taxes. The rise of mass industry and the development of the financial system led to the dominance first of withholding at source on income tax and then to the consumption-tax equivalent — the VAT.

Digital fiscal pessimists contend that the digital revolution has overthrown the administrative and informational underpinnings of the present system. "What may be a sound rule from a tax policy perspective may be totally unworkable in light of available technology, for example, the ability to make anonymous, untraceable electronic cash payments or the ability to locate a server anywhere." <sup>37</sup>

But the digital revolution is not the first to affect the flow of commerce and the actual and potential tax base. The transportation and communications revolutions of earlier centuries come to mind, for example (Clay and Strauss 2001). "In 1831, a British member of Parliament asked Michael Faraday, a pioneer of electrical theory, what use his discovery might be. Mr. Faraday replied that he did not know, but that he was sure governments would one day tax it. The Internet may be rather harder to tax, but someone, somewhere will find a way." 38

As Doernberg et al. (2001, 388) put it:

E-commerce can be intangible, multi-jurisdictional, and easily located in tax havens. It poses great challenges to tax authorities. Effective administration relies on the tax authorities' power and means to obtain information in order to assess a taxpayer's tax liability by identifying taxpayers, identifying and verifying transactions, and establishing a link between taxpayer and the transactions. E-commerce has the potential to make it difficult or impossible for tax authorities to obtain information or to enforce tax collection. Taxpayers may disappear in cyberspace, reliable records and books may be difficult to obtain, and taxing points and audit trails may become obscure.

<sup>37</sup> Abrams and Doernberg, as cited by McLure (1997, 298).

<sup>38 &</sup>quot;The End of Taxes?" The Economist, Survey on The New Economy, September 23, 2000, p. 30.

As this quotation suggests, the two critical problems in taxation are first to identify the tax base and then to enforce the tax. The anonymity and mobility associated with electronic commerce make both of these tasks more difficult. If the electronic world is indeed borderless how can bordered territorial jurisdictions identify what or who they should tax? Even if they can identify and measure the tax base, how can they enforce taxation in view of the disappearance of the third-party intervention that has for long served as the practical basis of tax withholding, not to mention the possibility of basing activities in such no-man's-lands as satellites and off-shore ships?<sup>39</sup>

No cloud comes without a silver lining, however, or so our mothers told us. In the case of the cloud cast over taxation in the digital era, the silver lining is that the new information-driven world simultaneously makes it easier to improve services and reduce costs in tax administration. Indeed, Canada's CCRA has, with Singapore (Bird and Oldman 2000) and a few other jurisdictions, taken the lead in exploiting the new information age. The new technology of tax administration may also make it easier to maintain and even extend the reach of the tax net.

The technological revolution thus brings with it not just problems, but also the possibility of technological solutions. Doernberg et al. (2001, 7), for example, like many writers on this subject, take as an article of faith that "the Internet is a borderless technology." But will it always necessarily be so?<sup>40</sup> As Geist (2001, 7) notes, the fact is that, "for better or worse, the Internet is becoming bordered." Because of the interests not only of governments but also of businesses in knowing where customers live, it is not surprising that new technologies are being developed to help them get the information more easily. The events of September 11, 2001, have made these borders even thicker.

One solution, for example, might be to require that to be legally valid all transactions must be geographically coded. In other words, the vaunted privacy of the Internet should be breached. Governments can, if they wish, almost certainly do much along these lines. <sup>41</sup> No wall is perfect, but one can certainly be built to enclose much of the existing tax base. In effect, for example, the VAT already does this for B2B transactions. All in all, Vording (1997, 13) was right when he said that "taxpayers will have more opportunities to evade taxes." He added: "They will have to endure increasing control by their tax administrations. But they will not disappear."

This does not mean that a technological solution will be easy or simple. As Walter Hellerstein noted in a comment on an earlier draft of this paper, "there is no technological tooth fairy that is currently available to address many of the problems raised by the taxation of digital products." Nonetheless, if one believes, as I am inclined to, that necessity is the mother of invention, a workable technological

If the electronic world is borderless, how can bordered jurisdictions identify what or who they should tax?

<sup>39</sup> Cf. Cockfield (2001) for a discussion of this and other instances, real and potential, of tax avoidance and evasion in the "digital biosphere" (Cockfield 2002b).

<sup>40</sup> Indeed, as Doernberg et al. (2001, 341) recognize, "the difficulty is not that cyberspace is some otherworldly realm but rather that an international consensus has yet to develop concerning how to determine in what country income from electronic commerce is produced." When the money gets big enough, what I suggest is that agreement will be reached, eventually.

<sup>41</sup> An interesting discussion of some possibilities along these lines is "The Internet and the Law: Stop Signs on the Web," *The Economist*, January 13, 2001, pp. 21–3.

solution to some of the fiscal problems arising from new technology may loom in the not too distant future.<sup>42</sup>

#### The End of Taxation — or of Privacy?

Indeed, the final outcome of the Internet economy may be to strengthen, not weaken, governments' role as tax collectors. The more taxing authorities are driven to share information and to promote identification technology that reveals the jurisdiction of buyers and sellers, the more effective will become the taxation not just of electronic commerce but of all international and inter-jurisdictional transactions.

At the extreme, as Albert Radler (2000, 798) put it "in a few years each of us will know his or her uniform global tax identification number to be used on a world-wide basis." "It will," he said, "give our place of residence....[C]ash will totally disappear....[I]ts use will fade away because everybody will be obligated to exclusively use his money-card. Still, the black economy will continue to flourish.... Also barter trade might prevail unless we all have to have time sheets for 24 hours a day and 365 days a year."<sup>43</sup>

In Radler's view: "Income taxation may be rather simple: most of the information needed is already contained in the central computer and will be correspondingly processed. The taxpayer has only to check whether the information provided by the computer is correct." To a considerable extent, this already is the case in Singapore (Bird and Oldman 2000), where the tax authority has taken tax withholding to its logical limit and transfers funds directly from personal bank accounts to the treasury. The world, or at least the more organized parts of it, may in this respect at least come increasingly to resemble Singapore.

Perhaps, then, the real danger of e-commerce's effect on taxation may lie not so much in the erosion of the tax base as in the erosion of privacy as governments take defensive action (Cockfield 2002a). The creation of an international fiscal leviathan to swallow up the world's tax base and divide it among participating countries carries with it the risk of authoritarian misuse, as do lesser moves in the same direction to harmonize and unify tax systems across jurisdictional boundaries.

The only viable answer to this dilemma in the long run may be, as Brin (1998) has said, not to put either privacy or revenue as the primary value, but rather to realize that the problem is how we can permit the access to our private activities necessary for the sustenance of our public communities without enabling such information to be misused. His answer is what he called "the transparent society" — one in which, above all, people are held accountable for their actions, including what they do with the information to which they have access.<sup>44</sup> In other words, although presumably none of us wants our foibles and weaknesses made public,

<sup>42</sup> See, for example, the discussions in Houghton and Hellerstein (2000); Cockfield (2002b); and Gnaedinger (2003b).

<sup>43</sup> See, for example, "Barter's Latest Comeback," The Economist, October 21, 2000, p. 78.

<sup>44</sup> In a comment on this possible future, Manasian (2003, 25) suggests, rather despairingly perhaps, that the "antidote to the rapid erosion of personal privacy may prove to be not new laws but new rules of etiquette." Dependence on the politeness of tax collectors is not likely to strike most citizens as a very firm reed.

Brin may be right when he concludes that more transparency in this respect may be the price we have to pay for living in a complex modern society.

It is important, however, to distinguish such a transparent world from the bigbrother world envisaged by some commentators as emerging from current security concerns. Unlike the nightmare of secretive central control, not all the effects of living in a glass bowl will necessarily be evil, and not just because an important side effect would be to reduce the ease of tax evasion. This controversial issue, however, goes well beyond the scope of this paper and cannot be further discussed here.

#### Where We Go from Here

Turning from the imponderable future of modern society as a whole to the more specific problems facing Canadian tax policy, what does the cloudy crystal ball suggest? McLure (1997, 313) argued that "both income and sales taxes contain rules that can be understood in historical context but have little economic rationale." "There is no quick fix," he said, "that leaves these irrational systems essentially intact and reforms only the tax treatment of electronic commerce. The appropriate response is radical reform of the current system."

While McLure is likely right in the long run, right now no major restructuring of provincial or federal tax systems seems to be required to cope with electronic commerce, although more basic changes may be called for in the relatively near future. Canada is unlikely, however, to adopt a root-and-branch solution. Muddling through is a well-established technique in Canada for coping with change — and one with a surprisingly sound theoretical basis. Still, gradualism may not be enough in this case. Greater fiscal changes may lie in our future, perhaps along some of the lines sketched here.

To illustrate, Canada may, like other countries, find itself increasingly driven back towards such old and traditional tax handles as excises and property taxes (Bishop 2000) in the effort to tax e-commerce. For example, Friedman et al. (2000), writing in the context of provincial sales taxes, say that excise taxes on such "complementary" products as CDs might be one way to make up revenue losses, although they clearly favour a stronger national role in sales-tax enforcement instead.

More importantly, continued and expanded coordination, cooperation and convergence among governments, both sub-nationally and internationally almost certainly lies in our fiscal future. As Bird and Mintz (2003) discuss in the international context, and Smith (1998) in the provincial context, such cooperation is seldom simple or fast. But it is also, experience suggests, not impossible.

Along similar lines, some reassignment of revenues — perhaps more personal income taxes to provinces and corporate and sales taxes to the federal level — and in the long run, perhaps even a greater role overall for payroll and consumption taxes — may take place. In the short run, however, it seems much more likely that solutions will take the form of minor fixes here and there. For example, consumption taxation may move towards a single registration system — this would seem in the interests of all and quite feasible. Similarly, within Canada, there may be a redefinition of the key concept of carrying on business with respect to the allocation

<sup>45</sup> See Bird (1970/2002) for relevant citations to works by Simon, Lindblom, and others.

of the provincial income tax base. Coupled with new information requirements, such measures may stem the tide for a while. In the longer run, however, if the state is not to be downsized, it seems likely that the result of the pressure of e-commerce on the tax system may well turn out to be irresistible.

To sum up, three areas in particular seem to call for change in Canada:

- Those provinces, such as Ontario and British Columbia, that still have retail sales taxes should seriously consider moving to the value-added tax approach now utilized, in quite different forms, by Quebec and three of the Atlantic provinces.<sup>46</sup>
- Provinces should consider reforming their corporate income taxes, perhaps simply by adopting new apportionment rules along lines similar to those being painfully worked out in the international arena, perhaps in more drastic ways.<sup>47</sup>
- The federal government must consider carefully its position in the international tax arena, particularly with respect to the corporate tax. Although it seems unlikely that Canada can or should be a pioneer in this respect, on the whole it appears wise to support efforts to develop more coherent international tax standards and policies. The federal government should also strongly support provincial efforts along the lines suggested.

Mild conclusions such as these may not seem too exciting. In the gradualist world of Canadian tax policy, however, they are nonetheless definitely on the radical side. Implementing them would require both some major revisions in policy and a great deal of hard, detailed and persistent effort to bring to fruition. Often, there may be no completely good or satisfactory solution to the problems posed for traditional tax systems by electronic commerce — or, more precisely, for the increased strains such commerce places on some existing weak aspects of those systems. All we can do is try to be as reasonable and consistent as possible. The endless negotiation and compromise this is likely to require may not be good news to those who, like many of us, prefer a quiet life, but it does seem to be the reality that lies in our future.

<sup>46</sup> For detailed discussion of the two approaches now employed to subnational VATs in Canada, see Bird and Gendron (1998, 2001).

<sup>47</sup> For further discussion, see Bird and Mintz (2000) and Bird and McKenzie (2001).

<sup>48</sup> For further discussion of these questions, see Mintz (1999); Bird (1988); Bird and Wilkie (2000); Bird and Mintz (2003); and Li (2001).

#### Glossary<sup>49</sup>

B2B — business-to-business sales as opposed to final sales to consumers or households.

*B2C* — business-to-consumer sales or final retail sales.

*Bit tax* — a tax imposed on information (bits) transferred over the Internet.

Bricks-and-mortar — businesses with readily identifiable physical locations.

Carrying on business — establishes nexus for purposes of imposing consumption tax.

Distance selling — when seller and purchaser reside in different taxing jurisdictions.

Electronic Commerce (e-commerce) — defined by Statistics Canada (2003) as "sales over the Internet, with or without online payment. Included [is] the value of orders received over the Internet. Sales using electronic data interchange over proprietary networks and transactions conducted on automatic teller machines are excluded. The value of financial instruments transacted on the Internet, such as loans and stocks, are not considered e-commerce sales, but the service charges received for conducting these transactions over the Internet are included." Other countries sometimes have different definitions: see OECD (2002).

*Internet* (cyberspace, worldwide web) — terms loosely referring to linked information technology systems that permit electronic commerce to take place.

*Nexus* — concept that enables jurisdiction to impose tax on a transaction or flow.

Online — transactions occurring on the Internet.

Permanent establishment — concept that establishes nexus for purposes of imposing income tax.

*Place of supply* — concept in VAT that generally establishes nexus.

Retail sales tax — consumption tax imposed only on final sale to consumer.

Reverse charging — system under which purchaser rather than seller is liable for VAT.

Server — computer through which Internet transactions are routed (sent from one user to another).

Situs — place in which a transaction is legally deemed take place.

*Use tax* — form of retail sales tax legally imposed on buyer rather than on seller.

*Value-added tax* (VAT) — a consumption tax imposed by stages (on value-added at each stage) such as the GST, QST, or HST.

Website — in context of electronic commerce, the selling place for the supplier.

<sup>49</sup> These definitions are intended only as a rough guide for the reader. No attempt is made to convey the precise meaning of the legal terms listed here.

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