Taxing Electronic Commerce:
The End of the Beginning?

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Abstract

This paper discusses what the growth of e-commerce means for tax policy and administration, both within countries and between them. Although the fiscal implications of such commerce as yet remain limited, the future may be different and the issues are important. The issues are first discussed with respect to consumption taxes, noting some differences in the situations facing the United States (US) on one hand, the European Union (EU) on the other, and Canada, which in some ways combines characteristics of both. When it comes to income taxes, however, everybody seems to be in more or less the same boat, although the new technology may offer solutions as well as problems for those in the tax business. The paper concludes that, while of course the future remains unknown, when it comes to taking action to deal with the potential implications of e-commerce for taxation, we are by no means at the beginning of the end, but we may, perhaps, be at the end of the beginning.

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Taxing Electronic Commerce: The End of the Beginning?

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What does the growth of electronic commerce (hereafter ‘e-commerce’) mean for the taxman? Few subjects have given rise to more discussion among those concerned with tax matters in recent years than electronic commerce. Governments, international organizations, and pundits have poured forth reams of material – much of it, unsurprisingly, available on the internet --on this subject. Compared to the real experts, I am a virtual outsider – pun intended – when it comes to the digital sphere, and all I aim to do in this paper is simply to extract from that portion of the growing mountain of material that I have perused a few hints about what this ‘new frontier’ in the fiscal wars may perhaps mean for future fiscal developments.

In the next section, I sketch briefly three views that have been put forward with respect to what the growth of e-commerce means for taxation and go on to make the obvious but still important point that as yet the fiscal implications of such commerce in practice remain limited, though the future may be different. In Section 2 I then discuss at a little more length what appear to be some of the key points at issue with respect to consumption taxes, noting some differences in the situations facing the United States (US) on one hand, the European Union (EU) on the other, and Canada, which in this (as in other respects) may perhaps be thought of as a rather large island somewhat

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1 International Tax Program, Rotman School of Management, University of Toronto. An earlier (and more ‘Canadian’) version of some of this paper appeared as Taxing Electronic Commerce: A Revolution in the Making, Commentary No. 187 (Toronto: C.D. Howe Institute, 2003).

2 Such as Charles McLure, who has recently published several papers in this journal that cover topics closely related to those in the present paper, e.g. “EU and US Sales Taxes in the Digital Age: A Comparative Analysis,” Bulletin, April 2002, 135-45, and “Tax Competition in a Digital World,” Bulletin, April 2003, 146-59. See also his initial major paper on the topic, Charles E. McLure, Jr. (1997) “Taxation of Electronic Commerce: Economic Objectives, Technological Constraints, and Tax Laws,” Tax Law Review, 52 (No. 3), 269-423. Two other important (and lengthy) contributions are the books by Richard L. Doernberg, Walter Hellerstein, Luc Hinnekens, and Jinyan Li, Electronic Commerce and Multijurisdictional Taxation (London: Kluwer Law International, 2001) and Jinyan Li, International Taxation in the Age of Electronic Commerce: A Comparative Study (Toronto: Canadian Tax Foundation, 2003). Those seeking either more general context or more detailed analysis are referred to these (and many other) works. As noted in the text, the aim of this paper is simply to provide, if I may be forgiven an overworked cliché, a ‘bird’s-eye view’ of the subject from a Bird perched on Canada’s wintry terrain.
awkwardly drifting in the mid-Atlantic.\textsuperscript{3} As I note more briefly in Section 4, everybody seems to be in more or less the same boat when it comes to income taxes, however. In Section 5, I change tacks and consider briefly whether the new technology may offer solutions as well as problems for those in the tax business. I conclude in Section 6 that on the whole the sound and, at times, the fury of the international discussion about the taxation of electronic commerce has up to now considerably exceeded its real significance. Nonetheless, while of course the future remains unknown, if I may paraphrase what Winston Churchill once said about a more serious matter, when it comes to discussing the potential implications of e-commerce for taxation, I suggest that we are certainly not at the beginning of the end, but that we are, perhaps, at the end of the beginning.

1. Approaches to ‘E-Taxation’

It may come as a surprise to some non-US readers to learn that whether and how to tax electronic commerce remains a somewhat controversial subject in some circles in that country, where some continue to assert, though perhaps with diminishing force, that it should not be taxed at all. At the other extreme - and almost equally out to lunch in the eyes of most tax experts – a few authors have, on the contrary, seen electronic commerce as perhaps offering a potentially new and promising tax base. As the ‘e-conomy’ soared in the late 90s, many governments and international organizations issued reports on the taxation of electronic commerce, and a large academic and even popular (at the level of The Economist, at least) literature appeared.\textsuperscript{4} Despite the bursting of the ‘new economy’ bubble at the turn of the century this flood of literature has continued, albeit somewhat abated, so that I can do little more here than offer a very brief and impressionistic sketch of some of the views on offer.

\textsuperscript{3} After finishing this paper, I saw an interesting recent study comparing these three countries with respect to these issues by Jenny E. Ligthart, “Consumption Taxation in a Digital World: A Primer,” CentER Discussion Paper No. 2004-12, Tilburg University, September 2004. Although I have added a few references to this study to the present paper, readers interested in this subject will benefit from reading Professor Ligthart’s paper in full.

\textsuperscript{4} For extensive references to official reports by the US, Australia, the EU, the OECD, and others, see e.g. y Doernberg et al., supra note 2, and Li, supra note 2.
Don’t Tax E-commerce

At one extreme, some – notably, as mentioned above, in the United States -- have argued that business transacted on the internet should be exempted from taxation either permanently or at least for an initial period, in order to facilitate and encourage the spread of the ‘e-conomy.’ Some who take this view are simply against taxes. Some are against granting any ‘new’ taxing power to governments. Some see taxes on e-commerce as, in effect simply taxes on innovation, so countries that follow this pernicious path may undesirably hamper their ability to compete effectively in the emerging new economy.  

Broadly, the economic argument supporting this position is that there are special network externalities that deserve favorable treatment to foster the early stages of growth in this sector. However, the evidence in support of this proposition seems quite tenuous, and, as Goolsbee says, it appears that “…most arguments regarding externalities are based on politics, not economics.” Nonetheless, even analysts who recognize both that the case for exemption, if any, is at best transitory and that governments are unlikely to give up tax base willingly, sometimes appear to find solace in the view that the fiscally

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5 See the “e-Freedom Coalition’s proposal” (available at www.e-freedom.org). The most thorough and careful exposition of the ‘anti-e-tax’ position, however, is probably Adam D. Thierer and Veronique de Rugy, “The Internet Tax Solution: Tax Competition, Not Tax Collusion,” Policy Analysis No. 494, Cato Institute, Washington, October 2003. The main visible expression of this position is of course the U.S. Internet Tax Freedom Act of 1998, as extended first by the Internet Tax Nondiscrimination Act of 2000 and then, most recently, by the renewal of this act in December 2004. Although the original Congressional version of the latest act would have permanently banned taxation of access or bandwidth, in the end the act simply extended the moratorium on internet access taxes for another three years, and also permitted those states that had imposed taxes on access and bandwidth to continue to collect such taxes for another four years. For a recent overview, see Doug Sheppard, “2004: The Year the Internet Moratorium Came Back from the Grave,” State Tax Notes, vol. 35, January 3, 2005, 847-51.


7 Austan Goolsbee, “The Implications of Electronic Commerce for Fiscal Policy (and Vice Versa),” Journal of Economic Perspectives, 15 (No. 1, 2001), at 19. A similar comment may perhaps be made of efforts in a number of countries to foster ‘new economy’ industries through tax incentives although this point is not further explored here.
lethal combination of e-commerce, financial innovation, and globalization may well provide at least temporary tax relief for this innovative sector in practice.  

**Really Tax E-commerce**

At the other extreme, a few writers have taken the view that the rise of electronic commerce may provide an opportunity to exploit a new tax base – as in the proposal for a so-called ‘bit tax’ under which a small charge would be levied on the transmission of information (bits) by electronic means. Related suggestions are to limit such taxation only to encrypted information, or to tax the capacity to receive such information.

Whether the idea is to impose a tax on the flow through the pipeline, on the size of the pipeline, or on the size of the connection, however, 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 firms. 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. Moreover, the very lack of transparency as to who is paying what may make such levies attractive politically makes them less desirable in democratic terms.

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8 This appears to be the view of Austan Goolsbee, “In a World Without Borders: The Impact of Taxes on Electronic Commerce,” Quarterly Journal of Economics, 115 (May 2000), 561-76.

9 See Arthur C. Cordell et al., The New Wealth of Nations: Taxing Cyberspace (Toronto: Between the Lines, 1997). Some support for this approach was also offered by Henk Vording, “Taxation in an Internet Economy: The Choice between Effectiveness and Individual Privacy,” Paper at International Institute of Public Finance, Kyoto, August 1997. Although an early report for the United Nations (UNDP, Human Development Report 1999 (New York, 1999)) seemed sympathetic to the idea of a bit tax, this notion was conspicuously not mentioned a couple of years later in United Nations, Recommendations of the High-Level Panel on Financing for Development. (New York, 2001). Interestingly, Doernberg et al., supra note 2 at 384 n. 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.

10 This is analogous to the argument commonly made against similar ‘small’ taxes on financial transactions. For an extensive recent discussion of such taxes, see Patrick Honohan, ed., Taxation of Financial Intermediation: Theory and Practice for Emerging Economies (World Bank and Oxford University Press, 2003).

11 A partial exception might perhaps be made for a tax on encrypted transactions, since (as in the case of bearer bonds), such transactions are unlikely to have a public purpose value sufficient to offset the extent to which they facilitate tax evasion.
Tax E-Commerce Like Anything Else

In contrast to such views, various OECD documents seem – at least to most in the tax business – to be eminently reasonable and persuasive in arguing that taxation should be neutral and equitable between all forms of commerce, electronic or otherwise, while simultaneously minimizing both compliance and administrative costs and the potential for tax evasion and avoidance.\(^\text{12}\) 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. It is of course always easy to set out general criteria for a good tax system. To implement them effectively, however, may be quite another matter.\(^\text{13}\)

A common conclusion, for example, is that real success in taxing e-commerce can be achieved satisfactorily only by increased co-operation between national (and, increasingly, sub-national) governments, and perhaps even by the adoption of explicit ‘base-sharing’ arrangements.\(^\text{14}\) Experience tells us, however, that if this is the only road to fiscal salvation, it may prove to be a long and tortuous one. To give only one example, it took over thirty years for Canada’s provinces to reach an agreement on how to allocate the corporate income tax base,\(^\text{15}\) and no such agreement has as yet proved possible internationally.

Nonetheless, the ‘middle way’ of trying to tax electronic commerce like any other form of commerce seems obviously the most sensible approach, as the OECD has said.

\(^{12}\) See the extensive OECD reports to be found under ‘taxation and electronic commerce’ at [www.oecd.org](http://www.oecd.org).

\(^{13}\) As a small example, Duncan Bentley, “International Constraints on National Tax Policy,” *Tax Notes International*, vol. 24 (June 16, 2003), 1127-44, 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.


But how one can 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, literally, 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 taxing jurisdictions in a world that is not based on geography? This throws the application of tax laws into disarray.”

Despite the valiant efforts of the OECD as documented at length on its website, the appropriate tax treatment of electronic commerce is still very much in flux. No one, and no country, has found the ‘silver bullet’ that solves 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 yet serious, but they are not going to go away; on the contrary, they are likely to get worse. Countries will in all likelihood soon have to do more to protect their revenue base. But what is the right thing to do?

In Canada, for example, the official position was summarized by an observer a few years ago as being, very much on OECD lines, 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, recently rechristened the Canada Revenue Agency (CRA) – may be right in being confident. Nonetheless, Canada, like other countries around the world continues to puzzle how best to cope with the implications of electronic commerce for taxation, as discussed in the next two sections.

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The Nature and Importance of the Problem

Despite all the words that have been written on the subject, however, it is perhaps worth noting again that there is as yet little evidence that e-commerce has significantly affected tax revenues anywhere. Nonetheless, the potential future threat is real and important. A recent OECD study estimated that most developed countries would soon require substantial increases in public spending owing to demographic shifts. The potential problem may perhaps not be quite so great or urgent a task as such projections may seem to imply, of course. Not only is the validity of all such projections always subject to question, but some may also agree with Tanzi and Schuknecht that citizens in most countries have in any case to date received surprisingly little value from expansions of the state sector much beyond 30 percent of GDP. Still, what does seem clear is that, contrary to what some may think (or hope, or fear), at the very least significant reductions in the size of the tax bill appear unlikely in most developed countries 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 has colorfully labeled ‘fiscal termites,’ of which he suggests the most voracious in the long run may be the effects of electronic commerce. The effect of e-commerce on tax revenue, though it may not have been all that great to date, is thus not a small technical point but rather a potentially critical influence on the development of future public policy. It deserves close attention.

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18 In Canada, for example, Statistics Canada, “Electronic Commerce and Technology,” The Daily (Ottawa), April 2, 2003, estimated that e-commerce sales accounted for only 0.6 percent of business operating revenue in 2002, although according to OECD, Measuring the Information Economy (Paris, 2002), Canada was among the world leaders in the growth of such commerce. It is thus not surprising that Carla Carnaghan, Pauline Downer, Kenneth J. Klassen, and Jeffrey Pittman, “E-Commerce and Tax Planning: Canadian Experience,” Canadian Accounting Perspectives, vol. 3 (no. 2, 2004), 261-87, found that few companies were as yet doing much tax planning related to e-commerce.


An interesting question in this connection is whether the struggle to maintain – perhaps even expand – the tax base in the face of such pressures may require a shift in the nature of the tax mix. 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. Although the facts suggest that no country has yet paid much attention to this message, many economists continue to suggest that it is only a matter of time before consumption taxation replaces income taxation as the dominant tax source in most developed countries. Has the rise of e-commerce reinforced this view or brought it into question? The answer is not clear yet, in part because, as I discuss in the next two sections, both forms of taxation are, in different ways, potentially vulnerable to ‘e-pressure.’

2. Consumption Taxation in a Digital World

With respect to the implications of e-commerce for consumption taxation, the VAT issue has, understandably, been most discussed in the European Union, and the retail sales tax issue 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 (in five provinces), it occupies in some ways an interesting intermediate position between the US and EU cases. What can be learned from considering the potential impact of e-commerce on these diverse systems? Surprisingly, perhaps, I suggest that Canada’s mixed consumption tax system, while it obviously faces many of the (different) problems facing both Americans and Europeans these days, may be saved from others.

22 For an example, see the various papers in Sjibren Cnossen and Richard M. Bird, eds., The Personal Income Tax (Amsterdam: North-Holland, 1990).
Consider first the comparison between VAT in Canada and the EU. Of course, no special problem arises under any VAT with respect to the B2B (business-to-business) services that continue to constitute the bulk of all e-commerce transactions since they can be handled by what in the EU is called the ‘reverse charge’ mechanism. What this means is simply that such services (e.g. telecommunications services) are deemed to have been 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 of course no input tax credit against subsequent output taxes. Buyers are thus taxed indirectly, in effect paying the tax on both the value added by these purchases and that added by their sales when they make taxable sales. To work well this mechanism requires that the seller have information on the nature of the buyer and in particular his VAT identification, if he has one. Ideally, this could be done electronically if there is a on-line real-time central registry of all registered VAT taxpayers – a system that has existed in Singapore for some time, for example. The EU’s VIES (VAT Information Exchange System) serves essentially this purpose for VAT registrants in the EU. When purchases are made from unregistered nonresident vendors, however, in principle the reverse charge is supposed to be paid directly by the buyer, a system that essentially depends upon self-assessment and is hence unlikely to be any more effective in practice than the similar ‘use tax’ imposed under the retail sales tax discussed below.

Moreover, enforcing VAT effectively even on B2B transactions ultimately depends on the efficacy of tax audit, a process that traditionally rests on a mountain of paper. But invoices too are increasingly likely to be electronic, not least with respect to B2B transactions. In the absence of paper documentation underlying the digital data to confirm when, where, and between whom a transaction takes place, some have suggested

25 For example, Statistics Canada, supra note 18, estimates that B2B sales accounted for over 70 percent of e-commerce sales in 2002.
26 See Doernberg et al., supra note 2, at 117-18.
that traditional audit may become problematic in these circumstances. Moreover, under the EU system, in which 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 in the absence of an ‘EU VAT’, although there continues to be considerable divergence in the EU on such matters. In Canada, as I have suggested elsewhere, however, the federal VAT (the Goods and Services Tax or GST) in effect provides the needed ‘integration’ of provincial systems. In other words, because Canadians are, so to speak, twice blessed in having VATs at both levels of government, they are free from some of the problems bedeviling Europe these days.

Provided some degree of interjurisdictional ‘harmony’ in pursuing the audit trail exists in one form or another, however, B2B transactions do not create big problems for VATs at any level. But all VATs have trouble in dealing with sales of digitized goods and services to non-registered taxpayers – B2C (business-to-consumer) 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 with e-commerce. Sellers – who may not even know where buyers are located – cannot easily be required to register for VAT, let alone to collect and pay over the tax to the authorities. Nor is it either possible or desirable to register all those who purchase such services as VAT taxpayers and require them to self-assess the tax and pay it over. Goods delivered across international borders, no matter how ordered, may of course be assessed to tax as they pass through customs, but there is no such possibility with respect to services.

To deal with this problem, since 2003 the EU has required non-EU vendors with EU internet sales over 100,000 euro to register for VAT in the EU and collect and remit tax. But what tax? There are now 25 member states in the EU, with different VATs. If a remote 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, however, it can apparently choose which rate to apply. If a seller has no EU establishment, it is required, first, to determine if its EU customer is a consumer or a business. If it determines that the purchaser is a consumer, the online seller must then register in an EU member state, and file and pay VAT to that country. Under the ‘simplified scheme’, however, such vendors have the choice of registering in any member state they choose and paying tax (if applicable) to that state, which is then supposed to remit the revenue to the state of consumption -- information that is presumably to be supplied by the seller. In contrast to all this complexity, an EU online seller simply applies his home country’s VAT to all sales within the EU.

This way of dealing with B2C cross-border sales may not be sustainable. Within the EU, such sales are taxed on an 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 would not be too surprising to find that EU countries (or regions) with lower VAT rates would prove particularly attractive to new non-EU vendors establishing an EU subsidiary or branch and thus putting themselves in a position to be treated like EU sellers. The effect of such tax planning would of course be to shift revenues to those regions.

Canada is faced at the national level with similar problems. It has, however, chosen a different though perhaps equally unsustainable solution to the digital B2C problem. The approach pivots on the rather odd ground of the characterization of the

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31 While it is not clear how this can easily be done, as Ligthart, supra note 3 at 17, note 57, suggests, an obvious way would be to permit access to the VIES system mentioned earlier.
33 For example, Joao Heredia and Jose Almeida Fernandes, “B2C in Europe through Madeira: Planning for the Near Future,” Tax Notes International, vol. 30 (May 5, 2003), 475, note that the autonomous region of Madeira in Portugal has the lowest VAT rate in the EU (13 percent).
transaction as a good or service. 34 ‘Goods’ are defined as transactions that either include
the right to use a product (e.g. software) or something that has already been created (e.g. database). ‘Services’ are transactions in which no such ‘rights’ are provided or there is an
actual human being involved. To illustrate, if a user consults on-line documentation for
technical support, it is a good, while direct interaction with a technician to obtain exactly
the same information is a service. Even more than with the EU solution, this appears to
be a line drawn in sand, and the tide of change may well wash it away soon. An
additional problem arises from the incentive for Canadian users of Canadian internet
companies – which must collect GST regardless of the residence of the persons receiving
the services– to shift to non-resident suppliers who are not “carrying on business in
Canada” and hence do not need to register for GST purposes. The current policy seems
unlikely to be the last word on this subject.

Retail Sales Taxes in the US and Canada

“To Tax or Not to Tax Electronic Commerce – Is That the Question?” asked one
US study a few years ago. 35 As mentioned earlier, it appears to be mainly in the United
States – where, as a Canadian commentator 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” 36 – that such questions are being raised, and even there the
answer, at least from governments, is almost invariably that of course it is to be taxed.
The real question is how to do it.

The US is the only major country without a national sales tax. Not coincidentally,
the US is also the only country in which there are literally thousands of differing state and
local retail sales taxes (RSTs). 37 Moreover, as a result of a series of judicial decisions
over time, as a rule these taxes cannot be imposed on ‘distance sales’ whether by mail-

34 Canada Revenue Agency, “GST/HST and Electronic Commerce,” GST/HST Technical Information
35 Wade Anderson and Christine Monzingo “Taxing Electronic Commerce in the United States,” Tax Notes
International, vol. 22 (February 26, 2001), at 1027.
(Toronto), September 11, 2000, at p. M1.
37 Although some states administer local sales tax rates, so matters are not quite as chaotic as they might be.
order or internet. 38 One result is that most U.S. discussion of the impact of electronic commerce on consumption taxes has been very much *sui generis*. The problems that e-commerce cause for RSTs are considerably less serious in Canada, where a number of provinces continue to levy such taxes, since there is no legal barrier to taxing distance selling. Nonetheless, as long as it is possible in practice to buy something (CD, book, video, etc.) tax-free from a supplier located in another jurisdiction while the same item bought from the corner store is taxable, there is still a problem with inter-provincial trade even with respect to goods. Corner stores that wish to stay in business may in the end have to become ‘virtual stores’ themselves.

Technically, the question is what constitutes ‘nexus’ for a retail sales tax – that is, when can a province or state tax a transaction -- and what is the ‘situs’ of a transaction – that is, where does a transaction occur. As under the federal tax, the traditional answer in Canada has been that those who ‘carry on business’ in a province are liable and that situs is (essentially) where the buyer is located. 39 While the issues are no clearer on either side of the US-Canada border, in contrast to the US most major electronic retailers based in Canada appear in practice to be levying all applicable domestic taxes on sales. By doing so, however, they are clearly disadvantaged relative to foreign suppliers, so that mentioned earlier (in connection with the new GST rules on the treatment of cross-border e-commerce) the long-term viability of the system seems suspect.

Another important issue with ‘retail’ sales taxes is that in practice they usually impose significant taxes on business inputs. 40 Not only B2C but also B2B sales thus give rise to problems for both revenue and efficiency under the RST. Most who have considered this issue in the US context appear to agree that only radical reform of the

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38 Largely as a result of prior court rulings, in most cases out-of-state vendors are not required to collect destination state sales taxes, whether they operate over the internet or not. Unless they have a “bricks and mortar” presence in a state, distant sellers in the U.S. thus do not need to charge sales tax. While in principle purchasers are liable to pay such taxes – the use tax – unsurprisingly they seldom report such purchases to the authorities unless, for example, they have to register something like an automobile.


40 See, for a study of this phenomenon in the US, Raymond Ring, “Consumers’ Share and Producers’ Share of the General Sales Tax,” *National Tax Journal*, vol. 52 (no.1, 1999), 79-90.
present chaotic retail sales tax scene in that country will serve to rescue the tax. In Canada, in contrast, the obvious solution would seem to be for the remaining retail tax provinces to move to a VAT. But which VAT? The independent QST (Quebec Sales Tax) or the joint HST (Harmonized Sales Tax)? Either model seems viable, and, as over a decade of experience shows, each may operate simultaneously in different provinces. For example, perhaps when the political and economic winds are in the right quarter the smaller RST provinces (Manitoba, Prince Edward Island, and perhaps Saskatchewan) may join the HST system, while the larger ones (Ontario and British Columbia) may prefer to follow the QST model and retain somewhat more independent sales taxes.

While there seems little or no prospect in Canada that the provincial sales taxes, even if all become VATs, will ever be as ‘harmonized’ as VATs already are in the EU, the existence of the over-riding federal GST means that they do not have to be in order to ensure adequate interjurisdictional cooperation to tax consumption effectively.

A third issue concerns what may be called the characterization problem. How certain things are characterized is critical with both the RST and the VAT. With an RST, for example, businesses are required to self-assess taxes on goods and services acquired for self-use, regardless of the origin of such goods and services. In contrast, with a VAT such self-assessment is required only when businesses are not engaged in commercial activities (a distinction that, again, someone has to make). The reason, as mentioned above, is because it is implicitly assumed that normal audit procedures suffice to check any abuse with respect to commercial activities. Of course, since consumers are not subject to audit, no such check exists and the potential for tax loss (and competitive effects) is greater.

41 One approach in the U.S. has been to adopt a model state sales tax law with uniform definitions, etc. Although by January 2005, 12 states had adopted implementing legislation for this Simplified Sales Tax Project (see www.streamlinesalestax.org), and several more were about to do so (Sheppard, supra note 5, at 849), 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.

42 Although it is seldom put in these terms, retail sales taxes, like income taxes, suffer from ‘characterization’ problems. A Canadian example noted above is the recent attempt to ‘solve’ the B2C problem with respect to the federal GST by distinguishing between goods and services. Similar problems arise at the provincial level with respect to many digital products, as evidenced, for example, by the present divergent treatment of computer software in different provinces in Canada (Bird, supra note 1, at 11).
The problem is less serious with respect to goods than it might otherwise be in Canada (though not the US) because the federal government 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). In addition, some provinces (Québec with a VAT and British Columbia and Manitoba with RSTs) require outside suppliers to register and impose tax on sales to residents. Of course, they have no way to enforce such requirements effectively. Finally, although most provinces have defined downloaded digitized products to be tangible personal property (and hence taxable) there is again no way to enforce tax effectively on such transactions.

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 extensions. While interstate tax competition is not unknown in Canada, it is considerably less important than in the United States, for a number of reasons. Canadian tax policy starts from a different place. As already mentioned, for example, there is no parallel in Canada to the tortuous history of the (non-)taxation of ‘distance sales’ in the US. It is this hole in the state (and local) revenue system that has been widened by the expansion of e-commerce and has led to the pleas for both radical simplification and harmonization of state (and local) sales taxes if they are to survive. Though Canada suffers from similar problems in principle in collecting taxes on taxable goods purchased out-of-province, it has to some extent been saved by its geography and its courts. Most Canadians do not live near a provincial border, and 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 American counterparts – a position strengthened even more by the existence of the federal VAT.

The Canadian Problem

43 Many more Canadians live within a 1-2 hour drive – shopping distance – of the US border than within the same distance from a provincial border. Geography thus provides some protection for provincial sales tax revenues, at least for non-digital transactions.
To some extent then, while Canada has to some degree all the problems facing consumption taxes in both the EU and the US, it also has some advantages over either. Like everyone, Canada of course has problems (at both federal and provincial levels) in collecting taxes equitably and efficiently on digitized services sold directly to consumers by sellers located outside the country. In addition, however, Canada faces a unique problem of its own making. Not only are consumption taxes in Canada, unlike the US, as high as those in some EU countries, but unlike those countries Canada’s taxes are every bit as visible, every day, in every transaction to millions of Canadians as are the much lower US taxes to Americans. The GST has had a much more troubled history in Canada than the (higher) VATs in the EU largely because it is so visible to consumers. Indeed, the visibility issue has been a major reason why some provinces have been so reluctant to discard their retail sales taxes for VATs. The visibility issue has been unduly neglected in the academic literature but is often dominant in the real world.

Economists may like the efficiency implications of removing taxation from intermediate goods, but from some perspectives the main effect of such a change may be not improved efficiency but rather an improvement in what might be called political transparency. As one American author puts it: “When state officials engage in hand wringing over what might happen if business inputs were 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.”\footnote{Strauss, supra note 29, at 11.} Provincial officials in Canada, having seen the fate of the federal Conservative party after it replaced its long-standing, and invisible, manufacturers’ sales tax by the very visible GST\footnote{Strauss, supra note 29, at 11.} do not need to wonder. They know.

Even Quebec, the first province to adopt a VAT (and the only one to do so on its own) did so in stages, first imposing a lower rate tax on services and even now continuing to deny full input tax credit to larger enterprises. The three provinces that subsequently adopted essentially the federal GST (in the form of the HST) were in effect bribed to do
so by a significant federal transfer to induce them to agree. Whether and how other provinces may follow either of these paths remains to be seen. Money matters, and increases in taxes that have to be visibly paid by citizens matter a great deal to politicians. Achieving a workable and acceptable solution to the B2C tax problem even within Canada’s borders thus seems unlikely to be any politically easier than achieving workable solutions to the related but not identical problems facing consumption taxes in the EU and the US respectively.

3. The Income Tax: Everyone is in the Same (Leaky) Boat

All jurisdictions face the same problems with respect to e-commerce when it comes to income taxes, however. Broadly, two lines of approach to the income tax problems that arise from e-commerce can be considered at each level of government – independent action or co-ordinated action. At the sub-national (or member state of EU) level, for example, taxes might be reformed, new efforts might be made at harmonization both with other jurisdictions at the same level and/or with (as the case may be) the federal government or the EU as a whole. Federations, but not the EU, may also presumably be able to reconsider tax assignment together with some ‘rebalancing’ of welfare-state expenditure responsibilities. National governments may consider tax reform options as well as the possibilities of more international co-operation. Various administrative options and incremental changes in existing policies and practices may also be considered.

Most discussion with respect to income taxes 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? 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

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46 Richard M. Bird, Where do We Go From Here? Alternatives to the GST (Toronto: KPMG Centre for Government, 1994).
and accounting firm winning. Nonetheless, considerable attention has been paid, notably in the OECD working groups, to such issues, in part simply because that is now how these things are generally done. For example, some forms of income have been characterized as profits (e.g. web site hosting and on-line auctions) and some as royalties (e.g. downloading with right 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).

Considerable attention has also been paid to the problem of how to source income from e-commerce. Some have attempted to reformulate source rules to capture such income. Some have proposed extending residence rules for the same purpose. Some have focused on the permanent establishment concept that is at present generally used to establish 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. Others have argued for formulary apportionment approaches. Still others have focused on the need for improved information exchanges. And some have more or less thrown up their hands and argued that there is no solution short of creating some new international tax organization with a worldwide remit.

In the real world of tax officialdom, most attention has probably been paid to attempting to hammer and bend the long-standing permanent establishment concept to fit the new world of e-commerce. Unfortunately, to date little real agreement seems to have been reached as to whether a web page or a server constitutes a permanent establishment.

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47 See Bird and Gendron, surpra note 30, at 441, note 19.
One OECD commentary, for example, says that servers constitute a permanent establishment “in some circumstances” but websites do not (although Spain and Portugal dissented on this point).\(^{54}\) It seems unlikely that the divergent views on such matters that presumably arise from differently perceived national interests will easily be reconciled at the international level.

In the digital world, transfer pricing, already suspect in the eyes of many, becomes even more difficult to the point where the only solution may lie in some formulation for profit splitting.\(^{55}\) Perhaps the answer in the end may be to subject e-commerce -- like rock stars or international transportation -- to special sourcing rules or to a low-rate gross withholding tax.\(^{56}\) This approach would have the advantage of sidestepping the characterization problem. However, like the ‘bit tax’ discussed earlier, it would have the disadvantage of taxing too large a base at too low a rate with consequent problems of cascading, inefficiency, and non-transparency.

Similar problems in establishing taxable jurisdiction arise with respect to sub-national corporate income taxes in both Canada and the US. As McLure has demonstrated, the already complex and inefficient state corporate income tax situation in the United States is made even more complex and inefficient when faced with these new difficulties. His conclusion may be generalized to the international setting: “there 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).”\(^{57}\) Although, as with consumption taxes some of these problems are less severe in Canada than in the U.S., in this case owing to the existence of a uniform apportionment system, they do exist. One solution

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\(^{56}\) Doernberg et al., supra note 2, at 348 and 354-66 respectively.

that has been suggested is to move away from the present provincial corporate tax system in the direction of the so-called ‘business value tax’, which is essentially a low-rate income-type origin-base value-added tax.\textsuperscript{58} Such a substitution would not resolve all such problems, but it would perhaps reduce them significantly owing to the substantial rate reduction that such a larger tax base would permit.

In the end, of course, as always “the real tax policy issue….is how governments agree to allocate tax revenues from cross-border transactions.”\textsuperscript{59} Revenue may not be the main issue for economists, who focus more on the impact of taxes – regardless to whom they are paid – on economic activity, but it certainly matters to policy-makers. Countries that would gain from extending residence concepts to encompass e-commerce income, such as the United States, seem, unsurprisingly, to favor extensions of the residence concept. Countries that would gain from more source-based rules tend, equally unsurprisingly, to favor such rules. What is at issue here is not so much whether source or residence countries should, in principle, have first claim on income but rather the more basic issue of who can best identify, measure, assess, and effectively tax income.\textsuperscript{60} From this perspective, what seems most important is less to establish the ‘correct’ principles than 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.

4. Can Technology offer Solutions as Well as Problems?

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 levying taxes on items subject to physical control, count, and verification, such as 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 of its consumption tax equivalent -- the VAT. Digital fiscal pessimists argue (or assume) 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 (e.g., the ability to make anonymous, untraceable electronic cash payments or the ability to locate a server anywhere).” Or: “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.”

The digital revolution is of course not the first such revolution to affect the flow of commerce and hence the actual and potential tax base. The transportation and communications revolutions of earlier centuries come to mind, for example. “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.”

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

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61 Abrams and Doernberg, as cited by McLure 1997, supra note 2, at 298.
62 Doernberg et al., supra note 2, at 388.
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, especially in view of the disintermediation that characterizes many digital transactions, that is, 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?65

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. 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 brings with it not just problems but also the possibility of technological solutions. Many writers on this subject, for example, seem to take as an article of faith that the internet is a borderless technology. But will it always necessarily be so?66 In reality, it seems, that “for better or worse, the Internet is becoming bordered.”67 Given the interests of not also governments but also of businesses in knowing where customers live, it is not surprising that new technologies are being developed to this end. The events of September 11, 2001 have made these borders even thicker.

One solution, for example, might simply be to require that in order 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

66 Indeed, as Doernberg et al., supra note 2 at 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, I suggest that agreement will be reached…eventually.
much along these lines. No wall is perfect, but one can certainly be built to enclose much of the existing tax base if the will to do so in present in enough jurisdictions. In effect, for example, the VAT already does this for B2B transactions. All in all, Henk Vording was quite right when he said a few years ago that “taxpayers will have more opportunities to evade taxes. 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, however. 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 do, that necessity is the mother of invention, a workable technological solution to some of the fiscal problems arising from new technology may loom in the not too distant future.

Indeed, contrary to the extreme libertarian views of some enthusiasts, the final outcome of the advent of the digital economy may be to strengthen, not weaken, government’s role as tax collector. 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 interjurisdictional) transactions. At the extreme, as Albert Radler has said: “…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 give our place of residence….cash will totally disappear…its 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.” In Radler’s – to some, rather dark -- vision of the world “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

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69 Vording, supra note 9, at 13.

70 See, for example, the discussion in Cockfield’s ‘digital biosphere’ paper, supra note 65.

has only to check whether the information provided by the computer is correct.” To a considerable extent, this is what already happens in Singapore, where the tax authority has taken tax withholding to its logical limit and transfers funds directly from your bank account 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 rather than the ‘wild, wild West.’

Indeed, some have suggested that 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 to protect their fiscs. The creation of, in effect, some sort of international fiscal leviathan to swallow up the world’s tax base (or, at least, ‘catch the big fish’) and divide it among participating countries obviously carries some risk of authoritarian misuse, as do more probable (and considerably less radical) moves to harmonize and unify tax systems across jurisdictional boundaries. The only viable answer in the long run may be to realize that the problem is not whether privacy or revenue is the primary value but rather how to work out the best way we as citizens of different countries can permit the access to private activities necessary for the sustenance of our public communities without allowing such information to be misused. One author’s answer to this dilemma 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. In other words, although presumably none of us wants our foibles and weaknesses made public, somewhat more transparency in this respect may simply be another price we have to pay for living in a complex modern society.

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72 Arthur J. Cockfield, “Canada’s GST E-Commerce Policy (or How to Catch the Big Fish),” Internet and E-Commerce Law in Canada, 3 (March, 2002): 1-8.
73 David Brin, The Transparent Society (Reading, MA: Perseus Books, 1998). In a comment on this possible future, David Manasian, “Digital Dilemmas: A Survey of the Internet Society,” The Economist, January 25, 2003, at 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 on which to rely.
6. Conclusion

Turning from the big issue of the imponderable future of modern society as a whole to the considerably smaller problems facing tax policy designers and tax administrators, what does this look at my cloudy crystal ball suggest? McLure has 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 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.”\(^{74}\) McLure is likely right in the long run, but for the near future no major restructuring of either national or sub-national tax systems really seems needed to cope with electronic commerce. Even if, and when, more basic changes may be called for, most countries seem unlikely to adopt radical ‘root and branch’ solutions, nor, I suggest, do they really have to do so. ‘Muddling through’ by incremental, gradual change is not only the way most countries cope with change but an approach with a surprisingly sound theoretical basis, contrary to what many seem to think.\(^ {75}\) Still, when and if gradualism is not enough, how best might modern states cope with ‘termites’ such as e-commerce that are eating away at their fiscal base?

One response might be for countries to, as it were, ‘go backwards to the future’ and once again rely increasingly on old and traditional tax handles as excises and property taxes.\(^ {76}\) More importantly, as already noted, continued and expanded coordination, cooperation, and convergence (voluntary harmonization) between governments both sub-nationally and internationally almost certainly lies in everyone’s fiscal future. Such cooperation will not occur simply or quickly, but it is also, experience suggests, not impossible. Crises are the mothers of solutions.

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\(^ {74}\) McLure 1997, supra note 2, at 313.
Within countries – and, who knows, perhaps even some day within the EU - some reassignment of revenues (perhaps more personal income taxes to lower-level governments and more corporate and sales taxes to the national level) and a greater role overall for payroll and consumption taxes in general may occur in the long run as governments struggle to maintain their revenues in the face of new pressures tending to expand the underground economy and tax evasion. In the short run, however, any changes are more likely to take the form of minor ‘fixes’ here and there. For example, provincial consumption taxes in Canada may move (as in the EU) towards a single registration system, which would seem to be both feasible and in the interests of all. Similarly, provinces that still have retail sales taxes are likely over time to move to the value-added tax approach. Such a solution seems much less likely in the US context, however, where, despite its obvious problems, the multi-state approach to a ‘streamlined’ RST seems about the best that can be hoped for at present. 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, the result of the pressure of e-commerce on the tax system in all countries may well have to be a stronger cartel – as some might call it – against the taxpayer. Particularly with respect to the corporate income tax, no approach except continued efforts to develop more coherent international tax standards and policies seems to hold much promise, although any progress in this direction is certainly not likely to take place quickly, or uniformly.

Such mild conclusions with respect to the big questions posed by the ‘digital revolution’ for taxation are doubtless not very exciting. Nonetheless, achieving the needed degree of agreement will require major revisions in policies as well as a great deal of hard, detailed, and persistent effort on all sides. As many have noted before, in the end there are unlikely to be completely satisfactory solutions to the problems posed for traditional tax systems, whether local or national, by electronic commerce – or, more precisely, by the increased strain that such commerce places on already existing weak aspects of those systems. About the best that can be done is for all involved to try to be

as reasonable and consistent as possible. The endless negotiation and compromise on tax matters at both local and national levels needed may be more intensive than before but it is no different in kind than past fiscal adjustments to the changing world have required. Tax policy, as Ken Messere has reminded us, “…is about trade-offs, not truths.”78 The process through which we develop the needed trade-offs, both nationally and internationally, in the end will largely determine how tax systems are reshaped over time in response to the rise of e-commerce.

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