# JURISDICTION TO TAX: A LAW AND TECHNOLOGY PERSPECTIVE

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## I. INTRODUCTION

The past several decades have witnessed a dramatic increase in cross-border trade and investment, partly in response to a reduction in legal barriers (e.g., tariffs and capital controls) and technological improvements that lower transportation, distribution and communication costs. This trend has been accelerated by the advent of the Internet and related information technologies, as well as the proliferation of digital goods and services. The upside of these developments is enhanced economic integration, raised productivity, and increased national and international wealth. The downside includes growing jurisdiction disputes in areas such as copyright, speech, privacy, and contract. [FN1] The world of tax law is witnessing a similar growth in jurisdiction disputes. Walter Hellerstein's paper makes a valuable contribution by bringing clarity to an issue of growing importance in the world of tax: when does a country or subnational government have the legal and practical jurisdiction to impose and enforce its tax laws on cross-border economic activity? [FN2] Hellerstein divides tax [p. 86] jurisdiction into two related but distinct concepts: "substantive jurisdiction" (i.e., the power of a state to impose its tax laws on transactions that have a relationship to economic actors within the state) and "enforcement jurisdiction" (i.e., the power of a state to collect taxes related to transactions over which it has substantive jurisdiction). In his view, governments should take steps to ensure that enforcement jurisdiction is properly aligned with substantive jurisdiction (as long as it is practical to do so). [FN3] By clarifying the relationship between substantive and enforcement jurisdiction, Hellerstein provides an analytical framework that should assist legal scholars, lawyers, and public policy decision makers struggling with these difficult and pressing issues. The goal of this Commentary is to extend Hellerstein's framework to see what legal reform efforts are appropriate to assist in the resolution of jurisdiction conflicts surrounding tax laws. Because this Symposium as well as Hellerstein's paper focus on conflicts within the "new economy," this Commentary considers the analytical framework in relationship to technological developments and current or likely political/institutional responses to these developments. Part II provides an example of how recent technological changes have reduced the ability of national and subnational governments effectively to enforce their tax laws, thereby reducing tax revenues and harming other interests. [FN4] Part III discusses how tax laws could be reformed to account for technological change by extending enforcement jurisdiction over out-of-state economic participants and by promoting the use of technologies to reduce compliance costs for these remote companies. [FN5] Part IV queries what type of political institutions can effectively deal with jurisdiction conflicts resulting from technological change. [FN6] The analysis suggests that highly integrated political institutions (e.g., federal states or custom unions) have better "carrots and sticks" to promote cooperative behavior likely to resolve tax jurisdiction conflicts.

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## II. TAX JURISDICTION, TECHNOLOGY CHANGE, AND THE INTERESTS AT STAKE

This Part begins by providing an example to demonstrate how recent technological changes have undermined the ability of national and subnational governments to collect taxes on cross-border transactions and profits. [FN7] The example is then used to highlight five policy concerns that arise from tax jurisdiction conflicts: (1) reduced revenues, (2) lack of a competitive playing field, (3) market distortions that arise from non-neutral tax treatment, (4) movement toward a less progressive tax system, and (5) risk of burdensome compliance costs.

### A. CROSS-BORDER SALES OF DIGITAL GOODS AND SERVICES

Hellerstein identifies cross-border trade in business-to-consumer products and services as the most sensitive area of tax jurisdiction disputes (even though currently a small portion of the e-commerce market). [FN8] The following example focuses on transactions involving out-of-state sales of digital goods to consumers. [FN9] Lance Sterling is a writer who lives in Canada. He writes a novel called Doomsday Weather and enters into a publication contract with a publisher based in Kansas. Under this publisher's business model, the novel is first turned into an audio novel in order to exploit the growing audio novel segment of the market within the United States and elsewhere. The publisher hires an actor to read the novel and produces CDs for sale in U.S. bookstores and retail chains, as well as at Amazon.com. In addition, the Kansas publisher creates a digital audio file (i.e., an MP3 file) of Doomsday [p. 88] Weather and enters into a contract with a Florida-based company called Audiobooks4U.com that sells the MP3 file of Doomsday Weather through its commercial web site. It turns out that Doomsday Weather is an audio novel best seller, generating $10 million in sales to United States consumers and $1 million in sales to Canadian consumers. In both markets, the sales are split between sales of the CDs (tangible property) and sales of the MP3 file (intangible property). What is the tax outcome of this scenario? With respect to consumption taxes, there will be little to no tax collected on these transactions. State and local government sales tax systems rarely apply to intangible goods such as digital audio novels and, in any event, these governments are generally constitutionally prohibited from imposing collection obligations on out-of-state retailers. [FN10]

Canada has a federal level Goods and Services Tax (GST) that is analogous to the value added tax (VAT) employed in Europe and elsewhere. Like VATs, the Canadian GST has a broad tax base that extends to most tangible and intangible goods and services and taxes the supply of these goods at a rate of seven percent. Businesses based outside of Canada generally do not have to register for GST purposes; therefore, Audiobooks4U.com will not be a taxable supplier subject to collection obligations. [FN11] As a result, GST will not be collected on cross-border sales of the digital audio novel to Canadian consumers. Canadian customs agents are, however, likely to subject the CDs to the GST when the CDs are shipped across the border. Both U.S. states and the Canadian government require consumers to self-assess the amount of sales taxes or GST owed. As [p. 89] Hellerstein points out, however, consumer self-assessment is not a feasible tax collection option because it does not present a workable solution to the problem. [FN12]

With respect to income taxes, the picture is somewhat rosier, at least from a United States perspective. Despite the fact that the novel was written in Canada, the Canadian government generally will not participate in the sharing of tax revenues associated with the cross-border sale of the novel. Pursuant to the Canada-United States tax treaty, Canada is only entitled to tax profits attributable to a non-resident's permanent establishment within Canada. [FN13] Audiobooks4U.com, however, does not maintain any physical presence within Canada; all of its sales are generated via its commercial web site. [FN14] Canada might collect tax revenues if Lance Sterling generates income via royalty revenues through the sales of his novel. In addition to federal income tax revenues, U.S. state governments might share in revenues associated with state income taxes on profits that are divvied up according to a formula that focuses in part on the level of consumer sales within each state (although, again, enforcement issues arise as these states may not be aware of sales within their borders).

## B. TAX JURISDICTION AND THE INTERESTS AT STAKE

What are the stakes illustrated by the previous example? Tax jurisdiction conflicts raise at least five policy concerns. First, consumption states lose revenues because they cannot effectively collect sales taxes and the GST on many remote consumer sales. [FN15] For example, Canada loses out on $35,000 in revenues (seven percent of $500,000) that it could otherwise collect [p. 90] from cross-border sales of the digital audio novel. U.S. state and local governments lose out, if we assume a combined rate of five percent, on $50,000 in lost tax revenues. In addition, Canada loses out on tax revenues on profits it might otherwise obtain if, say, the audio novel were sold in CD format at Canadian bookstores (which would constitute permanent establishments under the tax treaty and enable Canada to tax profits attributable to sales from the bookstores).

Second, the lack of enforcement jurisdiction discriminates against local companies and favors out-of-state companies. Floridian companies that sell tangible goods to in-state consumers will have to assess, charge, and remit sales taxes on their transactions, while Audiobooks4U.com gets let off the sales tax hook for sales to out-of-state consumers. Similarly, sales of the CD version of the audio novel sold via Amazon.com will not attract sales taxation, whereas sales of CDs through bookstores will generally be subject to sales taxes. [FN16] This disparity in enforcement jurisdiction therefore permits out-of-state companies to realize a competitive advantage over local companies.

Third is the non-neutral tax treatment imposed on remote sales of goods and services (that can often avoid taxes) in comparison to local sales of goods and services. Market distortions that may result from this non-neutral tax treatment are thought to inhibit overall economic growth. [FN17] For example, non-neutral tax treatment encourages firms to structure their activities for tax reasons (e.g., the setting up of a separate retail business in a zero sales tax state) and not for economic rationales.

Fourth, to the extent that governments cannot effectively enforce their tax systems over cross-border transactions and profits, they will be forced to impose taxation on less mobile factors such as labor and property. [FN18] This situation may lead to a more regressive tax [p. 91] system that focuses taxation on individuals that have a reduced ability to pay these taxes rather than wealthier taxpayers. Sound tax policy, according to many commentators, should promote a progressive tax system that taxes to a greater extent wealthier households with more resources to pay taxes. [FN19] Unless governments devise practical enforcement mechanisms for taxes on cross-border trade, an increased focus on taxing labor and property could have serious repercussions for democratic wealth redistribution efforts.

Fifth, cross-border firms may face significant costs if they have to comply with the income and consumption tax systems of multiple jurisdictions where their customers or business partners are based. From a policy perspective, unduly harsh compliance costs could inhibit cross-border trade by raising the cost of doing business and making companies reluctant to expand their businesses into foreign markets. Reduced trade would harm both the jurisdiction where the company is based as well as the potential market for the goods or services. These compliance concerns are likely the main impediment to reform in the area of tax jurisdiction conflicts, because firms generally prefer to maintain the status quo. Yet, in most circumstances, a firm need only comply with the tax rules of the jurisdiction where it is based (as long as it does not maintain a physical presence in foreign jurisdictions). [FN20]

C. SUMMARY

In many circumstances, the current federal and international legal regimes do not properly address jurisdiction conflicts involving tax and cross-border trade. There is a growing gap between the two elements of tax jurisdiction identified by Hellerstein: substantive and enforcement jurisdiction. [FN21] This gap leads to a number of policy concerns, including reduced revenues, uneven competitive playing field, market distortions, and vertical equity problems. These interests are at risk because, as discussed in Part III, there is a [p. 92] mismatch between technological developments and the ability of tax laws to enforce and collect taxes on cross-border activity effectively. [FN22] How well these interests will be protected depends in part, as discussed in Part IV, on the response of political institutions to concerns arising from technological innovation. [FN23]

## III. THE RELATIONSHIP BETWEEN TECHNOLOGY AND JURISDICTION TO TAX

This Part delves further into the relationship between technological innovations that promote cross-border trade and tax jurisdiction principles. The first section discusses how technology acts as a catalyst for tax reform efforts, and the second section reviews how technology can reduce compliance costs for remote retailers and thereby enhance enforcement jurisdiction.

## A. THE GROWING MISMATCH BETWEEN TECHNOLOGY AND LAW

As Hellerstein notes, the commercial environment has changed since laws were implemented to tax cross-border transactions. [FN24] The rules were initially set up to govern trade of tangible goods and services, as well as rights related to these tangible goods and services. [FN25] The establishment of foreign-based sales offices and employees was often necessary in order to sustain significant cross-border trade. [FN26] For income tax purposes, the use of the permanent establishment principle to help define the scope of tax jurisdiction arguably represented a sound compromise between the interests of nations. [FN27] The permanent establishment principle also made sense [p. 93] from an enforcement jurisdiction perspective-under the permanent establishment principle, tax authorities can seize property associated with a permanent establishment to satisfy outstanding income tax debts. [FN28]

Jurisdictional conflicts involving consumption taxes have not generated much discussion until recent years (apart from European reform efforts). Decisions such as National Bellas Hess [FN29] and Quill, [FN30] which mandated that a bright-line physical presence test be satisfied before a state could impose collection obligations on out-of-state vendors, [FN31] were clearly matters of concern to state tax authorities. Yet while technological developments such as television, telephones, and the postal service encouraged mail order sales, these developments were not, perhaps, overly worrisome because tax revenue losses were not perceived to be too significant. [FN32] Nevertheless, these two U.S. Supreme Court decisions represent an interesting case study on the relationship between law and technology. As the majority of the Court clearly understood, the bright-line physical presence test served as an incentive for cross-border mail order transactions that were enjoyed tax-free by [p. 94] consumers: "Indeed, it is not unlikely that the mail-order industry's dramatic growth over the last quarter century is due in part to the bright-line exemption from state taxation created in Bellas Hess." [FN33]

The dissent in Quill went even further: Perhaps long ago a seller's "physical presence" was a sufficient part of a trade to condition imposition of a tax on such presence. But in today's economy, physical presence frequently has very little to do with a transaction a State might seek to tax . . . . Moreover, the Court's seeming but inadequate justification of encouraging settled expectations in fact connotes a substantive economic decision to favor out-of-state direct marketers to the detriment of other retailers . . . . [T]he Court is effectively imposing its own economic preferences in deciding this case. [FN34] The dissent shows how a legal rule-the requirement of a physical presence within a taxing state-promoted the use of a certain form of technology (the post office) and even changed the structure of the marketplace. [FN35] The legal rule provided an incentive to use the postal service to generate out-of-state sales and to base businesses in states without sales tax systems. The dissent argued that the law in this area should evolve to take into account increased reliance on mail order sales, and that the majority's decision to maintain the status quo in an environment of technological/commercial change could have significant economic consequences. [FN36]

More than ten years after Quill, the real problem, Hellerstein tells us, is that recent technological developments undermine enforcement jurisdiction at the federal and international level far beyond the problems created by mail order sales. [FN37] As the example in Part II demonstrates, digital goods and services (like the digital [p. 95] audio novel) pass unseen across borders and defeat the border controls imposing consumption taxes on tangible goods. [FN38] Further, the Internet and related technologies facilitate remote selling. Therefore, governments do not have any obvious physical assets within their territorial jurisdictions to seize in order to satisfy tax debts.

Hellerstein's analytical framework suggests that tax laws should be reformed to create a better alignment between substantive and enforcement jurisdiction. [FN39] The goal of his paper was to shed light on the relationship without proposing specific mechanisms to resolve the problem. [FN40] The task of this Commentary is, in part, to push the framework to its logical conclusion. How should tax laws change? Hellerstein's analysis suggests that laws must focus on the practical and realistic ways of ensuring the law can be enforced. [FN41] Richard Bird has similarly noted: "Changes in tax policy and tax structure reflect changes in administrative realities as much or more than they do changes in policy objectives." [FN42] A practical solution could involve the development of economic presence tests that impose liability on business intermediaries even though they may not have a physical presence within the borders of the relevant tax sovereign.

With respect to consumption taxes, the extension of tax jurisdiction through the imposition of collection obligations on out-of-state retailers is the approach taken by the Streamlined Sales Tax Project [FN43] (SSTP), an effort by state governments "to simplify and modernize sales and use tax collection and administration." [FN44] [p. 96] Similarly, the European Union (EU) has passed a Directive (effective July 2003) that strives to have non-EU companies register and collect VAT on sales of digital goods and services sold or provided to EU consumers. [FN45] For both reform efforts, compliance by remote retailers is, at this point, voluntary, because: (a) the SSTP approach is likely unconstitutional due to concerns surrounding the imposition of barriers to interstate commerce, and (b) the EU approach is likely unenforceable because non-EU countries have not entered into any agreements or tax treaties with EU countries that would grant legal authority to EU nations to enforce compliance. [FN46]

Returning to the digital audio novel example, [FN47] the SSTP approach might ensure that sales of the digital audio novel would be subject to a use tax as long as digital goods and services form part of the sales tax base. In other words, Audiobooks4U.com would be forced to collect and remit use taxes when a consumer living in California purchases a copy of Doomsday Weather. If Canada adopted the EU approach, then Audiobooks4U.com would similarly be subject to GST registration and collection obligations for sales to Canadian consumers. With respect to income taxes, governments could reach agreement on a realistic mechanism to enforce the imposition of taxes over profits generated by remote retailers. At the subnational level, these mechanisms already exist to a certain extent (at least in the context of Canadian provincial and U.S. state income tax laws). [FN48] Subnational governments divvy up the tax pie through formulary taxation, with sales in the state of consumption as one factor. [FN49] [p. 97] At the international level, governments could similarly extend their income tax jurisdiction over remote sellers through a number of mechanisms. The literature on this topic discusses the potential use of: (a) international formulary apportionment; [FN50] (b) withholding taxes on payments with the option for the remote seller to file a return as a net payor; [FN51] (c) a qualitative economic presence test under which a "facts and circumstance" test would determine whether the remote seller was required to file a return and pay taxes on cross-border profits; [FN52] or (d) a quantitative economic presence test under which remote sellers would have to file and pay taxes on cross-border earnings if sales surpassed a stipulated threshold, such as one million dollars. [FN53]

If Canada and the United States negotiated this type of reform effort, then the two countries would share in revenues derived from the taxation of significant cross-border profits such as those resulting from sales by Audiobooks4U.com to Canadian consumers. Yet, the OECD and most industrialized countries have taken a different route by developing a new permanent establishment category for computer servers. [FN54] These reform efforts do not, however, properly align enforcement jurisdiction with substantive jurisdiction, thereby violating Hellerstein's framework. [FN55]

While Hellerstein takes pain not to advocate any specific approach, [FN56] his analytical framework appears to support the SSTP [p. 98] and EU VAT approaches; tax authorities in both areas are attempting to align their enforcement jurisdiction with substantive jurisdiction. In fact, one of the main contributions of his piece is to illustrate that tax authorities clearly have substantive authority over sales to consumers who reside within their jurisdictions, as well as over significant profits that can be sourced to their jurisdictions. [FN57] It follows that legal mechanisms will, at least in the long run, need to be developed to ensure that these laws can be properly enforced. This view is somewhat controversial as other commentators have asserted that the EU and SSTP proposals are nothing less than an extraterritorial tax grab without any basis in legal authority. [FN58] For example, at this very Symposium, Senator Chuck Grassley (R-IA), the chair of the Senate Finance Committee, decried the EU proposal as an "unjust" attempt to force American businesses to act as the collection agents for foreign governments. [FN59] Similarly, Senator Ron Wyden (D-OR), the co-sponsor of the Internet Tax Freedom Act, argued during the Symposium that the SSTP efforts represent an illegitimate attempt to change U.S. constitutional law that would result in burdensome compliance costs for out-of-state retailers. [FN60]

By clarifying the relationship between substantive and enforcement jurisdiction, Hellerstein manages to counter these criticisms by pointing out that, once substantive jurisdiction is demonstrated, it follows that tax laws should be reformed to permit their effective enforcement (subject to a test of practicality). [FN61] The normative justification for this result is presumably that sovereign states should have the authority to pass laws to protect the interests [p. 99] identified earlier. [FN62] Other international law experts have similarly noted that states can and should pass laws to limit the adverse spillover effects of cross-border transactions. [FN63] If technological changes harm these interests, then states must take steps to address this situation.

## B. CAN TECHNOLOGY HELP TO RESOLVE ISSUES SURROUNDING ENFORCEMENT JURISDICTION?

One of the insights developed in the emerging cyberlaw literature is that, in many circumstances, governments should pass laws to regulate technology directly in order to influence indirectly the behavior of economic participants. [FN64] Under this view, "technology is law" in that technological constraints and opportunities will ultimately determine the efficacy of the law. [FN65] Technology does not necessarily create path-dependent outcomes (i.e., technological determinism); rather, regulators can shape technological developments to protect state interests. Technological developments such as the Internet frustrate enforcement jurisdiction by making it harderfor tax authorities to collect taxes on remote economic activity. But, under the "fight fire with fire" view, technology also presents opportunities to assist in the tax collection process. Consider the proposed approach of the Streamlined Sales Tax Project (SSTP). The SSTP suggests that online vendors (or any remote vendors) should be able to register online once with a central registration system (remote vendors must currently register with each state through a paper registration system). [FN66] Vendors can adopt automated Internet tax collection [p. 100] systems under three options: (a) sellers can contract with a Certified Service Provider (an unrelated online company that acts as a tax intermediary) that can fulfill the sellers' collection obligations; (b) sellers can adopt an approved software tax collection program to charge and collect sales taxes automatically; or (c) large sellers (generally, sellers with over $500 million in annual sales) are permitted to use their own customized tax collection software programs. [FN67] At this point, the adoption of software collection technologies is voluntary as a result of Commerce Clause concerns. [FN68] The states will maintain an online database with all relevant tax rates (assigned to zip codes) that can be accessed by the online intermediaries or the software programs employed by the remote vendors. [FN69]

If implemented, the technological solution of the SSTP could represent a practical solution to remote retailers' daunting compliance issues by automating the tax collection process. In addition, a portion of the sales tax payment collected by remote retailers will be used to compensate these retailers for the costs associated with discharging their collection obligations. [FN70] Finally, the SSTP contemplates the passage of laws that would generally insulate participating retailers from liability for errors in the assessment or collection of taxes. [FN71] By reducing or eliminating the costs of collection to the business intermediary, technological solutions and legal reform efforts ensure that tax laws can be properly enforced. This development thereby brings into alignment the two jurisdictional spheres discussed by Hellerstein. [FN72]

Similar technological solutions are feasible at the international level. Automated collection systems, centralized databases with [p. 101] VAT and GST rates and bases, and heightened sharing of information through tax authorities' use of extranets has been discussed by other commentators. [FN73] In fact, the European Union has proposed an online VAT registration system for non-EU suppliers in order to promote the supply of digital goods and services, and to promote compliance with its proposed Directive. [FN74] Political reality suggests, however, that movement toward comprehensive international technological solutions may be difficult or impossible under the current environment. [FN75] The use of technology to protect values such as the ability of governments to collect taxes is not without risk. As it becomes more pervasive in our lives, technology becomes interwoven with our norms and creates a complex dynamic relationship. [FN76] Consider the growing use of online roleplaying games where players from around the world participate in online universes through carefully created player-characters. [FN77] There is clearly a commercial element to these games: players pay for and receive a service provided by a business. But there is also a value-laden dimension to the games as players may not want their identity or participation in the game to be known to the outside world. Participation in the game could be considered a form of speech, calling for legal or constitutional protection or both under principles of freedom of expression. A tax authority that tracked, audited and maintained records of the personal identity of the participants might be a violation of these laws (or at least norms). Laws that regulate technology for tax [p. 102] purposes must take into account these concerns and ensure that they do not introduce overly intrusive mechanisms that might result in unacceptable violations of the right to privacy or some other important norm.

### C. SUMMARY

Tax authorities must increasingly take into account how technological changes have altered the commercial landscape in such a way as to make it more difficult to collect taxes on cross-border sales or profits. Legal reform may be necessary to realign enforcement jurisdiction with substantive jurisdiction. The most straightforward solution is to pass a law to extend tax jurisdiction over out-of-state businesses in order to: (a) force these businesses to act as the government's agent for the collection of consumption taxes; and (b) force these businesses to file income tax returns in order to pay taxes on cross-border profits. Further, laws that promote or mandate the use of collection technologies may be the most efficient way to deal with concerns surrounding compliance costs imposed on remote companies. The next Part evaluates the likelihood of success for these reform efforts that would require significant cooperation among taxing jurisdictions.

## IV. LAW, TECHNOLOGY AND ECONOMIC INTEGRATION

From a substantive law perspective, tax authorities typically draft laws to tax everything under the sun with respect to their own residents (or citizens, in limited circumstances). [FN78] With respect to non-residents, tax laws are typically drafted in a broad sense to capture as much source income as possible, even if the non-resident does not maintain a physical presence within the state. [FN79] For tax [p. 103] treaty partners, tax jurisdiction is narrowed to enable source state taxation only if it emanates from a physical presence (i.e., a permanent establishment) within the taxing state and profits attributed to this presence. [FN80]

How are these substantive laws enforced? Hellerstein notes that the main limit on enforcement jurisdiction is practicality. [FN81] Is it practical to force a non-resident to act as a collection agent for the taxing state? Will compliance costs be so onerous that they inhibit cross-border trade and investment, and harm the economic welfare of the trade partners? Does enforcement require tax information that is not readily available? How states arrive at practical enforcement solutions is closely related to the amount of cooperation between or among those states. Political institutions can assist with reform efforts as long as they are properly set up to take into account heightened economic integration that results from technological change. [FN82] The main argument of this Part is likely an obvious one: the closer the economic union, the better suited it will be to align enforcement and substantive jurisdictions in order to deal with adverse consequences resulting from technological change.

A. TECHNOLOGY AS A CATALYST FOR ECONOMIC INTEGRATION

Advances in technology are often accompanied by heightened economic integration at the international and subnational levels. Improvements in transportation and communication technologies enable businesses to reach foreign markets at lower costs and increase the returns on such activities. Technological innovation increases the ability of individuals and firms to produce goods and services from available resources. Improvements in roads, steamships, [p. 104] railways, and other modes of transportation enabled individuals to be supplied from and sell goods to foreign markets. [FN83] Similarly, the developments of the post, telegraph, telephone, and more recent communication technologies have improved the ability of business people to gather or relay information across borders and around the world. [FN84] In recent years, the advent of the Internet, reduced telecommunication costs, an expanding global computer network, and the proliferation of digital goods and services have significantly enhanced global trade and investment. [FN85] Capital and economic markets at the international and federal levels become increasingly integrated as cross-border trade and investment are promoted through technological change. [FN86] To a certain extent, international law reacts to these developments through formal harmonization (e.g., international treaties) or informal harmonization (i.e., regulatory emulation). According to one commentator: "[T]he single most influential factor in international law, and in particular in the regulation of economic activities since World War II, . . . would be the progress of science and technology." [FN87]

As discussed in the previous Part, the "dark side" from a tax policy perspective of these recent technological developments is that tax laws are often ill-suited to deal with growing jurisdictional disputes. [FN88] As Hellerstein points out, the real problem is that governments do not have the ability to enforce their extraterritorial jurisdictional claims over businesses without a physical presence within their borders. [FN89] Whether governments can come to agreement on appropriate mechanisms to enforce their tax laws is closely related to the political dynamic that plays out in an environment of heightened economic integration.

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B. POLITICAL RESPONSE TO TECHNOLOGICAL ENCOURAGEMENT OF INTEGRATION

1. Tax Cooperation in Federal Countries. How does domestic tax policy move forward? Political interest groups push and pull governments in an attempt to have their ideal tax and revenue raising objectives fulfilled. In theory, governments should pass tax laws that reflect a compromise between these often competing interests. For subnational tax regimes, cooperation between state/provincial governments, local governments, and the federal government may lead to effective reform efforts. In Canada, for example, provinces generally align their provincial income tax base with the federal government and enter into collection agreements where the feds agree to administer and enforce the provincial tax regime. [FN90] Further, the Canadian GST is harmonized with the GSTs of four provincial governments; five "renegade" provinces still maintain their own sales tax systems (called Provincial Sales Taxes or PSTs), which promote a number of distortions. [FN91] Less cooperation is apparent in the American federation, where state governments have, from a historical perspective, more zealously guarded their sovereign ability to impose any taxes they wish. Further, regulators may feel that, under public choice theory, competition among sales tax systems creates a better match between the preference of

citizens and the mix of taxes and public services. In any event, serious jurisdictional disputes within federal countries can ultimately be resolved by the highest court in the land. This resolution in turn provides guidance to subnational tax authorities in the development of their own laws and often sets limits on the ability of these authorities to extend their tax jurisdiction over cross-border economic activity. Further, the threat that the federal government will preempt the taxing authority of state or local governments (e.g., by passing laws such as the Internet Tax Freedom Act) offers a powerful incentive for states to cooperate and find practical ways to enforce their tax systems on out-of-state transactions. [p. 106] Federations have a long history of dealing with jurisdictional matters in tax and other areas. Political institutions exist to resolve jurisdictional disputes in order to protect norms such as the desire to collect taxes to pay for public goods and the need for a level competitive playing field. This process is taking place currently in the context of U.S. state and local sales and use taxes. State tax authorities, through the Multistate Tax Commission and the SSTP, are seeking radical harmonization of sales tax bases and enhanced cooperation among different local and state governments. [FN92] State legislators are signing on to these efforts through the National Conference of State Legislatures (NCSL), although critics suggest that these legislators are reducing the efficacy of the SSTP approach by permitting the maintenance of a distinct tax base in certain circumstances. [FN93] These critics are concerned that dilution of the harmonization and simplification efforts of the SSTP will increase compliance costs on business intermediaries subject to collection obligations. [FN94]

Nevertheless, there are signs that the SSTP efforts, perhaps in a modified form, may ultimately prevail. In an environment of reduced revenues due to barriers imposed by Quill, as well as a general economic slowdown, state governments have significant incentives to hammer out a deal, despite the accompanying reductions in state fiscal sovereignty. Further, certain large businesses with U.S.-wide operations (and often significant e-commerce operations) have begun to accept collection obligations for remote selling voluntarily, perhaps out of reputational concerns (i.e., the desire to be perceived as a "good corporate citizen") or fear of audit. [FN95] Should the SSTP efforts prove successful, technological [p. 107] changes wrought by the Internet and other information technologies will have accomplished, in fewer than ten years, what reform efforts over decades have been unable to achieve: the harmonization and simplification of the sales and use tax administration in forty-five state and over seven thousand local sales tax systems. [FN96]

Once this harmonization is achieved, along with reduced compliance costs for out-of-state businesses subject to collection obligations, Congress could take steps to overturn the physical presence requirement set out in Quill. Some might argue that this is an overly optimistic scenario. The bottom line is that federations seem to be particularly well-suited to deal with the policy concerns arising from enhanced economic integration and technological innovation.

2. Tax Cooperation in Highly Integrated Custom Unions. Similarly, closely tied economic unions at the supranational level may be better enabled to deal with jurisdictional challenges wrought by technology. A customs union, such as the European Union, has many centralized political institutions (e.g., the Commission, the European Parliament, and the European Court of Justice) that see as their mandate the promotion of greater integration through the reduction or abolition of barriers to cross-border trade and investment. [FN97] In fact, the SSTP harmonization efforts bring to mind the VAT harmonization reform efforts within the European Union in the early

1990s as part of the strategy to develop the Common Market. As Hellerstein discusses, a borderless Europe necessitated the removal of border tax controls, VAT harmonization, and the current transitional regime away from destination-based VATs toward an origin-based system. [FN98] Consumption tax problems caused by remote sales are hence largely a non-issue with respect to trade among companies and consumers residing within the European Union [p. 108] states. VATs are assessed on remote sales by the taxable supplier and remitted to the appropriate tax authority. Thus, enforcement jurisdiction for consumption taxes is properly aligned with substantive jurisdiction for trade within the European Union and, potentially, within the United States.

The scenario with respect to income taxes within the European Union is somewhat less rosy. Despite proposals over the past several decades to harmonize corporate income taxes within the European Union, [FN99] very little actual progress has taken place as EU member states refuse to give up this aspect of their fiscal sovereignty (a particularly sensitive matter as a result of the recent loss of control over monetary policy under the participation of many countries in the European Monetary Union). The jurisdictional challenges caused by the interaction of different income tax regimes in an environment of enhanced economic integration continue to create a number of problems within the European Union and are suspected to reduce the welfare of the Union as a whole. [FN100]

3. The Lack of Tax Cooperation at the International Level: Developing a Server/Permanent Establishment Test for Cross-Border Income Tax Purposes. What of international tax matters outside custom unions? Recent developments suggest that there may be little hope for real progress toward the Hellersteinian ideal where enforcement jurisdiction matches substantive jurisdiction. Consider the recent reform efforts surrounding the permanent establishment principle enshrined in most of the world's 1,500-plus tax treaties. [FN101] As discussed, the permanent establishment principle is probably justifiable from a historical perspective, because most businesses would have to set up shop in a foreign country to enable significant cross-border trade. [FN102] But the world has changed. Prior to the rise of the Internet and the proliferation of digital goods and services, the literature warned [p. 109] that the tax base of capital-importing countries was being eroded through a number of developments, including a reduction in capital and trade barriers (that often required setting up of local offices to circumvent) and a growth of intra-firm transfers among the related entities of a multinational firm. [FN103] And now computer servers (i.e., computers that are networked to the Internet) can perform similar functions to traditional permanent establishment. The software within the server can display a web page on the Internet, take a customer's order, accept payment, and transmit digital goods and services. Other information technology developments encourage source state tax erosion under traditional principles by, among other things, promoting (a) the consolidation of foreign operations; (b) the replacement of physical establishments with web sites to transfer transaction costs to customers; (c) a reduction of source country offices for customer support and after-sales services; (d) the replacement of agents with remote contracting; and (e) the enhanced provision of remote services. [FN104]

As discussed in Part III, governments could get together to negotiate a solution to this problem through the development of, for example, a test that would permit source states to exert their tax jurisdiction over significant incoming profits even without a permanent establishment. [FN105] Hellerstein suggests that such plans "would require a degree of international cooperation that may charitably be characterized as implausible." [FN106] In fact, governments have made little progress in reforming international income tax laws to take the new technological environment into account effectively. [FN107] After several years of consultation with expert groups and its member states, the OECD introduced a rule-enshrined in [p. 110] the Commentary to the OECD Model Tax Treaty in January 2003-that creates a new permanent establishment category: computer servers that perform integral aspects of a cross-border transaction (e.g., posting a commercial web site and advertising goods or services, processing payment, and transmitting a digital good or service to an end consumer) and that are owned or leased by the foreign-based firm. [FN108] There are now tens of millions of servers [FN109] located throughout the world that could potentially act as a nexus for international income tax purposes. The server/permanent establishment will not likely realign enforcement jurisdiction with substantive jurisdiction because the new rule will not permit capital-importing nations to tax significant cross-border profits. [FN110] The foreign-based company can avoid taxation by a number of straightforward strategies, including the following: (a) ensuring that the software within the server performs mere "preparatory or auxiliary" activities; (b) hosting the commercial web site with a foreign-based Internet Service Provider (so the server will not be at the disposal of the corporation); or (c) locating any owned or leased servers outside of high-tax jurisdictions. Even more worrisome, the server/permanent establishment rule may promote tax planning strategies that shift profits to low or nil tax jurisdictions. [FN111]

Finally, the new rule may promote international double taxation as tax authorities squabble over contentious issues [p.111] such as how much profits, if any, should be attributed to a server/permanent establishment. Politics explains in large part why we have arrived at this arguably undesirable solution. There is very little consensus surrounding the appropriate path for international tax policy. Commentators pay lip service to guiding principles (e.g., capital import and export neutrality, inter-nation fairness, and need for low compliance costs) without any real agreement on how these principles should be put into practice. [FN112] Unlike the situation that exists in federal states and custom unions, there is no real political mechanism to achieve sound policy decisions by permitting different interests to be heard, nor are the necessary "sticks and carrots" present to encourage agreement. [FN113] In the international arena, the OECD serves as the main organization to promote international tax reform. The OECD, however, pursues reform by promoting consensual solutions among its thirty member countries rather than providing incentives and real sanctions throughout the reform process. As a result, the international arena is more of a pure power game, where countries with greater economic power exert their will on the less powerful. These countries arguably strive to collect the most revenues possible from international trade without upsetting the apple cart by overstepping their bounds and promoting tax retaliation that would enhance the risk of international double taxation. Without a world tax organization or a world tax court, it seems unlikely that an effective political mechanism will develop to align enforcement jurisdiction with substantive jurisdiction properly. [p. 112] National governments will act to preserve their tax sovereignty and promote their economic self-interest-we would expect nothing less-and until the international consumption or income tax system teeters on the verge of collapse, it may be the case that a Hellersteinian realignment will not take place. [FN114]

4. Political Responses to European Union Cross-Border VAT Proposal. As discussed in Part II, current and proposed Canadian GST laws will not likely force Audiobooks4U.com to register for GST purposes and assess and remit the GST on cross-border transactions with Canadian consumers. [FN115] The situation would change if Canada adopted the proposed European Union approach to force non-European Union suppliers to register and collect the VAT on cross-border sales. If one accepts Hellerstein's position (as well as the position articulated by the OECD) that substantive tax jurisdiction for consumption tax purposes should go to the jurisdiction where consumption takes place, then one may be willing to accept the European Union VAT proposal to extend consumption tax jurisdiction over foreign sellers. As discussed, this conclusion may be the most controversial derived from the application of Hellerstein's analytical framework. [FN116] The framework lends a certain moral authority to these reform efforts, which have been opposed by some elements within the U.S. Administration. [FN117] Should the United States negotiate an international consumption tax treaty with the European Union or individual European states? Some form of international agreement is required to set out the scope of the European Union tax jurisdiction and to protect U.S. retailers from audit liability. The United States can always refuse to enter into such an agreement because there is no political institution that would mandate negotiation or agreement. How would the European Union [p.113] respond? Perhaps it will seek ways to impose VAT liability on remote sellers by, for example, imposing collection obligations on EU subsidiaries of foreign companies and forcing the affiliate to discharge the collection obligation of the parent company. In short, the European Union could begin to develop legal theories to force foreign companies with assets or affiliates within the European Union to collect the VAT, perhaps similar to attributional nexus theories that are sometimes used by state tax authorities to attack entity isolation strategies. [FN118] Alternatively, the European Union could threaten trade sanctions to try to force the United States to come to the bargaining table.

Hellerstein's analytical framework also suggests a potential strategic response by the United States. Under the framework, once a government can make out a substantive claim for tax jurisdiction, this government should be able to enforce the claim. [FN119] This view offers the tantalizing suggestion that U.S. state and local governments should be able to extend their tax jurisdiction over foreign businesses. Some states, like California, already strive to extend their tax jurisdiction with their income tax systems. [FN120] If subnational governments have substantive jurisdiction over sales to consumers residing within their jurisdiction, then an e-commerce business based in Europe that sells to a consumer in California should be subject to the substantive jurisdiction of California. If so, then California should pass a law to extend its enforcement jurisdiction over the European business and force that business to act as its collection agent for sales tax purposes.

There are many hurdles to overcome before this scheme could be implemented. Constitutional issues would have to be resolved to permit the imposition of state law on foreigners. [FN121] Further, the federal government would likely have to cooperate with both the constitutional issues and the collection process. Finally, California [p. 114] would have to reform its sales tax laws to apply to intangible goods and services. Under this argument, the United States could tell the Europeans that it would agree to an international agreement on consumption taxes as long as the European companies would agree to begin collecting state and local sales taxes (the United States also mentioning, in an off-hand manner, that there are over seven thousand local tax jurisdictions!). This type of federal-state cooperation might eventually lead to a kind of U.S.

federal sales tax where the feds administer the fully harmonized state sales tax, and possibly top it up with their own tax rates. These efforts would bring the United States in line with the worldwide norm; the United States is currently the only OECD member country without a federal VAT or GST. [FN122]

The fact that the U.S. is an outlier in the consumption tax arena is probably one of the biggest barriers to effective reform in this area. There is not any real incentive for the United States to try to resolve this problem, because there are not any federal tax revenues at stake.

5. Revisiting the Audiobooks4U.com Hypothetical. Returning to the example set out at the beginning of this Commentary, how should Canada and the United States resolve tax jurisdiction concerns stemming from sales of the digital audio book from U.S. based Audiobooks4U.com to Canadian consumers? At first glance, it appears that Canada should strive to enforce its GST on similar transactions. Canada could also try to force U.S. firms with significant cross-border profits from Canadian activities to pay income taxes to the Canadian government despite the absence of a traditional permanent establishment within Canada.

But the answer may not be so obvious. A fuller understanding requires a brief detour into the Canadian and American trade relationship, as well as their relationship with the world at large. Canada and the United States enjoy highly integrated economies and are each others' largest trade partners, with roughly $380 [p.115] billion U.S. dollars in imports and exports in 2001. [FN123] Canada is a net capital importer from the United States, although it has a trade surplus with the U.S. [FN124] Further, Canada is a net e-commerce importer from the United States. [FN125] Bilateral tax law reform that extended Canadian tax jurisdiction over remote U.S. sales and cross-border profits might, therefore, be favorable to the Canadian position. A wider regard of Canadian interests, however, might caution against this position. From a global perspective, Canada is a net capital exporter and, since 1990, a net exporter of technology. [FN126] Technology exports form an increasingly important aspect of Canadian economic development. [FN127] If Canada tried to assert its jurisdiction over U.S. e-commerce exports, then Canada would presumably be more inclined to accept similar efforts by other jurisdictions. The net effect from a Canadian perspective might be a revenue loss along with higher compliance costs for its own firms striving to sell goods and services abroad. This impact may explain why the Canadian government has been relatively restrained in its own reform efforts with respect to cross-border e-commerce taxation.

The economic relationship between Canada and the United States sheds light on the potential winners and losers in the [p. 116] continuing tax jurisdiction conflicts among nations. When cross-border flow between countries is relatively balanced, the concerns surrounding enforcement of tax laws on non-residents may not be overly problematic. The real losers in an environment where enforcement jurisdiction appears increasingly frustrated are those countries that are net capital importers and net technology importers. [FN128] These countries probably have the most interest in trying to align enforcement jurisdiction with substantive jurisdiction, but they also have little economic or political power to force others to the bargaining table to agree on practical enforcement solutions.

C. SUMMARY

Technological advancements often serve to facilitate and encourage subnational and international economic integration, largely as a result of reduced transportation, distribution, and communication costs. Recent developments, such as the rise of the Internet and the remote sale and exchange of digital goods, services, and information, have made it more difficult for governments to enforce their tax laws.

At the subnational level, progress toward realigning enforcement jurisdiction with substantive jurisdiction is more likely, because political institutions exist to accommodate diverse interests and reach practical compromises. Highly integrated custom unions with centralized political institutions (like the European Union) should also be able to make progress in this area (unlike a free trade area such as NAFTA that does not generally have binding supranational [p. 117] institutions). It appears that closely integrated polities are better able to address tax enforcement problems resulting from technological change. The broader lesson may be that heightened political and economic integration may be more suitable to constrain the adverse spillover effects caused by increased market integration.

The prospect for progress at the international level is much more daunting unless the case is persuasively made that the traditional international tax regime is in danger of imminent collapse. Countries like the United States, which feel that the current transactional arms length transfer price regime favors their own economic self-interest, have little incentive to form part of a meaningful change in the income tax area. Further, the United States and other countries have few incentives to assist the European Union with its most recent proposal to exert VAT jurisdiction over non-European Union suppliers. The situation may not be tenable over the long term. A lack of agreement on enforcement jurisdiction for consumption and income tax purposes may lead to growing disputes among trade partners and an increased risk of international double taxation, revenue losses, market distortions, and a lack of competitive playing field.

## V. CONCLUSION

As a result of technological innovation, tax jurisdiction disputes are becoming more contentious. If a government is unable to enforce its tax laws over cross-border trade and investment, effectively adverse consequences such as revenue losses, competitive disadvantages for local businesses, market distortions due to the non-neutral tax treatment of local versus foreign transactions, and an increased focus on taxing less mobile factors of production (like labor instead of capital) will likely result.

Walter Hellerstein's article serves as a useful starting point to guide lawyers, academics, and policy makers grappling with complex issues surrounding jurisdiction to tax. By separating tax jurisdiction into related but discrete concepts of substantive and enforcement jurisdiction, Hellerstein's article provides insight into the role that tax laws play in protecting important norms and interests in an era of increased cross-border economic activity. [p. 118] A better understanding of the relationship between tax law and technology is needed to discern the appropriate scope and reach of tax laws over cross-border economic activity. Technology, rather than traditional tax policy analysis, is driving the need to reform tax laws so that governments can effectively collect taxes on cross-border sales and profits. Technological solutions, such as automated collection and accessible government tax databases, may ultimately serve to reduce compliance costs for remote business intermediaries-such compliance concerns probably serving as the main impediment to effective reform in this area.

The ability of political institutions to respond to enhanced economic integration and technological developments that undermine tax jurisdiction determines in part whether enforcement jurisdiction will ultimately become aligned with substantive jurisdiction. This provides hope for a sound policy resolution for tax jurisdiction disputes within federal states and highly integrated economic unions where cooperative behavior is encouraged. Progress toward resolution of daunting tax jurisdiction issues may be less likely at the international level due to the absence of any real consensus on international tax policy principles and the perceived need to preserve fiscal sovereignty.

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[FN1]. See, e.g., Twentieth Century Fox Film Corp. v. iCraveTV, No. 00- 121, 2000 U.S. Dist. LEXIS 1013, at p.1 (W.D. Pa. Jan. 28, 2000) (granting injunction against Canadian company to prevent rebroadcasting of copyrighted material despite fact that such rebroadcasts were arguably legal under Canadian law); Ligue Contre le Racisme et l'Antisemitisme [League Against Racism and Antisemitism] v. Yahoo!, Inc., T.G.I. Paris, May 22, 2000, Interim Court Order No. 00/05308, 00/05309, unofficial translation available at http:// www.lapres.net/yahen.html (granting injunction against Yahoo! U.S. for permitting trading of Nazi items by residents of France); In re Somm, Amtsgericht Munchen [Local Court Munich], File No. 8340 Ds 465 Js 173158/95 (May 1998) (F.R.G.) (convicting Felix Bruno Somm, German employee of German affiliate of CompuServe USA, of permitting transmission of illegal pornography into Germany).

[FN2]. See generally Walter Hellerstein, Jurisdiction to Tax Income and Consumption in the New Economy: A Theoretical and Comparative Perspective, 38 Ga. L. Rev. 1 (2003).

[FN3]. Id. at 43.

[FN4]. See infra notes 7-21 and accompanying text.

[FN5]. See infra notes 24-77 and accompanying text.

[FN6]. See infra notes 78-128 and accompanying text.

[FN7]. This Article will only outline the national and subnational tax treatment of cross-border e-commerce transactions. For a comprehensive treatment of these issues, see generally Richard L. Doernberg et al., Electronic Commerce and Multijurisdictional Taxation (2001).

[FN8]. Hellerstein, supra note 2, at 58. In 2000, business-to-business e-commerce represented

94% of all U.S. e-commerce, with certain sectors such as manufacturing shipments (valued at US $777 billion) dominating overall revenues. Econ. and Statistics Admin., U.S. Dep't of Commerce, E-Stats 1-2 (Mar. 18, 2002), at http://www.census.gov/eos/www/papers/estatstext.pdf.

[FN9]. This example will be used throughout this Article.

[FN10]. See Doernberg et al., supra note 7, at 150.

[FN11]. See Canada Customs and Revenue Agency (CCRA), GST/HST and Electronic Commerce: A discussion paper for public comment on the administration of the Goods and Services Tax/Harmonized Sales Tax in an Electronic Commerce Environment 13-14 (Nov. 2001), at http://www.ccra-adrc.gc.ca/tax/technical/discussion-e.pdf (summarizing rule that non-resident business that is not "carrying on business in Canada" is not required to register for GST purposes); CCRA, GST/HST Technical Information Bulletin B-090:GST/HST and Electronic Commerce 3 (July 2002), at http://www.ccra-adrc.gc.ca/E/pub/gm/b-090/b-090-e.pdf (describing GST/HST registration rules). For a critique of CCRA current and proposed policy, see generally Arthur J. Cockfield, Canada's GST E-commerce Policy (or How to Catch the Big Fish), 3 Internet & E-commerce Law in Canada 1 (2002).

[FN12]. Hellerstein, supra note 2, at 23. See also id. at 58 n.183.

[FN13]. See Convention with Respect to Taxes on Income and Capital, Sept. 26, 1980, U.S.-Can., art. 7, S. Treaty Doc. No. 98-22.

[FN14]. In limited circumstances, Canada might be able to share in income tax revenues associated with cross-border sales if: (a) Audiobooks4U.com owns or leases a server in Canada; (b) integral parts of the cross-border transaction are performed through this server; and (c) profits can be attributed to the server. See infra note 108 and accompanying text (discussing server/permanent establishment rule).

[FN15]. See Doernberg et al., supra note 7, at 589.

[FN16]. Under Amazon.com's current policy, it only collects sales tax for shipments to customers residing in Washington and North Dakota. Amazon.com, Sales Tax, at http://www.amazon.com/help/tax (last visited Oct. 7, 2003).

[FN17]. Organisation for Economic Co-operation and Development, Harmful Tax Competition: An Emerging Global Issue 14 (1998), at http:// www.oecd.org/dataoecd/33/0/1904176.pdf.

[FN18]. See id. (suggesting that negative consequences of globalization include shifting of part of tax burden from mobile to immobile factors).

[FN19]. See, e.g., id. (citing opening of new ways for companies to avoid taxes, which may prove detrimental to application of progressive tax rates as negative effect of globalization).

[FN20]. See infra note 80 and accompanying text (highlighting physical presence rule).

[FN21]. Hellerstein, supra note 2, at 3-4 & nn.2-3.

[FN22]. See infra notes 24-63 and accompanying text.

[FN23]. See infra notes 90-128 and accompanying text.

[FN24]. Hellerstein, supra note 2, at 41.

[FN25]. See Arthur J. Cockfield, The Law and Economics of Digital Taxation: Challenging Traditional Tax Laws and Principles, 56 Bull. for Int'l Fiscal Documentation 606, 608 (2002).

[FN26]. Id.

[FN27]. This compromise only works, however, if the flows of trade and investment between trade partners is balanced; otherwise, the permanent establishment concept discriminates against the net capital-importing nation. Developing countries have historically opposed the permanent establishment rule, because they feel that the rule favors capital exporting nations. See Sonia Zapata, The Latin American Approach to the Concept of Permanent Establishment in Tax Treaties with Developed Countries, 52 Bull. for Int'l Fiscal Documentation 252, 252-53 (1998).

[FN28]. Id.

[FN29]. Nat'l Bellas Hess, Inc. v. Dep't of Revenue, 386 U.S. 753 (1967).

[FN30]. Quill Corp. v. North Dakota, 504 U.S. 298 (1992).

[FN31]. Quill, 504 U.S. at 317-18; Nat'l Bellas Hess, 386 U.S. at 759- 60.

[FN32]. In National Bellas Hess, the Court articulated its view on substantive taxation by referring to earlier decisions where the Court has held that "State taxation falling on interstate commerce . . . can only be justified as designed to make such commerce bear a fair share of the cost of the local government whose protection it enjoys." 386 U.S. at 756 (quoting Freeman v. Hewit, 329 U.S. 249, 253 (1946)). The court reasoned that "[t]he very purpose of the Commerce Clause was to ensure a national economy free from such unjustifiable local entanglements" that would result if state and local governments could impose collection obligations on remote retailers. Id. at 760. In contrast, the dissent noted that the competitive playing field argument should win out in some circumstances: While this advantage to out-of-state sellers is tolerable and a necessary constitutional consequence where the sales are occasional, minor and sporadic and not the result of a calculated, systematic exploitation of the market, it certainly should not be extended to instances where the out-of-state company is engaged in exploiting the local market on a regular, systematic, large-scale basis. 386 U.S. at 763 (Fortas, J., dissenting). At the time of the Quill fact pattern, mail order sales had reached roughly $180 billion a year, and evidence was introduced to estimate state sales tax losses at more than $3.2 billion a year. Quill, 504 U.S. at 329, 331.

[FN33]. Quill, 504 U.S. at 316.

[FN34]. Id. at 327-28, 331 (White, J., concurring in part and dissenting in part).

[FN35]. Id. at 327-29 (White, J., concurring in part and dissenting in part).

[FN36]. Id. at 329 (White, J., concurring in part and dissenting in part).

[FN37]. Hellerstein, supra note 2, at 42-43.

[FN38]. See supra note 15 and accompanying text.

[FN39]. Hellerstein, supra note 2, at 43.

[FN40]. Id. at 3-4.

[FN41]. Id. passim.

[FN42]. Richard Bird, Taxing Electronic Commerce: A Revolution in the Making 15 (2003), http://www.cdhowe.org/pdf/commentary_187.pdf.

[FN43]. See infra notes 66-69 and accompanying text (discussing SSTP approach).

[FN44]. Streamlined Sales Tax Project (SSTP), Executive Summary 1 (2003), at http://www.streamlinedsalestax.org/execsum0803.pdf. The SSTP has been influenced by Hellerstein's scholarship. See, e.g., Walter Hellerstein, State Taxation of Electronic Commerce, 52 Tax L. Rev. 425, 487-88 (1997) (proposing establishment of nexus over out-of-state vendor in purchaser's state); Walter Hellerstein, State Taxation of Electronic Commerce: Preliminary Thoughts on Model Uniform Legislation, 12 St. Tax Notes 1315, 1317- 23 (1997) (proposing model rules for state taxation of e-commerce).

[FN45]. Council Regulation 792/2002 of 7 May 2002 amending temporarily Regulation (EEC) 218/92 on administrative cooperation in the field of indirect taxation (VAT) as regards additional measures regarding electronic commerce, 2002 O.J. (L 128) 1; Council Directive 2002/38/EC of 9 May 2002 amending and amending temporarily Directive 77/388/EEC as regards the value added tax arrangements applicable to radio and television broadcasting services and certain electronically supplied services, 2002 O.J. (L 128) 41 [hereinafter EC Directive] (modifying an earlier Directive that indicated registration would only apply if non-EU supplier had sales to EU consumers in excess of 100,000 Euros).

[FN46]. See EC Directive, supra note 45, at 41 (indicating that non-EU supplier "may, if he is not otherwise identified for tax purposes within the Community, opt for identification in a single Member State").

[FN47]. See supra note 9 and accompanying text.

[FN48]. See Arthur J. Cockfield, Taxing Integration Under NAFTA: Resolving the Conflict Between Economic and Sovereignty Interests, 34 Stanford J. Int'l L. 39, 64 (1998).

[FN49]. Id.

[FN50]. Jinyan Li, International Taxation in the Age of Electronic Commerce 599 (2003); see generally Charles E. McLure, Jr., Replacing Separate Entity Accounting and the Arm's Length Principle with Formulary Apportionment, 56 Bull. for Int'l Fiscal Documentation 586 (2002) (examining case for replacing separate accounting with formulary apportionment).

[FN51]. See Richard Doernberg, Electronic Commerce and International Tax Sharing, 16 Tax Notes Int'l 1013, 1016-17 (1998) (suggesting that remote seller be permitted to file as net-basis taxpayer).

[FN52]. See Luc Hinnekens, Looking for an Appropriate Jurisdictional Framework for Source-State Taxation of International Electronic Commerce in the Twenty-First Century, 26 Intertax 197 (1998).

[FN53]. See Arthur J. Cockfield, Reforming the Permanent Establishment Principle through a Quantitative Economic Presence Test, 38 Can. Bus. L.J. 400, 401 (2003).

[FN54]. Organisation for Economic Co-operation and Development, Model Tax Convention on Income and on Capital, cmty. to art. 5, ¶¶ 42.2 to 42.8 (Jan. 28, 2003) [hereinafter OECD Model].

[FN55]. See supra note 39 and accompanying text.

[FN56]. Hellerstein, supra note 2, at 58.

[FN57]. Hellerstein, supra note 2, at 5-7 (noting accepted view that substantive jurisdiction to tax income occurs on basis of source of income and substantive jurisdiction to tax consumption occurs where consumption takes place).

[FN58]. See, e.g., Gary Burnes & Peter R. Merrill, Businesses and Governments Express Concern About European Commission's Proposed E-Commerce VAT Directive, 20 Tax Notes Int'l 2750, 2752 (2000) (expressing concern that Directive gives "new and dangerous precedent").

[FN59]. Senator Chuck Grassley, Remarks at the Tax Council Policy Institute's Fourth Annual Tax Policy Symposium on "Jurisdiction to Tax in the New Economy" (Feb. 27, 2003).

[FN60]. Senator Ron Wyden, Remarks at the Tax Policy Institute's Fourth Annual Tax Council Policy Symposium on "Jurisdiction to Tax in the New Economy" (Feb. 27, 2003).

[FN61]. Hellerstein, supra note 2, at 17-18, 43.

[FN62]. See supra notes 15-20 and accompanying text (indicating, among other things, that states must design their tax laws to protect against revenue losses and to promote level competitive playing field).

[FN63]. See Jack L. Goldsmith, Against Cyberanarchy, 65 U. Chi. L. Rev. 1199, 1200 (1998) (challenging arguments of regulation skeptics).

[FN64]. See Lawrence Lessig, Code and Other Laws of Cyberspace 6 (1999) (arguing that cyberspace must be regulated or commerce will control it).

[FN65]. Id.

[FN66]. Streamlined Sales Tax Project (SSTP), Streamlined Sales and Use Tax Agreement §§ 401-04, 501 (Nov. 12, 2002), available at http:// streamlinedsalestax.org/FinalAgreementAdopted11-12-02.pdf [hereinafter SSTP].

[FN67]. Id. § 403.

[FN68]. See SSTP, Pilot Status Report (Mar. 26, 2003), available at http:// www.streamlinedsalestax.org/pilot3_03.html (concluding that use of third party provider system was viable). Under Commerce Clause principles, vendors cannot be forced to collect and remit sales taxes on out-of-state sales. See supra note 10 (discussing Constitutional concerns surrounding remote consumer sales); Hellerstein, supra note 2, at 23 n.80.

[FN69]. SSTP, supra note 66, § 305(F).

[FN70]. Id. §§ 601-603.

[FN71]. Id. § 306.

[FN72]. See generally Hellerstein, supra note 2 (discussing need to align substantive and enforcement jurisdiction).

[FN73]. See, e.g., Arthur J. Cockfield, Transforming the Internet into a Taxable Forum: A Case Study in E-Commerce Taxation, 85 Minn. L. Rev. 1171, 1221-63 (2001) (describing intricacies of using Internet technologies in taxing international e-commerce transactions).

[FN74]. See Press Release, EU Council of Ministers, VAT on Electronic Commerce (Feb. 12, 2002), available at http:// ue.eu.int/pressData/en/ecofin/69429.pdf (indicating that "the single registration model offers a streamlined set of obligations which can be easily completed online without the need for a fiscal representative or for any physical presence").

[FN75]. See infra note 106 and accompanying text (suggesting that degree of international cooperation required to develop comprehensive solution is implausible).

[FN76]. See generally Arthur J. Cockfield, Designing Tax Policy for the Digital Biosphere: How the Internet is Changing Tax Laws, 34 Conn. L. Rev. 333, 348-59 (2002) (discussing nature of relationship between law, traditional "real world" tax policies, and cyberspace).

[FN77]. Some of these online games, such as Everquest, have millions of subscribers worldwide that pay a monthly fee to play. See Sony Computer Entertainment of America, About Everquest, at http:// everquest.station.sony.com/about.jsp (last visited Oct. 7, 2003) (describing Everquest).

[FN78]. See, e.g., I.R.C. § 61 (2000) (taxing residents and citizens on their taxable income where "gross income means all income from whatever source derived"); Income Tax Act, R.S.C., ch. 148, § 3(a) (1985) (Can.) (taxing residents on taxable income "from a source inside or outside Canada"). The reach of these laws literally extends to everything under the sun: if a taxpayer places a computer server in a satellite orbiting the Earth then the income generated by the server, if any, falls within the tax jurisdiction.

[FN79]. See, e.g., I.R.C. § 864(c) (2000) (taxing income that is effectively connected with non-resident's conduct of trade or business); Income Tax Act, R.S.C., ch. 14-8, § 253 (1985) (Can.) (taxing income by all non-residents who carry on business in Canada, including persons who solicit orders or offer anything for sale in Canada, whether contract is to be completed inside or outside Canada).

[FN80]. See, e.g., OECD Model, supra note 54, art. 7(1) ("The profits of an enterprise of a Contracting State shall be taxable only in that State unless the enterprise carries on business in the other Contracting State through a permanent establishment situated therein.").

[FN81]. Hellerstein, supra note 2, at 8, 21.

[FN82]. See infra notes 90-128 and accompanying text (discussing cooperation-and lack thereof-among political institutions).

[FN83]. Jack M. Mintz, Most Favored Nation: Building a Framework for Smart Economic Policy 7-17 (2001).

[FN84]. Charles E. McLure, Jr., Taxation of Electronic Commerce: Economic Objectives, Technological Constraints, and Tax Laws, 52 Tax L. Rev. 269, 281- 89 (1997) (discussing historical evolution of communication technologies).

[FN85]. Id.

[FN86]. See Mintz, supra note 83, at 10.

[FN87]. See Thomas Cottier, The New Global Technology Regime: The Impact of New Technologies on Multilateral Trade Regulation and Governance, 72 Chi.- Kent L. Rev. 415, 415 (1996).

[FN88]. See supra notes 24-63 and accompanying text.

[FN89]. Hellerstein, supra note 2, at 47-48.

[FN90]. See Cockfield, supra note 48, at 63.

[FN91]. See Bird, supra note 42, at 10.

[FN92]. See SSTP, supra note 66, § 102 ("It is the purpose of this Agreement to simplify and modernize sales and use tax administration in the member states in order to substantially reduce the burden of tax compliance.").

[FN93]. See Doug Sheppard, Rise of the Streamlined Project; Fall of the Advisory Commission, 90 Tax Notes 40, 45 (2001) (providing background on NCSL and SSTP political process).

[FN94]. Id. at 41.

[FN95]. See Brian Krebs & Jonathan Krim, Big Stores to Change Sales Taxes Online: Retailers Agree to Collect for States, Wash. Post, Feb. 7, 2003, at A1 (noting that retailers, including Walmart.com, began collecting taxes in February 2003 only after state governments promised to absolve them from liability for state sales taxes not previously collected from their online customers). See also Arthur J. Cockfield, Walmart.com: A Case Study in Entity Isolation, 25 State Tax Notes 633, 636 (2002) (concluding that companies like Wal-Mart could have been audited by state tax authorities that can use attributional nexus theories to pierce entity isolation strategies).

[FN96]. As of August 2003, thirty-eight states have signed on to the SSTP and passed supporting legislation. STTP, supra note 44, at 1.

[FN97]. See generally Cockfield, supra note 48 (discussing tax sovereignty and reform efforts within EU and NAFTA).

[FN98]. Hellerstein, supra note 2, at 28 & n.95.

[FN99]. See, e.g., Commission of the European Communities, Report of the Independent Experts on Company Taxation ch. 10 (1992) [Ruding Committee].

[FN100]. See European Commission, Towards an Internal Market Without Tax Obstacles, COM (2001) 582 final (proposing corporate income tax consolidation to reduce tax distortions within EU).

[FN101]. See, e.g., OECD Model, supra note 54, cmty. to art. 5, ¶¶ 42.2 to 42.8.

[FN102]. See supra notes 25-28 and accompanying text (discussing rationale for permanent establishment principle).

[FN103]. See Richard M. Bird, Shaping a New International Tax Order, 42 Bull. for Int'l Fiscal Documentation 292 (1988) (arguing that mechanisms need to be developed to enhance source state tax jurisdiction and discussing factors apart from information technology developments that have led to income tax erosion for capital-importing nations).

[FN104]. See Arthur J. Cockfield, Balancing National Interests in the Taxation of Electronic Commerce Profits, 74 Tul. L. Rev. 133, 157-59 (1999) (discussing erosion of source country business profit revenues).

[FN105]. See supra notes 66-74 and accompanying text (discussing tax reform efforts within U.S. and EU).

[FN106]. Hellerstein, supra note 2, at 45.

[FN107]. See infra 108-111 and accompanying text.

[FN108]. OECD Model, supra note 54, cmty. to art. 5, ¶¶ 42.2 to 42.8.

[FN109]. A server is merely a computer that has been networked to the Internet.

[FN110]. See Cockfield, supra note 53, at 410-41.

[FN111]. See OECD Technical Advisory Group on Monitoring the Application of Existing Treaty Norms for the Taxation of Business Profits, Attribution of Profit to a Permanent Establishment Involved in Electronic Commerce Transactions (Discussion Paper 2001), http:// www.oecd.org/dataoecd/46/25/1923312.pdf. See also Arthur J. Cockfield, Through the Looking Glass: Computer Servers and E-Commerce Profit Attribution, 25 Tax Notes Int'l 269, 270 (2002) (suggesting that taxpayers will take advantage of server/PE approach to shift income to lower tax jurisdictions). A recent German decision, following draft changes to the Commentary to the OECD model tax treaty, agreed with a German taxpayer, who argued that its Swiss-based server should constitute a permanent establishment and thus profits attributable to this server should be exempt from German tax. KPMG, German Tax Court Finds that Computer Server Creates Permanent Establishment, Tax News Flash, No. 2002-05, Feb. 7, 2002, at http://www.us.kpmg.com/microsite/e-taxnewsflash/2002/02-05.html.

[FN112]. See, e.g., Richard M. Bird, Shaping a New International Tax Order, 43 Bull. For Int'l Fiscal Documentation 292 (1988).

[FN113]. For example, a "facts and circumstance" economic presence test in the federal context at least makes theoretical sense, because compliance uncertainty can ultimately be resolved by the highest court in the land (although there continues to be significant litigation over these issues within the United States). The U.S. Supreme Court denied certiorari in a case that supports qualitative economic presence tests for determining nexus for income tax purposes. Geoffrey, Inc. v. S.C. Tax Comm'n, 437 S.E.2d 13, 16 (S.C. 1993), cert. denied, 510 U.S. 992 (1993). Some commentators feel that a "facts and circumstance" approach to determining nexus may create significant compliance concerns. See, e.g., Scott D. Smith & Sharlene Amitay, Economic Nexus: An Unworkable Standard for Jurisdiction, 25 State Tax Notes 787 (Sept. 9, 2002) (arguing that economic nexus is unworkable due to confusion and uncertainty).

[FN114]. See Aaron Schwabach & Arthur Cockfield, The Role of International Law and Institutions, in Encyclopedia of Life Support Systems 611, 618-20 (2002) (discussing reduced emphasis on territorial sovereignty for areas outside of taxation as well as how international legal institutions promote consensus and agreement).

[FN115]. See supra note 11 and accompanying text (explaining GST registration rules).

[FN116]. See supra notes 58-62 and accompanying text (discussing controversy over EU and SSTP proposals to extend consumption tax jurisdiction over foreign sellers).

[FN117]. See Gary Burnes, Business and Governments Express Concern About European Commission's Proposed E-Commerce VAT Directive, 20 Tax Notes Int'l 2750, 2751-52 (2000).

[FN118]. See Doernberg et al., supra note 7, at 474-77.

[FN119]. Hellerstein, supra note 2, at 43.

[FN120]. See Barclays Bank PLC v. Franchise Tax Bd., 512 U.S. 298, 303 (1994) (holding that Constitution does not prohibit application of California's worldwide combined reporting method to determine state tax owed by domestic and foreign affiliated multinationals doing business in California).

[FN121]. See Barclays Bank, 512 U.S. at 330.

[FN122]. See OECD, OECD Tax Database, tbl. 7, at http:// www.oecd.org/document/60,0,2340,3n_2649_34533_1942460_1_1_1_1,00.html.

[FN123]. International Trade Administration [hereinafter ITA], U.S. Dep't of Commerce, Top 50 Partners in Total U.S. Trade in 2002, at http:// www.ita.doc.gov/td/industry/otea/usfth/aggregate/H02T09.html (last visited Oct. 7, 2003). Further, the United States exports more goods and services to Canada than the U.S. does to all fifteen European Union member states combined. ITA, U.S. Total Exports to Individual Countries 1996-02, at http:// www.itadoc.gov/td/industry/otea/usfth/aggregate/H02T06.html (last visited Oct. 7, 2003). As a result, the development by Canada of an economic presence test that strives to force U.S. businesses to register for GST purposes might increase compliance costs for U.S. businesses to a greater extent than the EU proposal (assuming Canadians purchase more e-commerce goods and services from U.S. businesses than EU residents).

[FN124]. ITA, U.S. Dep't of Commerce, Top 50 Deficit Countries in U.S. Trade in 2002, at http:// www.ita.doc.gov/td/industry/otea/usfth/aggregate/H02T13.html (last visited Oct. 7, 2003).

[FN125]. See, e.g., Arthur J. Cockfield, Tax Compliance Issues for U.S. Companies with International Electronic Commerce Transactions, 20 Tax Notes Int'l 223, 223 n.4 (2000) (citing study indicating that Canadian consumers buy majority of their e-commerce goods and services from U.S. web sites).

[FN126]. Mintz, supra note 83, at 35-37.

[FN127]. Government of Canada, Achieving Excellence: Investing in People, Knowledge and Opportunity: Canada's Innovation Strategy (2001), available at http://www.innovationstrategy.gc.ca/cmb/innovation.nsf/RTF/PDF/ $file/achieving.pdf.

[FN128]. See, e.g., India Ministry of Finance, Report of the High Powered Committee on E-Commerce and Taxation, 11-12 (Sept. 12, 2001), http:// www.bmck.com/ecommerce/India%20E-Commerce%20Report.pdf. The report notes:

The Committee is of the view that applying the existing principles and rules to e-commerce does not ensure certainty of tax burden and maintenance of the existing equilibrium in sharing of tax revenues between countries of residence and source. The Committee is also firmly of the view that there is no possible liberal interpretation of the existing rules, which can take care of these issues, as suggested by some countries. The Committee, therefore, supports the view that the concept of PE should be abandoned and a serious attempt should be made within OECD or the UN to find an alternative to the concept of PE.

Id.