

## **TRANSFORMING THE INTERNET INTO A TAXABLE FORUM: A CASE STUDY IN E-COMMERCE TAXATION**

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Arthur Cockfield, "Transforming the Internet into a Taxable Forum: A Case Study in E-Commerce Taxation" (2001) 85 Minn. L. Rev. 1171-1266.

Arthur Cockfield, *Transforming the Internet into a Taxable Forum: A Case Study in E-Commerce Taxation*, 85 Minn. L. Rev. 1171-1266 (2001).

[p. 1172]

### **INTRODUCTION**

On May 3, 2000, a Filipino student allegedly unleashed his "Love Bug" virus on the Internet. [FN1] Within twenty-four hours, 26% of U.S. workplace computers, [FN2] and as much as 70% of computers in Germany, Sweden, and the Netherlands, were infected with this virus. [FN3] The British Parliament shut down its servers and 80% of U.S. federal agencies, including the Defense and State Departments, were infected. [FN4] The Love Bug ultimately caused at least \$10 billion in damages, resulting from destroyed computer files, delayed data flows, and lost work hours. [FN5] Government and industry commentators shook their heads in frustration, but suggested that there is currently little [p. 1173] they can do to stop future attacks that could wreak similar havoc. [FN6]

The Love Bug incident is emblematic of the Internet today: the nature of the Internet--a decentralized, global, and rapidly evolving network that often transmits intangible goods and services--is highly resistant to traditional forms of government regulation. In a recent book, Professor Lawrence Lessig argues governments must indirectly regulate Internet users by passing laws to shape the architecture of the Internet (the hardware and software that enables Internet technologies) because this architecture determines what behavior is possible in cyberspace. [FN7] To Lessig and others, "Code is law," [FN8] and governments should regulate the development of the Internet in order to protect critical public interests. [FN9]

[p. 1174] This Article discusses how (and why) governments should strive to use Internet technologies to protect their ability to collect taxes. The need for effective regulatory action is particularly acute in the tax area because more and more commercial activity is taking place over the Internet. [FN10] Regulators, however, have not yet devised a way to effectively tax the exploding e-commerce industry. [FN11] This inability to effectively tax Internet transactions will eventually lead to significant revenue losses for local, state, and federal governments, perhaps resulting in the inability to fund important public goods such as schools, roads, or hospitals. [FN12] The need to ensure that the Internet does [p. 1175] not become a tax-free zone will likely be one of the central concerns, along with other vital interests such as the need to promote network security, that will prod regulators to transform the Internet into a forum that can be effectively regulated.

Part I of this Article sets out a case study that reviews efforts by regulators to develop rules to tax international e-commerce profits [FN13] while striving to preserve existing international tax

principles. [FN14] The case study suggests that proposals [p. 1176] to tax profits emanating from computer servers will not be an effective solution because it will be unenforceable by tax authorities, will lead to burdensome compliance costs for businesses, and will create arbitrage opportunities for multinational firms that could erode the tax base of e-commerce importing and exporting nations. The purpose of the case study is to demonstrate how the virtual world can subvert legal rules that rely on traditional tax principles that govern physical space. Current tax systems are ill-suited to govern e-commerce transactions that add value through intangible computer code, generating what could be termed "virtual income." Accordingly, a more effective regulatory solution is needed.

Part II explores the resistance by potential regulators--in particular, the U.S. government--to regulate the Internet, especially with respect to taxation. [FN15] This Part also places any potential efforts to transform the Internet into a taxable forum within the broader context of current attempts to regulate other aspects of the Internet, including intellectual property and consumer privacy in the online environment. The discussion focuses on a body of scholarship that maintains a descriptive claim that the Internet cannot be effectively regulated and a normative claim that suggests government regulation of the Internet is illegitimate. This Part concludes that the descriptive claim is accurate because the Internet, in its present form, defies efforts to regulate cyberspace. The normative claim is [p. 1177] unjustifiable because states should not be forced to permit market forces, such as the rise of virtual income, to undermine their ability to protect the interests of their constituents.

Part III discusses how Internet technologies can be used to alleviate three main concerns in the international tax arena: the erosion of consumer state tax bases due to e-commerce developments; the inability to tax mobile financial capital; and, the impact of harmful tax competition, including the desire on the part of national tax authorities to attract highly mobile virtual income. This Part suggests that governments should consider implementing a secure extranet to exchange taxpayer information among national tax authorities. In addition, governments should encourage the deployment of technologies that identify the geographic location of consumers and automatically calculate tax payments by an online intermediary via an international online tax clearinghouse. This approach is designed to reduce or eliminate compliance costs for e-commerce businesses and could operate automatically, instantaneously, and seamlessly from the perspective of both the consumer and the online retailer.

## **I. A CASE STUDY IN TAXING INTERNATIONAL E-COMMERCE**

### **A. SERVERS AND THE PERMANENT ESTABLISHMENT ISSUE**

#### **1. The Tax Requirement of a Physical Presence Within Foreign Markets**

Countries negotiate bilateral tax treaties to govern the tax treatment of cross-border transactions. Under most tax treaties, a company that sells goods and services to foreign markets can have its profits taxed by the foreign tax authority only if the company maintains a "permanent establishment" within the foreign jurisdiction (the "source country") and profits are attributable to this permanent establishment. [FN16] In the absence [p. 1178] of any permanent establishment, the source country is not permitted to levy its income tax on any profits arising from the international transaction and the country where the business is based (the "residence

country") will generally tax all of the profits. [FN17] A permanent establishment is defined within each tax treaty and generally involves fixed places of business such as a branch, an office, or a factory. [FN18] The definition of a permanent establishment is additionally extended to cover the activities of a dependent agent within a source country as long as the agent habitually exercises authority to conclude contracts. [FN19] Taken as a whole, the definitions of permanent establishment found in tax treaties suggest the need for some geographic and temporal permanence that enables foreign businesses to conduct significant business activities within source countries. [FN20] In other words, the permanent establishment must have some tangible physical presence within a source country and the presence cannot be temporary in nature.

At this point, it may be helpful to briefly set out the historical purpose behind this tax treaty rule. The modern version of the permanent establishment principle was developed after World War I, at a time when significant international commerce in foreign markets required the creation of a branch or [p. 1179] similar physical presence. [FN21] The rationale for the permanent establishment concept has historically rested on two main grounds. First, the permanent establishment concept was reasonably easy to administrate for tax authorities because multinational firms were provided [p. 1180] with a set of relatively straight forward rules to determine when their profits would be subject to source country income taxes. [FN22] A permanent establishment represented evidence that a foreign company conducted significant business within the source country and hence the foreign company would not have to comply with source country tax laws for relatively low sales levels. The rule represented a reasonable compromise between the needs of tax authorities and the needs of firms with cross-border business activities. Second, the permanent establishment principle arguably represented a balanced rule from an international equity perspective because the principle permitted source countries to share in tax revenues from the profits created by commercial opportunities presented by their markets. [FN23] The rule provided a reasonable compromise between the interests of net-exporting nations and net-importing nations because the exporting nations derived revenues from taxing value added at the production stage while the importing nations derived revenues from taxing the income generated by sales activities. [FN24] This sharing of tax revenues additionally made sense from an efficiency perspective because residence countries and source countries were now given an incentive to cooperate in reducing the chance for international double taxation, hence promoting international trade.

The emergence of e-commerce, however, upset this balance because physical locations are no longer required in foreign markets in order to engage in significant commercial activities. Consider a company like San Diego-based MP3.com, which sells digitized music to consumers throughout the world. [FN25] As of January 31, 2001, MP3.com maintained more than 750,000 songs from more than 117,000 artists, which, at the time, was probably the largest collection of digital music on the Internet. [FN26] In the month of February 2000, the MP3.com website delivered over 126 million page views and consumers listened to 24 million songs. [FN27] As an online retailer, MP3.com does not [p. 1181] have to maintain a foreign sales office to reach its international consumers because any consumer in the world can access MP3.com's products and services through MP3.com's website as long as they have access to the Internet. MP3.com currently owns computer servers in several locations in California, but does not own or lease any foreign-based servers. [FN28] Servers (tangible machines that are set up within the source country and through which business is conducted) are computers networked to the Internet that

enable businesses, inter alia, to post websites and transmit digital e-commerce goods or services to end consumers. MP3.com plans to begin placing servers in large target markets, such as Toronto, in order to facilitate the downloading process to its Canadian customers. [FN29] Consider a consumer living in Toronto who visits MP3.com's website by accessing a server located in Toronto. The consumer purchases a digitized version of a new CD and downloads the music directly into her own hard drive from the Toronto server. [FN30] Should the Toronto-based server be considered to be a "permanent establishment," which would permit the Canadian tax authorities to tax profits derived from this transaction? A server seems, at first glance, to fall within the traditional definition of permanent establishments.

E-commerce importing nations will be tempted to assert that the server should constitute a permanent establishment under traditional international tax principles in order to protect their ability to tax the cross-border transactions. The next Part reviews how e-commerce developments are frustrating the ability of these e-commerce importing nations to tax the profits from e-commerce as a result of traditional permanent establishment principles that emphasize the need for a physical presence within source countries.

[p. 1182]

## 2. The Changing Commercial Environment Under E-Commerce

Although revenues associated with e-commerce are still relatively small, studies forecast trillions of dollars in international revenues within the next few years, especially in the lucrative e-commerce business-to-business market. [FN31] As a result, governments throughout the world are concerned that they will not receive their fair share of the revenues associated with taxing e-commerce profits. [FN32] Developing nations are particularly vulnerable to the development of rules that permit e-commerce producing nations to exclusively tax cross-border e-commerce transactions. Yet tax rules that would enable developing countries to collect taxes on these transactions would encourage government investment in telecommunications infrastructure, ultimately leading to greater market opportunities for nations that export e-commerce goods and services. [FN33]

The following examples briefly set out some of the ways that businesses are modifying, or will modify, their operations. These changes will result in the removal of physical intermediaries or dependent agents from foreign markets. [FN34] These business model shifts will lead to the erosion of source country income tax revenues as long as international tax rules emphasize the need for a physical presence within source countries. The Internet is still in its infancy and it is difficult to project the way e-commerce will be conducted even in the short term. This [p. 1183] discussion will therefore focus on general anticipated patterns in multinational firm behavior. [FN35]

### *i. Removal of Physical Intermediaries*

Multinational corporations have traditionally required some type of physical presence within foreign markets in order to engage in significant business activities. Traditionally, retailers have relied on a sales office in a foreign market to facilitate advertising and sales promotion to consumers within the market. These physical intermediaries often constitute permanent establishments under tax treaties that would permit source countries to tax the profits attributable to the intermediaries. With the development of the Internet, online retailers can now accomplish

much of their sales and advertising strategies via a website that transfers transaction costs to customers, including activities such as product selection. [FN36]

The Internet is sometimes referred to as an agent of disintermediation because it removes the necessity for certain intermediaries. [FN37] Examples of this disintermediation process abound in the domestic arena, including Amazon.com, [FN38] which has eliminated the need for consumers to visit bookstores, or E[p. trade, [FN39] which permits retail stock trading without brokers. The disintermediation process continues at the international level as the Internet permits multinationals to consolidate or centralize many of their operations including sales, marketing, customer support, and administrative functions.

In the business-to-business market, customers can hook into a foreign company's extranet--a secure network extended to select business partners and customers--to access company [p. 1184] information, configure new products, or engage in self-help. [FN40] The Internet also permits businesses to gather information in foreign markets without having a physical presence in those markets and enables a number of administrative tasks to be performed remotely. [FN41]

A more recent phenomenon in e-commerce is a process called reintermediation, which is essentially the development of new intermediaries to facilitate business transactions over the Internet. These new intermediaries are online companies that do not require fixed places of business within source countries. For example, new online "infomediaries" link buyers and sellers on the Internet, generating cost savings for both sides of the transactions, mainly by reducing transaction costs. Companies have begun to outsource many of their previously performed functions to these intermediaries, such as Ariba.com [FN42] that manages office equipment supplies for medium and large companies. [FN43]

The developments noted above do not exclusively involve newly created Internet companies with online operations only. Multinational firms with existing permanent establishments may begin to shift part of their business operations from the permanent establishment in the firm's source country to residence-based e-commerce operations. Traditional multinational corporations are moving operations to the Internet (so-called [p. 1185] "clicks-and-mortars" to be contrasted with traditional "brick-and-mortars") in order to consolidate their operations and outsource non-essential functions to foreign affiliates. These companies will be able to conduct part of their activities from the home base located in the residence country and part of their activities through their existing permanent establishment within the source country. [FN44] The source country will thereafter lose the ability to tax the former activities, leading to further erosion of its tax base. [FN45]

The development of new communication technologies will not change every aspect of international business. For example, multinational businesses will continue to take advantage of lower labor costs in developing countries to produce manufactured goods, and developing countries will continue to tax profits associated with these fixed places of business. Still, the Internet encourages a process of disintermediation (and perhaps reintermediation with online companies that will not have a fixed presence within source countries) that will dilute future tax revenues to countries that are net importers of e-commerce goods and services under existing tax rules, which emphasize the need for a physical presence within source countries.

[p. 1186]

*ii. Removal of Human Intermediaries*

The definition of a permanent establishment is extended in most tax treaties to cover a dependent agent who habitually concludes contracts in the foreign market. [FN46] Multinational companies often employ dependent agents or employees within source countries to finalize complex contracts, explore new business opportunities, or perform other functions. The Internet provides the opportunity for businesses to remove dependent agents and employees from foreign markets. Internet technologies can fully automate the order filling, contract negotiating, and payment processing traditionally performed by dependent agents within source countries. [FN47] Further, independent agents can be hired if necessary to accomplish many dependent agent functions. [FN48] The independent agents can receive instructions and keep their clients apprised on a daily basis via the company's intranet. [FN49] The greater use of independent agents is also important for international collaborative efforts to develop e-commerce products and services.

Consider the hypothetical example of a Palo Alto-based software company named Wesupply.com that is developing a new procurement software program for the e-commerce business-to-business market. There is currently a dearth of qualified software engineers within Silicon Valley and immigration restrictions prohibit the hiring of greater numbers of foreign coders. Wesupply.com may be tempted to hire independent contractors from India to code part of its software program, as the company can hire programmers from India at a fraction of the cost of a software engineer resident in Silicon Valley. The [p. 1187] Indian software engineers can be emailed their tasks through Wesupply.com's intranet on a monthly basis and can similarly return completed portions of the code via email. Improvements in Internet video teleconferencing will further encourage this process because it will permit Wesupply.com to engage in face-to-face video contact with its foreign coders on a frequent basis. Pursuant to the U.S.-India tax treaty, India would not be permitted to tax any profits associated with the development and ultimate sale of the procurement software (although India will likely be able to tax the salary paid to the software coders) because the U.S. company does not maintain a permanent establishment within India. [FN50] This example illustrates how global cooperative efforts to develop e-commerce products or services may not result in source country taxation of profits derived from the ultimate sale of these products or services.

## B. THE OECD PROPOSAL

### 1. Background

A number of government reports, including a U.S. Treasury Department report, have almost invariably determined that existing international tax rules and principles are sufficient to handle emerging issues relating to the taxation of e-commerce business profits. [FN51] This preference for traditional principles relies on the view that radical changes to the international tax system are unwarranted because e-commerce simply places pressure on existing problems, such as international transfer pricing. [FN52]

[p. 1188] In October 1998, two important reports were ratified at the Organization for Economic Co-operation and Development (OECD) Ministerial Conference on E-Commerce in Ottawa. The Joint Declaration of Business and Government Representatives indicates, "The taxation framework for electronic commerce should be guided by the same taxation principles that guide governments in relation to conventional commerce." [FN53] The twenty-nine OECD member

states, including the United States, further endorsed an OECD Committee on Fiscal Affairs report, Taxation Framework Conditions, that expressed similar sentiments concerning the need to maintain existing rules and practices. [FN54] To implement the Taxation Framework Conditions's recommendations, five Technical Advisory Groups, which include individuals from the industry as well as representatives from OECD member states and non-member states, were created. Further, several OECD Working Parties were formed to produce reports and discussion papers on the various e-commerce tax issues facing the OECD member states.

In addition to work being conducted by the OECD, a number of governments have issued their own reports that discuss the taxation of computer servers and endorse the view that servers can constitute permanent establishments in some circumstances. [FN55] These member states may be concerned that, as [p. 1189] net e-commerce importers, they will lose out on tax revenues. Accordingly, they wish to implement a mechanism, such as taxing the location of servers, to ensure they can tax e-commerce profits under existing international tax principles. [FN56] Alternatively, the server/permanent establishment proposals can be viewed as a form of hedging strategy that net e-commerce importing nations can use when they sit down at the bargaining table with net e-commerce exporting nations, such as the United States. These nations may demand the insertion of some other tax concession within their bilateral tax treaty in order to abandon their efforts to tax profits emanating from servers. [FN57]

## 2. The OECD Working Party Report

On December 22, 2000, a Working Party to the OECD released the OECD Proposal, a proposed change to the commentaries to the OECD Model Tax Treaty. [FN58] The OECD commentaries are important because they are used by tax authorities and courts, including U.S. courts, to interpret tax treaty provisions. On January 9, 2001, this proposal was adopted by the OECD Committee on Fiscal Affairs, which is the main tax policy group of the OECD. [FN59]

[p. 1190] The OECD Proposal distinguishes between the appropriate tax treatment for websites and servers. Under the OECD Proposal, a website stored on a server should not constitute a permanent establishment because "an Internet web site, which is a combination of software and electronic data, does not in itself constitute tangible property." [FN60] On the other hand, "the server on which the web site is stored and through which it is accessible is a piece of equipment having a physical location and such location may thus constitute a 'fixed place of business' of the enterprise that operates that server" [FN61] as long as the server is fixed at a certain place for a sufficient period of time. [FN62] A permanent establishment, however, will generally only exist if the server performs comprehensive commercial activities: Where [the server] functions form in themselves an essential and significant part of the business activity of the enterprise as a whole, or where other core functions of the enterprise are carried on through the computer equipment . . . there would be a permanent establishment. [FN63]

The OECD Proposal provides an example involving an Internet retailer that sells products through the Internet. Comprehensive business activities that may give rise to a server/permanent establishment include "the conclusion of the contract with the customer, the processing of the payment and the delivery of the products," all of which are performed automatically through the equipment. [FN64] It was noted that this example is merely illustrative and that "many countries [would assert that a server/permanent establishment is created] even if only some of the functions described in that example are performed through the equipment." [FN65] The OECD

Proposal also indicates that servers can constitute permanent establishments even if the server does not require [p. 1191] on-site human intervention. [FN66] It is noted, however, that hosting websites on servers owned by Internet Service Providers (ISPs) or foreign companies will generally not create permanent establishments. [FN67]

Finally, the OECD Proposal indicates that a permanent establishment will not be created if the server merely performs preparatory or auxiliary activities. [FN68] These activities include providing a communications link, advertising goods or services, relaying information through a mirror server, gathering market data, or supplying information. [FN69] The listed examples seem to comport with the OECD Model Tax Treaty which exempts, inter alia, the storage, display, or delivery of goods, as well as the purchase of goods or the collection of information, from its definition of a permanent establishment. [FN70] Whether the server activities of the business should be characterized as auxiliary or preparatory in nature "needs to be examined on a case-by-case basis having regard to the various functions performed by the enterprise through that equipment." [FN71] The OECD Working Party's decision to permit the taxation of business profits emanating from servers appears to have precedent. For example, the commentary to the OECD Model Tax Treaty currently suggests that a permanent establishment may exist when business activities are carried on through "automatic equipment" in some circumstances. [FN72] The commentary is meant to apply to vending and gaming machines maintained [p. 1192] by businesses, [FN73] but similar arguments could be extended by way of analogy to servers.

At any rate, tax treaties sometimes employ "fictions" to permit the taxation of profits by source countries despite the absence of any real permanent establishment. For example, source states can sometimes tax the significant earnings of foreign athletes or artists within their jurisdictions even though a permanent establishment does not exist. [FN74] In other words, countries have agreed in the past to permit source countries to tax profits generated within their countries despite the absence of a traditional permanent establishment. Precedents of this sort allow source countries to argue that they should enjoy the tax revenues derived by taxing e-commerce profits from sales into their jurisdictions even if the sales do not arise from permanent establishments.

### C. PROBLEMS ASSOCIATED WITH TAXING PROFITS FROM SERVERS

This Part describes the difficulties that will arise if nations agree to permit tax authorities to tax the profits generated by servers located within their borders. These difficulties arise because the location of the servers and the functions performed by software code within the servers are highly malleable. Companies may take advantage of the mobile nature of servers to ensure that their profits will either be taxed exclusively by the residence country or by some low tax jurisdiction. Accordingly, the OECD Proposal will not effectively share tax revenues between residence and source countries. This Part illustrates how efforts by regulators to transpose "real world" international tax principles (the need for a physical presence in [p. 1193] foreign markets) into virtual world replicates (a server as a permanent establishment) will often fail.

#### 1. Location of Servers Is Highly Mobile

The U.S. Treasury Department, other national tax authorities, and even the OECD have noted that servers are highly mobile and flexible in nature. [FN75] A server need not have any geographic connection to the income producing activities where customers are located. An e-commerce business can own or lease a server located anywhere in the world and can conduct its

business activities via this server. [FN76] Further, servers can transfer their programs almost instantaneously to a server in a different jurisdiction if necessary. In addition, the server does not have to be maintained by the employees or agents of the company that is engaged in e-commerce; it can be maintained or programmed remotely by employees located outside of the source country. A server is merely a box, a piece of computer hardware. Of far greater importance is the server's software, which enables businesses to conduct a number of different e-commerce functions, including acting as a DNS server (a server that identifies the computer's location on the Internet by converting domain names to Internet Protocol addresses), a mail server (a server that enables email functions), a storage server (a program that permits businesses to store information and data), or an FTP server (a server that permit users to connect with an Internet server). [FN77]

The focus of the OECD Working Party's report is the server's software functions relevant to e-commerce, such as payment processing or the delivery of a digitized product. [FN78] The program within a web server can conduct every aspect of a business's operations: advertising via the website (by providing hyperlinked information in a graphical format), negotiating the [p. 1194] price of a contract, concluding the contract, and processing the payment for the good or service. The OECD Proposal notes that a server may constitute a fixed place of business through which business is conducted, while ignoring the fact that web servers often plant small programs in the end user's computer (sometimes referred to as applets) in order push more processing to the user's side. As web applications become more complex, a likely trend will be for the end user's computer to perform more functions in order to free up the server for other tasks. [FN79] Alternatively, central servers can be completely taken out of the transactional loop by peer-to-peer networking where users trade digital products without resorting to any centralized server location. [FN80] In these circumstances, it may be difficult to assert that business is being conducted through a server owned or leased by the resident-based e-commerce business. In this regard, the emergence of new networking techniques may ultimately frustrate proposals that focus on physical aspects of the network.

Still, a server operated by an e-commerce business that performs most or all of a business transaction would likely be considered to perform activities that, taken collectively, form an essential and significant part of the commercial transaction and therefore will be characterized as a permanent establishment under the OECD Proposal. As discussed more fully in the following Part, the opportunity for businesses to ensure that their servers will be characterized as permanent establishments, by enabling programs within servers to conduct a comprehensive set of business activities, opens up many tax planning opportunities.

## 2. Taxing Computer Code

There will be a number of potentially abusive tax planning opportunities available to taxpayers if servers can constitute permanent establishments. "Abusive" in this context means tax planning strategies that allocate profits to countries without meaningful connection to the business activities that added value to the products or services that ultimately generated the [p. 1195] profits. More specifically, these strategies could allocate tax revenues away from the residence country where the e-commerce business is based and the source country where the consumers of the e-commerce goods and services are located. [FN81]

The most straight-forward tax planning strategy would involve the placement of a server within a country that does not impose any income taxes on business profits. [FN82] In fact, there are already indications that major e-commerce operations emanate from tax havens. [FN83] There would be little need to visit the tax haven or maintain an employee in the tax haven, as the server's program can initially be uploaded from a remote location. Further, the server's program can be altered or repaired from the same remote location. Most tax havens already have sophisticated telecommunications equipment, individuals who service this equipment, and facilities to host the server. [FN84]

In addition to tax havens, "data havens" are springing up throughout the world to protect, among other things, web users' privacy. For example, a group of international computer experts have founded the sovereign nation of "Sealand," headquartered on a 6,000 square foot, World War II anti-aircraft deck off the coast of England. [FN85] Sealand will serve as a co-location for the placement of computer servers--companies and individuals will own the servers which will be maintained by [p. 1196] individuals working at Sealand--to facilitate gambling, pyramid schemes, pornography, and, perhaps most worrisome to tax authorities, untraceable bank accounts. [FN86]

Sophisticated taxpayers will ensure that the programs within the server located in low tax jurisdictions enable the completion of virtually all aspects of the business transaction from advertising, order-taking, and conclusion of the contract. A comprehensive set of services should ensure that the server's activities will not be characterized as merely preparatory or auxiliary in nature. Further, the server issue is important with respect to transfers of goods and services among related affiliates in different countries. If servers constitute permanent establishments, multinational firms will conduct various tax arbitrage strategies, such as attempting to allocate related party profits to servers located in relatively low tax jurisdictions, thus exacerbating many of the problems associated with international transfer pricing. [FN87]

Still, it is recognized that there are a number of non-tax business reasons that will necessitate these e-commerce businesses to own, lease, or otherwise operate servers in the countries where their consumers are located. For example, mirror servers are often placed in target markets in order to speed up download times. [FN88] An e-commerce company could still maintain its main server in the residence country or tax haven to perform business activities, and use servers in target markets to perform mere auxiliary or preparatory activities. The source country servers simply could, for example, advertise on a web page and then cache--temporarily store on the server--any orders that would be relayed to the main server in the tax haven. Alternatively, an e-commerce company can own a tax haven-based server and simply host its web page on servers located in [p. 1197] source countries. The e-commerce company will not attract source country income taxation because merely hosting a web page on a foreign-owned server does not place the server at the disposal of the resident company. [FN89] In fact, e-commerce businesses sometimes employ server arrays that permit a website and its functions to be dispersed over many servers located in multiple jurisdictions. The server array may be used to direct congested Internet traffic to different servers or applications. [FN90] The Australian Taxation Office notes that e-commerce transactions can be separated into different functions which, by themselves, will only be considered auxiliary or preparatory in nature, but when linked via the Internet, create "a viable business that is not subject to tax in any jurisdiction." [FN91]

### 3. Tax Administration and Virtual Income

The real question that OECD member states should ask themselves is whether it is administratively feasible to tax profits attributable to software functions within servers. This matter raises the ludicrous specter of tax authorities pouring over, on a case-by-case basis, thousands of lines of computer code. [FN92] Calculating the income attributable to the server or website [p. 1198] would also prove to be administratively infeasible, as tax authorities would somehow have to determine the amount of added value provided through server functions. [FN93] An OECD Electronic Commerce Tax Study Group notes that taxing servers "would present insurmountable tax compliance and administration issues." [FN94] The potential approach developed by the OECD would be impossible for tax authorities to administer due to the highly intangible, flexible, and mobile nature of computer code.

The proposed approach may even hinder the development of e-commerce, as national tax authorities attempt to extend their taxing jurisdictions over alleged server profits, leading to international double taxation. Multinational businesses may have to incur significant compliance costs, potentially having to file tax returns and fulfill other reporting obligations in every jurisdiction where their servers are located. [FN95] U.S. taxpayers, in particular, may be in danger of being unable to receive foreign tax credits for foreign taxes paid to governments who assert their taxing jurisdiction over servers because, under U.S. law, the e-commerce transaction may only give rise to U.S. source income. [FN96] Finally, e-commerce importing nations will [p. 1199] not likely share in the revenues associated with taxing profits generated by their market opportunities because multinational firms will attempt to take steps to avoid payment by manipulating their server location or the functions performed by the software on the server. In other words, taxing software functions would result in tax planning opportunities that will lead to adverse revenue consequences for many OECD member states. For example, MP3.com, which is contemplating expanding its overseas sales by placing servers in foreign jurisdictions, would have a number of available options to ensure that either its foreign-based servers do not attract foreign taxes or, alternatively, that they attract taxation in low or zero tax jurisdictions. [FN97] MP3.com could use the following strategies to reduce its worldwide tax liabilities:

- Place its servers in low or zero tax jurisdictions and ensure these servers perform comprehensive business activities;
- Ensure that the software programs in foreign-based servers in high tax jurisdictions perform mere preparatory or auxiliary functions (for example, advertising or collecting market information);
- Host websites on foreign-owned servers located in source countries, instead of owning or leasing servers in foreign markets; and [p. 1200]
- Maintain and service foreign-based servers remotely by employees located in the residence country.

As many of the world's nations move toward technology-based, service-oriented economies, tax authorities will need to come to terms with the rise of what could be called "virtual income," or income largely derived from the workings of mobile and intangible computer code. Once a particular software application has been developed (which may take years of effort and require significant resources), the application will often provide the lion's share of the profits derived from a firm's operations. [FN98] The danger is that, in the absence of human or physical intermediaries, which are often required for traditional commerce, virtual income will escape

taxation under existing tax principles and practices because profits can be diverted to low or zero tax jurisdictions. Further, national tax authorities will have an incentive to compete for virtual income, inhibiting international efforts to constrain "harmful" forms of tax competition.

## **II. SHOULD GOVERNMENTS REGULATE THE INTERNET?**

The previous analysis suggests that a more effective regulatory framework is required to govern the taxation of international e-commerce transactions. This framework will likely require governments to come to a multilateral agreement on how to use legislation to shape the Internet in order to protect critical government interests like collecting taxes from e-commerce. Yet there is currently significant resistance to Internet regulation. In fact, the U.S. government has generally taken a hands-off approach to government regulation of the Internet. [FN99] The [p. 1201] Clinton Administration announced that its preferred policy would be one of industry self-regulation, taking into account the "decentralized nature [of the Internet] and its tradition of bottom-up governance." [FN100] The Administration supported the Internet Tax Freedom Act, which imposed a moratorium on all discriminatory taxes on the Internet that was set to expire October 21, 2001. [FN101] The House of Representatives has extended this moratorium for five more years, [FN102] although, at the time of this writing, resistance appears to be building in the Senate due to concerns over losses of revenues to state and local governments. [FN103]

There are many possible explanations for these anti-Internet tax developments: the recognition of constitutional prohibitions against states imposing discriminatory laws that could inhibit interstate commerce; [FN104] the view that federal, state, and local governments are enjoying budget surpluses during a sustained period of economic growth; [FN105] election year posturing for the high tech industry; and, perhaps, a general anti-tax sentiment from certain political and public circles as exemplified by the push for radical tax reform efforts such as a flat tax. [FN106] A major concern, discussed subsequently, is that [p. 1202] taxing Internet transactions will inhibit the development of e-commerce by forcing Internet companies to devote precious resources to tax compliance.

It is clear, however, that the United States will have to participate in any multilateral efforts to comprehensively regulate the Internet, including efforts to transform the Internet into a forum that can effectively be taxed. This Part examines the scholarly argument for this hands-off approach by focusing on scholarship maintaining that, as a descriptive and normative matter, governments should generally avoid creating laws to regulate the Internet. In addition, this Part places potential Internet-related international tax reform efforts within the context of broader issues surrounding general Internet regulation, including efforts to regulate intellectual property and consumer privacy in the online environment. An expansive discussion of these issues is outside the scope of this Article. Rather, an attempt is made to direct the enquiry to a few specific areas of concern.

## A. THE LIMITS OF TERRITORIAL-BASED REGULATORY MODELS

A number of commentators have pointed out the drawbacks of applying territorial-based regulatory models to the brave new world of cyberspace. The old world of regulating atoms, it is argued, has little to offer a world of bits and bytes that zip about the planet at the speed of light. David Johnson and David Post are the most influential advocates of this position, setting out their views in a series of essays concerning regulation of the Internet. [FN107] In the view of Johnson and Post, [p. 1203] the regulation of cyberspace must necessarily be different from the regulation of real space because cyberspace does not have territorial boundaries, but exists simultaneously in multiple jurisdictions. [FN108] Moreover, the cost and speed of the transmission of data on the Internet is almost entirely independent of physical location, and users can evade territorial-based rules by moving to more favorably regulated areas. [FN109]

According to the Johnson-Post model, cyberspace should be treated as "a separate 'space' to which distinct laws apply." [FN110] The problems associated with regulating the Internet will be resolved, in part, by self-regulation whereby cyberspace participants develop their "own effective legal institutions." [FN111] In fact, the Internet has developed a number of effective self-regulatory bodies, including the World Wide Web Consortium (W3C) and the Internet Engineering Task Force (both of which develop Internet technical standards) and the ICANN (which oversees the domain name system). [FN112]

These descriptive claims of the Johnson-Post model appear to be accurate: the Internet, a decentralized network often involving the transmission of intangible goods and services, is highly resistant to traditional forms of regulation. In the context [p. 1204] of tax administration, the U.S. Treasury Department similarly recognized, in a 1996 report, the difficulties associated with taxing e-commerce, a medium that is radically decentralized and encourages the process of disintermediation discussed previously. [FN113] The way the Internet can frustrate regulation may be illustrated by recent efforts to enforce copyright laws on the Internet. Violation of copyright laws by the transfer of music over the Internet is widespread and efforts to curtail these legal violations have not been effective because new technologies are being created that frustrate enforcement of the law. Through litigation, [FN114] the Recording Industry Association of America (RIAA) has succeeded in stopping the practices of established players like MP3.com [FN115] and Napster, [FN116] but may ultimately fail to stop the prevalence of smaller companies, which employ technologies that do not require any centralized control location. For example, companies such as Gnutella and FreeNet employ distributed computer networks (peer-to-peer networks) that permit individuals to trade copyrighted information without resort to any centrally controlled computer server. [FN117] A [p. 1205] possible solution to this problem may be to encode copyrighted works so that no unauthorized copying can take place, although this approach could also inhibit fair use and other public interests. [FN118]

As demonstrated previously, the attempt by the OECD Working Party to transpose real world international tax principles (the need for a physical presence in foreign markets) into virtual world replicates (a server as a permanent establishment) makes for an uneasy fit. The Johnson-Post model predicts that these types of problems will occur when regulators focus on physicality--in this case, a physical aspect of the network--while ignoring the more ethereal aspects of cyberspace. [FN119] Replicating traditional methods of regulation cannot resolve the problems

posed by moving international transactions from the physical world to transactions conducted through cyberspace. As discussed, the permanent establishment concept was historically justified because a fixed place of business, such as a branch office or a sales center, provided a relatively straight-forward rule to administer and effectively share tax revenues with source countries when significant business took place within their borders. The case study demonstrates how the OECD Working Party's attempt to potentially include a server under the definition of a permanent establishment breaches these two historical rationales because the rule would be administratively infeasible and would not effectively share revenues. [p. 1206] The mechanisms used by regulators to govern the transfers of physical goods and services often seem to have minimal applicability to transfers of digital goods and services over the Internet. The question remains whether regulators, sitting on their territorial-based thrones, should throw their hands in the air and give up attempts to regulate the taxation of the Internet as futile. The answer must be a resounding "no."

## B. A SKEPTICAL VIEW OF SELF-REGULATION

The following three Parts discuss normative limitations associated with the view that industry self-regulation of the Internet will bring about desirable results from a public interest perspective.

Part II.B.1 addresses the need to distinguish between the interests of individual communication on the Internet and market transactions taking place via the Internet. Part II.B.2 discusses how market failures may not permit industry to accurately align its own interests with the interests of its customers, with a reference to the debate surrounding regulating consumer privacy on the Internet. Finally, Part II.B.3 argues that governments have a legitimate interest in Internet regulation as well as a mandate to protect critical public interests in light of technological and market developments that can undermine these interests.

### 1. Regulating Different Interests that Converge in One Forum

The Johnson-Post model [FN120] is descriptively useful in that it depicts an accurate version of the Internet today, along with the inherent difficulties in regulating this new forum. The model, however, suffers from normative problems when it suggests that regulators should, for the most part, maintain a hands-off approach to the Internet. As philosophers are fond of reminding us, an "is" is not necessarily an "ought." The fact that the Internet is currently difficult to regulate does not mean that governments ought not strive to regulate the Internet. [FN121]

[p. 1207] A major problem for regulators, however, is that the Internet acts as a forum for multiple forms of communication that both overlap and interact. [FN122] For example, individuals communicate over the Internet through a variety of mechanisms, such as chat groups, email, listservs, MUDs, or discussion groups. [FN123] The Johnson-Post model may provide greater value for evaluating proposals to govern, for example, speech on the Internet because Internet participants have arguably formed different virtual communities in comparison to traditional communities. [FN124] [p. 1208] State regulations that regulate one speaker may have an adverse impact on a virtual community member of another nation. [FN125] Accordingly, a form of self-regulation for this type of communication may be warranted to encourage a free sharing of ideas. [FN126]

The Johnson-Post model suffers from several limitations, however, when applied to context-specific situations such as taxation. [FN127] Other forms of communication over the Internet, namely commercial communication among individuals and businesses (or between businesses themselves), do not require similar protection from state intervention that could inhibit free speech or the sharing of creative expression. [FN128] E-commerce participants choose to voluntarily exchange, purchase, or sell goods, services, and information via an efficient medium that happens to take place over the Internet. [FN129] This is [p. 1209] not to say that these participants do not have interests in regulatory alternatives, they clearly do. For example, the participants might prefer alternatives that would impose the least possible costs on their activities (in fact, they would likely prefer regulatory alternatives that would subsidize their activities). [FN130] The point is that the interests of these actors do not differ significantly from actors engaging in traditional international commerce. [FN131]

## 2. Market Failures

Can self-regulation effectively protect values? Johnson and Post suggest that the industry will respond by self-imposing rules that are aligned with their customers' interests because it's just good business to do so. [FN132] It remains unclear, however, whether industry can, or will, effectively regulate itself. [FN133] In [p. 1210] fact, as Legal Realists and others have suggested, an absence of government regulation may simply permit the market to structure a solution that is tailored to industry interests that are already protected by government-sanctioned laws. [FN134] Professor Dan Schiller suggests that a lack of government regulation of the Internet "virtually guarantees that business will fix the social purposes and policies of the medium." [FN135] The recent history surrounding government efforts to regulate consumer privacy interests on the Internet is instructive.

At an OECD conference in October 1998, former Commerce Secretary Bill Daley discussed the Clinton Administration's proposed approach to policing consumer privacy on the Internet at a conference on e-commerce. [FN136] There was a growing awareness that many online companies were engaging in intrusive information compilation on individual consumers. Online companies track consumers as they visit websites through several data mining techniques including placing "cookies" (bits of [p. 1211] data) on the consumer's hard drive. [FN137] These companies create profiles of the website visitors, including their viewing and spending habits, and may, in some circumstances, trace the profile back to the individual's identity or physical location. [FN138] The assembled profiles or consumer identities are sold to other companies for their own direct marketing purposes. In addition, the profiles are used to generate banner ads for the web surfer to target her particular needs. There are currently tens of billions of banner ads delivered each month. [FN139] The Federal Trade Commission, after reviewing the privacy policies of 1,400 commercial websites in 1998, found that 85% of these websites collected personal information, but only 14% provided any notice concerning their information collection process. [FN140]

The proposed U.S. approach was to encourage companies to self-regulate their information collection policies. [FN141] In theory, self-regulation would protect consumer interests as companies aligned themselves with the desires of their customers without inhibiting the growth of e-commerce, as could arguably occur under government regulation. The EU representatives at the conference were dismayed with the timing of Daley's announcement; these representatives were touting their own approach to regulating consumer privacy through a Privacy Directive,

which would come into effect later that same month. [FN142] The Privacy Directive forces companies (including online companies) to have the consumer "unambiguously giv[e] his consent"[p. 1212] prior to collecting information about them. [FN143] This model is sometimes referred to as the "opt-in" model of protecting consumer privacy. In this scheme, consumers must acknowledge that they are aware personal information may be collected. The consumer has the option to agree and proceed to visit the website or disagree and leave the website. [FN144]

Two years later, what is the state of Internet consumer privacy today? One of the main industry responses so far has been the creation of a non-profit company called TRUSTe that places its badge of approval on the websites of companies that follow TRUSTe's privacy disclosure rules. [FN145] Under these rules, online companies must disclose how they collect and use consumer information. The industry also responded by developing a number of technologies in the growing "identity management" segment of e-commerce by either anonymizing consumers on the web [FN146] or permitting them to choose privacy preferences. [FN147] [p. 1213] While the "seal of approval" approach has encouraged many online companies to disclose their privacy practices, the collection of private information has continued unabated, often without full disclosure. [FN148] For example, DoubleClick.com [FN149] has amassed information about 88 million U.S. households. [FN150] A number of companies have been sued over their alleged mishandling of consumer information, including DoubleClick, RealNetworks, [FN151] and Toysmart.com. [FN152] Even the U.S. government [p. 1214] has engaged in collecting information on visitors to certain departmental websites. The White House recently acknowledged that the Office of National Drug Control Policy website used cookies to track the movement of Internet users, arguably in violation of federal privacy laws. [FN153] Polls suggest that a majority of web users are concerned with these intrusive practices, [FN154] leading some to suggest that e-commerce is being inhibited by the industry's present regime of self-regulation. [FN155]

[p. 1215] As a result of growing privacy concerns, federal regulators may need to legislate protection for consumers. A year after his remarks, former Commerce Secretary Daley warned online companies that the government will step in with new rules unless the U.S. policy of industry self-regulation adequately protects consumer interests. [FN156] In July 2000, the Federal Trade Commission (FTC) approved (in a four to one vote) a report issued by an advertising industry organization that calls for self-regulation, which permits consumers to "opt out" of intrusive information gathering. [FN157] The FTC also called on Congress to pass laws to protect consumer privacy interests in circumstances where the self-regulation approach will likely fail (the so-called "backstop legislation"). [FN158] When the regulators threaten the industry with new laws unless industry adopts practices that the regulators favor, the process looks less like actual industry self-regulation and more like a process that could be labeled "guided self-regulation with backstop legislation." The point is that governments should support actual self-regulation or, if this mechanism proves deficient, governments should pass laws to regulate the relevant industry behavior. [p. 1216]

Whether self-regulation or some market-based solution will ultimately resolve these privacy issues remains to be seen. Self-regulation may not be effective at achieving an appropriate balance because industry participants have less of an incentive to address individual consumer concerns because they perceive their own commercial self-interest to over-ride these concerns. [FN159] The main market failure that prevents the effective protection of consumer interests is

that, as result of information asymmetry, consumers do not understand the extent to which their web surfing habits are being tracked and collected by online companies. [FN160] Further, online businesses may be focused on the generation of short-term advertising revenues to impress investors in order to access start-up capital for further expansion in a winner-take-all market and hence may be willing to sacrifice consumer interests to generate marketing revenues through data mining. These problems could ensure that the industry will not adequately address privacy concerns. Internet consumers are still concerned with intrusive snooping, and it continues unabated and, in fact, has accelerated under the self-regulation approach. The market has structured a solution that arguably benefits the short-term interests of industry participants at the expense of the interests of individual consumers. [FN161] More formal government regulation could more effectively protect public interests than self-regulation (which, at any rate, has [p. 1217] evolved into "guided self-regulation with backstop legislation"). The point here is that governments arguably have a vested interest in controlling information flow over the Internet in contexts other than taxation where, as will be subsequently discussed, the need for effective regulatory action is even more certain.

### 3. The Legitimacy of Government Regulation of the Internet

This Part shows that governments have a legitimate role to play with respect to Internet regulation despite assertions to the contrary by proponents of self-regulation. Johnson and Post assert that cyberspace laws require the "consent of the governed" in order to be considered legitimate, but Internet users may be subjected to rules from states where they are not physically located. [FN162] The Johnson-Post model has been characterized as contractarian in nature because the model generally only incorporates the interests of Internet users who, it is argued, have distinct needs that cannot be effectively addressed by territorial-based sovereigns. [FN163] This set of interested actors, however, is surely too narrow, at least with respect to regulatory efforts directed at the taxation of e-commerce. [FN164] NonInternet [p. 1218] users, indeed all citizens, clearly have an interest in these issues because any particular proposal, including a "do nothing" approach, may have adverse impacts on a government's ability to collect tax revenues. [FN165] As Professor Goldsmith has noted, "[T]he state in which the harms are suffered has a legitimate interest in regulating the activity that produces the harms." [FN166] A decision to regulate the Internet or even a decision not to regulate may lead to adverse spill-over effects on the economies of other countries, [FN167] especially in the field of taxation. Consider the revenue implications if regulators finally agree that servers and websites should not be taxed under any circumstances. This would mean that the residence country where an e-commerce company is based would almost exclusively enjoy collecting revenues from the taxation of e-commerce. The main benefactor of this system would be the United States, which currently produces roughly 80% of the world's e-commerce goods and services. [FN168] Perhaps not surprisingly, the U.S. Department of Treasury has discussed moving toward a residence-based system that would only permit governments of countries where e-commerce businesses are based to tax e-commerce profits. [FN169]

[p. 1219] But nations that are net importers of e-commerce goods and services would suffer revenue losses under a residence-based system of taxation. These countries may not consider this situation to be fair because, as discussed, importing nations have historically been entitled to tax significant foreign business activities taking place within their borders. [FN170] A better approach would be to deny the existence of a permanent establishment to server activities under all circumstances and offer some other concessions to net e-commerce importing nations to

make up for the anticipated shortfall in tax revenues. [FN171] An appropriate model would take into consideration all interested [p. 1220] parties, including non-users and countries with minimal high-technology infrastructures. [FN172]

This leads to a final point. The Johnson-Post model argues for passive territorial-based sovereigns, sitting on their hands while self-regulatory disciplines are developed by Internet users. [FN173] This argument cannot stand with respect to taxes. Governments should not and, more importantly, will not abdicate their responsibility to collect tax revenues in order to ensure they can provide goods and services to their constituents. A system of taxation must be mandatory in order to work, otherwise free-riders and hold-outs will defeat any attempt to impose widespread taxes over a medium such as the Internet. As noted in an American Bar Association draft report on global jurisdiction and the Internet, "The State is an essential and self-interested principal in any tax transaction." [FN174] The debate surrounding taxing servers makes this clear: governments may be considering such an odd development because they are trying to ensure they will not lose out on tax revenues as a result of the rise of e-commerce.

While this Article has made it clear that taxing servers will not achieve the desired result, some other mechanism is needed to protect the tax base of nations. For the most part, cyberspace is not some alien space or alternate universe that should escape the reach of regulators. As cyberspace is transformed into a more commercial forum, businesses and governments [p. 1221] will need to agree on regulations that both promote e-commerce and protect the values of all stakeholders, including those who cannot or choose not to use the Internet.

### **III. DEPLOYING INTERNET TECHNOLOGIES TO TAX INTERNATIONAL E-COMMERCE**

This Part provides a broad framework for effective taxation of international e-commerce transactions through the use of Internet technologies. The OECD has already developed principles to guide potential reform efforts in this area. These guidelines include a desire to use traditional international tax principles that promote neutral treatment between conventional commerce and e-commerce, low compliance costs, and flexible rules to keep pace with technological developments. [FN175]

The main deficiency of this approach, however, is that it is process-oriented instead of goal-oriented. [FN176] The debate surrounding the taxation of servers illustrates this deficiency: members of the OECD Working Party focused on the development of rules that are consistent with OECD guidelines (the preservation of traditional international tax principles such as the requirement for a substantial physical presence in source countries), but these rules have little connection to the real world of designing an effective system for taxing international e-commerce transactions. In contrast, the framework proposed in this Part considers the interests at stake, the likely outcome of reform efforts, and the nature of Internet technologies. The proposed results-oriented approach asks how we can preserve critical national interests by developing solutions that take advantage of Internet technologies shaped by tax authorities' needs. By announcing and clearly defining the interests that need to be preserved, the OECD could then formulate proposals based on its own set [p. 1222] of guiding principles which could effectively achieve the desired result.

## A. IDENTIFYING SPECIFIC INTERESTS AND VALUES

An appropriate regulatory model should incorporate the interests of all countries since taxation, which pays for public goods and services, is universal. [FN177] These interests are clear: nations wish to protect their tax base against commercial developments that may undermine the collection of revenues from cross-border transactions. A more difficult task involves multilateral efforts to determine the precise scope of these interests. Nations have identified three main concerns facing the global business community as a result of international tax issues: the erosion of source country tax revenues, the inability to tax international financial capital, and the harmful effects of international tax competition.

All three concerns are interrelated and overlap to a certain extent. These problems arose long before the arrival of e-commerce. The explosion of e-commerce, however, will likely exacerbate the problems because it will become increasingly easier (less costly and more efficient) to transfer mobile factors of production--goods, services, and capital--around the world. For example, the Internet and Internet banking have encouraged the proliferation of abusive tax avoidance strategies. According to one estimate, over 80% of websites promoting tax schemes are encouraging illegal evasion of tax. [FN178]

[p. 1223]

### 1. Protecting Source-State Taxation

The first interest--the need to protect the ability of consumer countries to tax the profit from inbound transactions--has previously been reviewed in this Article. As discussed, nations have historically been permitted to impose their income taxes on significant business activities within their borders. The permanent establishment principle ensured this result. Countries could identify this historical pattern of taxation as something that needs to be preserved in the taxation of e-commerce, despite the absence of any physical presence within source countries. [FN179] Source countries should be able to continue taxing profits from significant consumer e-commerce transactions within their borders for several reasons:

- By sharing in tax revenues derived from international transactions, source countries have an incentive to cooperate with residence countries to avoid international double taxation, which inhibits cross-border commercial activities. [FN180]
- Source countries have an arguable historical fairness claim to share in tax revenues because their markets have given rise to business opportunities from which profits ensue. [FN181]
- Net e-commerce importing countries, especially developing countries, should share in the revenues in order to provide an incentive to these governments to invest in their technological infrastructures (which will ultimately benefit e-commerce exporting nations). [FN182]
- Granting primary taxing jurisdiction to the country of consumption will constrain so-called "harmful" international tax competition. [FN183]

[p. 1224]

## 2. Protecting the Ability to Tax International Portfolio Investments

This Part discusses how governments are often unable to tax their residents or citizens on their international portfolio investments. International transfers of capital are generally broken down into two categories: cross-border portfolio investments and foreign direct investments (FDI). [FN184] Cross-border portfolio investments generally arise when individuals or businesses make non-entrepreneurial investments in foreign markets to potentially access better returns on their investments than would otherwise be available domestically. For example, a U.S. resident investing in a southeast Asian mutual fund has engaged in a portfolio investment. These types of investments are highly mobile and can be transferred from one country to another with the push of a button. In contrast, FDI involves entrepreneurial investments that often involve the placement of physical assets in a foreign country. An example would be a U.S. company, like General Motors, opening a stamping plant in Malaysia. These types of investments are generally less mobile due to the involvement of physical assets as well as significant start-up costs. [FN185] Part III.A.3 discusses the problems associated with countries competing for FDI by offering tax benefits for this type of investment.

The following simplified example describes how international portfolio investments can elude taxation by both the residence country (the home country of the investor) and the source country (the country where the investment takes place). Salvadore is a wealthy Argentine with a net worth in excess of \$1 billion. Salvadore has hundreds of millions of dollars he wishes to invest. He is concerned, however, with the historical [p. 1225] political instability of the Argentine government and fears that a change in government policy may one day permit authorities to expropriate his property and investments. Salvadore decides to invest \$100 million in international mutual funds and opens an account with a financial intermediary based in the United States. He is advised that his portfolio interest income from the U.S. account is not subject to U.S. tax, [FN186] but this income could be taxed on an accrual basis (current taxation despite the fact that Salvatore does not repatriate the funds to Argentina) under Argentine tax laws because Argentina, like most countries, taxes its residents on their worldwide income. [FN187] Salvatore, however, does not wish to pay Argentine taxes and he never advises the Argentine tax authorities of the investment. Further, Salvatore intends at some future date to withdraw the investment and place it in an account located in a tax haven. Salvatore knows that he has committed tax evasion by failing to notify the Argentine tax authorities, but he has little to fear because he has been advised the U.S. tax authorities will not likely notify the Argentine government of the investment. [FN188] This form of tax evasion strategy is fairly common and reflects a serious problem of capital flight that often involves capital migrating from developing to developed countries. For example, \$300 billion in capital is estimated to have left Latin America for the United States, wreaking devastating economic consequences on Latin American countries due to lost investments in domestic industries and loss of tax revenues associated [p. 1226] with taxing these investments. [FN189] Jeffrey Owens, the OECD Head of Fiscal Affairs, estimates that more than \$1 trillion is invested in tax havens and that the number of offshore funds has increased by more than 1400% over the last fifteen years. [FN190]

After extensively reviewing the evidence concerning capital flight, Professor Avi-Yonah concludes that "the resulting state of affairs is that much of the income from portfolio investments overseas escapes income taxation by either source or residence countries." [FN191] The problem is particularly acute because higher income taxpayers tend to have the resources to

avoid residence country taxation on their investments while lower income taxpayers cannot avoid taxation on their investments (assuming they have any), leading to a more regressive tax system focusing on taxing labor while permitting capital to remain untaxed.

The solution to the problems associated with the inability to tax mobile financial capital will likely involve either the withholding of tax payments at the source of the investment or a more effective exchange of information. [FN192] For these reasons, the European Union has proposed a draft Savings Directive whereby EU member states either withhold at the source or report the income generated by investments to the home country of the investor. [FN193] If a country chooses to exchange information, [p. 1227] interest payments made by paying agents within its border to other EU residents must be reported to the home country of these residents. [FN194] If a country chooses to withhold taxes, it must withhold 20% of all portfolio interest payments made to residents of other EU countries. [FN195] An investor, however, can avoid the withholding tax by establishing that his own tax authorities have been informed of the interest income received from the foreign investment. [FN196] On June 20, 2000, EU member states agreed to implement the Savings Directive within two years--five countries agreeing to apply the withholding tax (at a rate between 20% to 25%), and the remaining ten countries agreeing on the exchange of information mechanism. [FN197]

In 1998, the OECD issued a report that targeted the abusive use of tax havens to defer or permanently avoid the payment of taxes on cross-border "financial and other service activities" (for example, insurance or banking services). [FN198] The report was approved by the OECD Council (twenty-seven of the twenty-nine OECD member states supported the report with Luxembourg and Switzerland abstaining). [FN199] The OECD then drafted a [p. 1228] tentative blacklist of thirty-five tax havens that allegedly assist in tax evasion. [FN200] In addition, the OECD drafted a list of sixty-one tax provisions that offer preferential tax treatment to foreign businesses that provide financial and other services. [FN201] Tax systems that are not in compliance with OECD guidelines may be targeted for retaliation by OECD member states. [FN202] Although the report focused on international financial services, the steps taken against tax havens will likely assist with efforts to tax international portfolio investments by, for example, promoting heightened financial information disclosure requirements.

The U.S. government has also intensified its efforts to curtail the abusive use of offshore tax havens to evade payment of U.S. taxes by warning taxpayers of civil and criminal penalties [FN203] and proposing to draft a blacklist of tax havens as well as restrictions on tax benefits for transactions involving those countries. [FN204] Former Secretary of the Treasury Lawrence Summers noted, "In a world where capital can silently traverse [p. 1229] the globe at the touch of a button, tax evasion and tax avoidance schemes can be undertaken just as easily and just as quietly." [FN205] Accordingly, multilateral or unilateral measures to combat the abusive use of tax havens are called for. [FN206] In addition, a recent judicial development may limit the use of offshore trusts by U.S. residents and citizens. The Ninth Circuit held the United States has jurisdiction over assets placed in an offshore trust by two U.S. residents, contrary to frequently held beliefs that the U.S. government has little ability to reach assets held in tax havens. [FN207] The decision may lead to more judicial supervision over the use of tax havens by U.S. citizens or residents to act as an intermediary for their foreign portfolio investments in order to evade payment of U.S. taxes on these investments.

In summary, the OECD and national tax authorities have identified the evasion of income taxes on international portfolio investments as a significant problem to many public fiscs throughout the world. The main problem associated with the non-taxation of international portfolio investment is that governments have trouble accessing information concerning the behavior of their own taxpayers that would permit these governments to enforce their laws. For example, many countries [p. 1230] have laws that would tax the worldwide income generated by portfolio investments, but the tax authorities in these residence countries are often unaware that tax evasion is taking place. Part III.B discusses how Internet technologies could help resolve this problem.

### 3. Constraining Harmful Tax Competition

Recent international efforts strive to distinguish between "good" tax competition and "harmful" tax competition. [FN208] Good competition results when countries use their tax systems to improve efficiency, promote innovation, and curb the so-called Leviathan tendencies of governments to bloat. [FN209] Harmonized tax rules for the Internet may not be desirable because it would discourage experimentation if all countries were forced to agree on one form of Internet tax. [FN210] Variable rates would permit each country to impose whatever tax burdens it sees fit. Harmonization of tax bases, however, would probably assist in the collection process. As markets change rapidly in the modern economy, measures to achieve tax uniformity may reduce the flexibility of governments to respond to these changes in an effective manner. [FN211]

[p. 1231] Harmful tax competition, it is thought, occurs when countries compete for foreign investments by lowering their tax rates or offering a tax incentive such as a "tax holiday" (for example, no tax payments for the first ten years of the investment). [FN212] As a result, some commentators suggest that a "race to the bottom" has developed as jurisdictions respond to competition by reducing capital income tax burdens in order to compete for investments. [FN213] Continued rate lowering might ultimately lead to a country imposing a tax burden that is insufficient to fulfill revenue requirements necessary to meet the needs of its citizens. Further, governments may be concerned that competition for mobile capital will necessitate a greater focus on taxing less mobile factors such as labor, leading to more regressive tax systems as people who earn the majority of their income from their labor end up paying greater amounts of tax than individuals who earn significant amounts of income from their investments. [FN214] The potential for excessive tax competition led, in [p. 1232] part, to a committee comprised of European tax experts to recommend the harmonization of certain aspects of corporate income taxes among the member states of the then European Community. [FN215]

Public choice theory suggests that optimal levels of tax will be imposed on households and firms when tax payments match the benefits that taxpayers receive from the community (the so-called "tax benefit principle"). [FN216] The extension of state and federal public choice theory to the international sphere has been criticized primarily because international tax policy rarely follows the benefit taxation approach, which is more often employed by state and local governments. [FN217] Economists model tax competition among countries in order to gauge the probable results of this process. [FN218] In an environment where capital outflows [p. 1233] are unrestricted (which occurs in most democratic, industrialized nations), the models generally suggest that the international competition for capital will lead to a capital income tax of zero in the long run. [FN219] The empirical evidence, however, seems to suggest otherwise, at least for

the time being. [FN220] [p. 1234] While there does not appear to be any comprehensive effort to gauge the costs associated with harmful tax competition among developed countries, [FN221] a recent study by Oxfam International estimates that harmful competition costs developing countries \$50 billion each year. [FN222] The member states of the European Union have agreed, through a non-binding political commitment, to eliminate tax measures that promote harmful tax competition by January 1, 2003. [FN223] OECD member states have similarly agreed to reduce [p. 1235] harmful preferential tax regimes in the context of mobile financial and other services by April 2003. [FN224] Further, OECD members have agreed that they may retaliate against uncooperative tax havens who have not agreed to eliminate their harmful tax practices by December 31, 2005. [FN225]

The analysis suggests that harmful tax competition for e-commerce income may worsen unless steps are taken to tax e-commerce operations where real economic activity takes place, such as at the point of the development of software applications or at the point of consumption of the final good or service. The main problem facing taxing authorities is the incredible mobility of virtual income, which can ignore national borders to seek out the most tax-friendly jurisdiction. Countries will compete for this virtual income as long as regulators agree to extend taxing jurisdiction over software functions, such as the proposed approach to tax profits emanating from computer servers.

## B. DESIGNING INTERNET SOLUTIONS

The three main international tax concerns noted in Part III.A could be at least partially addressed through technological solutions that take into account the flexible and dynamic nature of the Internet and Internet-based technologies. As discussed at the beginning of this Article, Professor Lessig has prominently argued that "Code is law." [FN226] In other words, Internet software and hardware impose constraints and regulation on actors within cyberspace, just like the traditional law that governs the "real world." This view explains why hardware (servers) and software (computer code within the servers) undermine the OECD's potential regulatory attempts to tax e-commerce profits emanating from servers. In Lessig's view, citizens and their governments have a vested interest in the evolution of the Internet's architecture; countries should direct this evolution according to their will just as they direct legislation [p. 1236] in other areas. [FN227] The Johnson-Post model posits an Internet that cannot be effectively regulated. Lessig's answer to this model is that it is up to government to transform the Internet so that it can be regulable. [FN228]

The Internet is in its infancy and may or may not be transformed into a forum that can be effectively regulated. The technological hurdles are daunting, due in part to the decentralized nature of the network. [FN229] Despite these difficulties, or perhaps as a result of them, governments need to assert their authority over the evolution of an Internet architecture that serves regulatory needs to the greatest extent possible. "Smart governments will regulate, but not by directly regulating the behavior of people in cyberspace. Smart governments will instead regulate by regulating the code that regulates the behavior of people in cyberspace." [FN230] In fact, many Internet technologies contain at least the potential for a more efficient taxation of international transactions. For the most part, regulators have looked at technological innovations with an atmosphere of fear or outright hostility. [FN231] Yet Internet technologies also represent opportunities [p. 1237] that could resolve a number of the vexing problems that plague

international tax. A number of U.S. states have recently begun to participate in a Streamlined Sales Tax Collection System that focuses in part on technological solutions to the challenges presented by the Internet. [FN232] The OECD has also begun to look into the role that technology can play with respect to tax collection. [FN233] Two Australian scholars have previously outlined a tax collection system involving automated withholding by financial institutions for electronic transactions, including many e-commerce transactions. [FN234] The following discussion outlines a possible approach in the international tax arena.

### 1. Secure Extranet

An effective exchange of information among tax authorities would help to reduce a number of problems that currently plague the international tax arena. In fact, most bilateral tax treaties contain a clause to assist in this exchange. As a practical matter, however, tax authorities do not engage in an ongoing exchange of information that includes taxpayer identification [p. 1238] numbers and cross-border flows. [FN235] As discussed, the European Union and the OECD have proposed multilateral information exchange mechanisms to assist with combating tax evasion and harmful tax competition, although these efforts have yet to bear fruit. [FN236]

Tax authorities could set up a secure extranet (sometimes referred to as Virtual Private Network or VPN) among themselves to enable a far more comprehensive and efficient exchange of taxpayer information. An extranet is a portion of the Internet that has been secured from outside access. Through this extranet, participating countries could share information concerning cross-border transactions and non-resident taxpayer information. A secure extranet, accessible only by national tax authorities, would greatly assist these multilateral efforts. [FN237] This extranet would build on one of the major strengths of the Internet by creating networked linkages among partners for sharing data. The implementation of the secure extranet does not require any architectural changes to the Internet, and the use of extranets is already common-place in the business-to-business ecommerce [p. 1239] market. The scale of the project should also be manageable, as Internet technologies along with improved database storage capabilities ensure the feasibility of this proposal. For example, State Street Corporation, a leading provider of foreign exchange services, maintains data on over \$6 trillion worth of tradable securities, a database that is shared with hundreds of institutional investors throughout the world via an extranet. [FN238] State Street maintains technology platforms that can process over two billion database requests each day. [FN239]

There are over five-thousand bilateral tax treaties throughout the world, an anachronistic remnant of historic trade and investment patterns that has little to offer to a world that is becoming increasingly integrated in a multilateral manner. [FN240] The extranet should hence be extended on a multilateral basis to participating tax authorities throughout the world, although it will likely be sufficient if only the major industrialized countries participate because most of the world's portfolio investments are placed in these stable economic environments. [FN241] The extranet could be used to resolve these capital [p. 1240] flight issues in an efficient manner and could conceivably be used to overcome existing barriers to reform in this area. [FN242]

### *i. Curtailing Capital Flight*

As discussed, the EU member states have agreed to either exchange information or impose a withholding tax on cross-border portfolio interest payments in order to reduce problems associated with tax evasion. [FN243] The main problem with extending such efforts on an international basis is that one hold-out country might end up attracting mobile financial capital at the expense of participating countries. [FN244] If, for example, the United States re-enacted its withholding tax on portfolio investments, [FN245] capital would likely flow to [p. 1241] another stable democracy that refused to impose such a tax. [FN246] The United States and other countries may only agree to cooperate if they have contractual assurances that hold-outs will suffer adverse consequences. The imposition of a withholding tax would be unworkable if even one stable government holds out. [FN247] Further, the imposition of high withholding taxes is contrary to an international trend toward the lowering or elimination of withholding taxes which can be viewed, in some instances, as a tariff or barrier that would unduly inhibit international capital flows. [FN248]

Efforts to impose the withholding tax would likely fail unless all major economic countries participated in the efforts. This analysis suggests that an incentive should be granted to participating countries to enter into the agreement, along with a sanction for non-cooperative countries. As will be discussed in greater detail, a secure extranet could ensure that no withholding [p. 1242] taxes are imposed on investors from participating countries while the imposition of withholding taxes on investments from non-participating countries would act as the sanction. [FN249] Essentially, the extranet would act as a gatekeeper that imposes controls on investors from non-participating countries, while allowing investors from participating countries to enjoy unconstrained and untaxed flows on their portfolio investments.

The envisioned extranet would work as follows. When amounts are remitted to non-resident taxpayers, the financial institution would withhold only a stipulated amount, of perhaps 30%, of the remitted gross amount if the amount is being transferred to a country not participating in the information exchange extranet. [FN250] U.S. financial institutions, and presumably portfolio interest payors in other countries, already track portfolio interest payments to non-residents for tax purposes. [FN251] It should not be overly burdensome to force paying agents of portfolio interest to track the destination of the payment as reported previously by the recipient of the interest. The payors will collect the tax at the time of transfer of the funds as would normally occur under a withholding tax collection system.

A previously discussed example [FN252] illustrates how the extranet could work. The example involves Salvatore, the wealthy Argentine, who wishes to invest his money in the [p. 1243] United States. If Argentina and the United States participate in the extranet, the relevant U.S. financial institution will not withhold amounts paid to Salvatore if he identifies himself to the financial institution as an Argentine resident (and foreign person for U.S. tax purposes). The Argentine government will be notified of the remittance via the extranet and will assess its own taxes on the transaction. Salvatore, however, may be tempted to set up an account with a financial institution in a tax haven in order to ensure the Argentine government is not notified of the foreign investment. If so, Salvatore will use the tax haven as an intermediary to invest his funds and all remittances of portfolio interest will be sent from the U.S. financial institution to this tax haven.

Under current law, the U.S. financial institution would not be required to withhold any amount of the payment. [FN253] But, under the proposed extranet mechanism, if the amounts are remitted to a non-participant such as a tax haven intermediary, the U.S. financial institution will be required to withhold a specified amount and remit this amount to the U.S. tax authorities. [FN254] Salvatore should still be able to get a refund of the withholding tax if he can establish to U.S. tax authorities that his home country was notified of the interest income. The purpose of the extranet is not to allocate tax revenues to the country where the investment takes place, but is designed to ensure that the residence country of the investor has at least the ability to tax the income from this investment.

This approach is consistent with the recent OECD Committee on Fiscal Affairs report on identifying harmful tax practices, which advises OECD member states to consider imposing withholding taxes on certain payments to uncooperative tax havens. [FN255] This strategy offers a powerful incentive to countries, [p. 1244] including those that have historically objected to any withholding taxes, to participate. Otherwise, investors from these countries will be subject to a withholding tax on their foreign investments. Participating countries could further agree to impose additional sanctions on non-participating countries, such as greater supervision over transfers using financial intermediaries based in these countries or restricting tax benefits relating to transactions with non-participating countries. It would, however, probably be necessary to impose these sanctions only against uncooperative tax havens. [FN256]

#### *ii. Constraining Harmful Tax Competition*

In addition to curtailing tax evasion strategies, an extranet would help solve other problems in international taxation. According to the OECD, a more effective exchange of information among tax authorities is necessary to combat harmful tax competition where countries compete for investments by offering preferential tax treatment to foreign companies: "The ability or willingness of a country to provide information to other countries is a key factor in deciding upon whether the effect of a regime operated by that country has the potential to cause harmful effects." [FN257] The OECD notes that it may be impossible for one country to determine the impact of another country's tax laws on its own taxpayers without knowledge of the taxpayer's activities in the foreign country. [FN258]

[p. 1245] International transfer pricing is another problem area that could be partly resolved by increased information exchange. [FN259] The majority of international transfers of goods and services are conducted by related companies. [FN260] Under existing rules, companies generally must devise arm's length values to their transfers among all of their affiliates. [FN261] The matter becomes extremely complicated when companies with affiliates located in multiple countries exchange intangible and often unique goods and services to form an e-commerce product. [FN262] The difficulties associated with finding arm's length values for these transfers offers companies greater latitude to conduct income shifting strategies. This latitude results in a loss of revenues to [p. 1246] relatively higher tax jurisdictions, a process closely related to harmful tax competition. [FN263]

Companies sometimes resort to Advanced Pricing Agreements (APAs), in which the company and different national tax authorities negotiate in advance how profits will be divided and taxed. [FN264] As commercial efforts become more globally integrated, resorting to APAs will become increasingly popular to protect taxpayers from the threat of international double or multiple

taxation. [FN265] By promoting greater sharing of information among tax authorities, the extranet would aid this process. Tax authorities would come to the table armed with information concerning a specific taxpayer's transactions and comparable information from unrelated taxpayers that could help identify the appropriate arm's length value. [FN266] It may even be feasible to institute software programs within the extranet that monitor taxpayer activities and adjust profit margins to reflect or approximate arm's length values. [FN267]

[p. 1247] The extranet could also re-invigorate the debate surrounding a possible movement toward global formulary apportionment. [FN268] Formulary apportionment divides tax revenues among related parties in different countries by scrutinizing substantive economic activity in each country. Under formulary taxation, revenues are divided according to a set formula that accounts for factors such as salaries, source country sales, or the geographic location of employees. Formulary apportionment could conceivably replace the current method of allocating corporate income to related parties through arm's length pricing. Global formulary apportionment is theoretically sound, but is politically infeasible and technically difficult to implement. [FN269] Nonetheless, formulary apportionment could significantly curtail harmful tax competition by ensuring that countries can tax real economic activity within their borders. Multinational firms under this regime would have a lesser incentive to try to divert paper profits to non-arm's length affiliates located in low or zero tax jurisdictions. [FN270] Due to the greater ease of accessing information concerning a taxpayer's cross-border activities with [p. 1248] an extranet, it might be easier to identify those industry-specific factors the formula should include. The extranet could perhaps assist the implementation of formulary global apportionment in the long run by providing information to tax authorities and taxpayers on matters like the expected profitability of important cross-border transactions.

## 2. Identifying the Location of Taxpayers

This Part first discusses the pressures, apart from taxation, to transform the Internet into a forum where Internet users can authenticate and identify each other. The focus then turns to the technologies needed for identifying specific geographic locations of e-commerce participants for tax purposes.

### *i. Developing an Architecture of Trust*

Commentators have noted that effective government or business solutions will ultimately be necessary for e-commerce to flourish. [FN271] Commerce over the Internet should strive to replicate traditional commercial experiences in order to promote greater usage by individuals and businesses. This envisioned "architecture of trust" [FN272] between commerce and individuals could comprise the following five tenets:

- Authentication--to make sure individuals know with whom they are dealing.
- Authorization--to ensure an individual is permitted to conduct a particular function.
- Privacy--to ensure others cannot discern what exchanges are taking place.
- Integrity--to ensure the transmission is not corrupted.
- Nonrepudiation--to ensure that a sender of a message cannot deny he or she sent it. [FN273]

As exemplified by the Love Bug virus incident set out at the beginning of this Article, network security concerns may act as a catalyst for government efforts to transform the architecture [p. 1249] of the Internet into this architecture of trust. The Internet is vulnerable to network attacks that vandalize or steal information. Security concerns will only grow as a multitude of applications become increasingly connected to the Internet. Vinton Cerf, a co-inventor of the Internet communication protocol TCP/IP, predicts, like the rest of infrastructure, the Internet will eventually seem to disappear by becoming ubiquitous. Most access will probably be via high-speed, low-power radio links. Most handheld, fixed and mobile appliances will be Internet enabled. This trend is already discernible in the form of Internet-enabled cell phones and personal digital assistants. Like the servants of centuries past, our household helpers will chatter with one another and with the outside help. So many appliances, vehicles and buildings will be online by 2020 that it seems likely there will be more things on the Internet than people. [FN274] The usage of wireless Internet devices is currently undergoing exponential growth. [FN275] All new cars will likely one day come equipped with wireless modems permitting these cars to communicate via the Internet, perhaps describing imminent breakdowns to the closest repair shop and calling for roadside assistance. [FN276] Home security systems and childcare will become increasingly wired to the Internet. As our lives depend more and more on this forum, it is likely that individuals and businesses will demand a more secure network.

Commentators note, however, that network vulnerability is increased due to the anonymity of Internet users who can launch attacks or steal information without fear of detection. [FN277] [p. 1250] Identification mechanisms may ultimately help to resolve these problems because networks could refuse to deal with individuals who were not properly authenticated. [FN278] Computer experts recognize that architectural improvements to the Internet, including identification mechanisms, will be necessary to curtail increasing network security problems. [FN279]

#### *ii. Identifying the Location of Consumption for Tax Purposes*

In addition to network security concerns, tax matters may also prompt regulators to develop technologies that can identify web users. A necessary prerequisite to any tax effort is the identification and geographic location of taxpayers participating in international transactions. [FN280] The decentralized nature of the Internet, however, frustrates attempts by e-commerce businesses to identify the location of these parties. [FN281] Tax authorities [p. 1251] could encourage the implementation of technologies that identify the country (or local jurisdiction) where an Internet producer or consumer is located. [FN282]

Digital certificates have been suggested as one mechanism that would assist in this process. A digital certificate acts similar to a passport, revealing certain aspects of the computer user's identity such as age or location. [FN283] The digital certificate could be registered with a so-called "trusted third party," such as a government agency or a private company. The trusted third party would act like a bonding agency to ensure the veracity and accuracy of information given out by the digital certificates. [p. 1252] [FN284] The recent adoption of laws in the United States to legalize the use of digital signatures for contractual purposes could assist this identification process because the signatures, perhaps in conjunction with a digital certificate, can include information such as the location of the user. [FN285] This legislation is an important contribution to the development of the previously discussed "architecture of trust." [FN286] These identification technologies could be developed to preserve a desired amount of privacy on

behalf of individuals who use the Internet. For international transactions, it will be sufficient if the digital certificate identifies the country where the consumer is located. [FN287] For taxation in federal countries like the United States, it may be necessary to identify more closely [p. 1253] the location of customers to enable the imposition of state and local sales taxes on Internet transactions. Still, it may be sufficient to resort to a zip code instead of the street address of the customer. [FN288] At any rate, privacy concerns will likely be a significant hurdle to any government efforts to promote the identification of taxpayers, and regulatory efforts should be directed at building in assurances (for example, mandated public key encryption for all taxpayer information flows) to protect privacy interests. Further, Lessig has noted that digital certificates should not necessarily be forced on users. [FN289] Rather, a network that offers users incentives to employ these certificates will be far more effective, which significantly assuages privacy concerns: "When [Internet] architectures accommodate users who come with an ID installed and make life difficult for users who refuse to bear an ID, certification will spread quickly." [FN290] According to Lessig, commerce should encourage this process because commercial participants will want to increase authentication and security in cyberspace in order to promote increased revenues. [FN291]

[p. 1254] Although this Article has focused largely on direct taxation, such as income taxes, identifying the location of a taxpayer is also critical for regulatory efforts to impose indirect taxes, such as sales taxes and value-added taxes, on end consumers. U.S. states and local governments will likely be unable to effectively impose their sales taxes on transactions until the jurisdiction of consumption is identified (assuming political will exists to impose these taxes and constitutional barriers can be overcome). Many federal legislators currently seem to prefer to treat the Internet as a no-tax zone, at least for the medium term. [FN292] Nevertheless, identifying the state and local jurisdiction of purchase will probably be necessary to enforce the collection of sales and use taxes. [FN293]

Identifying the location of consumption will also be necessary to enforce recent efforts by member states of the European Union to impose their value-added taxes (VATs) on transactions from non-EU countries to consumers located within the European Union. [FN294] Non-EU countries may initiate similar efforts. [p. 1255] Every OECD country, other than the United States, now uses a form of VAT to meet revenue needs. The European Union has proposed that all non-EU online retailers should be forced to assess, withhold, and remit VAT payments on the sale of e-commerce goods and services to non-business consumers within EU member states as long as these sales collectively exceed 100,000 Euros. [FN295]

There is a growing worldwide trend to employ consumption taxes to raise the funds necessary to pay for important social programs such as social security. [FN296] The United States government, however, has expressed concern surrounding these European developments, with some commentators suggesting that the EU proposal is nothing less than an illegal extra-territorial tax grab. [FN297] Further, these commentators state that the proposal will lead to unacceptable compliance costs for non-EU online companies which may somehow have to comply with foreign tax laws. [FN298] This concern is addressed in the next Part.

[p. 1256]

### 3. International Online Tax Clearinghouse

This Part ties together the discussion of the previous two Parts by discussing how the extranet and identification technologies could act in combination with an online tax clearinghouse in order to (1) reduce compliance costs for online companies; (2) protect the source state's ability to tax online transactions; and (3) reduce harmful tax competition. The Part ends with an example that shows how the entire approach could work in an automatic and seamless manner from the perspective of both online consumers and retailers.

#### *i. Reducing Compliance Costs*

A major concern among industry participants is the tax compliance costs that could be associated with doing business in multiple jurisdictions via the Internet. As discussed, the OECD Working Party's tentative proposal to use servers as a taxation nexus could result in an e-commerce company's obligation to pay income taxes in every jurisdiction where it maintains a server if aggressive source countries try to assert their taxing jurisdiction over alleged server profits. [FN299] The company could, conceivably, have to file tax returns in dozens of different countries.

Compliance costs were a paramount industry concern with respect to any potential efforts by U.S. states or local governments to force online retailers to assess and remit sales taxes on Internet transactions. U.S. companies, and their lobbyists, understandably voiced strong concerns surrounding the compliance costs associated with state and local taxation, with over 7,500 taxing jurisdictions in the United States and an average of 500 tax changes per year. [FN300] A majority of the Presidential Commission on Electronic Commerce voted to extend the existing moratorium on Internet taxation, which prohibits the imposition of Internet taxes by state and municipal governments, at least until states take action to simplify and unify their sales tax systems. [FN301] A majority of the Commission also supported [p. 1257] the development of rules to support the eventual taxation of international e-commerce transactions as long as the rules did not hinder e-commerce or impose burdensome compliance costs. [FN302]

Any comprehensive technological solution will have to ensure that compliance costs are kept to a minimum in order to avoid charges that the regulations will inhibit the development of e-commerce. As a result of these concerns, regulators should use Internet technologies to transfer compliance costs from businesses and individuals to the regulators themselves. An international online clearinghouse, for example, could be used to assess and collect taxes on online payments and then remit these taxes to the relevant country.

Given the concerns noted above regarding the nature of the Internet (a medium that is characterized as decentralized, intangible, and global), the first question that must be asked is whether some form of online taxation system is technologically feasible. Mark Stefik, a Principal Scientist with the Xerox Palo Alto Research Center, has proposed a trusted system to encourage better control over certain aspects of e-commerce, such as the protection of intellectual property rights. [FN303] A trusted system permits centralized network control over Internet traffic. This trusted system, along with a system of national registry through digital certificates, could facilitate the proposed online clearinghouse: [p. 1258] With regard to taxation, the automatic billing capabilities of trusted systems will almost certainly attract the interest of taxing authorities unless nations agree to treat the Internet as a free trade zone. In principle, of course,

automatic billing of taxes is entirely feasible as long as trusted systems are kept abreast of changes in the tax laws of the trading partners. [FN304]

The international online tax clearinghouse could work as follows. Governments would first determine, through multilateral negotiations, an appropriate online intermediary that could be licensed to act as the collector of revenues. [FN305] Retailers have generally acted as the traditional intermediaries that collect taxes, but Internet technologies--and the arrival of new online intermediaries as a part of the reintermediation process discussed earlier--present a number of opportunities. Web browsers, such as Netscape's Navigator or Microsoft's Internet Explorer, for example, could act as intermediaries because consumers and businesses have to use a browser to navigate the web. Alternatively, online billing companies such as Mastercard, Visa, or Digicash could act as the intermediary. [FN306] Regulators could compensate these intermediaries for the collection and remittance of taxes by permitting the intermediaries to keep a portion of the taxes that have been collected. [FN307] The intermediaries would maintain electronic records of the transactions in order to provide an audit trail for tax authorities, should any disputes arise. Additionally, it may make sense to open up a bidding process whereby potential online intermediaries would propose Internet-based collection mechanisms and the regulators could choose the most efficient and cost-effective solution.

[p. 1259]

*ii. Protecting the Source State's Tax Base*

The new online intermediary would, in conjunction with the international online clearinghouse, enable automatic billing and collection of taxes. [FN308] First, the intermediary would scan the consumer's digital certificate, or similar identification technology, to determine the physical location of the consumer (which, as discussed, does not necessarily have to divulge the street address of the consumer) along with other required information. Next, the intermediary would access a government-maintained international online tax clearinghouse that maintains a database containing worldwide tax bases and rates.

For sales tax or VAT purposes, the intermediary would then adjust the retail price on the online vendor's website to show the amount of sales tax or VAT owed. A company called Taxware International already employs an online service that tracks the sales tax rates of all U.S. state and local tax jurisdictions, as well as most VAT jurisdictions, and calculates the relevant tax payments based on customer location information provided by the vendors. [FN309] This type of service could be incorporated into a formal international online tax clearinghouse that could be combined with a form of identification technology as discussed previously. If a purchase were made, the intermediary would unbundle the sales tax or VAT payment and remit this payment to the online clearinghouse. [FN310] Alternatively, as [p. 1260] Bentley and Quirk have noted, jurisdiction-specific tax information could be encoded on a transaction code embedded within the software used to perform a transaction. [FN311]

For income tax purposes, the intermediary could simply record the transaction with the online clearinghouse, which would forward the information through the proposed secure extranet to the appropriate national or subnational tax authority. It may prove more efficient for tax authorities, however, to mandate a gross withholding tax (which would be automatically removed and remitted to the online clearinghouse) that serves as a proxy for income tax liabilities. [FN312] In any event, this technological development would permit countries to enforce *de minimus*

threshold requirements for indirect taxes--for example, the 100,000 Euro requirement under the EU VAT proposal [FN313] as well as direct taxes, such as income taxes. [FN314] This solution would allow source countries to impose income taxes on transactions that exceed a specified monetary threshold in order to approximate the impact of existing international tax principles, such as the permanent establishment principle.

### *iii. Curtailing Harmful International Tax Competition*

A clearinghouse like the one described above would have the added benefit of permitting countries to maintain distinct tax rates and preserve competition among tax systems. The ability to impose different rates would preserve fiscal sovereignty among participating countries, a critical interest to [p. 1261] countries with differing revenue needs. Identification of a taxpayer's location, along with the maintenance of a record of cross-border transactions in a central clearinghouse (or, alternatively, an automatic collection process for a gross withholding tax), would permit the sharing of revenues associated with the taxation of profits derived from international e-commerce transactions. In addition, the approach may hinder harmful tax competition by permitting states to focus taxation on the jurisdiction of consumption instead of the jurisdiction where a company resides. As Avi-Yonah has noted, the residency of a company is easily manipulated through artificial means, [FN315] though "large consumer markets are unlikely to be tax havens." [FN316]

The counter argument is that residence countries need to develop effective rules to tax the worldwide operations of their residents. [FN317] Avi-Yonah notes, however, that due to the malleability [p. 1262] of residency, companies will, in the long run, take steps to ensure they are not residents in higher taxing jurisdictions by incorporating their companies in lower taxing jurisdictions. [FN318] This concern is particularly apt for mobile e-commerce businesses because, as Secretary of the Treasury Lawrence Summers notes, e-commerce permits companies to operate global businesses via websites based in jurisdictions that have minimal or zero tax. [FN319] An emphasis on granting consumer countries primary taxing authority suffers because it is contrary to generally accepted international tax principles and it is unclear whether consensus would develop to accept this approach. [FN320] Still, the approach would be assisted by the suggested technological developments that strive to record and tax transactions taking place within consumer countries.

### *iv. A Closing Example*

The following hypothetical example will illustrate how the online clearinghouse could work. Jacques, a resident of France, accesses the website of a Palo Alto, California online company called BooksForYou.com to purchase a digitized copy of *The Great Gatsby*. Some government-mandated online intermediary--perhaps a web browser, a billing company such as Visa, or the online retailer itself--automatically scans Jacques's digital certificate (or digital signature once the transaction is confirmed) and "tells" the intermediary the geographic location in which Jacques resides, without revealing unnecessary personal information. The intermediary then accesses the international online tax clearinghouse, which will assess the appropriate tax for the jurisdiction in which Jacques resides. When Jacques "clicks" on the BooksForYou.com website to find his desired book, the website, working with the intermediary, shows him the retail price of a digitized volume of *The Great Gatsby*, the applicable VAT tax, and the final total. When Jacques purchases the product, the intermediary will unbundle the sales tax payment [p. 1263] and remit it to the online international government clearinghouse. The intermediary will also

record the sales transaction to assist in allocating revenues and potential profits to different jurisdictions. From the perspective of both the consumer and the online retailer, all of this will function automatically, instantaneously, and seamlessly.

### C. THE NEED FOR GREATER INTERNATIONAL COOPERATION IN TAX MATTERS

Industry participants and tax authorities often look at each other with a large measure of distrust. Efforts at reform should consider technologically-based solutions that are acceptable to both parties. Regulation in the tax field may help encourage a more efficient and productive forum for the development of e-commerce. [FN321] This article has discussed several tentative proposals to assist regulators with taxing international e-commerce transactions. The technological details of these plans are clearly daunting, and a greater amount of detail--along with consensus--would be needed prior to greater consideration. The OECD's efforts should be directed toward devising effective regulatory alternatives to ensure that countries will be able to collect the tax revenues associated with international e-commerce transactions. By pursuing a goal-oriented, technology-flexible approach, the OECD may be able to devise such an alternative.

It is recognized, however, that the implementation of these proposals would call for a level of cooperation and resource deployment among national tax authorities which has never occurred. Tax authorities are not likely to agree on any comprehensive technical solution unless, and until, it is determined that governments are sustaining significant revenue losses as a result of their inability to tax many e-commerce transactions. Governments are also often reluctant to enter into any kind of international tax agreement that would compromise their fiscal sovereignty. This desire to protect sovereignty is probably the [p. 1264] primary impediment to efforts at formulating effective tax rules to govern international transactions. [FN322] As the global business community becomes more interdependent--a process encouraged by e-commerce--regulators may have little choice other than to develop multilateral solutions to protect their tax bases, and hence their ability to fund public goods. [FN323]

This seeming paradox--that regulators must give up sovereign control over certain aspects of tax policy in order to protect fiscal sovereignty--is answered by resort to social contract theory, which stipulates that individuals at one point renounced part of their natural rights (for example, the right to seek private vengeance or to have complete control over their property) in order to gain even greater freedom by entering into a cooperative state. [FN324] Countries need to reach an agreement to [p. 1265] curtail activities, such as tax evasion, on cross-border investments or harmful forms of international tax competition that are currently undermining fiscal sovereignty. The approach outlined previously would ultimately preserve fiscal sovereignty by enabling governments to impose their own distinct effective tax rates on cross-border transactions so that these governments can continue to fund necessary public goods.

## CONCLUSION

The breath-taking explosion of e-commerce and Internet-related technologies has created jobs, enhanced productivity, enabled new forms of speech, and promoted the sharing of creative expression among geographically distant individuals. There is, however, a dark side to the Internet exposed by the difficulties in regulating this new forum. Internet technologies enhance the mobility of financial capital, making it easier to avoid taxes. E-commerce companies often have greater latitude to shift the apparent geographic location of income-producing activities, leading to a potential increase in harmful tax competition as countries compete for highly mobile virtual income. Finally, the nature of the Internet may frustrate attempts by national tax authorities to track, audit, and tax e-commerce transactions.

In response, regulators like the OECD Working Party have proposed rules to permit countries to tax profits emanating from computer servers. The OECD Working Party's mandate is set by the OECD members themselves, who want to make sure that they will be able to tax the anticipated significant profits associated with e-commerce. These same member states, however, do not want to introduce new international tax rules that reflect the changing commercial environment of e-commerce. By trying to maintain existing international tax principles while attempting to allocate revenues to e-commerce importing nations, the OECD member states are trying to have their cake and eat it too. Taxing the profits emanating from servers would prove to be unpalatable indeed, principally because neither the software within the servers nor the servers themselves necessarily have to have any geographic connection with income-producing activities. This case study showed how the virtual world can subvert regulatory attempts that try to replicate real world rules and principles.

[p. 1266] An effective regulatory framework would involve a goal-oriented, technology-flexible approach that, first, identifies the values and interests that require protection and, second, attempts to mold the architecture of the Internet to ensure these values and interests can be protected. A possible approach by governments could involve the development of a secure extranet to share taxpayer information among tax authorities, the promotion of some form of identification technology that reveals the physical jurisdiction where taxpayers reside, and an international online clearinghouse to facilitate the tax collection process. By transforming the Internet into a taxable forum, governments will ensure that the Internet is not used to undermine their ability to collect tax revenues to pay for the public goods and services demanded by their constituents.

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[FN1]. Lev Grossman, *Attack of the Love Bug*, *Time*, May 15, 2000, at 48, 50- 51. The Love Bug initially appeared as an e-mail with the subject line indicating "ILOVEYOU" and an attachment. *Id.* When recipients clicked twice on the attachment, software code was activated, which replaced computer files on the user's hard drive with copies of the Love Bug, hence acting like a computer virus. *Id.* The Love Bug then searched for the Microsoft Outlook Express e-mail program and sent copies of itself to everyone listed in the address book. *Id.* The fact that the Love Bug reproduced itself over the Internet resembles the work of a computer worm. *Id.* at 51.

[FN2]. Dawn Kawamoto, "Love" Bug Damages Businesses Most, at <http://www.news.cnet.com/news/0-1003-200-1845293.html> (May 9, 2000).

[FN3]. Grossman, *supra* note 1, at 50.

[FN4]. *Id.* at 50-51.

[FN5]. *Id.* at 50; see also Associated Press, *The Damage of the "Love Bug,"* at <http://www.theage.com.au/news/20000507/A45892-2000May6.html> (May 7, 2000) (citing an estimate by Computer Economics Inc.).

[FN6]. See Grossman, *supra* note 1, at 53, 56. Jeff Carpenter of the CERT Coordination Center, a federally financed network security organization, warned, "Without architectural improvements [to the Internet,] we will see this again." *Id.* at 56.

[FN7]. Lawrence Lessig, *Code and Other Laws of Cyberspace* 5-8 (1999) (arguing that government must regulate the architecture of the Internet to ensure it can ultimately impose regulations on Internet participants because, otherwise, commerce will construct this architecture in a way that could undermine state interests); Lawrence Lessig, *The Zones of Cyberspace*, 48 *Stan. L. Rev.* 1403, 1408 (1996) ("Law as code is a start to the perfect technology of justice."). Lessig speaks more broadly of other forces that can constrain an individual's behavior, including real law, the market, and norms. See *id.* at 1407-09. Code can be similarly used to modify behavior by making some actions harder (or impossible) to accomplish in cyberspace. *Id.* at 1407-08; see also Andrew L. Shapiro, *The Control Revolution* 14-15 (1999); Yochai Benkler, *Overcoming Agoraphobia: Building the Commons of the Digitally Networked Environment*, 11 *Harv. J.L. & Tech.* 287, 368 (1998) (discussing how the architecture of the Internet affects the distribution of control over content); Joel R. Reidenberg, *Lex Informatica: The Formulation of*

Information Policy Rules Through Technology, 76 Tex. L. Rev. 553, 556-68 (1998) (suggesting policies to shape information flows).

[FN8]. Lessig, *supra* note 7, at 6.

[FN9]. See generally M. Ethan Katsh, *Software Worlds and the First Amendment: Virtual Doorkeepers in Cyberspace*, 1996 U. Chi. Legal F. 335. Katsh indicates, "To a considerable extent, networks really are what software allows them to be. The Internet is not a network but a set of communications protocols.... [T]he Internet is software. Similarly, the World Wide Web is not anything tangible. It is client-server software that permits machines linked to a network to share and work with information on any of the connected machines." *Id.* at 341. The Internet, hence, is a "software world," *id.* at 339, where "code is the Law," *id.* at 340 (quoting William J. Mitchell, *City of Bits: Space, Place, and the Infobahn 111* (1995)); see also Mark Stefik, *Internet Dreams: Archetypes, Myths, and Metaphors* 389-97 (1996) (discussing how great social tasks--like the construction of the Internet--can only be sustained through great social energy and wise choices); Joel R. Reidenberg, *Governing Networks and Rule-Making in Cyberspace*, in *Borders in Cyberspace* 84, 96 (Brian Kahin & Charles Nesson eds., 1997) ("Policy makers must begin to recognize network sovereignty and begin to shift the regulatory role of states toward indirect means that develop network rules.").

[FN10]. See Organization for Economic Co-operation and Development (OECD), *The Economic and Social Impact of Electronic Commerce: Preliminary Findings and Research Agenda 12* (1999) [hereinafter *OECD Electronic Commerce Report*]. The market for Internet sales from businesses to consumers was, according to one estimate, roughly \$26 billion in 1997. *Id.* at 27. It is anticipated that business-to-business transactions, which in 1999 accounted for 80% of all e-commerce activity, will dominate e-commerce transactions at least in the short term. *Id.* at 36. Twelve separate studies forecasted total e-commerce revenues between \$10 billion and \$1.5 trillion in 2000-2002. *Id.* at 41. More recent studies predict higher revenues. For example, Forrester Research, Inc. estimates \$2.7 trillion in revenue for the business-to-business market in the United States alone in 2004. Press Release, Forrester Research, *eMarketplaces Will Lead US Business eCommerce to \$2.7 Trillion in 2004*, at <http://www.forrester.com/ER/Press/Release/0,1769,243,FF.html> (Feb. 7, 2000).

[FN11]. For a general discussion of the international tax challenges presented by e-commerce, along with options available to tax authorities to meet these challenges, see generally Arthur J. Cockfield, *Balancing National Interests in the Taxation of Electronic Commerce Business Profits*, 74 Tul. L. Rev. 133 (1999). This Article builds on the research and analysis from that previous paper.

[FN12]. For a discussion on the impact of e-commerce on state and local government tax revenues, see Advisory Commission on Electronic Commerce, *Report to Congress 13-15, 17-18* (April 2000), available at <http://www.ecommerce-commission.org> [hereinafter *Advisory Commission Report*]. It is generally thought that revenue losses are currently relatively small, although it is anticipated that losses will increase as e-commerce develops. The U.S. General Accounting Office (GAO) notes the difficulties in estimating sales tax losses and projects losses between \$1 billion and \$12.4 billion for the year 2003 if consumer Internet sales are not taxed.

General Accounting Office, Sales Taxes: Electronic Commerce Growth Presents Challenges; Revenue Losses Are Uncertain 20-21 (June 2000). Another study estimates that in 1999, state governments collected \$140 million in sales and use taxes from Internet retail purchases, but were unable to collect \$525 million from additional Internet retail sales. Dick Kelsey, Forrester: Half Billion in Online Sales Taxes Uncollected, at [http://www.findarticles.com/m0HDN/2000\\_Feb\\_24/59615701/pl/article.jhtml](http://www.findarticles.com/m0HDN/2000_Feb_24/59615701/pl/article.jhtml) (Feb. 24, 2000). Another study projected future revenue losses for 2003 to be \$3.5 billion, which is less than 2% of all revenues to be collected from sales tax for 2003. Austan Goolsbee & Jonathan Zittrain, Evaluating the Costs and Benefits of Taxing Internet Commerce, 52 Nat'l Tax J. 413, 417 (1999).

[FN13]. More specifically, the case study examines a draft proposal by an e-commerce Working Party to the Organization for Economic Co-operation and Development (OECD), the leading international organization charged with developing tax rules to govern the taxation of cross-border e-commerce transactions, permitting countries to tax businesses that employ computer servers within their countries. See OECD, Working Party No. 1 on Tax Conventions and Related Questions, Clarification on the Application of the Permanent Establishment Definition in e-Commerce: Changes to the Commentary on Article 5 (Dec. 22, 2000), available at [http://www.oecd.org/daf/fa/material/mat\\_07.htm#material\\_final](http://www.oecd.org/daf/fa/material/mat_07.htm#material_final) [hereinafter OECD Proposal]. In March 2000 and October 1999, the OECD Working Party released earlier drafts of the proposal, which are also available at the same website.

[FN14]. Most international organizations and governments have insisted on preserving traditional international tax principles for the taxation of e-commerce. See Joint Declaration of Business and Government Representatives: Government/Business Dialogue on Taxation and Electronic Commerce OECD Ministerial Conference 1 (Oct. 7, 1998), available at [http://www.oecd.org/daf/fa/e\\_com/Ottawa.htm](http://www.oecd.org/daf/fa/e_com/Ottawa.htm) [hereinafter Joint Government/Business Report] ("The taxation framework for electronic commerce should be guided by the same taxation principles that guide governments in relation to conventional commerce."); see also generally Australian Tax Office, Tax and the Internet: Discussion Report of the ATO Electronic Commerce Project (1997), <http://www.ato.au/indexlist.asp?placement=AS/TS+k=internet+d=internet+1=1> [[hereinafter Australian Report]; OECD, Electronic Commerce: The Challenges to Tax Authorities and Taxpayers (1997), [http://www.oecd.org/daf/fa/e\\_com/turku.htm](http://www.oecd.org/daf/fa/e_com/turku.htm) [hereinafter OECD Turku Report]; OECD, Committee on Fiscal Affairs, Electronic Commerce: Taxation Framework Conditions 4 (1998), available at [http://www.oecd.org/daf/fa/e\\_com/Ottawa.htm](http://www.oecd.org/daf/fa/e_com/Ottawa.htm) [hereinafter OECD Taxation Framework]; Inland Revenue & HM Customs and Excise, Electronic Commerce: UK Taxation Policy P 10 (1998), at <http://213.38.88.195/coi/coipress.nsf>; Minister's Advisory Committee on Electric Commerce, Electronic Commerce and Canada's Tax Administration: A Report to the Minister of National Revenue From the Minister's Advisory Committee on Electronic Commerce P 2.4.3.3 (1998), at <http://www.cca-adrc.gc.ca/tax/business/ecom/ecom0-e.html> [hereinafter Canadian Report]; A European Initiative in Electronic Commerce, COM(97)157 P 56 (1997), at <http://www.cordis.lu/esprit/src/ecomcomx.htm>; President William J. Clinton & Vice President Albert Gore, Jr., A Framework for Global Electronic Commerce § I.1 (1997), <http://www.iitf.doc.gov/elecomm/ecom.htm>.

[FN15]. Federal lawmakers have banned any discriminatory taxes on the Internet, which

effectively prevents the development of regulations that could protect state and local sales tax bases. See Internet Tax Freedom Act, Pub. L. No. 105-277, § 1101, 112 Stat. 2681, 2719-21 (1998) (creating a moratorium on discriminatory taxes on the Internet that will expire October 21, 2001); see also Internet Nondiscrimination Act of 2000, H.R. 3709, 106th Cong. (2000) (approved by the House of Representatives on May 10, 2000). This legislation extends the Internet Tax Freedom Act moratorium by five years. See generally Doug Sheppard, House Approves Internet Tax Moratorium Extension, 87 Tax Notes 874 (2000). Certain Republican lawmakers oppose any Internet taxation as espoused in a recent "e-Contract 2000" that pledges to "continue legislative and oversight efforts to remove the barriers to future innovation, competition, and growth." Heidi Glenn, GOP Outlines Antitaxation E-commerce Agenda, 87 Tax Notes 875, 875 (2000) (quoting House Majority Leader Richard K. Armey, R-Texas).

[FN16]. In the absence of a tax treaty, the residence country generally grants a foreign tax credit to the resident taxpayer for foreign taxes paid, or exempts from taxation all foreign profits in order to alleviate any international double taxation. See, e.g., I.R.C. § 901 (West 2000); 26 C.F.R. § 1.901-2 (1991). The requirement of a permanent establishment in source countries is analogous to the U.S. constitutional requirement that permits U.S. states to impose and collect state and local sales taxes only if those businesses maintain a substantial physical presence within the state. As a result, there is a question whether computer servers located within a state will constitute this requisite physical presence. See, e.g., Michael Folz Wexler, Internet Tax Freedom Acts, 38 Cal. Tax Law. 11, 13 (Spring 1999) ("Some states have asserted that the hosting--or even the transitory presence--of the seller's website on a computer server in the customer's state suffices for jurisdiction.").

[FN17]. If a permanent establishment does not exist, the source country may still be entitled to impose a withholding tax on the gross amount of the payment for the e-commerce good or service if the transaction gives rise to certain types of income, such as royalties or interest. Tax treaties generally reduce the withholding tax for these types of income. For example, the United States generally imposes a rate of 30% on most passive investment income. I.R.C. § 881(a)(1) (1994). The United States Model Treaty, however, suggests much lower rates, such as 5% for most dividends, and no withholding tax on interest and royalties. United States Model Income Tax Convention, Sept. 20, 1996, arts. 10-12, 1 Tax Treaties (CCH) (Warren, Gorham, & Lamont eds., 1996) [hereinafter U.S. Model Treaty].

[FN18]. See, e.g., U.S. Model Treaty, *supra* note 17, art. 5(2); OECD, Committee on Fiscal Affairs, Model Tax Convention on Income and on Capital, art. 5 (1997) [hereinafter OECD Model Tax Treaty].

[FN19]. See, e.g., U.S. Model Treaty, *supra* note 17, art. 5(5); OECD Model Tax Treaty, *supra* note 18, art. 5(5).

[FN20]. For a more thorough discussion of permanent establishment issues, see generally Arvid A. Skaar, Permanent Establishment: Erosion of a Tax Treaty Principle (1991).

[FN21]. For a historical overview of these developments, see John Huston & Lee Williams, Permanent Establishments: A Planning Primer 1-10 (1993); Skaar, *supra* note 20, at 65-101;

Cockfield, *supra* note 11, at 135-36, 144-48; Michael J. Graetz & Michael M. O'Hear, The "Original Intent" of U.S. International Taxation, 46 *Duke L.J.* 1021, 1022-89 (1997).

[FN22]. International businesses were concerned that they could be doubly taxed on their cross-border transfers. For example, a shoe manufacturer based in the United States (the residence country) may want to sell its shoes to consumers in France (the source country), for a total profit on the sale of ten dollars per pair. Both the United States and France may assert tax jurisdiction over the profits, resulting in double taxation of the same business transaction. The International Chamber of Commerce, founded in 1919, and the 1920 International Financial Conference in Brussels, both appealed to the League of Nations to provide guidance to eliminate double taxation. Skaar, *supra* note 20, at 78-79. The League formed a committee of four economists to study the issue of double taxation in 1922. See *id.*

[FN23]. For a recent discussion of international tax principles, see generally Nancy H. Kaufman, Fairness and the Taxation of International Income, 29 *Law & Pol'y Int'l Bus.* 145 (1998). For views supporting the need to preserve source state taxation of e-commerce profits, see Charles E. McLure, Jr., Taxation of Electronic Commerce: Economic Objectives, Technological Constraints, and Tax Laws, 52 *Tax L. Rev.* 269, 361-62 (1997); David R. Tillinghast, The Impact of the Internet on the Taxation of International Transactions, 50 *Int'l Bureau for Fiscal Documentation Bull.* 524, 525 (1996). Commentators have proposed rules that could expand source state tax jurisdiction for e-commerce. See, e.g., Reuven S. Avi-Yonah, International Taxation of Electronic Commerce, 52 *Tax L. Rev.* 507, 532-41 (1997) (proposing a destination-based system to tax e-commerce profits); Richard L. Doernberg, Electronic Commerce and International Tax Sharing, 16 *Tax Notes Int'l* 1013, 1016-17 (1998) (suggesting that an e-commerce business-to-business withholding tax may be appropriate).

[FN24]. In fact, many developing nations have opposed the permanent establishment principle since its inception. In 1940, a subcommittee to the League of Nations was charged with reviewing the model bilateral tax treaty that was initially put in place in 1928. See Skaar, *supra* note 20, at 88-95. Interestingly, the majority of these subcommittee members were representatives from Latin American countries that were not active in the early years of World War II. *Id.* These representatives drafted source-based provisions that were favorable to the interests of their countries, which were generally net capital importers at the time. *Id.* For example, source countries were permitted to tax business profits within their borders as long as the transactions that gave rise to these profits were not isolated. *Id.* The existence of a permanent establishment was not required. *Id.* The draft treaty, known as the Mexico 1943 Draft, was never adopted, and a subsequent draft in London in 1946 required that a foreign business entity have a permanent establishment in the source country before its profits would be subject to any income taxes imposed by the source country. *Id.*

[FN25]. See MP3.com homepage, at <http://mp3.com> (last visited Jan. 31, 2001).

[FN26]. MP3.com, Corporate Overview, at <http://www.mp3.com/investor> (last visited Jan. 31, 2001). In addition to its database of music, MP3.com provides a number of services for its customers that enables them to access, manage, and listen to their own music collections in a number of different ways. See MP3.com, Inc., 1999 Annual Report 1 (2000), available at

MP3.com homepage, *supra* note 25 [hereinafter MP3.com Annual Report].

[FN27]. MP3.com Annual Report, *supra* note 26, at 14.

[FN28]. *Id.* The servers are hosted at facilities in San Diego, Sunnyvale, and Irvine. *Id.*

[FN29]. Telephone Interview with Steven M. Przesmicki, Vice President, Legal Affairs, MP3.com, Inc. (July 18, 2000).

[FN30]. In fact, MP3.com is moving to a subscription-based business model where consumers pay a monthly fee in order to gain access to the MP3.com database of music stored in MP3 format. See MP3.com homepage, *supra* note 25. The new subscription fees were announced as part of MP3.com's settlement with the Recording Institute of America, which had sued MP3.com for copyright violation. See *infra* text accompanying note 114.

[FN31]. See *supra* note 10.

[FN32]. The international e-commerce business-to-consumer market is less important because it represents less than 20% of overall revenues, has so far generated few profits, and consumers in many markets still lack access to the Internet. See, e.g., OECD Electronic Commerce Report, *supra* note 10, at 34-36.

[FN33]. See generally Arthur J. Cockfield, *Electronic Commerce, Developing Countries and Declining Tax Revenues*, UNESCO Encyclopedia of Life Support Systems (forthcoming) (draft on file with author).

[FN34]. This discussion ignores to a large extent how businesses are harnessing Internet technologies to improve profitability and productivity. In fact, the largest productivity gains for businesses employing Internet technologies have thus far surrounded improving efficiency all along the value-added chain, from the supply of raw materials, to sales, to the end consumer. Corporations employ extranets that link up their own businesses with suppliers, distributors, and other business partners creating so-called "fully integrated value chains." For example, suppliers can now track customer demands through an extranet and ensure their products arrive at the appropriate moment--a process improving on existing "just-in-time" inventory management techniques. This will permit companies to remove support personnel in source countries and to save on expenses by lowering their inventory carrying costs.

[FN35]. For a recent discussion on emerging business models, such as reverse auctions and aggregators, see Karl Friedan, *Cybertaxation* 35-39 (1999) (discussing the trends toward remote selling and global trading).

[FN36]. Auto dealers report productivity gains from their websites. See OECD Electronic Commerce Report, *supra* note 10, at 60. These companies spend only twenty-five dollars to deal with an e-commerce generated bid instead of several hundred dollars to deal with traditional face-to-face transactions because customers come "pre-qualified." *Id.*

[FN37]. For an introduction to this topic, see generally Andrew L. Shapiro, *Digital Middlemen and the Architecture of Electronic Commerce*, 24 Ohio N.U. L. Rev. 795 (1998).

[FN38]. See Amazon.com homepage, at <http://www.amazon.com/exec/obidos/subst/home/home.html> (last visited Mar. 8, 2001).

[FN39]. See E\*trade homepage, at <http://www.etrade.com/cgi-bin/gx.cgi/AppLogic+Home> (last visited Mar. 8, 2001).

[FN40]. A research study estimates that it costs roughly \$500 to \$700 to send a service representative into the field, \$15 to \$20 to handle a customer question over the telephone, and only about \$7 to set up and maintain an Internet-based customer service system. OECD Electronic Commerce Report, *supra* note 10, at 61.

[FN41]. Further, websites permit multinational businesses to gather information on foreign markets without a local office. A multinational company's website can perform a number of administrative tasks that previously required employees or fixed bases within source countries. Websites can perform administrative functions such as communicating with the head office when a sale is registered within the source country, automatically taking into consideration exchange rates, and crediting an accounts receivable account to the head office's accounting software program.

[FN42]. See Ariba.com homepage, at <http://www.ariba.com> (last visited Mar. 8, 2001).

[FN43]. Some of these new intermediaries are independent companies, such as VerticalNet, which create markets to link buyers with sellers. Alternatively, a consortium of companies can try to set up their own virtual marketplace. Ford, General Motors, and DaimlerChrysler recently announced the creation of a virtual marketplace for the purchase and sale of an estimated \$240 billion worth of parts and supplies. Seller Beware, *The Economist*, Mar. 4, 2000, at 61.

[FN44]. For example, a U.S. manufacturing company that makes drill bits may currently maintain a sales and marketing office in Argentina, which is used to sell and distribute products to various businesses in the Latin American market. These Latin American business customers will soon be hooked into the U.S. company's extranet and can order products without consulting the Argentine sales office. These latter sales will not be taxed by Argentina or any other Latin American country because they do not emanate from a permanent establishment within Latin America.

[FN45]. A source country will be able to tax the home base activities if the source country has negotiated a "restricted force of attraction" clause within its tax treaty network because the existing permanent establishment "attracts" certain profits emanating from the home base. For example, if a U.S.-based multinational company transfers e-commerce goods or services from its home office to a foreign market where it maintains a traditional permanent establishment that sells similar goods or services, a restricted force of attraction rule will permit the source country to tax profits from home office sales as well as profits that are attributable to the permanent establishment. See United Nations Model Double Taxation Convention Between Developed and

Developing Countries, Jan. 1, 1980, art. 7(1), 1 Tax Treaties (CCH) (Warren, Gorham, & Lamont eds., 1996) [hereinafter United Nations Model Tax Treaty]. Most industrialized countries, such as the United States, have been reluctant to negotiate such a provision. Of course, the restricted force of attraction rule will be of little use if the U.S. drill bit manufacturer closes down its Argentine office and exclusively sells its goods via the Internet.

[FN46]. See *supra* text accompanying note 19.

[FN47]. For example, Cisco Systems estimates that 55% of its orders are accomplished through the company's websites, at an estimated savings of \$500 million a year. Cisco@speed, Survey: Business and the Internet, *The Economist*, June 26, 1999, at 12.

[FN48]. Unlike a dependent agent, an independent agent is not an employee of the multinational firm nor would the independent agent fall under the daily control of the firm. Independent agents include commissioned agents and brokers and generally would act on behalf of several different clients. For a discussion on the distinction between independent and dependent agency status, see generally *Handfield v. Comm'r*, 23 T.C. 633 (1955).

[FN49]. The United Nations Model Tax Treaty contains a provision that permits source countries to tax the profits associated with independent agents in certain circumstances, but capital exporting countries have generally been reluctant to agree to this provision within their tax treaty network. See United Nations Model Tax Treaty, *supra* note 45, arts. 5(6)-(7).

[FN50]. Independent contractors do not constitute permanent establishments under the U.S.-India Tax Treaty. Income Tax Treaty, Dec. 18, 1990, U.S.-India, art. 5(5), 2 Tax Treatises (CCH) (Warren, Gorham, & Lamont eds., 1996). This article further indicates, "When the activities of such an agent are devoted wholly or almost wholly on behalf of that enterprise and the transactions between the agent and the enterprise are not made under arm's-length conditions, he shall not be considered an agent of independent status within the meaning of this paragraph." *Id.* Even if the software engineer is not considered to be an independent agent, he does not fulfill the functions of a dependent agent that give rise to a permanent establishment, such as the habitual conclusion of contracts within the source country.

[FN51]. See U.S. Department of the Treasury, Office of Tax Policy, Selected Tax Policy Implications of Global Electronic Commerce P 9 (1996), available at <http://www.fedworld.gov/pub/tel/internet.txt> [hereinafter Treasury Report].

[FN52]. See *id.* ("Certain issues may initially appear to be so complex that they cannot be dealt with by existing principles. Further study is likely to result in the conclusion that one or more existing principles are more flexible than they may seem and they remain relevant notwithstanding technological developments.").

[FN53]. Joint Government/Business Report, *supra* note 14, at 1.

[FN54]. See OECD Taxation Framework, *supra* note 14, P 4 ("The taxation principles which guide governments in relation to conventional commerce should also guide them in relation to

electronic commerce. The [Committee on Fiscal Affairs] believes that at this stage of development in the technological and commercial environment, existing taxation rules can implement these principles."). The Committee makes it clear that new measures are permissible as long as they assist in the application of existing taxation principles and do not impose a discriminatory tax on e-commerce. Id. P 5.

[FN55]. See, e.g., Australian Report, *supra* note 14, P 7.2.15 ("A web site located on a server, that is fixed in time and location, and through which business is carried on may constitute a [permanent establishment]."); Herb Dhaliwal, Electronic Commerce and Canada's Tax Administration, A Response by the Minister of National Revenue to His Advisory Committee's Report on Electronic Commerce P 6.3.2.4 (1998), available at <http://www.cca-adrc.gc.ca/tax/business/ecom/index-e.html> ("Whether a file server fits the definition of a [permanent establishment] will depend on the facts and circumstances of the particular case. This issue will be dealt with on a case-by-case basis in a manner that is consistent with the Department's current published interpretations and rulings."); Dow Famulak et al., Taxation of Electronic Commerce: Asia-Pacific, 20 Tax Notes Int'l 877, 884 (2000) (discussing permanent establishment issues in Asia). But see Friedrich E.F. Hey, German Tax Authorities Rule That Server Does Not Constitute PE, 19 Tax Notes Int'l 635, 635 (1999) (noting that German tax authorities indicate that "for the time being" a server will not be considered a permanent establishment under the definition in the OECD model tax treaty because the activities associated with the server are preparatory in nature); Press Release, Inland Revenue, Electronic Commerce: Tax Status of Web Sites and Servers (April 11, 2000), available at <http://www.inlandrevenue.gov.uk/e-commerce/ecom15.htm> (indicating that servers will not constitute a permanent establishment for U.K. tax purposes).

[FN56]. See Australian Taxation Office, Tax and the Internet: Second Report PP 5.3.47-5.3.72 (1999), available at [http://www.ato.gov.au/content.asp?doc=/content/Businesses/ecommerce\\_tati2.htm](http://www.ato.gov.au/content.asp?doc=/content/Businesses/ecommerce_tati2.htm) [hereinafter Second Australian Report] (querying whether the permanent concept is fair in the e-commerce arena if use of this concept punishes capital importing nations).

[FN57]. Tax treaty negotiation takes place between government representatives of the tax authorities from the two states and not diplomats as would normally occur in the negotiation of an international agreement. If one side requests a new tax benefit for its residents, the other side will often ask for some other tax concession for its own residents.

[FN58]. OECD Proposal, *supra* note 13, P 1.

[FN59]. Chuck Gnaedinger, OECD Tax Body Agrees on Concept of Permanent Establishment for E-Commerce, 22 Tax Notes Int'l 227, 227 (2001).

[FN60]. OECD Proposal, *supra* note 13, P 42.2. Spain and Portugal, however, took the position that a website in and of itself may constitute a permanent establishment in the context of e-commerce. Id. P 6. The OECD Proposal notes that its mandate was not to address broader issues involving whether the permanent establishment concept is appropriate for e-commerce; these issues are being scrutinized by an OECD Technical Advisory Group on Monitoring the

Application of Existing Norms for the Taxation of Business Profits. See id. P 4.

[FN61]. Id. P 42.2.

[FN62]. Id. P 42.4.

[FN63]. Id. P 42.8.

[FN64]. Id. P 42.9.

[FN65]. Id. P 15.

[FN66]. Id. P 42.6. Earlier drafts of the proposal set out different views concerning whether the human intervention must take place in the source country or from a remote location, whether the intervention needs to be that of an employee or some other person, and the extent of the human intervention required (in other words, maintaining the server verses operating the server).

[FN67]. Id. P 42.3. The proposal notes that ISPs will generally not act as dependent agents with authority to conclude contracts on behalf of their principals (and thus deemed to be permanent establishments). Id. P 42.10.

[FN68]. Id. P 42.7.

[FN69]. See id.

[FN70]. OECD Model Tax Treaty, *supra* note 18, art. 5(4).

[FN71]. OECD Proposal, *supra* note 13, P 42.7.

[FN72]. See OECD Model Tax Treaty, *supra* note 18, cmt. art. 5, P 10. The commentary further indicates that if vending machines are initially set up and then leased, a permanent establishment will not exist. Id. A permanent establishment may exist if the company that owns the machines operates and maintains the machines for its own account or hires a dependent agent to do so. Id.

[FN73]. But see Huston & Williams, *supra* note 21, at 45 (suggesting that the notion that the vending machines themselves could be considered to be permanent establishments is inconsistent with other authority in the area).

[FN74]. See, e.g., U.S. Model Treaty, *supra* note 17, art. 17(1) (permitting source countries to tax artists and athletes whose gross income within the source country exceeds \$20,000). The theory behind the fictions is that the athletes or artists derive substantial compensation from the opportunities presented by the source country's markets and hence the source country should enjoy the resulting tax revenues despite the temporary nature of the activities. Similar arguments could be extended to e-commerce activities that generate significant revenues within source countries as a result of the temporary presence of websites or, arguably, the functions associated with the computer programs within servers.

[FN75]. See Treasury Report, *supra* note 51, P 7.2.3.1; OECD Turku Report, *supra* note 14, P 100.

[FN76]. See Second Australian Report, *supra* note 56, P 5.3.31 (noting that "[t]he physical location of a website or server is becoming increasingly irrelevant as bandwidth and response time problems are being overcome," leading to problematic tax planning opportunities).

[FN77]. For an accessible and comprehensive technical description of servers, see Tom Sheldon, *The Windows NT Web Server Handbook* 8-37 (1996).

[FN78]. See *id.* at 119-51 (describing software functions within a server).

[FN79]. See *id.* at 12.

[FN80]. A recent trend involves peer-to-peer networking where users do not have to resort to any centralized server. Users can access directories over a centralized server, but can then trade digital products among each others' personal computers. For a discussion of this industry trend, see Jerome Kuptz, *The Peer-to-Peer Network Explosion*, *Wired*, Oct. 2000, at 234.

[FN81]. See generally Arthur J. Cockfield, *Compliance Strategies for U.S. Companies with International E-commerce Transactions*, in 4 *Practical U.S. Int'l Tax Strategies* 8, 1, 5 (2000).

[FN82]. Industrialized countries generally do not maintain tax treaties with tax havens, thus a tax treaty interpretation of a "permanent establishment" will not be an issue. If a company is initially incorporated in a tax haven, or anywhere, it will generally be considered to be a resident of that country. Alternatively, servers that perform active business functions in tax havens may escape anti-avoidance tax rules that generally impose current taxation on passive activities.

[FN83]. Sports International, the largest online gambling company, is located in Grenada. OECD *Electronic Commerce Report*, *supra* note 10, at 39. A significant amount of online pornography operations apparently take place within Guyana. *Cybersex: An Adult Affair*, *The Economist*, Jan. 4, 1997, at 64.

[FN84]. For example, Bermuda, a tax haven, is reportedly marketing itself as an e-commerce center for businesses. See *Globalization and Tax*, *The Economist*, Jan. 29, 2000, at 16. Even countries that are not tax havens have an incentive to compete for highly mobile e-commerce businesses by offering preferential tax breaks to these companies. See, e.g., Linda Ng, *Singapore Offers Tax Incentives and Advantages to E-Businesses*, 21 *Tax Notes Int'l* 1, 16 (2000).

[FN85]. See Simson Garfinkel, *Welcome to Sealand. Now Bugger Off*, *Wired*, July 2000, at 230.

[FN86]. See *id.* at 235.

[FN87]. See Cockfield, *supra* note 11, at 148-50, 188-91.

[FN88]. It should also be noted that the more ambitious taxpayers can simply incorporate a company in a tax haven even if servers are not considered to give rise to permanent establishments under tax treaties. The Treasury Department has noted that existing controlled foreign corporation (CFC) rules may not cover the activities associated with many e-commerce operations. See Treasury Report, *supra* note 51, PP 7.3.4-7.3.5. This seems to be a particularly astute observation. For example, U.S. tax rules mandate accrual taxation, current taxation whether or not profits are repatriated to the United States, of CFCs that generate certain types of passive income. See I.R.C. §§ 951-64 (West 2000). There is an exception, however, if the CFC manufactures goods. See 26 C.F.R. § 1.954-3(a)(4) (1983). Would the creation of a digital product within the server constitute "manufacturing" ?

[FN89]. According to an earlier OECD report, hosting should not create a permanent establishment within the source country. See OECD, Working Party No. 1 on Tax Conventions and Related Questions, Proposed Clarification of the Commentary on Article 5 of the OECD Model Convention, Revised Draft for Comments P 3 (Mar. 3, 2000), available at [http://www.oecd.org/daf/fa/material/mat\\_07.htm#material\\_mardh](http://www.oecd.org/daf/fa/material/mat_07.htm#material_mardh) [hereinafter OECD Draft]. For a discussion of industry trends in hosting agreements and the legal implications of such an agreement, see generally Matthew M. Neumeier et al., eCommerce "Storefront" Development & Hosting, in *eCommerce: Strategies for Success in the Digital Economy* 375, 375-451 (1999).

[FN90]. A smaller e-commerce business can purchase one server to perform multiple functions such as mail, web applications, and data storage, all within one box. For example, Cobalt Networks sells a Cobalt Qube that combines a number of different applications into one box, partly to ease a network administrator's job. See Cobalt Networks homepage, at <http://www.cobalt.com/index.html> (last visited Mar. 8, 2001). A larger e-commerce business may need to use hundreds of servers within its server architecture with each server performing a unique function and possibly even involving different platforms such as Windows NT or Linux.

[FN91]. Australian Report, *supra* note 14, P 7.5.4.

[FN92]. It should be noted that the line between hardware and software functions is sometimes unclear. For example, servers often employ both hardware firewalls (a separate box with network security software loaded into it) and software firewalls to promote network security. Cisco Systems-- traditionally a hardware manufacturer and distributor--has begun to sell many of its servers with monitoring and firewall software pre-loaded into the server. See Cisco Systems homepage, at <http://www.cisco.com> (last visited Mar. 8, 2001).

[FN93]. Under most tax treaties, source countries are only permitted to tax profits attributable to permanent establishments within their countries. In its March 3, 2000 draft report on the topic, the OECD Working Party acknowledged the concern surrounding the difficulties associated with allocating profits to a server, but indicated, "It seems inappropriate to suggest that if attribution proves to be difficult, one should go back and decide there is no permanent establishment." OECD Draft, *supra* note 89, P 14. Moreover, it was noted that the attribution issue should fall within the mandate of the Technical Advisory Group on Monitoring the Application of Existing Treaty Norms for the Taxation of Business Profits. *Id.* P 16.

[FN94]. Carol A. Dunahoo, E-Commerce Tax Study Group Responds to OECD Request, 2000 *Worldwide Tax Daily* 11-18.

[FN95]. For a discussion of tax compliance problems associated with income characterization issues, permanent establishment issues, and record-keeping obligations, see generally Arthur Cockfield, *Tax Compliance Issues for U.S. Companies with International Electronic Commerce Transactions*, 20 *Tax Notes Int'l* 223 (2000).

[FN96]. U.S. tax rules impose foreign tax credit limitations to ensure that U.S. resident taxpayers cannot receive a credit that reduces their tax liabilities arising from sources within the United States. See I.R.C. § 904(a) (West 2000). Take the example of the transmission of a digital music file from a U.S.-based resident through a server located in France. France may tax the profits attributable to the server under the proposed OECD approach, but the United States may still characterize the transaction as generating only U.S. source income if the digital product is considered to be inventory in the United States when titled passed. See I.R.C. § 861(a)(6) (West 2000). If the sales agreement specifies that title to the inventory passes in France, the U.S. resident may be able to claim a foreign tax credit for income attributable to "sales activity" under the 50/50 method. See 26 C.F.R. § 1.863-3(b)(1)(i) (1998). For many digital products, however, the vendor will retain at least some rights to the product and the transaction arguably gives rise to royalty income with a different set of source rules. Recent changes to Treasury regulations suggest a substance-over-form test for transfers of software programs, but it is unclear whether these rules should apply to transfers of e-commerce products. See 26 C.F.R. § 1.861-18 (1998).

[FN97]. MP3.com, along with other e-commerce companies, has expressed concerns surrounding costs associated with complying with the tax laws of foreign jurisdictions. See MP3.com Annual Report, *supra* note 26, at 17 ("In addition, foreign jurisdictions may seek to impose tax collection obligations on companies like us that engage in online commerce. If they do, these obligations could limit the growth of electronic commerce internationally and limit our ability to profit from the sale of goods and services over the Internet in foreign countries.").

[FN98]. The production of e-commerce goods or services often involves high fixed costs but low marginal costs for replicating the good or service. Consider the development of an online auction like eBay. See eBay homepage, at <http://www.ebay.com> (last visited Mar. 8, 2001). The initial development of the software to run the auction could take years, but once the service is up and running, the service may require far lower expenditures to maintain or expand for additional users. For a discussion of information economics, see generally Carl Shapiro & Hal R. Varian, *Information Rules* (1999).

[FN99]. This position is somewhat ironic because the U.S. government funded and created the Internet in the first place. See, e.g., Steve Bickerstaff, *Shackles on the Giant: How the Federal Government Created Microsoft, Personal Computers, and the Internet*, 78 *Tex. L. Rev.* 1, 45-55 (1999) (discussing how the infrastructure of the Internet remains subsidized by taxpayers through telecommunications laws).

[FN100]. President William J. Clinton, *Presidential Directive on Electronic Commerce*, at <http://www.ecommerce.gov/presiden.htm> (last modified Dec. 17, 1997).

[FN101]. See supra note 15.

[FN102]. See supra note 15.

[FN103]. See Sheppard, supra note 15, at 877 (indicating that insiders feel the Senate "is where the real battle will be"); Declan McCullagh, Capitol Hill Divided on Net Tax, Wired News, at <http://www.wired.com/news/politics/0,1283,36154,00.html> (May 6, 2000) (noting that some Republicans in Congress worry about blame from state officials if revenue from sales taxes declines).

[FN104]. See *Quill Corp. v. North Dakota*, 504 U.S. 298, 308, 317-18 (1992) (involving a use tax that the state sought to impose when companies established a connection by advertising periodically within the state). In this case, the Court stated that the commerce clause prohibits the imposition by states of laws that could have a discriminatory impact on interstate commerce and therefore the requirement of a physical presence within the state prior to taxation is not unreasonable. *Id.* The Court noted, however, that the due process doctrine would not require any physical presence requirement and that Congress could pass laws to eliminate any commerce clause limitation. *Id.*

[FN105]. See, e.g., Advisory Commission Report, supra note 12, at 14-15 (noting a study that indicates states are "generally in good to excellent fiscal condition").

[FN106]. The anti-tax sentiment is exemplified by the passage in the House of Representatives of the Tax Code Termination Act, which sought to eliminate the income tax code by December 31, 2002. See Tax Code Termination Act, H.R. 3097, 105th Cong. (1998). For an accessible review of proposals to move toward flat taxes and other consumption taxes, see generally Joel Slemrod & Jon Bakija, *Taxing Ourselves: A Citizen's Guide to the Great Debate Over Tax Reform* (2d ed. 2000).

[FN107]. See generally David R. Johnson & David Post, *Law and Borders-- The Rise of Law in Cyberspace*, 48 *Stan. L. Rev.* 1367 (1996) [hereinafter Johnson & Post, *Law and Borders*]; David R. Johnson & David G. Post, *The Rise of Law on the Global Network*, in *Borders in Cyberspace*, supra note 9, at 3 [[hereinafter Johnson/Post *Borders*]; David R. Johnson & David G. Post, *The New "Civic Virtue" of the Internet: A Complex Systems Model for the Governance of Cyberspace* (1998), available at <http://www.temple.edu/lawschool/dpost/Newcivicvirtue.html>; David G. Post & David R. Johnson, *The New Civic Virtue of the Net: Lessons from Models of Complex Systems for the Governance of Cyberspace* (working paper draft, 1997), at [http://stlr.stanford.edu/STLR/Working\\_Papers](http://stlr.stanford.edu/STLR/Working_Papers) (last visited Feb. 20, 2001); David G. Post, *Anarchy, State, and the Internet: An Essay on Law-Making in Cyberspace* (1996), at <http://www.temple.edu/lawschool/dpost/Anarchy.html>. For a similar perspective, see generally Llewellyn Joseph Gibbons, *No Regulation, Government Regulation, or Self-Regulation: Social Enforcement or Social Contracting for Governance in Cyberspace*, 6 *Cornell J.L. & Pub. Pol'y* 475 (1997).

[FN108]. Johnson & Post, *Law and Borders*, supra note 107, at 1370-76. Johnson and Post argue

that if governments impose legal jurisdiction over activities associated with websites that appear on the computers of their residents, all web-based activity must necessarily be subjected to simultaneous laws of all territorial governments. *Id.* at 1376-77.

[FN109]. For example, if Germany prohibits the transmission from German-based servers of pornography, then German web users can simply access the same information emanating from a server based in some other country. In addition, Johnson and Post assert that it simply is not practical to monitor the volume of electronic communications crossing territorial borders. Johnson/Post *Borders*, *supra* note 107, at 3, 8; see also A. Michael Froomkin, *The Internet as a Source of Regulatory Arbitrage*, in *Borders in Cyberspace*, *supra* note 9, at 129, 129-32.

[FN110]. Johnson & Post, *Law and Borders*, *supra* note 107, at 1379.

[FN111]. *Id.* at 1387. "We believe the Net can develop its own effective legal institutions." Johnson/Post *Borders*, *supra* note 107, at 3, 21.

[FN112]. For a discussion of recent developments with respect to these self-regulatory bodies, see *Regulating the Internet: The Consensus Machine*, *The Economist*, June 10, 2000, at 73. The article notes the difference between W3C, which is largely self-governing and ICANN, which is generally self-governing but permits governments to have input through a governmental advisory committee. *Id.* at 79.

[FN113]. See Treasury Report, *supra* note 51, PP 6.3.1-6.3.6. The Treasury notes that the Internet is radically decentralized (where users have no control over the path taken by their transmissions); disintermediated (removing from the transaction chain important intermediaries such as financial institutions which act as taxing points); anonymous (making it difficult to determine an individual's location); and intangible (noting that a personal letter is indistinguishable from a message transmitting electronic money). *Id.*

[FN114]. See generally *UMG Recordings, Inc. v. MP3.Com, Inc.*, 92 F. Supp. 2d 349 (S.D.N.Y. 2000), cert. denied, 2000 WL 710056 (S.D.N.Y. June 1, 2000); *A&M Records, Inc., v. Napster, Inc.*, 114 F. Supp. 2d 896 (N.D. Cal. 2000), aff'd in part, rev'd in part, 239 F.3d 1004 (9th Cir. 2001). The RIAA can enforce copyright laws against both of these companies because both maintain central servers that process either digital goods or information required by users of the service. MP3.com maintains a centralized database of digitized music, which is accessed by users. Napster, on the other hand, does not maintain a centralized database of music, although it does maintain servers that provide a directory of available songs to users. For commentary, see *Napster and the Damage Done*, *The Economist*, July 29, 2000, at 33 (explaining Napster's software and discussing RIAA's actions in trying to prevent customers from using the service or otherwise exchanging songs over the Internet).

[FN115]. See MP3.com homepage, *supra* note 25.

[FN116]. See Napster homepage, at <http://www.napster.com> (last visited Mar. 8, 2001).

[FN117]. Most exchanges over the Internet currently involve a "client," typically an individual's

personal computer, and a "server," typically a more powerful computer that has been networked to the Internet. In a distributed information network, all computers act as both clients and servers. Gnutella users search the hard drives of other Gnutella users to locate available songs. The only way an organization such as the RIAA could enforce copyright laws against Gnutella users would be to obtain an injunction against each individual user. See *Here, There and Everywhere*, *The Economist*, June 24, 2000, at 91; see also Michelle Delio, *Why Music Trading Won't Die*, *Wired News*, at <http://www.wired.com/news/culture/0,1284,37831,00.html> (July 27, 2000) (explaining that programs such as Gnutella center around music files "set free" onto open servers, making it "nearly impossible for anyone to stop anyone else" from downloading the files).

[FN118]. For a comprehensive account of these possible technologies, see Mark Stefik, *The Internet Edge: Social, Technical and Legal Challenges for a Networked World* 55-106 (1999); see also Peter H. Lewis, *Napster: Why the Web is All Shook Up*, *San Diego Union-Tribune*, July 11, 2000, at *ComputerLink* p. 6.

[FN119]. Under the Johnson-Post model, the OECD Working Party's efforts would be criticized because these efforts would (1) create inconsistent or conflicting rules when applied by tax authorities, (2) suffer from a lack of notice of the rules to Internet participants, and (3) overly burden these participants who would have to comply with the rules by allocating profits to their foreign servers.

[FN120]. See *supra* notes 107-12 and accompanying text.

[FN121]. See, e.g., Leo Strauss, *Natural Right and History* 35-80 (1953). Strauss discusses the views of Max Weber, perhaps the greatest social scientist of the century. For Weber, the role of social science is to present facts and their causes in an ethically neutral way without commenting on questions of value. See *id.*

Weber insisted [that] the social scientist does not evaluate the objects constituted by "references to values"; he merely explains them by tracing them to their causes.... Weber contended that his notion of a "value-free" or ethically neutral social science is fully justified by what he regarded as the most fundamental of all oppositions, namely, the opposition of the Is and the Ought, or the opposition of reality and norm or value.

*Id.* at 40-41. Strauss, however, offers a more nuanced view of the argument by asserting that social science "is meant to be of practical value. It tries to find means for given ends. For this purpose it has to understand the ends." *Id.* at 41. Strauss, like Weber, recognizes that there is not any one true value system that can be accessed by reason, but asserts that the role of social science or social philosophy is to mediate and clarify the conflict between alternative value systems and reveal the implications of each system on human conditions. *Id.*

Because evolution has proceeded in certain particular way, it does not follow that course is morally right or desirable. The justification of ethical norms on biological evolution, or on any other natural process, can only be achieved by introducing value judgments, human choices that prefer one rather than other object of process. Biological nature is in itself morally neutral. F.J. Ayala, *The Biological Roots of Morality*, 2 *Biology & Philosophy* 235, 245 (1987).

[FN122]. Communication over the Internet can be broken down into three general forms: (1) individual free speech communication, (2) individual commercial communication, and (3) machine-to-machine communication. Raymond Ku and I examine the regulatory implications of each category along with the difficulties associated with regulating overlapping categories. See Arthur Cockfield & Raymond Ku, *So What's the Big Deal About the Internet? Musings on the Great Link* (forthcoming) (manuscript at 12-16, on file with author). Johnson and Post note that cyberspace is not homogenous, but made up of distinct subsidiary "territories" with distinct regulatory needs that defy traditional forms of regulation. See Johnson/Post *Borders*, supra note 107, at 3, 13-15; see also Reidenberg, supra note 9, at 87.

[FN123]. For an account of these different forms of communication, see Lessig, supra note 7, at 63-83.

[FN124]. See, e.g., Viktor Mayer-Schonberger & Tere E. Foster, *A Regulatory Web: Free Speech and the Global Information Infrastructure*, in *Borders in Cyberspace*, supra note 9, at 235, 246-47 ("[N]ational regulators must recognize that domestic controls and enforcement are futile regulatory mechanisms for an international structure in which information can be redeployed and disseminated in a matter of seconds."). For a recent review of First Amendment principles and the Internet, see generally Raymond Shih Ray Ku, *Open Internet Access and Freedom of Speech: A First Amendment Catch-22*, 75 *Tul. L. Rev.* 87 (2000).

[FN125]. See sources cited supra note 124.

[FN126]. See, e.g., Henry H. Perritt, Jr., *Cyberspace Self-Government: Town Hall Democracy or Rediscovered Royalism?*, 12 *Berkeley Tech. L.J.* 413, 419 (1997) (advocating that self-regulation is generally desirable for individual communities on the Internet).

[FN127]. Johnson and Post recognize, however, that the decision to regulate becomes less troublesome the more one strays from a pure cyberspace experience. See Johnson & Post, *Law and Borders*, supra note 107, at 1401. For example, an Internet transaction that involved money changing hands in the "real" world might call for real world regulations. See *id.*

[FN128]. For an account of possible directions and implications of the continuing evolution of the Internet, see generally Stefik, supra note 118. While Stefik believes the Internet is only beginning to demonstrate its potential as a commercial medium, he additionally believes the Internet will act as a forum to explore the diversities and similarities of the human race. *Id.* at 290. Stefik concludes,

When we see the many different faces of each other, may we recognize them as the faces of our selves. In this way the Net as a change amplifier and the Net as a portal into cyberspace and the Net as a knowledge medium can also be an agent that moves us further into the mystery of life and deeper into an understanding of who we are.

*Id.*

The challenge for regulators will be to accomplish their agenda by regulating commerce while permitting the less commercial aspects of the Internet to develop. It will probably be many years before a satisfactory equilibrium is reached that reconciles the tension between the need to protect state interests and the desire to encourage human flourishing on the Internet.

[FN129]. See, e.g., Shapiro, *supra* note 7, at 31. Shapiro notes, [I]t would be a mistake, conceptually and practically, to erect a barrier between online and offline activity. Cyberspace is not somewhere "out there," a world apart from flesh and blood, asphalt and trees. Our actions online have (need it be said?) a real impact on the lives of other human beings. When a fraudulent securities offering on the Net cause novice investors to be bilked of their hard-earned money, for example, that's a "real world" injury. Id.

[FN130]. The current absence of taxation on many Internet transactions acts as a form of subsidy if traditional transactions remain taxed. High technology companies have lobbied hard to maintain the current regime for obvious reasons: taxes will ultimately lower their after-tax returns and may even require a reevaluation of the arguably over-priced share valuations that many e-commerce companies continue to enjoy. Lower share values will reduce the value of stock option compensation that forms a significant component of the total compensation package for many high technology employees. Further, lower share values will make it more difficult for these companies to access equity capital for expansion purposes or to simply keep the companies afloat. A couple of caveats should be noted. First, most start-up Internet companies remain unprofitable at this point and therefore do not have to pay income taxes. Second, under the semi-strong version of the Capital Market Hypotheses, the market should have already priced the shares accurately by taking into account all publicly available information, including the probability of new legislation that would impose taxes on Internet transactions.

[FN131]. I am not going as far as some who suggest that cyberlaw is indistinguishable from traditional law. See, e.g., Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. Chi. Legal F. 207, 210. For a response to this position, see Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach*, 113 Harv. L. Rev. 501, 502 (1999) (arguing that cyberlaw teaches, among other things, the limits and potential of law as a regulator of this new forum for communication and commerce).

[FN132]. See Johnson/Post *Borders*, *supra* note 107, at 3, 22-24.

[FN133]. From a normative perspective, even a non-efficient regulatory outcome may be acceptable if the regulations protect values. For a general discussion on the advantages and limitations of self-regulation on the Internet, see generally Monroe E. Price & Stefaan G. Verhulst, *In Search of the Self: Charting the Course of Self-Regulation on the Internet in a Global Environment* (forthcoming) (draft on file with author).

[FN134]. See, e.g., Margaret Jane Radin & R. Polk Wagner, *The Myth of Private Ordering: Rediscovering Legal Realism in Cyberspace*, 73 Chi.-Kent L. Rev. 1295, 1295-96 (1998) (arguing that Internet private ordering depends on state-created rules governing contract and property, as do all forms of private ordering). In a recent work, Professor Barbara Fried traces the origins of the Legal Realist movement in its earlier stages, noting that an important agenda of the Realists was "to debunk the notion of a freestanding, self-regulating market, by showing that the market was ineluctably constituted by the legal regime in which it operated." Barbara H. Fried, *The Progressive Assault on Laissez Faire: Robert Hale and the First Law and Economics*

Movement 13 (1998).

[FN135]. Dan Schiller, *Digital Capitalism* 87 (1999). Schiller suggests that we are in danger of permitting industry to determine critical public interests such as education or communications policy. See *id.* at 205.

For the first time since its emergence in the early twentieth century, the corporate-led market system no longer confronts a significant socialist adversary anywhere on the planet. Digital capitalism also is free to physically transcend territorial boundaries and, more important, to take economic advantage of the sudden absence of geopolitical constraints on its development. *Id.*

[FN136]. Bill Daley, Address at the OECD Ministerial Conference on E-Commerce, Ottawa (Oct. 7-9, 1998) (asserting that U.S. companies will develop appropriate information collection policies that are aligned with the privacy needs of their customers). For a review of U.S. policy, see *United States, Privacy and Electronic Commerce* (June 1998), available at <http://www.doc.gov/ecommerce/privacy.html>. The policy was not intended to apply in all circumstances and Congress has passed legislation to control privacy practices of websites that collect information on children. See *Children's Online Privacy Protection Act of 1998*, 15 U.S.C. §§ 6501-6506 (Supp. 2000).

[FN137]. For a review of general privacy issues, see generally Paul M. Schwartz, *Privacy and Democracy in Cyberspace*, 52 *Vand. L. Rev.* 1609 (1999).

[FN138]. See Federal Trade Commission, *Online Profiling: A Report to Congress* 3-5 (June 2000), available at <http://www.ftc.gov/os/2000/06/onlineprofiling-reportjune2000.pdf> [hereinafter *Online Profiling*].

[FN139]. *Id.* at 2-3. Cookies will remember user names and passwords and can be used to enable targeted news stories or personalized services such as stock portfolio tracking.

[FN140]. See Federal Trade Commission, *Privacy Online: A Report to Congress* iii (1998), available at <http://www.ftc.gov/reports/privacy3/priv-23a.pdf>.

[FN141]. See *supra* note 136 and accompanying text.

[FN142]. See Council of the European Union, *Directive on the Protection of Individuals with Regard to the Processing of Personal Data and to the Free Movement of Such Data*, 12003/1/95 REV 1 (adopted Feb. 1995), available at [http://www.privacy.org/pi/int/\\_orgs/ec/final\\_EU\\_Data\\_Protection.html](http://www.privacy.org/pi/int/_orgs/ec/final_EU_Data_Protection.html) [[hereinafter *Privacy Directive*]]. For extensive analysis on the Privacy Directive and its potential impact on international data transmissions, see generally Peter R. Swire & Robert E. Litan, *None of Your Business: World Data Flows, Electronic Commerce, and the European Privacy Directive* (1998).

[FN143]. See *Privacy Directive*, *supra* note 142, art. 7(a). The directive also requires all businesses to tell consumers how the information will be used. *Id.* art. 10(b).

[FN144]. The Privacy Directive indicates that personal data could be transferred to another country only if this country offers adequate privacy protection (presumably similar in nature to the EU's mechanisms for protecting personal privacy). See *id.* art. 25. On March 14, 2000, the United States and the European Commission reached a tentative agreement under so-called "safe harbor" principles (for example, notice, choice, and security) that will permit the transfer of personal data from the European Union to the United States. Brian W. Smith & Wendy L. Morris, A Closer Look at the "Safe Harbor" Principles in the U.S.-EU Agreement on Personal Data Transfers, 2 *Global eCommerce L. & Bus. Rep.* 6, 6-10 (2000).

[FN145]. See TRUSTe homepage, at [www.truste.org](http://www.truste.org) (last visited Feb. 27, 2001) (noting that TRUSTe is funded by an industry consortium); see also Better Business Bureau homepage, at <http://www.bbbonline.org/consumers> (last visited Feb. 10, 2001) (noting that its mission is to promote trust and confidence on the Internet by encouraging sound and ethical online business practices and by providing information to ensure better educated online consumers); CPA WebTrust homepage, at <http://www.cpawebtrust.org> (last visited Feb. 27, 2001) (noting that its program involves a specially licensed Certified Public Accountant that examines a company's website to ensure that its web transactions meet the program's accepted high standards in areas including information protection, business practices, and transaction integrity).

[FN146]. See, e.g., Anonymizer.com homepage, at <http://www.anonymizer.com/splash.shtml> (last visited Feb. 10, 2001); Zero Knowledge homepage, at <http://www.zeroknowledge.com> (last visited Feb. 10, 2001). San Diego-based Anonymizer.com permits Internet users to surf the web on an anonymous basis. See Anonymizer.com homepage, *supra*. Anonymity, however, is only granted to the user while Anonymizer.com itself, through its proxy server, is aware of websites visited by the user (and promises not to give out this information, absent a warrant). See *id.* Accordingly, regulators could focus on Anonymizer.com if they wish to regulate this area. Montreal-based Zero Knowledge recently launched a more effective technology to mask a user's identity on the Internet; the identity is masked by a cloud of servers that prevent even Zero Knowledge from tracking the user. See Zero Knowledge homepage, *supra*. It may not be possible to regulate this type of masking technology. Zero Knowledge has provided, online, several papers that discuss its technology. See Freedom.net homepage, at <http://www.freedom.net/info/whitepapers/index.html> (last visited Feb. 10, 2001).

[FN147]. See, e.g., Enonymous.com homepage, at <http://www.enonymous.com> (last visited Mar. 8, 2001); P3P homepage, at <http://www.w3.org> (last visited Mar. 8, 2001). Enonymous.com has rated over 30,000 websites for their privacy practices and attaches this information to a browser companion. See Enonymous.com homepage, *supra*. Web surfers can choose to enter a website after they view the privacy rating. P3P has posted the following description at its website: The Platform for Privacy Preferences Project (P3P), developed by the World Wide Web Consortium, is emerging as an industry standard providing a simple, automated way for users to gain more control over the use of personal information on Web sites they visit. At its most basic level, P3P is a standardized set of multiple-choice questions, covering all the major aspects of a Web site's privacy policies.

P3P homepage, *supra*. One of the main differences between the approaches developed by these two companies is that Enonymous.com does not require commercial websites to participate with its efforts to identify privacy practices, whereas P3P needs commercial websites to employ its

technology so that the web surfer does not have to "click" on a prompt to proceed into the website. At the time of this writing, only a few companies had decided to participate in the P3P project.

[FN148]. See, e.g., *Online Profiling*, supra note 138, at 11 (noting a recent FTC study that indicates many companies fail to accurately disclose their privacy policies in their websites). [A]lthough 57% of a random sample of the busiest Web sites allowed third parties to place cookies, only 22% of those sites mentioned third-party cookies or data collection in their privacy policies; of the top 100 sites on the Web, 78% allowed third-party cookie placement, but only 51% of those sites disclosed that fact.  
Id.

[FN149]. See DoubleClick homepage, at <http://www.doubleclick.com> (last visited Mar. 8, 2001).

[FN150]. See Tom McNichol, *Double Agents*, *Wired*, June 2000, at 124 (comparing the practices of Russia's FSB, the intelligence agency descended from the KGB, to DoubleClick).

[FN151]. See RealNetworks homepage, at <http://www.realnetworks.com> (last visited Mar. 8, 2001). RealNetworks was collecting personal information on the listening habits of its customers in contravention of its privacy policy. Sara Robinson, *RealNetworks to Stop Collecting User Data*, *N.Y. Times Abstracts*, Nov. 2, 1999, available at 1999 WL 30547798.

[FN152]. The Federal Trade Commission prevented bankrupt Toysmart.com from selling its database of customer information after having assured hundreds of thousands of visitors to its website that personal data would never be shared with a third party. Matt Richtel, *FTC Sues Toysmart.com to Halt Sale of Customer Database*, *San Diego Union-Tribune*, July 11, 2000, at C3, available at 2000 WL 13975028; see also Chris Oakes, *Lack of Notice Snags E-Service*, *Wired News*, Aug. 2, 2000, available at <http://www.wired.com/news/business/0,1367,37949,00.html> (discussing how a number of commercial websites, including Toysrus.com and Lucy.com were giving their customers' personal information to an e-marketing company called Coremetrics).

[FN153]. Jacob J. Lew, director of the Office of Management and Budget, issued a memorandum the day after the controversy surrounding the government "cookies" was revealed that called for a review of government website privacy policies. John Schwartz, *Federal Web Sites Get Privacy Check*, *Washington Post*, June 23, 2000, at E2. But see Associated Press, *Drug Czar Seeks to Resume Office's Use of Net 'Cookies,'* *San Diego Union-Tribune*, July 12, 2000, at A2 (describing efforts by Barry McCaffrey to turn his office's cookie machine back on); Chris Oakes, *Judge to FBI: Move on Carnivore*, *Wired News*, Aug. 2, 2000, available at <http://www.wired.com/news/politics/0,1283,37967,00.html> (discussing how the Electronic Privacy Information Center sued the FBI, alleging that the FBI should be forced to disclose its illegal information gathering through the use of its Carnivore email surveillance system).

[FN154]. See *Online Profiling*, supra note 138, at 14 (discussing a 1999 IBM poll that suggests 92% of Internet users are concerned about threats to their personal privacy when they use the Internet while 72% say they are very concerned); Jim Nesbitt, *Keeping It Confidential*, *San*

Diego Union-Tribune, May 30, 2000, at Computerlink p.6, available at 2000 WL 13967615 (citing a U.S. Department of Commerce survey that indicates 86% of those who contemplate online shopping worry about giving away too much private information). Thirty states have apparently proposed some form of Internet privacy protection. Id.

[FN155]. See generally Department of Commerce, National Telecommunications and Information Administration, *Privacy and the NII: Safeguarding Telecommunications-Related Personal Information* (1995), available at <http://www.ntia.doc.gov/ntiahome/privwhitepaper.html> (discussing concerns surrounding the fact that many individuals may not be using the Internet due to privacy fears). But see Swire & Litan, *supra* note 142, at 85-88 (noting increased privacy protections for consumers may increase business-to-consumer e-commerce, but data protection regulations will inhibit the more important business-to-business e-commerce by restricting data flows).

[FN156]. See generally Jennifer L. Alvey, Daley: Consumer Fears About Online Privacy, Individual Profiling Threaten E-Commerce, 4 *Electronic Com. L. Rep.* 1040 (1999).

[FN157]. See Federal Trade Commission, *Online Profiling: A Report to Congress Part 2* (July 2000), available at <http://www.ftc.gov/os/2000/07/onlineprofiling.htm> [hereinafter *Online Profiling Part 2*]. The report was issued by the Network Advertising Initiative (NAI). See *id.* pt. II.C. The report indicates that web users should be able to "opt in" to certain types of information gathering such as linking previously collected clickstream data to personalized information. See *id.* pt. II.D.2.

[FN158]. See *id.* pt. III.

Nonetheless, backstop legislation addressing online profiling is still required to fully ensure that consumers' privacy is protected online. For while NAI's current membership constitutes over 90% of the network advertising industry in terms of revenue and ads served, only legislation can compel the remaining 10% of the industry to comply with fair information practice principles. Self-regulation cannot address recalcitrant and bad actors, new entrants to the market, and drop-outs from the self-regulatory program.

*Id.* The FTC had proposed similar backstop legislation in its earlier report to Congress. See generally *Online Profiling*, *supra* note 138. The lone dissenting member indicated that he could not accept any such legislation because industry was already developing technologies to protect consumer privacy interests and legislation could inhibit the development of these new technologies. See *Online Profiling Part 2*, *supra* note 157, attach.

[FN159]. See, e.g., Neil Weinstock Netanel, *Cyberspace Self-Governance: A Skeptical View from Liberal Democratic Theory*, 88 *Cal. L. Rev.* 395, 476 (2000) ("Industry self-regulation, a group's regulation of its members' practices with the goal of reducing harmful externalities to outsiders, is notoriously inadequate to its task.").

[FN160]. See, e.g., *Online Profiling Part 2*, *supra* note 157, pt. II.B ("Unless the Web sites visited by consumers provide notice of the ad network's presence and data collection, consumers may be totally unaware that their activities online are being monitored."). For a discussion of possible market failures that could justify government intervention, see Swire & Litan, *supra* note 142, at

7-9. The difference between off-line and online data tracking is that online consumers generally do not know that online companies are gathering data about them. See Netanel, *supra* note 159, at 476-77.

[FN161]. The counter argument is that Internet consumers accept intrusive snooping, but only at a price. The going "price" today is the availability of many free goods and services offered by commercial websites. These businesses can arguably offer to give away these services for "free" (of course, the goods or services are rarely truly free because the businesses sell data collected by website visitors) because they are indirectly generating revenues through either selling the collected personal data or permitting advertisers to employ personalized banner ads targeting website visitors.

[FN162]. Johnson/Post Borders, *supra* note 107, at 3, 10 ("Nor can legitimacy of any rules governing online activities be naturally traced to a geographically situated polity. There is no geographically localized set of constituents with a stronger claim to regulate it than any other local group; the strongest claim to control comes from the participants themselves, and they could be anywhere.").

[FN163]. This view can be represented by an oft-cited and colorful passage from John Perry Barlow, a prominent Internet commentator and ex-song writer for the Grateful Dead: Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather.... You have no moral right to rule us nor do you possess any methods of enforcement we have true reason to fear. Governments derive their just powers from the consent of the governed. You have neither solicited nor received ours.

John Perry Barlow, *A Declaration of the Independence of Cyberspace* (1996), at <http://www.eff.org/barlow>.

[FN164]. Professor Netanel has extensively criticized the view that cyberspace can more fully realize liberal democratic ideals than does a nation state. See Netanel, *supra* note 159, at 410-46. Netanel argues that an absence of Internet regulation by democratic governments will ultimately result in disastrous results for many unempowered groups whose interests would be ignored by powerful groups who would control the Internet's regulatory agenda. *Id.* at 421-22. Netanel discusses the digital divide, which occurs as a result of uneven access to cyberspace, pointing out surveys that show U.S. households using the Internet "are overwhelmingly white, educated, and affluent." *Id.* at 445. He also notes how the spread of broadband technologies to a more affluent market may one day result in the offering of high quality content and technology to one group while another (less educated and less wealthy) group will only have access to the less efficient network. *Id.* Hence, governments should selectively regulate the Internet to protect the interests of individuals who would otherwise be left out of consideration. *Id.* at 498.

[FN165]. For a review of different possible approaches to tax international e-commerce profits, see Cockfield, *supra* note 11, at 167-85.

[FN166]. Jack L. Goldsmith, *Against Cyberanarchy*, 65 *U. Chi. L. Rev.* 1199, 1199 (1998)

(arguing that traditional tools of jurisdiction apply to Internet transactions).

[FN167]. For a criticism of the Johnson-Post model with respect to its inability to account for the costs of certain externalities, see Mark A. Lemley, *The Law and Economics of Internet Norms*, 73 *Chi. L. Rev.* 1257, 1278 (1998) (using the example of copyright to argue that it is insufficient to permit Netizens to be governed by Internet norms).

[FN168]. See OECD Electronic Commerce Report, *supra* note 10, at 29.

[FN169]. See Treasury Report, *supra* note 51, P 7.1.5.

The growth of new communications technologies and electronic commerce will likely require that principles of residence-based taxation assume even greater importance. In the world of cyberspace, it is often difficult, if not impossible, to apply traditional source concepts to link an item of income with a specific geographical location. Therefore, source based taxation could lose its rationale and be rendered obsolete by electronic commerce. By contrast, almost all taxpayers are resident somewhere.... United States tax policy has already recognized that as traditional source principles lose their significance, residence-based taxation can step in and take their place. This trend will be accelerated by developments in electronic commerce where principles of residence-based taxation will also play a major role.

*Id.*

[FN170]. Residence-based taxation also suffers from the fact that this system would distort the market for traditional commercial activities (which would be subject to source state taxation when a permanent establishment exists) and e-commerce activities (which would never be subject to source state taxation). Market distortions would result because the after-tax cost of engaging in one activity or another may be different, despite the fact that the transactions may be economically identical. For example, the sale of a physical book through regular international commerce would be subject to source state taxation if the bookseller maintained a permanent establishment in the source country. The sale of a digital book would not be taxed by the source country under a residence-based tax system for e-commerce. For further discussion of this matter, see Cockfield, *supra* note 11, at 169-72.

[FN171]. I have proposed elsewhere that servers should not constitute permanent establishments but that rules are needed to allocate revenues to source countries where significant e-commerce activity takes place. See *id.* at 186-91. I consider a low e-commerce withholding tax on the gross payment for e-commerce goods and services above a certain threshold of sales, such as \$1 million. See *id.* In addition, I discuss other mechanisms to expand a source country's tax base, such as a more widespread deployment of restricted force of attraction provisions that will permit source countries to attract profits from so-called "clicks and mortars" that rely on physical facilities and online services to deliver goods. See *id.* The business-to-business e-commerce withholding tax will be fairly straight-forward to administer although source countries would need to develop mechanisms to enforce the business-to-consumer withholding tax. See *id.* These source countries are unlikely to forego the potential revenues from business-to-consumer sales despite the compliance problems. For a discussion of the recent efforts by the European Union to characterize downloads of digitized goods and services as the supply of services in order to facilitate VAT enforcement against online retailers, see Council of the European Union,

Directive on Electronic Commerce, 14263/1/99 REV 1 (ratified May 3, 2000).

[FN172]. Professor Netanel criticizes the view that cyberspace self-governance will promote liberal democratic values:

Finally, cyberians [who promote Internet self-governance] give insufficient weight to the distributive function of liberal government. Liberal ideals can be realized only if the incidents of citizenship are distributed among all citizens. Yet opportunities to communicate, process information, and even gain access to cyberspace are vastly unequal. The cyberian vision lacks a vehicle to provide such citizenship resources to those who currently lack them. Without state intervention, therefore, cyberspace self-governance will, at best, resemble the Athenian democracy of the privileged few, not participatory liberalism.

Netanel, *supra* note 159, at 406.

[FN173]. Johnson and Post note, however, that self-regulation by Internet participants is subject to limitation when it oversteps its appropriate sphere. See Johnson/Post *Borders*, *supra* note 107, at 3, 34.

[FN174]. American Bar Association, *Achieving Legal and Business Order in Cyberspace: A Report on Global Jurisdiction Issues Created by the Internet*, London Meeting Draft 162 (2000), available at <http://www.kentlaw.edu/cyberlaw/documents.html> [hereinafter ABA London Draft].

[FN175]. See OECD Taxation Framework, *supra* note 14, P 9.

[FN176]. The OECD does note, however, that the neutrality principle ensures that the Internet should not be treated as a tax-free environment. See OECD, Committee on Fiscal Affairs, *Implementing the Ottawa Taxation Framework Conditions 2* (2000). The solution will have to involve a broad multilateral effort because of the nature of e-commerce, the world's first truly borderless form of international commerce. In the absence of any kind of world tax authority, the OECD continues to be the appropriate forum to arrive at the multilateral solution. The OECD has suggested that any new rules should "achieve a fair sharing of the tax base" from e-commerce, but has yet to elaborate on what is meant by "fair." OECD Taxation Framework, *supra* note 14, P 6.

[FN177]. Even tax havens use payroll taxes and indirect taxes to raise revenues. These tax havens generally do not impose income taxes.

[FN178]. David L. Lupi-Sher, *The U.S. IRS's Fight Against Abusive Offshore Trusts*, 21 *Tax Notes Int'l* 176, 177 (2000). One of the more interesting debates taking place within financial circles is whether the development of e-cash and Internet banking will mean the end to central banks that control interest rates by acting as the monopoly suppliers of different types of currency. If e-cash replaces physical cash, then central bankers will not have the leverage to control the money supply. Professor Goodhart notes, however, that physical cash is truly anonymous (and therefore desirable) whereas e-cash relies on the trustworthiness of Internet banks to preserve anonymity. Charles Goodhart, *Can Central Banking Survive the IT Revolution?* (July 2000), at <http://www.worldbank.org/research/interest/conf/upcoming/papersjuly11/goodhart.pdf>. Hence, real

cash will not go away any time soon. Goodhart further suggests that central banks may one day control interest rates by borrowing or lending e-cash at amounts that are different than prevailing interest rates. *Id.*

[FN179]. For a call to preserve the ability of U.S. states to impose sales taxes on incoming e-commerce sales despite the absence of a substantial physical presence, see generally Walter Hellerstein, *State Taxation of Electronic Commerce*, 52 *Tax L. Rev.* 425 (1997).

[FN180]. See *supra* text accompanying notes 24-25.

[FN181]. See *supra* text accompanying notes 23-24.

[FN182]. See *supra* text accompanying notes 32-33.

[FN183]. See *infra* text accompanying notes 225-26, 315-19.

[FN184]. See, e.g., Roger H. Gordon & Joosung Jun, *Taxes and the Form of Ownership of Foreign Corporate Equity*, in *Studies in International Taxation* 13, 13-14 (Alberto Giovannini et al. eds., 1993).

[FN185]. Governments and international organizations have tended to focus on the impact of taxes on international portfolio investments due to greater mobility of production and the existence of concrete empirical data that suggests taxes greatly influence portfolio investment decisionmaking. See generally Joosung Jun, *U.S. Tax Policy and Direct Investment Abroad*, in *Taxation in the Global Economy* 55 (Assaf Razin & Joel Slemrod eds., 1990). The extent by which taxes influence FDI movements is hotly debated by economists because FDI placement is influenced by a number of factors such as political stability or lower labor costs. *Id.* at 58. Still, economists generally assert that FDI movements are influenced by tax incentives (or disincentives) although many dispute the relative importance of taxes in comparison to these other factors. See *id.*

[FN186]. The United States and Argentina have not negotiated a tax treaty. As a result, domestic U.S. law will govern the tax treatment of this portfolio investment. Portfolio interest received by a nonresident person is exempt from U.S. taxes. I.R.C. § 871(h) (1994). In addition, other forms of passive income received by nonresidents are generally not taxed. For example, interest earned on deposits with any U.S. bank or financial institution is exempt from U.S. tax when the interest is paid to a foreign person. I.R.C. § 871(i) (1994).

[FN187]. For example, U.S. law taxes its residents and citizens on all income "from whatever source derived." I.R.C. §§ 1, 61(a) (1994).

[FN188]. The United States and Argentina have not negotiated a tax treaty that would provide for an exchange of information. In fact, Salvatore would probably be better off to initially use a tax haven as an intermediary to conduct his investment in the United States in order to avoid the possibility of the U.S. tax authorities notifying the Argentine government of the investment. The U.S. tax authorities generally cannot ascertain with any accuracy the identity of investors who

invest through holding companies located in tax havens because most tax havens have bank secrecy laws that prohibit giving out any confidential client information such as the identity of the individuals who own the shares in the holding company.

[FN189]. For a discussion of the impact of capital flight on revenue losses, see Reuven S. Avi-Yonah, *Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State*, 113 *Harv. L. Rev.* 1573, 1599 (2000).

[FN190]. See Jeffrey Owens *Discusses Details of OECD Harmful Tax Practices Report*, 21 *Tax Notes Int'l* 94, 95 (July 10, 2000). Further, government officials may be concerned that bank secrecy laws in tax havens, combined with the non-reporting of transactions involving U.S. residents, may lead to billions of dollars leaving the United States for offshore havens. See S. Rep. No. 99-130, at 139-41 (1985) [hereinafter *Senate Committee Report*] ("Criminal activity in the United States is unquestionably aided by the use of foreign jurisdictions to divert enormous amounts of illegal profits from the United States. Clearly, billions of U.S. dollars derived from illegal activities are being funnelled offshore."). Under U.S. tax law, illegal income is subject to taxation. I.R.C. §§ 1, 61(a) (1994).

[FN191]. Avi-Yonah, *supra* note 189, at 1584.

[FN192]. For example, under the withholding option, a bank would withhold \$20 (20%) when it paid a foreign investor \$100 in interest. The bank then remits this amount to the federal government and the foreign investor can get a credit from his own government for taxes paid on the interest income (assuming the investor reports the income to his own government). Under the exchange of information option, the bank (or tax authority) simply notifies the country where the beneficial owner of the interest is located of the interest payment. The home country can then assess its own tax on the payment.

[FN193]. See Commission Proposal for a Council Directive to Ensure a Minimum of Effective Taxation of Savings Income in the Form of Internet Payments Within the Community, art. 2(1), 1998 O.J. (C212) 13, 15.

[FN194]. *Id.* art.7.

[FN195]. *Id.* art. 8. The withholding tax must be credited against the any tax liability in the investor's home country or refunded if the withholding tax exceeds the home country tax liability. *Id.* art. 10.

[FN196]. *Id.* art. 8.

[FN197]. See Joann Weiner, *EU Finance Ministers Agree on Savings Taxation; EU Hearings and Summits Address Other EU Tax Issues*, 20 *Tax Notes Int'l* 2731, 2731-32 (June 26, 2000). The EU member states agreed that all EU countries will eventually move to the exchange of information model. *Id.* at 2731. Further, the European Union will undertake efforts to encourage other third countries to participate in the exchange of information. *Id.*

[FN198]. OECD, *Harmful Tax Competition: An Emerging Global Issue* 10 (1998) [[hereinafter *Harmful Tax Competition*]]. The main factors to determine tax haven criteria were whether (1) the regime imposes low or no taxes on relevant income, (2) the jurisdiction facilitates the establishment of foreign-owned entities without the need for a local substantive presence, (3) the regime lacks transparency (details of the regime are not apparent or there is inadequate disclosure), and (4) there is no effective exchange of taxpayer information. *Id.* at 25-30.

[FN199]. *Id.* at 65-78.

[FN200]. See OECD, Committee Fiscal Affairs, *Towards Global Co-operation: Progress in Identifying and Eliminating Harmful Tax Practices* 17 (June 2000) [[hereinafter *Global Cooperation Report*]]. The United States was "cited for the harmful effects" of its Foreign Sales Corporations (FSC) provisions within the tax code. *Id.* at 14. FSCs are tax incentives that are designed to encourage exports. See I.R.C. § 922(a) (West 2000). The OECD report notes that "this Report has no bearing on [the] classification [of foreign sales corporations] or treatment in connection with trade disciplines." *Global Cooperation Report*, *supra*, at 14 n.11. The OECD appears to be referring to the ongoing dispute between the United States and the World Trade Organization. The United States argues that FSC provisions do not act in contravention of WTO rules against using tax incentives to encourage exports because the FSC rules ensure that income-producing economic activities take place outside the United States. See Appellate Body Report, *United States--Tax Treatment For "Foreign Sales Corporations"* 59 WT/DS108/AB/R (Feb. 24, 2000). The WTO has held that the FSC provisions constitutes a prohibited export subsidy. *Id.*

[FN201]. See *Global Cooperation Report*, *supra* note 200, at 12-16. With respect to identifying non-tax haven harmful practices, the main difference from the tax haven criteria is factor number 2 noted in note 198 above, which can be replaced with "whether the regime is ring-fenced from the domestic economy" (in other words, the tax benefits only apply to foreign companies). *Id.* at 10 n.3.

[FN202]. See *id.* at 24-26 (indicating that OECD member states can take defensive measures that include disallowing deductions, credits, or exemptions related to transactions with tax havens; denying availability of foreign tax credits with regard to distributions that are sourced to tax havens; or imposing "transactional" charges on certain transactions involving tax havens).

[FN203]. See I.R.S. Notice 97-24, 1997-1 C.B. 411 (warning taxpayers who participate in abusive offshore trust arrangements that they could be subjected to civil and criminal penalties). For a discussion of U.S. efforts in this area, see Lupi-Sher, *supra* note 178, at 176-77 (describing the efforts of IRS Assistant Commissioner John T. Lyons to focus more resources on discovering abusive tax avoidance and evasion transactions).

[FN204]. See Robert Goulder, *Clinton Proposes Tax Haven Blacklist*, 86 *Tax Notes* 896, 896-97 (Feb. 14, 2000) (describing the Clinton Administration's proposal in the 2001 budget to create a blacklist of tax havens).

[FN205]. Lawrence H. Summers, *Tax Administration in a Global Era*, Address Before the 34th General Assembly of the Inter-American Center of Tax Administrators (July 10, 2000), available at [http:// www.treas.gov/press/release/ps759.htm](http://www.treas.gov/press/release/ps759.htm).

[FN206]. *Id.* (describing potential action by the Clinton Administration to combat the use of tax havens, including legislation directed at requiring the reporting of payments to tax havens, the denial of certain tax benefits for income earned in tax havens, and forcing tax haven-based banks to comply with specified requirements in order for these banks to qualify as Qualified Intermediaries under U.S. tax law).

[FN207]. *Fed. Trade Comm'n v. Affordable Media LLC*, 179 F.3d. 1228, 1242 (9th Cir. 1999). In this case, two U.S. taxpayers placed assets in a trust located in the Cook Islands, a tax haven. *Id.* at 1231. The taxpayers were advised that their assets would be protected from U.S. creditors because U.S. jurisdiction did not extend over assets placed in a foreign country which would not enforce U.S. court judgments. *Id.* The two U.S. taxpayers participated in a Ponzi scheme where investors lost over \$13 million. *Id.* at 1332. The Federal Trade Commission sued the taxpayers to recover assets held in the trust in order to pay for the Ponzi scheme losses. *Id.* The taxpayers were unable to bring back the assets from the trust (due to a contractual provision in the trust agreement) and were held in contempt of court (and thrown in jail) for not complying with a judicial order to recover their assets held in a foreign trust. *Id.* at 1233. The court did not reach a decision on the more difficult issue of whether self-induced impossibility is a defense to civil contempt. *Id.* at 1243 n.12.

[FN208]. This Part relies to a certain extent on a previous work that offers a general discussion on the distinction between good and bad forms of international tax competition. See Arthur J. Cockfield, *Tax Integration Under NAFTA: Resolving the Conflict Between Economic and Sovereignty Issues*, 34 *Stan. J. Int'l L.* 39, 41-46 (1998). The OECD has set out criteria to distinguish between "harmful" international tax competition and "harmless" competition with respect to international financial services. See *Harmful Tax Competition*, *supra* note 198, at 13-18 (explaining that the degree of harmfulness of any tax practice ranges along a spectrum and thus the identification of harmful practices involves a balancing of factors).

[FN209]. See Jeanne-Mey Sun & Jacques Pelkmans, *Regulatory Competition in the Single Market*, 33 *J. Common Market Stud.* 67, 82-83 (1995).

[FN210]. Early work in this field was conducted by Professor Charles Tiebout who attempted to explain the process behind the market for public goods. See generally Charles M. Tiebout, *A Pure Theory of Local Expenditure*, 64 *J. Pol. Econ.* 416 (1956). His model, which examined the provision of public goods by local governments in the United States, suggested that regulatory bodies would be disciplined by the public who would "vote with their feet" if they did not approve of government policies by moving to a jurisdiction with a more favorable regulatory approach. *Id.* at 418. In other words, there was competition for voters (and taxpayers) between the two jurisdictions. The jurisdiction that best reflected the public preference (the correct mix of tax and the provision of public goods) would attract the most voters and hence the most tax revenues. See *id.*

[FN211]. For a discussion of general costs and benefits of competition among government regulations, see Stephen Woolcock, *The Single European Market: Centralization or Competition Among National Rules* 16-21 (1994).

[FN212]. See generally Alex Easson, *Tax Competition and Investment Incentives*, 2 *EC Tax J.* 63 (1997). Tax competition most often involves the use by a country of specific tax incentives to attract or maintain a certain type of investment. The consensus among tax policy analysts is that tax incentives for investment are rarely effective since, as noted above, direct investment is influenced by non-tax factors. The tax incentives do not generally attract investments that would not occur, but for the availability of the incentive. Thus, the incentives are made available to investors who would have made the investment even without the tax break. See generally OECD, *Taxation and Foreign Direct Investment: The Experience of Economies in Transition* (1995). If this is always the case, there would not be a reason to come up with multilateral mechanisms to deal with tax incentives offered to foreign companies. The country that enacted the tax incentive would only end up harming itself through foregone revenues. A race to the bottom, however, will continue to take place, at least for the medium term, as certain countries feel they have no choice other than to compete for capital against similarly-situated countries who are striving to do the same thing.

[FN213]. For example, it has been estimated that 103 countries have offered special tax benefits to foreign companies that set up production or administrative facilities within their borders. Avi-Yonah, *supra* note 189, at 1577.

[FN214]. See, e.g., *Harmful Tax Competition*, *supra* note 198, at 16 (indicating that harmful tax competition leads to detrimental effects by "causing undesired shifts of part of the tax burden to less mobile tax bases, such as labour, property and consumption"). The OECD Council specifically referred to this problem as part of the justification to retaliate against harmful tax practices:

Considering that if governments do not intensify their co-operation, the tax base will be eroded, a part of the tax burden will shift from income on mobile activities to taxes on non mobile activities and that such a shift would make tax systems less equitable and may have a negative effect on employment.

Global Cooperation Report, *supra* note 200, at 29; see also Michael J. McIntyre, *Commentary, The Design of Tax Rules for the North American Free Trade Alliance*, 49 *Tax L. Rev.* 769, 773-74 (1994) (discussing how tax competition has led to the adoption of a steeply regressive tax system).

[FN215]. It was recognized that the convergence of interest and inflation rates in Europe was a principle cause of this harmonization. See Commission of the European Communities, *Report of the Committee of Independent Experts on Company Taxation*, 193-219 (1992) [hereinafter *Ruding Committee*]. The committee, named after its chair, Onno Ruding, was mainly concerned with thwarting the development of future tax incentives designed to attract international investment. *Id.* These recommendations have never been implemented.

[FN216]. For a brief review of Tieboutian public choice theory, see *supra* note 210 and accompanying text.

[FN217]. Peggy B. Musgrave & Richard A. Musgrave, *Fiscal Coordination and Competition in an International Setting*, in *Influence of Tax Differentials on International Competitiveness* 59, 63-70 (1990) (arguing that the forces of competition cannot secure an efficient or equitable allocation of finances in the international arena). State tax competition differs from global tax competition since the former involves free trade without obstacles, comprehensive access to information, a federal tax system that establishes guidelines for individual and corporate income tax and imposes the lion's share of income taxes, and low rate retail sales taxes in contrast to high rate Value Added Taxes. Vito Tanzi, *Taxation in an Integrating World* 29-31 (1995) (discussing lessons from the American experience for global tax integration). It is interesting to note that Canadian provinces impose greater levels of tax on individuals and business entities in comparison to U.S. states where more tax competition exists. The provinces have generally adopted the federal government's definition of the income tax base, and most provinces have collection agreements that permit the feds to collect their taxes. Of course, there may be non-tax reasons that explain the different tax burdens.

[FN218]. Since labor is generally immobile in the international context, the models hold labor immobile and focus on the competition for mobile factors, such as investment goods. John H. Beck, *Tax Competition, Uniform Assessment, and the Benefit Principle*, 13 *J. Urban Econ.* 127, 127-29, 142 (1983) (describing how local government competition for investments leads governments in some circumstances to impose taxes on business property that are less than the cost of providing goods to the businesses).

[FN219]. See generally Joel Slemrod, *Tax Cacophony and the Benefits of Free Trade*, in *Fair Trade and Harmonization: Prerequisites for Free Trade?* 306 (Jagdish Bhagwati & Robert E. Hudec eds., 1996).

[FN220]. For OECD countries in general, corporate tax revenues have remained level for several decades. See OECD, *Taxing Profits in a Global Economy* 56 (1991) (indicating that during the 1980s, corporate tax increased in the majority of OECD countries and the OECD unweighted average for these revenues increased from 7.5% to 7.8% of total taxes); see also Ruding Committee, *supra* note 215, ch. 7 (concluding that there was no evidence that tax competition had led to significant corporate tax revenue downfalls within the economically integrated area of the European Community). In contrast, corporate tax revenues in the United States and Canada have been declining for several decades. Tanzi, *supra* note 217, at 103. In contrast to the situation in most other OECD countries, corporate income tax as a percentage of the GDP has declined significantly in the United States from 3.7% of the GDP in 1970 to 2.2% of the GDP in 1991; the corresponding figures for Canada are 3.5% to 2.1%. *Id.* This decline, however, has been attributed to reasons other than international tax competition, at least with respect to the situation in the United States. See Alan J. Auerbach & James M. Poterba, *Why Have Corporate Tax Revenues Declined?*, 1 *Tax Policy & the Economy* 1, 20 (1987) (concluding that domestic legislative changes and, more importantly, a decline in corporate profits, have contributed to lower corporate revenues); see also Roger H. Gordon & Joel Slemrod, *Do We Collect Any Revenue from Taxing Capital Income?*, 2 *Tax Policy & the Economy* 89, 120 (1988) (arguing that the different methods of taxing capital income lead to arbitrage opportunities that reduce revenues). Further, the United States and Canada continue to impose significant additional taxes on businesses, primarily employer's social security contributions and payroll taxes. Tanzi, *supra*

note 217, at 106-07 (discussing the debate surrounding whether or not these additional taxes should be properly characterized as falling on labor). In 1989, these additional taxes constituted 6.5% of the GDP for the United States and 3.6% of the GDP for Canada. *Id.* at 107. There is evidence that Canadian tax authorities have felt pressure to conform parts of their tax systems to the United States. Canadian effective tax rates on capital income have been gradually reduced in the last twenty years until the Canadian system imposed a similar tax burden on capital activity as the one imposed by the U.S. tax system. See Kenneth J. McKenzie & Aileen J. Thompson, *Taxes, the Cost of Capital, and Investment: A Comparison of Canada and the United States* 14 (1997) (concluding that convergence is mainly attributable to a convergence in real interest rates); see also Kenneth J. McKenzie & Jack M. Mintz, *Tax Effects on the Cost of Capital, in Canada-U.S. Tax Comparisons* 189, 207 (John B. Shoven & John Whalley eds., 1992) (noting that the convergence may not have been deliberate).

[FN221]. See, e.g., *Harmful Tax Competition*, *supra* note 198, at 17-18. Although it is difficult to quantify the harmful effects of tax competition, "countries would agree that such regimes are harmful and should be discouraged." *Id.* In fact, the Ruding Committee encountered difficulties in measuring the costs attributable to the interaction of the tax regimes of the different European Community member states. See Ruding Committee, *supra* note 215, at 197. It was indicated that the Committee has found no satisfactory way of quantifying the size of this misallocation [of resources].... Nevertheless, the fact that empirical evidence gathered on behalf of the Committee indicates that taxation does have a strong influence on the location of investment and on financing decisions is *prima-facie* evidence that the distortions to competition and resulting efficiency losses caused by taxation could be large. *Id.* at 197-98 (emphasis added). The Ruding Committee indicated that, among the member states, a general convergence of corporate income tax rates to a lower rate was consistent with (although not necessarily proof of) tax competition among these states. See *id.* at 199-200.

[FN222]. Robert Goulder, *OECD Symposium Asks, Do Tax Havens Really Work?*, 2000 *Tax Notes Today* 129-6, 129-6.

[FN223]. The European Union has attempted to distinguish between harmful and beneficial forms of tax competition by setting out the following criteria in its business tax code of conduct (which came into effect January 1, 1998):

When assessing whether such [tax] measures are harmful, account should be taken of, *inter alia*:

1. whether advantages are accorded only to non-residents or in respect of transactions carried out with non-residents, or
2. whether advantages are ring-fenced from the domestic market, so they do not affect the national tax base, or
3. whether advantages are granted even without any real economic activity and substantial economic presence within the Member State offering such tax advantages, or
4. whether the rules for profit determination in respect of activities within a multinational group of companies departs from internationally accepted principles, notably the rules agreed upon within the OECD, or
5. whether the tax measures lack transparency, including where legal provisions are relaxed at administrative level in a non-transparent way.

ECOFIN Council Conclusions Concerning Taxation Policy, 1998 O.J. (62) 1, reprinted in EC

Update, 38 Eur. Tax'n EC-5 (1998) (proposing that a special group be formed to identify the harmful tax measures and to oversee dismantling of the measures by January 1, 2003).

[FN224]. See Global Cooperation Report, *supra* note 200, at 15. With respect to taxpayers who benefited from harmful regimes that were in place on December 31, 2000, the benefits that are derived are to be phased-out by December 31, 2005. *Id.* If harmful measures are not eliminated by the deadline, the OECD is permitted to take defensive measures to counter-act the effects of the harmful measures. *Id.* at 16.

[FN225]. *Id.* at 18-19.

[FN226]. See *supra* notes 7-8 and accompanying text.

[FN227]. See Lessig, *supra* note 7, at 30-42. In fact, Lessig asserts that governments should refuse to do so at their peril. *Id.* at 29. To Lessig, unrestricted commercial developments will lead to a kind of control, even if government abdicates its responsibility to regulate. See *id.*

[FN228]. *Id.* at 107.

[FN229]. Unlike previous forms of static government regulation, it is likely governments will have to develop a more flexible approach that takes into consideration the dynamic and decentralized nature of the Internet. As the example involving Gnutella and Freenet makes clear, insurgents will always be developing code that can undermine government's efforts to regulate the Internet. See *supra* note 117 and accompanying text. Government regulation will have to constantly respond and adopt to these new developments, effectively requiring a counter-insurgent mentality to redress damage. Lessig suggests that governments will have a more difficult time in regulating an Internet that relies on open source code (like Apache or Linux) because open code is easier for third parties to manipulate in comparison to closed code (like Microsoft 98). See Lawrence Lessig, *The Limits in Open Code: Regulatory Standards and the Future of the Net*, 14 Berkeley Tech. L.J. 759, 764 (1999).

[FN230]. *Id.* at 763.

[FN231]. The majority of tax literature on this topic discusses, as this article has done, the complications surrounding the taxation of e-commerce. Significant progress, however, has been made by tax authorities to ease compliance efforts for taxpayers using Internet technologies, such as filing online tax returns. For IRS efforts in this area, see IRS e-file, at [http://www.irs.gov/elec\\_svs/index.html](http://www.irs.gov/elec_svs/index.html) (last visited Jan. 31, 2001). Over thirty-five million Americans filed electronically for fiscal year 1999, and the IRS website attracted 791 million hits in one year, making this website one of the most frequently visited sites on the Internet. See Summers, *supra* note 205.

[FN232]. See generally *Legislation with Regard to Taxation of Electronic Commerce: Hearing on H.R. 4267, H.R. 4460, H.R. 4462 Before the SubComm. On Commercial and Administrative Law of the House Comm. on the Judiciary, 106th Cong. (2000)* (statement of Sen. Stephen Saland, NY Senate, Vice-Pres., Nat'l Conf. of State Legis.), available at

<http://www.ncsl.org/programs/press/hjctest.html> (discussing the efforts by eighteen participating states to develop an Internet-based solution to reduce or eliminate the costs associated with sales tax compliance).

[FN233]. The OECD Technology Technical Advisory Group is reviewing, among other things, the feasibility of developing identification practices for businesses engaged in e-commerce, digital signatures, and compatible electronic tax records. See generally Jeffrey Owens, *Taxation in the Wired World* (May 2000), at [http://www.oecd.org/subject/e\\_commerce](http://www.oecd.org/subject/e_commerce). In addition, the OECD Professional Data Assessment Advisory Group is reviewing, among other things, the practicality of developing internationally compatible information and record-keeping requirements for tax authorities. *Id.*

[FN234]. See generally Duncan Bentley & Patrick Quirk, *A Proposal for Electronic Transactions Tax Collection in the Context of Tax-Driven Reform of Banking Laws*, 10 *J. Int'l Banking L.* 327 (1999); Duncan Bentley, *A Model for Electronic Tax Collection* (forthcoming) (draft on file with author). Other scholars propose replacing the federal and state income, sale/excise, gift, and estate taxes with a low rate tax that is automatically assessed and collected on most payments for goods and services. See generally Patrick R. Colabella & Richard J. Coppinger, *The Withdrawals Tax* (forthcoming) (draft on file with author).

[FN235]. Nations are often reluctant to share taxpayer information due to concerns surrounding the privacy rights of their residents. An additional problem exists where some countries refuse to share information with a requesting country if the actions of an individual being investigated by the requesting country would not be considered illegal in the other country. A recent OECD report, approved by all twenty-nine member states, recommends, among other things, heightened taxpayer information exchanges with identification numbers for taxpayers. See generally OECD, *Committee on Fiscal Affairs, Improving Access to Bank Information for Tax Purposes* (2000), available at <http://www.oecd.org/publications/e-book/2300031e.pdf>. The subsequently discussed extranet could facilitate this process.

[FN236]. See, e.g., *Global Cooperation Report*, *supra* note 200, at 20 (proposing a multilateral "OECD Model Tax Information Exchange Agreement" to assist cooperative jurisdictions to combat harmful tax competition in the context of mobile financial and other services). As part of its efforts to effectively tax cross-border savings, EU nations plan to strive to include key third countries in its information exchange procedures. See Weiner, *supra* note 197, at 2732. The European Union has already implemented multilateral dispute resolution procedures to help eliminate international double taxation in context of transfer pricing. See generally *Convention 90/436/EEC on the Elimination of Double Taxation in Connection with the Adjustment of Profits of Associated Enterprises*, 9 *Tax Notes Int'l* 78 (1995).

[FN237]. In order to protect taxpayer privacy, it may not be feasible to give financial intermediaries access to this extranet. A more realistic solution would be to have each national tax authority set up an intranet where information concerning cross-border transactions is fed to them by domestically-based financial intermediaries. The tax authorities could then share, if required, this transactional information with other participating tax authorities.

[FN238]. See Edward Cone, *Cash Machine*, *Wired*, June 1, 2000, at 269 (describing efforts by State Street to use its Global Link extranet to connect customers).

[FN239]. Marshall N. Carter, *How Technology is Forging a Revolution in Financial Markets*, Address at the Hotel Okura Executive Luncheon (June 25, 1999), at <http://www.statestreet.com> (discussing efforts by State Street to erect an information infrastructure to handle the flow of data associated with trillions of dollars in investments).

[FN240]. But see H. David Rosenbloom, *Sovereignty and the Regulation of International Business in the Tax Area*, 20 *Can.-U.S. L.J.* 267, 268 (1994) (arguing that, although multilateral tax treaties are warranted in theory, in practice and administration, it "is virtually impossible to pass beyond the bilateral level"). There are a number of reasons why tax authorities prefer to maintain bilateral negotiation of tax treaties, including the fact that bilateral negotiation permits a treaty to be tailored to unique matters that often arise between two particular countries, such as cross-border pension matters with neighboring countries. A multilateral agreement, however, should be extended at a minimum to rules dealing with an exchange of taxpayer information because this necessarily involves all countries. For a discussion surrounding a possible move toward a multilateral OECD Model Tax Treaty, see generally Michael Lang et al., *Multilateral Tax Treaties: New Developments in International Tax Law* (1998).

[FN241]. Most countries will not have the financial or technical resources to implement the extranet. The program, however, could still be successful if most OECD member states implemented the extranet, as the problems associated with capital flight and harmful tax competition generally involve these countries.

[FN242]. See, e.g., Froomkin, *supra* note 109, at 153-54 ("The same technology that would enable tax cheating would vastly enhance the capability of tax collectors to amass transactional data about citizens; if the state is willing to collect this data aggressively, tax cheating may actually become more difficult, not more common.").

[FN243]. See *supra* note 197 and accompanying text.

[FN244]. Professor Avi-Yonah has suggested the United States could unilaterally impose a withholding tax to signal to other countries that it will cooperate with multilateral efforts like the recent EU efforts. See Avi-Yonah, *supra* note 189, at 1667-69. Under Avi-Yonah's proposal as well as the EU Savings Directive, the investor could obtain a refund on the taxes if the investor reports the interest income to his own tax authorities. See *id.* at 1650. "For portfolio investment, for example, a nation could have either a final withholding tax, which would accrue to the host jurisdiction, or a refundable withholding tax, which would be refunded upon proof that the income was reported to the home jurisdiction." *Id.*

Unilateral action of this sort, however, is probably unworkable in the arena of international taxation, compared to other more successful unilateral efforts like reducing tariffs for trade purposes. Under neo-classical economic theory, a country will be better off if it unilaterally reduces its tariffs on the import of goods into the country. Free trade both promotes a country's economic self-interest and improves overall global welfare. Taxation is different. Taxes imposed unilaterally on mobile capital drives the capital out of the imposing country and into another,

lower-taxed country. For example, when Germany imposed a 10% withholding tax on interest, "[t]he experience was a negative one.... Only a few months after coming into force, the withholding tax, introduced in 1988, had to be abolished, even though the rate of tax was fixed at only 10 percent." Leif Muten, *International Experience of How Taxes Influence the Movement of Private Capital*, 8 *Tax Notes Int'l* 743, 745-46 (1994).

[FN245]. Congress repealed the withholding tax on portfolio interest in 1984 for several reasons, including the need to permit U.S. corporations to directly access the Eurobond market. See General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984, in Samuel C. Thompson, Jr., *U.S. Taxation of International Transactions* 86, 86-88 (1995).

[FN246]. Professor Avi-Yonah notes that under current conditions, the reasons that led to the enactment of the portfolio interest exemption no longer exist. Avi-Yonah, *supra* note 189, at 1667. The United States, however, remains the largest debtor nation in the world and, despite current budgetary surpluses, it continues to need foreign capital to finance domestic operations. See OECD, *International Direct Investment Statistics Yearbook 12* (1997) (foreign direct investment in the United States rose from \$18,885 million in 1992 to \$84,629 million in 1996). Avi-Yonah indicates that the "United States could probably repeal the portfolio interest exemption immediately without suffering adverse consequences." Avi-Yonah, *supra* note 189, at 1667. Yet, if capital leaves the United States due to the imposition of a withholding tax, U.S. interest rates would likely rise to re-attract the necessary amount of foreign capital. The specter of potentially higher interest rates along with higher capital costs for new investments would probably make such unilateral action politically infeasible without assurances that a massive outflow of capital will not take place.

[FN247]. Professor Avi-Yonah notes that the "withholding tax would generally apply only to payments made to non-OECD member countries" because OECD member states already typically feature bilaterally negotiated tax treaties. Avi-Yonah, *supra* note 189, at 1669.

[FN248]. See Report of the Technical Committee on Business Taxation § 6.24 (1997) (submitted to the Minister of Finance, Government of Canada), available at [http://www.fin.gc.ca/taxstudy/tsrep\\_e.pdf](http://www.fin.gc.ca/taxstudy/tsrep_e.pdf) [hereinafter *Business Taxation Report*]. Withholding taxes "impede cross-border income and capital flows, and act as a tariff on the importation of capital or knowledge," especially when the taxes are not fully creditable in the home country of the investor. *Id.* Withholding taxes also create (1) potential compliance costs because taxpayers often must file a tax return in order to obtain a refund (assuming the tax is refundable); (2) additional rules in the source country to ensure the withholding tax is enforceable, like filing requirements for the taxpayer; and (3) resource waste from taxpayer efforts to circumvent the withholding tax. For a discussion of these points, see Cockfield, *supra* note 11, at 203-04. Many of these problems can be mitigated by a low withholding tax rate.

[FN249]. Sanction may be too strong a word because non-participating countries may simply not have the resources to enter into the secure extranet. In any event, many of these non-participating countries would prefer to see the participating countries assess a withholding tax on portfolio interest because investors must report the withholding tax to their domestic tax authorities in order to receive a refund. Thus, many non-participating countries would also benefit from the

extranet because it would curtail the ability of their residents to avoid payment of taxes on their interest income from their cross-border portfolio investments.

[FN250]. Alternatively, it may be possible to simply target countries that act as tax or data havens. The OECD has recently put together a blacklist of thirty-five countries that arguably promote "harmful" tax competition by enabling the circumvention of international tax laws. See *supra* note 200 and accompanying text.

[FN251]. I.R.C. § 871(h)(5) (West 2000); see also 26 C.F.R. § 1.871-14 (1999). A U.S. payor receives a statement indicating the beneficial owner of the interest is not a U.S. person on obligations made to a non-participant, such as a tax haven intermediary, issued in registered form. 26 C.F.R. § 1.871-14(c)(1)(ii)(C) (1999). The United States currently only provides investment information from foreign investors to the Canadian government.

[FN252]. See discussion *supra* Part II.A.2.

[FN253]. See *supra* note 186 and accompanying text.

[FN254]. Tax havens arguably promote global efficiency by acting as an intermediary for international investments. As such, there is an argument that tax havens should be permitted to join the extranet. This would be possible as long as the tax haven, in turn, notified the country of residence of the transaction. In this way, if Salvatore used participating Cayman Islands as his intermediary, the Cayman Islands would agree to notify the Argentine government of the transaction. It is doubtful, however, that tax havens would participate in such a scheme. Most tax havens have bank secrecy laws making it a criminal offense to divulge client information to third parties.

[FN255]. See Global Cooperation Report, *supra* note 200, at 25. The report lists "possible defensive measures" that could similarly be instituted with the help of the proposed secure extranet, including disallowing deductions, credits, or exemptions related to transactions with tax havens, denying availability of foreign tax credits to distributions sourced to tax havens, or imposing charges on certain transactions involving tax havens. See *id.*

[FN256]. This is the proposed approach to dealing with uncooperative tax havens being developed by the OECD and United States. See *supra* notes 198-207 and accompanying text. A Senate Committee recommended a similar approach in 1985. See generally Senate Committee Report, *supra* note 190 (recommending, *inter alia*, the denial of any deduction for U.S. tax purposes for any expense or loss arising out of a transaction entered into with an entity located in a tax haven and requiring that U.S. corporations report income earned through tax havens as U.S. source income).

[FN257]. Harmful Tax Competition, *supra* note 198, at 29-30.

[FN258]. See *id.* Jeffrey Owens, OECD Head of Fiscal Affairs, has elaborated on the requisite international standards that would permit home countries to tax the foreign activities of their residents:

The international standard means, for example: (1) The beneficial ownership of shares and trusts must be kept on records that can be accessed by governmental authorities. (2) There are audited or filed financial accounts. (3) There is an efficient administrative process to all the tax authorities of another state to obtain information needed to enforce its own revenue laws with regard to geographically mobile income. Owens, *supra* note 190, at 95 (emphasis added).

[FN259]. Multinational companies having operations in different countries set transfer prices on capital, goods, and services exchanged among affiliates located in different countries. A recent survey by Ernst & Young of 582 multinational firm parents and 124 foreign-owned subsidiaries revealed transfer pricing was one of the main concerns for 78% of the parents and 85% of the subsidiaries. Richard Cooper et al., *Transfer Pricing: The Number One International Tax Concern Heading into the Millennium*, 1 *J. Global Transfer Pricing* 6, 42-48 (Dec. 1999-Jan. 2000).

[FN260]. For example, over 70% of trade between Canada and the United States consists of non-arm's length intra-firm trade. See Alan M. Rugman, *Multinationals and Canada-United States Free Trade* 3 (1990). U.S.-Canada related party transactions reached \$166 billion in 1993. See Robert Turner, *Study on Transfer Pricing 1* (Tech. Comm. on Bus. Taxation Working Paper 96-10, 1996), available at <http://www.fin.gc.ca/taxstudy/wp96.10e.pdf>.

[FN261]. For example, a hypothetical shoe manufacturer in the United States exports shoes to its sales office based in the United Kingdom. A pair of its shoes costs \$10 to manufacture and is sold to a U.K. consumer for \$50. Under general transfer pricing rules, the U.S. manufacturer must "pretend" that it sold the pair of shoes to its U.K. affiliate at the fair market value for this good. The shoe manufacturer can look at industry profit margins and determine that it would have sold the shoes to an unrelated foreign sales office for perhaps \$40. In this simplified example, \$30 of profit could be taxed by the U.S. tax authorities and \$10 of profit on the sale of the shoes to the U.K. consumer could be taxed by the U.K. tax authorities. The purpose of setting non-arm's length prices is to prevent multinational companies from shifting income to low tax jurisdictions. For example, the shoe manufacturer, assuming that effective tax rates in the United Kingdom are higher than those imposed by the United States, has an incentive to set a lower sale price on the sale from the U.S.-based manufacturer to the U.K. sales office in order to allocate more profits to the United Kingdom. Transfer price rules strive to prevent this problem by forcing the shoe manufacturer to set a fair market price on the transfer. See, e.g., I.R.C. § 482 (West 2000); 26 C.F.R. § 1.482-1 (1994).

[FN262]. For a discussion of problems associated with transfer pricing and e-commerce, see Cockfield, *supra* note 11, at 159-60, 194-98.

[FN263]. For a more expansive discussion on income shifting strategies employed by multinational firms, see David Harris et al., *Income Shifting in U.S. Multinational Corporations*, in *Studies in International Taxation* 277, 301-02 (Albert Giovannini et al. eds., 1993) (concluding that, for U.S. manufacturing companies with extensive holdings in different countries, income shifting significantly reduces U.S. tax liabilities while, for multinational firms as a whole, income shifting leads to moderate reductions in U.S. tax liabilities); Cooper, *supra*

note 259, at 43-44 (indicating survey results demonstrate 52% of subsidiaries are mainly concerned with compliance through their transfer pricing efforts while 23% report optimizing tax arrangements is a main priority in shaping transfer pricing policy).

[FN264]. For U.S. procedures, see Rev. Proc. 96-53, 1996-2 C.B. 375; see also Internal Revenue Service, Office of the Assistant Commissioner (International) et al., Report on the Application and Administration of Section 482, ch. 6 §§ 3-4 (1999), available at [http://ftp.fedworld.gov/pub/irs\\_pdf/p3218.pdf](http://ftp.fedworld.gov/pub/irs_pdf/p3218.pdf) (outlining purposes, objectives, and administrative details of the APA process).

[FN265]. Taxpayers who wish to aggressively pursue income shifting strategies, however, will not likely want to participate in an APA because the tax authorities will generally assert a need to find a middle-ground solution. The extranet, however, may make it more difficult to employ these aggressive strategies. If so, these taxpayers will have a greater incentive to resort to APAs. Twelve percent of respondents to a survey on transfer pricing reported having used an APA in 1999 while 45% of respondents reported they would consider using an APA in the future. See Cooper, *supra* note 259, at 47.

[FN266]. Complicated non-arm's length transactions involving intangible goods and services are often better addressed through formulas assigning profit margins to certain activities. See Avi-Yonah, *supra* note 23, at 545-50.

[FN267]. This software could form part of the international online tax clearinghouse. See discussion *infra* Part III.B.3.

[FN268]. For a discussion on the topic, see Joann M. Weiner, Using the Experience in the U.S. States to Evaluate Issues in Implementing Formula Apportionment at the International Level, pt. IV (1999), available at <http://www.treas.gov/ota/ota83.pdf> (concluding the economic conditions permitting states to use formulary apportionment do not exist at the international level). For a consideration of formulary apportionment in the NAFTA context, see generally Paul R. McDaniel, Formulary Taxation in the North American Free Trade Zone, 49 Tax L. Rev. 691 (1994). For a discussion of moving toward formulary apportionment for e-commerce, see Cockfield, *supra* note 11, at 172- 75 (concluding it is unlikely that formulary apportionment would be implemented due to concerns about fiscal sovereignty and the neutral tax treatment of e-commerce versus traditional commerce).

[FN269]. Most tax authorities and international organizations are opposed to formulary apportionment, largely because governments must cede fiscal sovereignty to a supranational authority that determines the rules which will determine how revenues are divvied up. See Business Taxation Report, *supra* note 248, § 6.16; OECD Committee on Fiscal Affairs, Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations, Part I: Principles and Methods 65-68 (1994); Ruding Committee, *supra* note 215, at 203. Formulary apportionment has been criticized for, among other things, increasing compliance and enforcement burdens, creating the technical problem of defining a "unitary enterprise" and ignoring the difficulty of approximating existing revenues, and of using standard formula where industry practices may vary. See John S. Brown, Commentary, Formulary Taxation and NAFTA, 49 Tax L. Rev. 759,

761-67 (1994).

[FN270]. But see Weiner, *supra* note 268, pt. III.F.1 (asserting companies can continue with income shifting activities under formulary apportionment by altering how they value apportionment factors by, for example, reassigning the location of its sales or hiring independent contractors in a low-tax area).

[FN271]. See, e.g., Stefik, *supra* note 9, at 393-94.

[FN272]. Lessig, *supra* note 7, at 39-42. Lessig coined this term to describe a framework for relations between businesses and individuals. See *id.* Lessig also discusses the potential dark side of a government/business regulatory partnership that could trample over individual freedoms such as the right of privacy. *Id.* at 142-63.

[FN273]. Gail L. Grant, *Understanding Digital Signatures: Establishing Trust Over the Internet and Other Networks* 14 (1998), excerpted in Lessig, *supra* note 7, at 40.

[FN274]. Vinton Cerf, *What Will Replace the Internet?*, *Time.com* (June 19, 2000), at [http://www.time.com/time/reports/v21/tech/mag\\_web.html](http://www.time.com/time/reports/v21/tech/mag_web.html).

[FN275]. One hundred million Americans use cell phones. Sylvia Dennis, *CTIA Celebrates 100 Million Wireless Customers*, *Microtimes.com* (July 27, 2000), at <http://www.microtimes.com/newsfeeds/julyfeeds00/july27.html>. Many cell phones are currently sold with the capacity to connect to the Internet.

[FN276]. See Ronna Abramson, *Ford, Qualcomm Join Forces to Create Wireless Vehicles, The Industry Standard* (Aug. 2, 2000), at <http://www.cnn.com/2000/TECH/computing/08/02/qualcomm.on.board.idg>.

[FN277]. For a discussion of network security issues, see generally Michael Lee et al., *Electronic Commerce, Hackers, and the Search for Legitimacy: A Regulatory Proposal*, 14 *Berkeley Tech. L.J.* 839 (1999). A survey conducted by Ernst & Young found that nearly half of 1290 businesses were the victims of online security breaches. Marc S. Friedman & Kristin Bissinger, 'Infojacking': Crimes on the Information Superhighway, 9 *J. Proprietary Rts.* 2, 7 (1997). Further, U.S. federal law enforcement officials estimate that over \$10 billion dollars worth of data is stolen from U.S. businesses each year. *Id.*; see also Ursula Sautter, *To Catch a Thief*, *Time.com*, at <http://www.time.com/time/europe/specials/eeurope/field/thief.html> (last visited Jan. 31, 2001) (discussing the difficulties associated with tracing computer crimes back to hackers).

[FN278]. It is recognized that hackers "spoof" (pretend to be someone else) in order to gain access to particular computers or to launch barrage attacks.

[FN279]. For example, as Jeff Carpenter of the Computer Emergency Response Team (CERT) Coordination Center, a federally financed network security organization, warned, with regard to the Love Bug virus, "Without architectural improvements [to the Internet] we will see this again." Grossman, *supra* note 1, at 56. Modification of current Internet Protocol language will

aid in authentication, data integrity, and confidentiality. See William A. Hodkowski, Comment, *The Future of Internet Security: How New Technologies Will Shape the Internet and Affect the Law*, 13 *Santa Clara Computer & High Tech. L.J.* 217, 220 (1997). Hackers recently brought down large parts of the Internet by launching barrage attacks, which are essentially millions of requests for information that overload a company's server infrastructure. See Nathaniel Wice, *Smurf Assault Cripples More Big Sites*, *Time Digital* (Feb. 9, 2000), at <http://www.time.com/time/digital/daily/0,2822,38968,00.html> (describing how "denial of service" attacks brought down the most highly trafficked commercial websites on the Internet, including Yahoo!, Amazon.com, eBay, and Buy.com).

[FN280]. See, e.g., Canadian Report, *supra* note 14, P 4.2.1.2. (noting that certain companies may not be able to comply with foreign tax laws due to the difficulties associated with identifying the consumer's country of residence).

[FN281]. The decentralized nature of the Internet--an interconnection between computer networks with no central organization structure--makes identification issues very complex. Instead of a central computer, the Internet uses "routers" that consist of hundreds of thousands of computers that route information packets to their ultimate destination. As a result, it may be impossible to link a consumer's personal computer. A vendor's server could, at best, identify the Internet Protocol address of the consumer's Internet Service Provider (ISP), although even the ISP may have no relationship to the consumer's home country. Further, end users can employ encryption technology to protect their data from unauthorized disclosure or viewing. The situation becomes further complicated as end consumers begin to use "unaccounted" electronic payment systems where they will not be identified as a party to the transaction and no independent records will be kept. Some of the new electronic payment systems, including e-cash and stored value cards, are designed to operate as unaccounted systems. Finally, the use of anonymizing technologies will inhibit the ability of vendors or tax authorities to identify the location of consumers. See Cockfield, *supra* note 11, at 180-82.

[FN282]. A company called Akamai has developed software that permits e-commerce companies to determine the geographic location of their website visitors by mapping the visitors' Internet Protocol addresses. For an explanation of this service, see *How EdgeScape Works* homepage, at [http://www.akamai.com/html/en/sv/edgescape\\_works.html](http://www.akamai.com/html/en/sv/edgescape_works.html) (last visited Feb. 17, 2001). There has also been discussion of creating a "resident card" that identifies the country of the e-commerce consumer. See *Internet Taxation System Is Muddled by White House*, *Wall St. J.*, Sept. 11, 1998, at B4. The resident card proposal, however, never really left the ground.

[FN283]. Following is a more elaborate definition:

A digital certificate is an electronic "credit card" that establishes your credentials when doing business or other transactions on the Web. It is issued by a certification authority (CA). It contains your name, a serial number, expiration dates, a copy of the certificate holder's public key (used for encryption messages and digital signature), and the digital signature of the certificate-issuing authority so that a recipient can verify that the certificate is real. Some digital certificates conform to a standard, X.509. Digital certificates can be kept in registries so that authentication users can look up other users' public keys.

WhatIs.com, *Digital Certificate*, at [http://www.whatIs.techtarget.com/WhatIs\\_](http://www.whatIs.techtarget.com/WhatIs_)

Definition\_Page/0,4152,211947,00.html (last modified July 31, 2000). One commentator has noted the problems associated with portable computers that can be easily moved across national boundaries. Stefik, *supra* note 118, at 105. If a French resident carries her laptop computer into the United States and then downloads software from a U.S.-based publisher, should the transaction be subject to French taxation? See *id.* One approach would involve registering computers in the country where the user is based. See *id.* According to Stefik, these computers "could carry digital certificates that would authenticate their nation of registry no matter where they are in the world." *Id.* If the French resident has a digital certificate that identifies the computer as "resident" in France, the transaction should presumably be subject to French taxation despite the fact that the downloading physically takes place in the United States. See *id.*

[FN284]. For a discussion of trusted third parties in the context of digital signatures, see A. Michael Froomkin, *The Essential Role of Trusted Third Parties in Electronic Commerce*, 75 *Or. L. Rev.* 49, 114 (1996) (explaining that third party certification authorities may become essential to much electronic commerce); see also Brian W. Smith & Paul S. Tufaro, *To Certify or Not to Certify? The OCC Opens the Door to Digital Signature Certification*, 24 *Ohio N.U. L. Rev.* 813, 813 (1998) (noting that certification authorities are pivotal to the growth of electronic commerce and electronic banking).

[FN285]. See *Electronic Signatures in Global and National Commerce Act*, Pub. L. No. 106-229, 114 Stat. 464 (2000). This legislation permits individuals to use binding electronic signatures for interstate or foreign commerce. See *id.* A digital signature has been defined as follows:

A digital signature (not to be confused with a digital certificate) is an electronic rather than a written signature that can be used by someone to authenticate the identity of the sender of a message or of the signer of a document. It can also be used to ensure that the original content of the message or document that has been conveyed is unchanged. Additional benefits to the use of a digital signature are that it is easily transportable, cannot be easily repudiated, cannot be imitated by someone else, and can be automatically time-stamped.

A digital signature can be used with any kind of message, whether it is encryption or not, simply so that the receiver can be sure of the sender's identity and that the message arrived intact. A digital certificate contains the digital signature of the certificate-issuing authority so that anyone can verify that the certificate is real.

WhatIs.com, *Digital Signature*, at [http://whatIs.techtarget.com/WhatIs\\_Definition\\_Page/0,4152,211953,00.html](http://whatIs.techtarget.com/WhatIs_Definition_Page/0,4152,211953,00.html) (last modified Oct. 23, 2000).

[FN286]. See *supra* note 272 and accompanying text; see also Smith & Tufaro, *supra* note 284, at 829 (asserting that digital signature certification "will likely play a crucial role in the marketplace of the future").

[FN287]. The technology, for example, could simply identify the location of a user's ISP without resorting to the individual's specific home address. This would permit individuals to maintain a certain level of privacy while permitting tax authorities to identify the country of consumption. It is recognized that an ISP address need not necessarily relate to the country location of all individuals, but the ISP address will likely match up with an individual's country for the vast majority of Internet users.

[FN288]. Unfortunately, many local tax jurisdictions cross zip code jurisdictions. See Dean Andal, *A Uniform Jurisdictional Standard: Applying the Substantial Physical Presence Standard to Electronic Commerce* 15 (Nov. 5, 1999) (unpublished proposal) (on file with author).

[FN289]. See Lessig, *supra* note 7, at 41 (noting that the "key [to success of digital certificates] is not that a government requires people to hold" such certificates); see also Swire & Litan, *supra* note 142, at 211 ("In studying these business models, we believe it would be foolhardy for national or supranational regulators to determine in advance the rules for conducting transactions over the Internet.... A great deal of both technological and legal experimentation is needed.").

[FN290]. Lessig, *supra* note 7, at 41. Lessig uses the example of cookies to back up his point. See *id.* From a user's perspective, cookies are both good and evil. See *id.* A cookie can be considered evil because the website uses the cookie to track the Internet user's surfing habits, which constitutes an infringement of the user's privacy. See *id.* Cookies, however, are also good because they transmit passwords to websites (thus, relieving the user from memorizing all of her passwords) and permit access to the websites. See *id.* Web browsers, like Netscape, notify Internet users prior to planting a cookie on a user's hard drive, but, as Lessig notes, most users simply accept the cookies without notification because this facilitates surfing from site to site. See *id.* Users, therefore, accept the intrusion into their privacy because this represents the path of least resistance. See *id.* at 41-42. Lessig does not point out, however, that the vast majority of users may be entirely ignorant of the existence of cookies and the intrusion on their privacy.

[FN291]. *Id.* at 42 ("Life will be easier for those who carry ID than for those who do not. Servers will make exchanges cheaper, or simpler, if data can be authenticated.").

[FN292]. See *supra* note 15 and accompanying text. The House of Representatives has passed legislation that would extend the Internet Tax Freedom Act until October 2006. See *id.* The bill is pending before the Senate. See *id.* This legislation is flawed for at least three reasons: (1) there will almost certainly be significant revenue losses to state and local governments by 2006 due to their inability to tax many consumer Internet transactions; (2) the legislation fails to signal to the online industry that it must comply with sales tax laws, and therefore, fails to provide the industry with the incentive to develop effective Internet technologies to facilitate tax collection; and (3) by maintaining the Internet as a no-tax zone, the legislation treats economically equivalent transactions (the sale of a real book from a traditional bookstore versus the sale of a digital book from an online retailer) in a different manner, which will lead to distortions in the market place and arbitrage activities by traditional retailers. For example, WalMart has announced plans to open an online affiliate in a zero sales tax state in order to compete against online retailers; this is likely to lead to further revenue losses by local and state governments. For perspectives on both sides of the debate, see Arthur Cockfield & Michael Folz Wexler, *Taxing Internet Sales*, *San Diego Law.*, Sept.-Oct. 2000, at 19-20.

[FN293]. For example, California legislators recently passed a bill that requires online sellers to collect sales taxes in California if these companies are affiliated with companies that maintain a physical presence within the state. See A.B. 2412, 1999-2000 Leg. (Cal. 2000). California Governor Gray Davis, however, vetoed this bill.

[FN294]. See Commission Proposal for a Council Directive Amending Directive 77/388/EEC as Regards the Value Added Tax Arrangements Applicable to Certain Services Supplied by Electronic Means, COM(2000)349 final at 22, available at [http://europa.eu.int/comm/taxation\\_customs/proposals/taxation/com349\\_2000/com2000\\_349.pdf](http://europa.eu.int/comm/taxation_customs/proposals/taxation/com349_2000/com2000_349.pdf) (proposing to require non-EU companies to collect VAT on sales to EU consumers of digital products).

[FN295]. See *id.* Non-EU online companies with above threshold sales would have to register for VAT in one member state. See 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, 2751 (2000).

[FN296]. See Vito Tanzi & Ludger Schuknecht, *Public Spending in the 20th Century: A Global Perspective* 55-59 (2000) (citing data which shows that the average indirect taxes for seventeen industrialized countries rose from 11.6% of the GDP in 1960 to 13.5% in 1994); see also OECD, *Working Party No. 1 on Harmonization of Turnover Taxes* 2 (1999) (indicating that, in addition to contributing roughly a fifth of tax receipts for EU member states, VATs pay for 44% of the EC's budget); Avi-Yonah, *supra* note 189, at 1619 (citing studies indicating that OECD members have increased their VAT revenues from 12% of total tax revenues in 1965 to 18% in 1995).

[FN297]. See Burnes & Merrill, *supra* note 295, at 2752 (indicating that the draft directive sets a "dangerous precedent for extra-territorial application of EU law"). But see ABA London Draft, *supra* note 174, at 40 (noting that the U.S. Supreme Court in non-tax cases has found that jurisdiction is constitutionally permissible even though a defendant had never been physically present in the forum). "Acts outside the state, the Court reasoned, which in one way or another could be said to target residents of the state, did invoke the benefits and protections of state law...." *Id.*

[FN298]. The European Union will attempt to address compliance concerns through the development of an electronic filing system where non-EU businesses will only have to register in one EU member state, even though these businesses may conduct transactions in other EU member states. Chuck Gnaedinger, *EU Trade Official Comments on Proposed VAT Changes for E-Commerce*, 20 Tax Notes Int'l 2647, 2648 (2000).

[FN299]. See discussion *supra* Parts I.B, I.C.

[FN300]. See, e.g., National Tax Association, *Communications and Electronic Commerce Tax Project: Final Report* i-ii (1999) (noting that 7600 taxing jurisdictions impose significant tax burdens on multi-state vendors, especially smaller online companies participating in e-commerce).

[FN301]. See Advisory Commission Report, *supra* note 12, at 19-20.

While the exact impact of e-commerce on sales tax revenues may be uncertain, clearly the need for substantial sales tax simplification is necessary in this emerging digital economy.... Most, if not all, of the Commissioners expressed the view that fundamental uniformity and simplification of the existing system are essential. The need for nationwide consistency and certainty for sellers

as well as the need to alleviate the financial and logistical tax collection burdens and liability of sellers were common themes throughout discussions.

Id. at 18-19. The Commission recommended that a new advisory commission should be struck to review, after states have taken steps to unify their tax systems, whether sales taxes should be imposed for Internet transactions. Id. at 20. For calls for federal action to ensure state tax systems can effectively enforce taxes against remote vendors, see generally Robert P. Strauss, *Federal Tax Mechanisms to Enable State Taxation of Final Consumption*, 87 *Tax Notes* 1657 (2000).

[FN302]. See Advisory Commission Report, *supra* note 12, at 42-43. The Commission noted that it was not well informed as to the international ramifications of domestic U.S. tax law and called for increased oversight in this area. Id. at 43.

[FN303]. See Stefik, *supra* note 118, at 83-85; see also Mark Stefik, *Trusted Systems*, *Scientific American*, Mar. 1997, at 78, available at <http://www.sciam.com/0397issue/0397stefik.html>.

[FN304]. Stefik, *supra* note 118, at 104.

[FN305]. Bentley and Quirk focus on financial institutions and electronic money providers as the logical intermediary in any automated collection system. Bentley & Quirk, *supra* note 234, at 336. They discuss how governments could license these financial institutions so that, for example, the financial institution will not accept electronic money from an unlicensed financial institution. See *id.*

[FN306]. See, e.g., ABA London Draft, *supra* note 174, at 171 (noting that intermediaries which provide financing mechanisms tend to be "large, sophisticated and economically strong" and therefore "could be asked to take a larger role in the tax collection mechanism, relieving the vendors of that burden").

[FN307]. Some states pay retailers in a similar manner to compensate the retailers for the additional costs associated with collecting the taxes. Paying the online intermediaries would have the obvious benefit of providing an incentive for these intermediaries to collect taxes.

[FN308]. Alternatively, each tax authority could set up an automatic system at a designated "choke point" on the Internet to monitor and assess appropriate taxes on incoming transactions. The appropriate amounts would be noted in a centralized databank that would track all inflows and outflows.

[FN309]. For a description of Taxware products, see Taxware homepage, at <http://www.taxware.com/ZProducts/internet/internet.htm> (last visited Mar. 16, 2001). Two years ago, Jon W. Abolins, the Manager of Tax Research at Taxware, stated that the company is unable to assist merchants in identifying the location of their customers and that the software relies on the business itself to ascertain the physical location of their customers. See Cockfield, *supra* note 11, at 182 n.215.

[FN310]. Countries could then credit (or debit) each others' accounts on, perhaps, a quarterly basis. This approach would be better suited for sales and VAT issues where the imposition of a

tax on consumption activities is much easier to accomplish (versus the multiple types of income that can arise in the international income tax arena). See Shapiro, *supra* note 7, at 222 (discussing how online transactional intermediaries could split tax receipts among several different jurisdictions); Henry H. Perritt, Jr., *Jurisdiction in Cyberspace: The Role of Intermediaries*, in *Borders in Cyberspace*, *supra* note 9, at 164, 180-81 (discussing how online intermediaries can perform different value-adding functions).

[FN311]. Bentley & Quirk, *supra* note 234, at 333-34.

[FN312]. I have proposed a gross withholding tax on e-commerce payments (at a general rate of 5%) for above threshold sales. See *supra* note 171 and accompanying text. It may be more efficient to approximate the impact of a direct net income tax--imposed "directly" on a taxpayer that self-assesses and pays tax on its net income--by using indirect gross taxes. Indirect taxes permit the use of intermediaries to assess relevant taxes on individuals and businesses. Retailers, for example, collect and remit state sales taxes although these taxes are ultimately imposed on consumers. Similarly, a gross withholding tax collected and remitted by an online intermediary could be used to approximate the traditional impact of source country income taxes. This approach would eliminate the need for online companies to calculate income taxes for profits derived in source countries. Under the technological approach previously outlined, the withholding taxes would be collected and remitted without creating undue compliance costs for e-commerce businesses. For thoughts on the need to grant source countries a withholding tax on e-commerce payments, see Cockfield, *supra* note 11, at 198-205; Doernberg, *supra* note 23, at 1016-18.

[FN313]. For a discussion concerning a call to impose sales taxes only on specified sales into states, see Hellerstein, *supra* note 179, at 485.

[FN314]. See Avi-Yonah, *supra* note 23, at 532-41.

[FN315]. Companies are normally considered to be residents of the country where they are incorporated and thus residency can be achieved by simply filing articles of incorporation.

[FN316]. See Avi-Yonah, *supra* note 189, at 1671. Avi-Yonah's views are in direct opposition to the Treasury Department report, which notes that greater use of residence-based taxation of businesses may be required due to the prevalence of new technologies that make it difficult to tax transactions in the country of consumption. See Treasury Report, *supra* note 51, P 6. The proposed U.S. approach would try to use traditional transfer pricing and cost sharing rules to tax companies when they add value to products. See *supra* notes 259-70 and accompanying text.

[FN317]. See, e.g., J. Clifton Fleming, Jr., Robert J. Peroni, & Stephen E. Shay, *Deferral: Consider Ending It, Instead of Expanding It*, 86 *Tax Notes* 837, 847-50 (2000) (advocating the position that U.S.-based multinational corporations should be taxed on their worldwide earnings on an accrual basis).

Under U.S. international tax law, companies are not normally taxed on the generation of active business profits in foreign countries unless, and until, these profits are repatriated back to the United States. Harmful forms of tax competition would be reduced if the foreign affiliates of

U.S. companies were forced to pay the same tax burden as the one that was accessed by the U.S. government. The U.S. company would never have a tax incentive to move its business abroad if foreign operations were always subjected to the same burden as domestic operations. This effort would follow the international tax policy principle of capital export neutrality, which maintains that residents should pay the same tax on all business activities, whether or not these business activities take place in foreign jurisdictions. The concern exists, however, that if deferral is eliminated, U.S. companies will not be able to effectively compete against other multinational firms in foreign jurisdictions that impose lower tax burdens. For a more detailed discussion, see generally National Foreign Trade Council, Inc., *The NFTC Foreign Income Project: International Tax Policy for the 21st Century, Part One: A Reconsideration of Subpart F*, 1999 Tax Notes Today 58-17.

[FN318]. See *Avi-Yonah*, *supra* note 189, at 1595. *Avi-Yonah* notes that the tax base would be shared with jurisdictions that produced the goods, as long as they impose taxes that are comparable to jurisdiction of consumption. See *id.*

[FN319]. See *Summers*, *supra* note 205.

[FN320]. For a criticism of this approach, see generally Stanley I. Katz, *International Taxation of Electronic Commerce: Evolution Not Revolution*, 52 *Tax L. Rev.* 655 (1997).

[FN321]. The current environment of regulatory uncertainty, for example, may be inhibiting e-commerce, as businesses fear multiple layers of taxation should they trade internationally via the Internet. A technology-based mechanism that effectively divides revenues derived from the taxation of an Internet transaction, however, would reduce the risk of double taxation and encourage more trade on the Internet. Further, technology-based solutions might, one day, reduce tax compliance costs for businesses as compliance issues become more automated.

[FN322]. For a discussion on sovereignty and tax, see *Cockfield*, *supra* note 208, at 49-58. For commentary on sovereignty issues in cyberspace, see generally David G. Post, *The "Unsettled Paradox": The Internet, the State, and the Consent of the Governed*, 5 *Ind. J. Global Leg. Stud.* 521 (1998); *Shahriar Tavakol*, *Digital Value Units, Electronic Commerce and International Trade: An Obituary for State Sovereignty Over National Markets*, 17 *J. Marshall J. Computer & Info. L.* 1197 (1999).

[FN323]. See, e.g., *Global Cooperation Report*, *supra* note 200, at 5 ("For a global economy to succeed, governments must intensify their co-operation and provide international frameworks for the effective management of global issues. Taxation is no exception."); *Henry H. Perritt, Jr.*, *Cyberspace and State Sovereignty*, 3 *J. Int'l Legal Stud.* 155, 180-203 (discussing how the Internet can improve the coordination of international institutions). But see *David R. Johnson & David G. Post*, *And How Shall the Net be Governed?: A Meditation on the Relative Virtues of Decentralized, Emergent Law*, in *Coordinating the Internet* 62, 71-73 (Brian Kahin & James H. Keller eds., 1997) (arguing that international organizations are non-democratic in the sense that they are not held directly accountable to citizens and are subject to unfair influence of privileged factions).

[FN324]. See John Locke, *Two Treatises of Government* 348-50 (Peter Laslett ed., 1960) (1690). The only way whereby any one devests himself of his Natural Liberty, and puts on the bonds of Civil Society is by agreeing with other Men to joyn and unite into a Community, for their comfortable, safe, and peaceable living one amongst another, in a secure Enjoyment of their Properties, and a greater Security against any that are not of it.... And thus every Man, by consenting with others to make one Body politick under one Government, puts himself under an Obligation to every one of that Society, to submit to the determination of the majority, and to be concluded by it; or else this original Compact, whereby he with others incorporates into one Society, would signifie nothing, and be no Compact, if he be left free, and under no other ties, than he was in before in the State of Nature.

Id. For a discussion of Lockean natural rights theory in the context of consumption tax reform efforts, see Arthur J. Cockfield, *Income Taxes and Individual Liberty: A Lockean Perspective on Radical Consumption Tax Reform*, 46 S.D. L. Rev. \_\_\_\_ (forthcoming 2000).