COMMENT

FORMULATING INTERNATIONAL TAX LAWS IN THE AGE OF ELECTRONIC COMMERCE: THE POSSIBLE ASCENDANCY OF RESIDENCE-BASED TAXATION IN AN ERA OF ERODING TRADITIONAL INCOME TAX PRINCIPLES

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INTRODUCTION

In recent years, the number of Internet participants around the world has expanded dramatically, "with user estimates [in 1996] ranging from 30-60 million, and growing rapidly." This growing user base has resulted in a significant increase in the amount of business conducted over the Internet. In 1996, income from Internet transactions grew immensely, topping the one billion dollar mark for the first time. The growth-to-date of electronic commerce ("E-commerce"), though substantial, pales in comparison to the

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¹ OFFICE OF TAX POLICY, U.S. DEP'T OF THE TREASURY, SELECTED TAX POLICY IMPLICATIONS OF GLOBAL ELECTRONIC COMMERCE § 2.4 (1996), reprinted in 1996 Daily Tax Rep. (BNA) 226 (Nov. 22) [hereinafter Treasury Paper]. The Treasury Paper sets the stage for many of the issues addressed throughout this Comment.

² The number of Internet users is expected to grow tremendously, to over one billion people by the year 2010. See For the Record, WASH. POST, July 31, 1998, at A24 (reprinting testimony of William Daley, Secretary of Commerce, made before the House Commerce Committee). Although Internet-related commerce comprises only a portion of total electronic commerce ("E-commerce"), see TREASURY PAPER, supra note 1, § 2.3, I will use the word "Internet" to refer to a wide range of commercial transactions conducted electronically. This Comment adopts the definition of "electronic commerce" given by the Treasury Department. See id. § 3.2.1 (defining E-commerce as "the ability to perform transactions involving the exchange of goods or services between two or more parties using electronic tools and techniques"). For descriptions of (and distinctions between) the commonly used terms "Internet," "Information Superhighway," and "World Wide Web," see Howard E. Abrams & Richard L. Doernberg, How Electronic Commerce Works, 14 TAX NOTES INT'L 1573, 1573-74 (1997).

³ See, e.g., Stephen Green, Taxes Called Threat to Online Commerce—Federal Bill Aims to Repeal Internet Transaction Charges, SAN DIEGO UNION-TRIB., Dec. 10, 1997, at A1, available in 1997 WL 14538531 (reporting that total E-commerce over the Internet more than doubled from 1995 to 1996, to \$1.1 billion).

anticipated increase in electronically conducted business over the next few years. One research group predicts annual Internet sales of \$327 billion by the year 2002.⁴

As the trend toward E-commerce gains momentum, fewer transactions will conform to conventional means of doing business. This increasing reliance on the Internet for conducting transactions has already created challenging and novel questions in several areas of law. The impact that technological developments have had on existing legal principles "has provoked some scholars to argue that cyberspace needs laws of its own. In the area of international taxation, the changing business landscape caused by the surge in E-commerce at the very least warrants a review of existing principles in light of new technologies. Certain long-standing international tax concepts evolved in a simpler economic era when easily traceable, "physical" transactions dominated the business world. The tendency of E-commerce to eliminate geographical boundaries and "to blur... the source and character of income" may threaten the continued viability of such concepts, which include: (1) source-based taxation; (2) the tax treaty concept of "permanent establishment" ("PE"); and (3) the Internal Revenue Code (the "Code") concept of "U.S. trade or business."

⁴ See Lawrence J. Magid, Internet Sales Easy with Ready-Made Store Site, L.A. TIMES, May 27, 1998, at D7 (citing prediction of Forrester Research); see also House Bill Protects Internet from New Taxes, N.Y. TIMES, June 24, 1998, at A14 ("By some estimates, Internet sales are expected to reach \$200 billion to \$500 billion by 2002.").

⁵ See, e.g., Ian C. Ballon, The Emerging Law of the Internet, 507 PLI/PAT. 1163 (1998) (discussing a myriad of legal issues raised by increasing Internet activity); Amy Harmon, The Law Where There Is No Land, N.Y. TIMES, Mar. 16, 1998, at D1 (providing a sampling of the new kinds of cases affecting various legal fields including criminal law, civil procedure, trademark law, torts, and constitutional law).

⁶ Harmon, *supra* note 5, at D9. *But see id.* (noting that "many legal scholars [including Judge Frank Easterbrook of the U.S. Court of Appeals for the Seventh Circuit] scoff at the notion that cyberspace presents the need for a new discipline," believing that general legal principles can meaningfully adapt to the new cyberworld).

⁷ See TREASURY PAPER, supra note 1, § 1 (stating that "generally accepted principles of international tax policy [must] be reexamined").

⁸ See David R. Tillinghast, Tax Treaty Issues, 50 U. MIAMI L. REV. 455, 456 (1996) ("The [international tax] concepts embodied in the existing tax treaties (as well as in domestic law) were largely conceived in the days of a 'brick-and-mortar' industrial economy...[which] has been overshadowed by the newer and more rapidly growing [electronic] economy...").

⁹ Id.; see also TREASURY PAPER, supra note 1, § 7.2.3.1 ("[E]lectronic commerce doesn't seem to occur in any physical location but instead takes place in the nebulous world of 'cyberspace'")

space."").

10 See Treasury Paper, supra note 1, § 7.1.1 ("Current tax concepts, such as U.S. trade or business, permanent establishment, and source of income concepts, were developed in a different technological era.").

The amount of attention and resources that international taxing authorities are devoting to E-commerce taxation issues underscores the importance of addressing these issues sooner rather than later. One commentator stresses that "[t]he international tax issues surrounding intangibles, electronic commerce, and communications technologies... strike at the heart of change and uncertainty in international tax." In formulating tax policy to deal with the new business technologies, tax authorities should strive to avoid impeding the development of E-commerce. Achieving this goal will require an international consensus regarding the taxation of E-commerce.

A consistent, internationally accepted approach to the taxation of electronic transactions will provide certainty to the growing number of taxpayers engaged in E-commerce. More importantly, a unified approach will mitigate the potential for double taxation (as well as tax evasion) which arises when tax authorities adopt inconsistent methods of taxing similar electronic transactions. Double taxation would artificially inflate the cost of cross-border electronic transactions relative to domestic E-commerce transactions. Failure to deal effectively with the possibility of double taxation, therefore, could prevent worldwide E-commerce from realizing its full potential. Concededly, the policy of pursuing international agreement on the

¹¹ For example, "[h]alf of the 29 [Organization for Economic Cooperation and Development ("OECD")] countries have set up commissions to look into [the taxation of] electronic commerce." Elusive Nature of Commerce on Internet Requires Uniform Rules, Tax Experts Agree, 1998 Daily Tax Rep. (BNA) 36 (Feb. 24); see also Statement by Joseph Guttentag, Deputy Assistant Treasury Secretary for International Tax Affairs, at Finance Committee Hearing on Internet, 1998 Daily Tax Rep. (BNA) 137 (July 17) (noting that, in addition to the U.S., at least six other countries have issued papers addressing various aspects of global Ecommerce).

¹² Diane M. Ring, Exploring the Challenges of Electronic Commerce Taxation Through the Experience of Financial Instruments, 51 TAX L. Rev. 663, 663 (1996).

¹³ See, e.g., TREASURY PAPER, supra note 1, § 1 ("[T]he goal of this process is to develop a framework for analysis that will not impede electronic commerce."). Jeffrey Owens, head of Fiscal Affairs with the OECD, adds that "[t]he challenge for tax administrations in the 21st century will be how to . . . protect their revenue base without hindering the development of [E-commerce]." Jeffrey Owens, The Tax Man Cometh to Cyberspace, 14 TAX NOTES INT'L 1833, 1833 (1997). On the domestic front, Congress has already indicated its desire that taxes not interfere with the growth of E-commerce. See S. 442, 105th Cong. (1998) (introducing the Internet Tax Freedom Act, which proposes a temporary moratorium on state and local taxes "that would interfere with the flow of commerce via the Internet"); H.R. 1054, 105th Cong. (1998) (similar proposal).

¹⁴ See Owens, supra note 13, at 1834 ("Tax authorities must respond by reaching globally consistent approaches to taxing these new activities.").

¹⁵ See Richard Mitchell, United States-Brazil Bilateral Income Tax Treaty Negotiations, 21 HASTINGS INT'L & COMP. L. REV. 209, 213 (1997) (writing generally about the negative impact of double taxation on international economic growth).

¹⁶ See TREASURY PAPER, supra note 1, § 1 (asserting that "[i]f these technologies are to achieve their maximum potential, [international double taxation] must be avoided").

taxation of cross-border flows of income—in order to provide certainty and prevent double taxation—is also applicable to conventional modes of commerce. The ability of E-commerce, however, to remove physical barriers to international trade and thus permit cross-border transactions to take place with increasing frequency reveals the greater need for an internationally coordinated approach to the taxation of E-commerce.

Barriers to international agreement may arise because the residents of one country might be situated differently in relation to E-commerce than the residents of another country. For example, a major exporter of electronic goods and services like the United States might desire to tax E-commerce on a residence basis. Another country whose residents are primarily importers and users of electronic goods and services might prefer a "source-of-payment" tax rule. Consequently, it would be unrealistic to expect all international taxing authorities to agree on a single, unified approach to the taxation of E-commerce. Nonetheless, a common approach, if agreed upon by a significant number of nations, could go a long way toward alleviating the problem of double taxation.

Good policy also dictates that taxing authorities pursue the application of the neutrality principle wherever possible. The Treasury Department strongly advocates the neutrality principle, which "requires that the tax system treat economically similar income equally, regardless of whether earned through electronic means or through more conventional channels of commerce."17 Under a successfully operating "neutral" tax system, "tax rules would not affect economic choices about . . . commercial activities," ensuring that "market forces alone determine the success or failure of new commercial methods."18 The Treasury Department believes that the best way to achieve neutrality "is through an approach which adopts and adapts existing principle—in lieu of imposing new or additional taxes." This Comment periodically analyzes the principle of neutrality as it relates to the taxation of E-commerce. In general, I agree with the Treasury Department's position that neutral tax policy, for economic reasons, should be implemented to the extent possible. However, I will also express doubt that pursuing the neutrality principle is possible in certain instances or that doing so will yield a positive outcome.

Although I do not seek to de-emphasize the importance of policy decisions in the formulation of tax laws, I will focus more on substantive tax matters in this Comment. I will undertake the task of reevaluating tradi-

¹⁷ Id. §§ 6.1-6.2 ("A fundamental guiding principle should be neutrality.").

¹⁸ *Id.* § 6.2.

¹⁹ *Id*.

tional international tax principles in an effort to determine their adaptability to the constantly evolving electronic age of business. Part I will consider the potential impact of E-commerce on the principle of source-based taxation. Since income classification is essential to the proper sourcing of income, Part I will initially assess the feasibility of current classification principles in the context of E-commerce. I will conclude that although classification of income from Internet transactions is possible, the source-based taxation principle is seriously threatened by modern day E-commerce. Part II will analyze the analogous tax threshold concepts of "U.S. trade or business" and "permanent establishment" in the context of today's global electronic economy, concluding that these concepts will likely lose their relevance in cyberspace. Part III will consider the possibility of an increased role for residence-based taxation in the future of international taxation, and conclude with certain reservations that a move toward residence-based taxation is desirable.

I. THE IMPACT OF E-COMMERCE ON SOURCE-BASED TAXATION

A. Overview of Source-Based and Residence-Based Taxation Principles

The international tax environment has relied on the principles of sourceand residence-based taxation for over seventy years.²⁰ A source-based approach (sometimes referred to as a territorial approach)²¹ entitles the "source" country to tax the income of nonresidents that is earned within its borders.²² In contrast, under a residence-based system, a country asserts jurisdiction to tax the worldwide income of its residents, regardless of source.²³ Most countries, including the United States, "assert[] jurisdiction to tax based on principles of both source and residence."²⁴

²⁰ See Reuven S. Avi-Yonah, The Structure of International Taxation: A Proposal for Simplification, 74 Tex. L. Rev. 1301, 1303-06 (1996) (explaining how these concepts, that originated in the early 1920s, are now widely accepted by the international tax community). In 1923, several economists advanced these two bases for taxation in a report to the League of Nations. See Report on Double Taxation, League of Nations Doc. E.F.S. 73 F. 19, 19, 23, 25 (1923).

²¹ See, e.g., Charles E. McLure, Jr., U.S. Tax Laws and Capital Flight from Latin America, 20 U. MIAMI INTER-AM. L. REV. 321, 324 (1989) (discussing the source and residence principles of international taxation).

²² See RESTATEMENT (THIRD) OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES § 412(1)(b), (c) (1986) (declaring that a state has jurisdiction to tax with respect to income derived from business or property located in the state even though the legal person taxed is not a resident, national, or domiciliary of the state).

²³ See id. § 412(1)(a) (stating that a state may tax nationals, residents, or domiciliaries of a state regardless of source).

²⁴ TREASURY PAPER, supra note 1, § 7.1.5.

The policies of the various countries—whose constituents engage in international trade-regarding source- and residence-based taxation may create the potential for the double taxation of certain cross-border flows of income. Double taxation comes in three basic forms: (1) residenceresidence double taxation; (2) residence-source double taxation; and (3) source-source double taxation.²⁵ Residence-residence double taxation occurs when a taxpayer "is deemed a resident of more than one [nation]" and each asserts the right to tax on a residence basis.²⁶ Residence-source double taxation arises when one nation seeks to tax income on a residence basis and another country asserts the right to tax the same flow of income on a source basis.²⁷ Finally, source-source double taxation exists when each of two nations that tax on a source basis considers a particular flow of income to have a domestic source.28

To avoid double taxation, "one principle must yield to the other." A common bilateral tax treaty involving the United States solves the double taxation problem by restricting the taxing rights of the source country, which correspondingly increases the taxing jurisdiction of the residence country.30 Where a source country retains its rights to tax a particular flow of income, the country of residence may avoid double taxation on that income in one of two ways: (1) by granting a credit to its resident taxpayers for taxes paid to the foreign jurisdiction;³¹ or (2) by exempting the foreign source income from the taxable income base of its taxpayers.³²

Foreign tax credits, however, do not always alleviate the burden of double taxation. The United States, for example, will not allow a tax credit in a source-source double taxation situation, where both the United States and another country deem a certain item of income to have a domestic source. In such a situation, the taxpayer, for U.S. tax purposes, does not derive any foreign source income. Since the existence of foreign source in-

²⁵ See, e.g., Mitchell, supra note 15, at 214-15 (describing these three basic situations in which double taxation can arise).

²⁶ *Id*. at 214.

See id. at 215 ("Residence/source taxation occurs when a state exercises its residence jurisdiction over income and another country exercises its source jurisdiction over the same income.").

²⁸ See id. ("Source/source double taxation arises when the same income qualifies as domestic source income in two different states.").

TREASURY PAPER, supra note 1, § 7.1.5.

See id. (discussing "a number of ways" in which U.S. tax treaties reflect "a preference for residence-based taxation").

³¹ See, e.g., I.R.C. §§ 901-08 (1994) (enumerating U.S. foreign tax credit provisions).

³² See TREASURY PAPER, supra note 1, § 7.1.2.

come is essential to generating a foreign tax credit for U.S. tax purposes,³³ double taxation will persist in such a case.

The source-source situation also carries with it the risk of tax evasion. A tax avoidance opportunity could arise when each of two countries considers an income flow to have a foreign source, and neither country asserts jurisdiction to tax on a residence basis. Since most countries employ both residence- and source-basis taxation,³⁴ this tax avoidance scenario should not arise too often. Nevertheless, because the source-source situation creates the potential for double taxation without any corresponding relief from foreign tax credit provisions, it remains particularly problematic.³⁵

B. Classification of Income Principles

Any analysis concerning the sourcing of income requires a preliminary discussion about income classification principles because the source rule may vary depending on the type of income generated.³⁶ In a tax system in which different categories of income are subject to different sourcing rules, "the categorization [of income] process must be fairly self-evident" for source-based taxation "to work with any efficiency."³⁷ Several provisions of the Internal Revenue Code—describing the great variety of source rules that may apply depending on how income is classified—illustrate the importance of income categorization principles to the proper sourcing of income.³⁸ A breakdown in the applicability of classification concepts, therefore, could render the current regime of source rules unworkable and create confusion in the taxation of cross-border transactions.

³³ See I.R.C. § 904(a) (1994) (providing limitations on the foreign tax credit); see also infra note 84 (describing the mechanics of the foreign tax credit limitation in the United States).

³⁴ See supra note 24 and accompanying text (noting the U.S. practice of asserting jurisdiction to tax based on both source and residence principles).

³⁵ For an example of a potential source-source situation arising in E-commerce, see *infra* Part I.C.3, discussing source rules relating to income from electronic services.

³⁶ See, e.g., Michael J.A. Karlin, Computer Program Prop. Regs. Are a Good but Cautious Start, 8 J. INT'L TAX'N 64, 70 (1997) ("[C]lassification of a transaction determines the source rule to be used, which in turn affects which country has jurisdiction to tax, whether withholding applies, and how foreign tax credit limitations will be computed.").

³⁷ Ring, *supra* note 12, at 666.

³⁸ Sales of tangible property is sourced where the passage of title takes place in the case of inventory, see I.R.C. §§ 861(a)(6), 862(a)(6) (1994); Treas. Reg. § 1.861-7 (1997), and according to the residence of the seller in the case of noninventory, see I.R.C. § 865(a) (1994). Income from the provision of services is generally sourced to the location where the services are performed. See id. §§ 861(a)(3), 862(a)(3). Income from the use of intellectual property (royalty income), in contrast, is generally sourced according to the place of use of such property. See id. §§ 861(a)(4), 862(a)(4).

Not surprisingly, new technological developments involving the electronic transfer of "digitized information" complicate the application of existing income classification principles. E-commerce offers choices to consumers that did not exist when governments first addressed income classification issues. Today, for example, "someone wishing to purchase ten copies of all book may simply purchase one [electronic] copy and acquire the right to make nine additional copies"40 (as opposed to purchasing ten copies in bound form). Technically, this transaction would seem to generate "royalty" income. 41 From a practical standpoint, however, the transaction could be viewed as "merely a substitute for the purchase of ten copies" in bound form. Some electronic transactions may also blur the distinction between income from the sale of goods and income from the provision of services. The Treasury Department, for example, has described a situation in which a person interested in purchasing an encyclopedia might have a choice of either buying a set of CD-ROMs, which may result in sale of goods income, or accessing an on-line service, which may generate services income.⁴³ Taxing authorities must, therefore, confront the classification issues raised by the growing use of E-commerce and the free flow of digitized information.

In November, 1996, the Internal Revenue Service ("IRS") published proposed regulations designed to deal with classification problems posed by international transactions involving computer programs.⁴⁴ The Treasury Department again revealed its desire to follow the neutrality principle, stat-

³⁹ See Abrams & Doernberg, supra note 2, at 1575 ("[D]igitization... is the process of converting information into a sequence of numbers. The converted information may be images, speech, music, diagrams, or [words and]... can be sent at the speed of light throughout the world whereby a recipient can convert [it] back into its original format...").

⁴⁰ TREASURY PAPER, supra note 1, § 7.3.2.

⁴¹ See I.R.C. § 861(a)(4) (including in the formulation of royalties, payments made "for the use of or for the privilege of using...copyrights"); United States Model Income Tax Convention, Sept. 20, 1996, art. 12, 1 Tax Treaties (CCH) ¶ 214 [hereinafter U.S. Model Tax Convention] (defining "royalties" as "any consideration for the use of...any copyright of literary, artistic, scientific or other work (including computer software, cinematographic films, audio or video tapes or disks, and other means of image or sound reproduction)"). But cf. [1992-1995 Transfer Binder] Model Tax Convention on Income and Capital, (Org. for Econ. Co-operation & Dev.) art. 12 cmt. ¶ 12, at c(12)-4 (1992) [hereinafter OECD Model Tax Convention] (indicating that such a purchase "poses difficult problems," and that "various factors may make it difficult to determine where the boundary lies between software payments that are properly to be regarded as royalties and other types of payments").

TREASURY PAPER, supra note 1, § 7.3.2.

⁴³ See id. § 7.3.4; see also Owens, supra note 13, at 1842 (discussing the blurring distinction between goods and services caused by E-commerce).

⁴⁴ See Prop. Treas. Reg. § 1.861-18, 61 Fed. Reg. 58152, 58152 (1996) (Summary) (proposing rules for classifying such transactions as sales, licenses, leases, or the provision of services or of know-how).

ing that "wherever possible, transactions that are functionally equivalent should be treated similarly." This substance-over-form approach—which focuses on the economic realities of the transaction rather than on the tax-advantageous structure employed by the transacting parties—ensures that tax considerations do not play a role in the decision regarding the form in which to distribute certain digitized information. 46

The proposed regulations generally distinguish between transfers of a copyright in a computer program and transfers of a copy of a computer program, which the Treasury calls "a copyrighted article." If a transaction involves the transfer of a copyright, the rules provide for the classification "as either a sale or exchange, or a license generating royalty income." Alternatively, when a transaction involves the transfer of a copyrighted article, the regulations provide rules to determine "whether the transaction should be classified as either a sale or exchange, or a lease generating rental income."

The proposed regulations, in the spirit of neutrality, sometimes depart from a strict application of U.S. copyright law. For example, they would treat a cross-border transaction involving the transfer by a U.S. seller of one copy of a computer program in electronic form, whereby the seller grants to a foreign purchaser the right to make nine additional copies of the program, as a sale of a copyrighted article. The proposed regulations recognize that this transaction is the functional equivalent of a sale of ten copies of the computer program. The seller thus, according to the regulations, realizes income from the sale of goods on the transaction.

In contrast, under a strict U.S. copyright law approach, the seller would derive royalty income from the same transaction.⁵³ U.S. copyright law rec-

⁴⁵ Id. (Introduction).

⁴⁶ See, e.g., TREASURY PAPER, supra note 1, § 7.3.1 (noting that it may be necessary to disregard the form of transactions involving digitized information in order to ensure neutrality).

ity).

47 See Prop. Treas. Reg. § 1.861-18(b)(1), 61 Fed. Reg. 58152, 58155 (1996) (distinguishing these two types of transfers from each other and from "[t]he provision of services for the development or modification of the computer program" and "[t]he provision of know-how relating to computer programming techniques").

⁴⁸ Id. § 1.861-18(a)(2), 61 Fed. Reg. At 58154.

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⁵⁰ See id. § 1.861-18(h), 61 Fed. Reg. at 58157 (analyzing a substantially similar fact pattern in example ten).

⁵¹ See id. (concluding that a similar transaction involved "a sale of copyrighted articles").

According to the proposed regulations, "[t]he grant of a right to copy, unaccompanied by the right to distribute those copies to the public, is not the transfer of a copyright right." *Id.*53 In addition to the royalty income generated from granting the buyer the right to repro-

In addition to the royalty income generated from granting the buyer the right to reproduce copies of the program, the seller would presumably derive income from the sale of goods

ognizes the right to reproduce copies of a copyrighted work as one of the exclusive rights granted to a copyright owner. ⁵⁴ Applying U.S. copyright law, therefore, the purchaser of a computer program in electronic form who obtains the right to make additional copies of the program, acquires a right in the underlying copyright.⁵⁵ Consequently, under this approach, the seller would realize royalty income on the license of the program to the buyer. The Treasury Department justifies the different outcome mandated by the regulations on the basis of neutrality considerations.⁵⁶

The Treasury Department's goal of achieving neutrality in this area is admirable. However, a unilateral attempt by the Treasury Department to regulate international copyright transactions would create the potential for double taxation.⁵⁷ If other nations do not subscribe to the novel approach advocated by the IRS, the proposed regulations may create a discrepancy in income classification between the United States and other countries where, prior to the regulations, there was none. As a result, even if another country applied the same source rules as the United States, a different source result would follow based on the differing income classification methods of the two nations.

A significant risk exists that certain countries will continue to interpret the hypothetical transaction discussed above as generating royalty income rather than sale of goods income. Indeed, even under existing U.S. treaty principles, the transaction would generate royalty income.⁵⁸ This directly conflicts with the result provided for in the proposed regulations, under which the transaction would generate income from the sale of goods.⁵⁹ Because royalty income from "[c]ross-border transactions in copyrights [is] often subject to tax and withholding . . . whereas [income from the sale] of

on the initial electronic transfer of the program. From the standpoint of simplicity, the proposed regulations are desirable because they generate only one type of income on the transaction.

See 17 U.S.C. § 106(1) (1994). Other rights include: the right to prepare derivative works; the right to distribute copies of the copyrighted work to the public; under certain circumstances, the right to publicly perform the copyrighted work; and the right to publicly display the copyrighted work. See 17 U.S.C. § 106(2)-(6) (1994 & Supp. II 1996).

Note that the purchaser also acquires a copyrighted article (the original copy of the program received electronically).

56 See Prop. Treas. Reg. § 1.861-18, 61 Fed. Reg. 58152, 58152 (1996).

⁵⁷ But cf. Baker & McKenzie, Focus: Software Revenue, 16 Tax Mgmt. Weekly Rep. (BNA) 1620, 1625 (Oct. 27, 1997) (arguing, notwithstanding the potential threat of double taxation, "that strong U.S. leadership in this area would be very influential in achieving the desired [international] harmonization").

⁵⁸ See U.S. Model Tax Convention, supra note 41, art. 12 (defining royalties to include "any consideration for the use of, or the right to use, any copyright of literary, artistic, scientific or other work (including computer software)").

⁵⁹ See supra note 52 and accompanying text.

tangible property [is] usually not [so taxed],"⁶⁰ double taxation may result where the proposed regulations produce a tax treatment that differs from that provided by other nations.⁶¹ The possibility of double taxation reveals the need for an international consensus regarding the classification of income from cross-border transactions in E-commerce. The United States must negotiate with its trading partners to achieve consistency in the taxation of such transactions involving copyrights. Without an internationally coordinated approach, the promise of the proposed regulations could go unrealized.

Although achieving international agreement on income classification principles should be its top priority in this area, the Treasury Department should also resolve to expand the scope of the proposed regulations. In addition to the "computer programs" as defined in the proposed regulations, among the forms of digitized information "can be transmitted by electronic means, such as...pictures, books, periodicals, motion pictures and sound recordings." Like "computer programs," these forms of digitized information are generally protected by copyright law. Indeed, the Treasury Department has expressed hope that the framework established by the proposed regulations, "[b]ecause [it] is based on an analysis of the underlying rights,...may be flexible enough to handle transactions in...other types of digitized information" in addition to computer programs. Others desire of the other desire.

61 See id. (discussing the double taxation (or tax avoidance) problem that could arise where "the new Regulations...classify transactions differently than a treaty").

⁶⁰ Karlin, supra note 36, at 96.

⁶² The proposed regulations have drawn criticism for dealing with only a limited range of digitizable information. *See, e.g., id.* ("[T]he Regulations are too cautious and narrow in scope, both in their application to a limited number of tax provisions and in the types of software covered.").

⁶³ A "computer program" is defined somewhat narrowly by the regulations as "a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result. . . . [A] computer program includes any data base or similar item if the data base or similar item is incidental to the operation of the computer program." Prop. Treas. Reg. § 1.861-18(a)(3), 61 Fed. Reg. 58152, 58154 (1996).

Ned Maguire et al., Deloitte & Touche LLP, Deloitte & Touche Offers Comments on Tax Policy Implications of Global Electronic Commerce, 15 TAX NOTES INT'L 1483, 1484

⁶⁵ See id. at 1485 (noting that "most material commonly made available in digitized form will be subject to copyright protection").

⁶⁶ TREASURY PAPER, supra note 1, § 7.3.3.

⁶⁷ See Maguire et al., supra note 64, at 1484-85 (arguing that the proposed regulations should also cover additional forms of digitized information, even, in some cases, "non-copyrighted material").

expect⁶⁸ that the reach of the proposed regulations will extend beyond their original scope.

The proposed regulations do appear to provide a meaningful framework for classifying transactions in E-commerce. Furthermore, the reach of the regulations in their final form could reasonably extend to other types of digitizable information. Such an extension could be justified by the policy of "horizontal equity," a close cousin to the principle of neutrality. Horizontal equity requires that similarly situated taxpayers be treated similarly.⁶⁹ In light of this principle, tax laws should not distinguish between an Internet seller of "computer programs" and an Internet seller of other digitized information.⁷⁰

C. Determining the Source of Income in E-Commerce Transactions

The implementation of workable rules for income classification represents only the first step in addressing the sourcing issues posed by E-commerce. Classification principles merely determine which source rules will govern a particular transaction. Further problems arise in attempting to apply the source rules to new electronic forms of business transactions. The following Sections analyze these problems with respect to three primary types of income generated by E-commerce: (1) income from the electronic sale of goods; (2) rent (or royalty) income from the lease (or license) of certain electronic property; and (3) income from the provision of electronic services.

⁶⁸ See Nicholas W. Allard & David A. Kass, Law and Order in Cyberspace: Washington Report, 19 HASTINGS COMM. & ENT. L.J. 563, 603 (1997) ("The proposed regulations... may be applicable to all digitized information at some future date."); Karlin, supra note 36, at 66 ("It may be expected that [the proposed regulations] will in practice or in fact be extended far beyond the limited scope defined by the [IRS].").

⁶⁹ See, e.g., Michael S. Schadewald & William A. Raabe, Present and Future Directions in Federal and State Taxation of Income from Cross-Border Trade, 75 TAXES 218, 220 (1997) ("Fairness requires that taxpayers in similar situations are treated similarly ('horizontal equity')....").

⁷⁰ See, e.g., The Harvard Legislative Research Bureau, Remote Purchasing and Fundamental Fairness: The Sales and Use Tax Equalization Act, 35 HARV. J. ON LEGIS. 537, 538-40 (1998) (demonstrating, in the use tax context, how horizontal equity may be undermined by E-commerce and proposing legislation to achieve horizontal equity).

1. Income from the Electronic Sale of Goods

a. Distinguishing Between "Tangible" and "Intangible" Property

Although the proposed regulations provide adequate guidance for determining whether an electronic transaction involves the sale of property, ⁷¹ they do not attempt to distinguish between tangible and intangible property. The Treasury Department justifies this omission by claiming that the concept of property as tangible or intangible does "not properly capture the unique features of digitized information." In its *Treasury Paper*, the Treasury Department describes how taxpayers could exploit such an artificial distinction simply by altering the means of transfer. ⁷³

Due to this susceptibility to exploitation by taxpayers, the tangible/intangible distinction may not fit well in the context of E-commerce. This distinction should be addressed, nonetheless, because of its relevance in determining the source of income from certain cross-border transactions. For example, payments in consideration of a sale of an intangible that are contingent on the productivity, use, or disposition of the intangible, receive source treatment as if they were royalties. This disparate treatment highlights the need for further guidance regarding the tangible/intangible distinction as it relates to E-commerce transactions.

The sale of a "copyrighted article" under the proposed regulations⁷⁶ is more easily analogized to the sale of tangible property. The principal value of a copy of a computer program ("a copyrighted article") to its purchaser

⁷¹ See supra Part I.B (concluding that the regulations, in general, provide useful guide-lines for classifying E-commerce transactions).

⁷² TREASURY PAPER, supra note 1, § 7.3.3.

⁷³ See id. ("[W]hen a computer disk containing a program is transferred [physically], that would appear . . . to be a transaction in a tangible object. When the same program is transferred [electronically], it would seem to be an intangible.")

⁷⁴ See I.R.C. § 865(d)(1)(B) (1994) (providing that "the source of such payments shall be determined...as if such payments were royalties"). For purposes of I.R.C. § 865, an intangible "means any patent, copyright, secret process or formula, goodwill, trademark, trade brand, franchise, or other like property." *Id.* § 865(d)(2). For a discussion of other international tax provisions that hinge on the tangible/intangible distinction, see Maguire et al., *supra* note 64, at 1486-88.

⁷⁵ Such payments may be sourced either according to the residence of the seller or according to the title passage rule, whereas royalty payments are sourced according to the place of use of the intangible. *See supra* note 38. For a discussion of problems associated with "place of use" as a source rule in E-Commerce, see *infra* Part I.C.2.

⁷⁶ For an illustration of such a sale, see Prop. Treas. Reg. § 1.861-18(h), example 2, 61 Fed. Reg. 58152, 58156 (1996), classifying as a sale of a copyrighted article the downloading of one copy of a computer program for internal use from an Internet Web site for a fee.

"is not the protection afforded by copyright law, but the right to use or sell the copy."⁷⁷ In that respect, the computer program is similar to other property protected by copyrights, "such as books [or] records."⁷⁸ Since no one could reasonably characterize a book or a record as intangible property, "[there is no] reason for a computer program, whether delivered to a customer on disk or by modem, to be so [characterized]."⁷⁹

The existing guidance on the tangible/intangible distinction in the context of E-commerce, though sparse, also supports a tangible classification for transfers of copyrighted articles. In a recent case, the United States Tax Court held that computer software, which qualified as a copyrighted article under the proposed regulations, 80 should be regarded as tangible property for purposes of applying the investment tax credit provisions.⁸¹ Furthermore, an author of the proposed regulations has stated that copyrighted articles will generally receive "tangible" treatment. 82 Without further guidance. however, the possibility remains that a taxpayer might manipulate the tangible/intangible distinction by creatively structuring a transaction to achieve favorable source treatment. For example, a U.S. seller of computer software might transmit its product electronically to a purchaser in another country in Absent clear rules on the tangia contingent-payment transaction. ble/intangible distinction, the seller could argue that the transaction involves the sale of an intangible.⁸³ The transaction would thus generate foreign source income for the seller, a generally desirable result for a U.S. taxpayer.³⁴ The opportunity to obtain more favorable tax treatment merely by altering the form of a transaction clearly violates the principle of neutrality.

⁷⁷ Id. (Introduction).

[&]quot; Ia

⁷⁹ Karlin, *supra* note 36, at 72-73.

See Prop. Treas. Reg. § 1.861-18(c)(3), 61 Fed. Reg. 58152, 58155 (1996) ("A copyrighted article is a copy of a computer program from which the work can be perceived, reproduced or otherwise communicated with the aid of a machine or device.").

⁸¹ See Norwest Corp. v. Commissioner, 108 T.C. 358, 359 (1997).

⁸² See Karlin, supra note 36, at 72 n.34 (referring to remarks made by William Morris of the IRS).

³³ See supra note 73 and accompanying text.

See I.R.C. §§ 861(a)(4), 862(a)(4) (1994) (sourcing royalty income according to the place of use of the intangible property); id. § 865(d)(1) (1994) (treating the income from such a transaction as royalty income). Where the purchaser's country imposes a tax on the U.S. seller on such a contingent payment transaction, the seller has an even greater incentive to try to derive foreign source income. Without foreign source income, the U.S. seller faces double taxation because it would not receive a foreign tax credit to offset its U.S. tax. See id. § 904(a) (1994) (limiting the allowable credit based on a formula which takes into account the proportion that the taxpayer's foreign source income bears to its worldwide income). Even where the purchaser's country does not impose a tax, some sellers (those with excess foreign tax credits) may still desire to generate foreign source income. See Tillinghast, supra note 8,

The preceding discussion overwhelmingly supports the classification of copyrighted articles as tangible property. U.S. lawmakers, however, cannot ignore the potential competitive disadvantages that such a rule could create for U.S. sellers of computer programs in the international market.⁸⁵ If U.S. tax policy cannot sustain the classification of copyrighted articles as either tangible or intangible property, alternative rules must be developed for sourcing income from the sale of goods in E-commerce.

b. The Title Passage Rule

E-commerce also strains the interpretation of the "title passage rule," a source rule applicable specifically to sales of inventory property. Typically, a transfer involving a computer program "[is] structured for commercial law purposes as a license[]" and the vendor often "retains title to the physical cop[y] of the [program]." The proposed regulations might treat such a transfer as a sale, either of a copyright or a copyrighted article, subject to the title passage rule in the case of inventory property. From a commercial law standpoint, however, no title has passed. Application of the rule to this type of E-commerce, therefore, cannot rely on commercial law principles. As a result, tax laws must provide guidance on how to source the income generated from such E-commerce transfers.

If the title passage rule is to be retained for transactions in E-commerce, the taxing authorities must devise a scheme to determine when title passes for tax purposes. For example, "it could be argued that title and risk of loss pass at the customer's [computer]" upon successful downloading of the product by the buyer. Retention of the rule for E-commerce transactions makes sense from a "neutrality" perspective because "a rule that [does] not source income from the sale of electronic inventory in the same manner [as

at 477 (noting that "many U.S. companies are in an excess foreign tax credit position"). The foreign tax credit rules would allow these sellers to utilize their excess credits currently.

⁸⁵ See *supra* note 84 for an example of how intangible classification favors U.S. taxpayers by allowing them to generate foreign source income. An inflexible rule designating copyrighted articles as tangible property could eliminate this benefit to U.S. taxpayers. However, in the case of tangible property that is inventory in the hands of the seller, the title passage rule would still present opportunities for the seller to produce foreign source income. *See in-fra* note 91 and accompanying text.

⁸⁶ See I.R.C. § 865(b) (noting that for inventory property, the residence-based tax rule established by I.R.C. § 865(a) does not apply); Treas. Reg. § 1.861-7(c) (1957) (setting forth the title passage rule, under which income from the sale of inventory property is sourced according to the location where the title and the risk of loss pass to the purchaser).

Maguire et al., supra note 64, at 1485.

For a more thorough exploration of the relationship between commercial law principles and the title passage rule, see *id.* at 1485-86.

89 *Id.* at 1485.

the title passage rule] would create a bias in favor of physical delivery of inventory." 90

A bolder approach would call for the abolishment of the title passage rule, at least as it pertains to electronic sales. The existing regulations generally allow the intent of the contracting parties to determine the place of title passage. Consequently, the rule lends itself to abuse by taxpayers. The abuse potential and the difficulty of meaningfully applying the title passage rule to the rapidly growing number of transactions in E-commerce offer compelling reasons to eliminate the rule. In 1986, realizing the ease with which taxpayers can manipulate the title passage rule, Congress took a step toward abolishing it, repealing the rule as it applied to noninventory property. Nonetheless, Congress retained the rule with respect to sales of inventory property for policy reasons out of concern that the rule's repeal "would create difficulties for U.S. businesses competing in international commerce."

The reasons for replacing the title passage rule with a new source rule pertaining to electronic sales of inventory outweigh the policy justifications for retaining it. A new source rule could address the policy concerns regarding the competitiveness of U.S. exporters engaged in international trade at least as well as the title passage rule. For example, some recent proposals that display sensitivity to competitiveness concerns, would provide generally favorable source rules for U.S. exporters. In addition, allowing U.S.

⁹⁰ David L. Forst, The Continuing Vitality of Source-Based Taxation in the Electronic Age, 15 TAX NOTES INT'L 1455, 1465-66 (1997).
91 See Treas. Reg. § 1.861-7(c) (1960) (stipulating that title passage occurs at the location

⁹¹ See Treas. Reg. § 1.861-7(c) (1960) (stipulating that title passage occurs at the location of property transfer or the place where the "substance of the sale occurred"). Under these regulations, a U.S. seller desiring to generate foreign source income could enter into an agreement with a foreign purchaser whereby title to the property sold would pass in the buyer's country.

⁹² See STAFF OF JOINT COMM. ON TAXATION, 100TH CONG., GENERAL EXPLANATION OF THE TAX REFORM ACT OF 1986, at 917-18 (Comm. Print 1987) (explaining that under the previous law, foreigners were "manipulating the transfer of ownership [of] their property" to avoid U.S. taxation).

⁹³ Id. at 918. In the absence of the title passage rule, earnings of U.S. businesses on the sale of inventory to foreign buyers would generate only U.S. source income under I.R.C. § 865(a). This provision could prevent U.S. businesses from utilizing foreign tax credits and subject them to double taxation, raising concerns for the international competitiveness of U.S. exporters. See, e.g., supra note 84 (describing the limitations on the foreign tax credit).

⁹⁴ See Forst, supra note 90, at 1465 (suggesting a new source rule analogous to the title passage rule, generating 100% foreign source income from the sale of inventory not produced by a U.S. exporter and, in the case of a sale of inventory produced by a U.S. seller, generating 50% foreign source income); Maguire et al., supra note 64, at 1486 (suggesting foreign source treatment for the sale of a copyrighted article under the proposed regulations, subject to an anti-abuse rule, where "the agreement specifies passage of title outside the United States; [or]

exporters to derive foreign source income on a substantial portion of their electronic sales of inventory would comport with the principle of neutrality. Therefore, regardless of whether the title passage rule continues to apply to physical sales of inventory, this Comment does not recommend its application to transactions in E-commerce.

2. Income from the Lease or License of Certain Electronic Property

As previously mentioned, U.S. tax law sources rental and royalty income from property according to its place of use. Although problems involving the application of this source rule predate the recent escalation in E-commerce, the nature of E-commerce exacerbates the already significant application problems. Consider the following situation based on an example contained in the proposed regulations.

Corporation A, a U.S. corporation, agrees to transfer a copy of its software to Corporation B, a resident of Country X. A will grant B the nonexclusive right to reproduce and distribute the software to the public for a period of three years. The remaining life of the copyright on the software is five years. B plans to distribute the software over the Internet to users throughout the world. B will compensate A based on the number of sales it makes to end users over the Internet.

Under the regulations, A has licensed the software to B. The payments from B to A, therefore, constitute royalties. Because royalty income from intangible property is sourced based on where that property is used, some interesting questions arise regarding the location of the "use." For example, is the place of use the residence of the payor of the royalties (in this case Country X), or the location of the software's end user, or the place of

the shipping documents or customer agreement show a foreign destination, notwithstanding that title does not pass to the buyer").

In 1987, the American Law Institute ("ALI") proposed replacing the title passage rule as it applied to physical inventory. See AMERICAN LAW INSTITUTE, FEDERAL INCOME TAX PROJECT—INTERNATIONAL ASPECTS OF UNITED STATES INCOME TAXATION 33 (1987) [hereinafter ALI PROJECT] (recommending a sales activity approach to sourcing income from inventory sales). Perhaps this rule is adaptable to electronic transmissions of inventory as well. Ideally, the taxing authorities would create a single standard applicable to both physical and electronic modes of commerce, rather than promulgating separate rules designed to yield comparable results.

⁹⁶ See I.R.C. §§ 861(a)(4), 862(a)(4) (1996) (defining rentals or royalties from properties located in the United States as U.S. source income and rentals or royalties from properties not located in the United States as income from outside the United States).

⁹⁷ See ALI PROJECT, supra note 95, at 45 ("Exactly what constitutes 'use' and where 'use' occurs can sometimes be difficult questions."); id. at 50 ("[T]he cases and rulings... have not clearly articulated how the place of use is to be determined.").

⁹⁸ See Prop. Treas. Reg. § 1.861-18(h), example 6, 61 Fed. Reg. 58152, 58156 (1996).

⁹⁹ See id.

installation of the software (which is not necessarily Country X) from which it will be distributed throughout the world?¹⁰⁰

a. Place of Use Determined by the Residence of the Payor of Royalties

A rule fixing the place of use as the location where the payor of royalties resides has appeal because of its simplicity. Furthermore, such a rule would avoid double taxation in the not infrequent case where the foreign country employs a similar origin-of-payment source rule. 101 According to the American Law Institute ("ALI"), however, "filt seems relatively clear that intangibles such as copyrights and trademarks should be considered as used in the jurisdiction in which the property covered by the intangible is consumed."¹⁰² Because, in the above example, little or no correlation exists between the place of consumption and the place of residence of the payor, a rule sourcing royalty income to the resident country of the payor becomes more difficult to justify. Nevertheless, given the complications that arise in trying to apply the alternative approaches, which this Comment addresses below shortly, this somewhat simplistic rule might warrant further consideration in the age of E-commerce.

b. Place of Use Determined by the Location of Software Installation

A rule that establishes the place of use according to the location of the software installation immediately raises the possibility of abuse. For example, returning to the above hypothetical, A could negotiate with B to install the software in a low-tax jurisdiction (a tax haven). This allows A to generate foreign source income subject to relatively low tax rates in the foreign country. Earning foreign source income could allow A to utilize excess foreign tax credits generated in prior years or to offset foreign taxes currently paid to higher tax-rate jurisdictions. 103 B can achieve the same worldwide distribution from any computer server with Internet access, regardless of location. 104 Moreover, B can relocate its software to a computer server in a

¹⁰⁰ See James D. Cigler et al., Cyberspace: The Final Frontier for International Tax Concepts?, 7 J. INT'L TAX'N 340, 346 (raising such questions in the context of a similar hypothetical).

See ALI PROJECT, supra note 95, at 52 (noting that some countries "appear to base the source of royalties on the residence of the payor").

¹⁰² Id. at 50 (explaining that "the legal protection in th[e] jurisdiction [of consumption] is the essence of the intangible").

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See supra note 84 (discussing how foreign tax credits are utilized).

See Abrams & Doernberg, supra note 2, at 1581 (explaining that once a server has been set up with an Internet protocol ("IP") address, any Internet user can gain access to that address regardless of the user's choice of Internet service provider).

tax haven at little cost. Therefore, B will likely comply with A's request, especially since B could probably procure a more attractive price from A in return for this favor. Because a place-of-installation tax rule inevitably would affect economic choices about the structure of markets and commercial activities, it clearly violates the neutrality principle. The abuse potential created by such a rule strongly undermines any appeal that it might otherwise have.

c. Place of Use Determined by Consumer Location

The rule that the place of use determines the location of the software consumer complies with the ALI's statement of what the source rule should be. 106 Despite the strong theoretical justifications for such an approach, the unique nature of E-commerce renders this approach especially difficult to apply. E-commerce transactions differ sharply from typical physical transactions in which the consumer's location is more easily ascertained. For instance, consider the seller of physical goods that must ship its product to the consumer at a particular geographic location. Then compare the Internet's capacity to electronically transmit all kinds of digitizable material, 107 the previous transmission of which could only occur physically. This fundamental change in the means of delivery of certain goods creates special problems for this source rule. Due to the anonymous nature of Internet transactions, it is often difficult, or even impossible, to determine the consumer's location. 108 Although in theory it may be possible to trace the path of Internet communications, "[t]heory and reality are, unfortunately, not always easily reconciled." Due to the current untraceability of Internet transactions, taxing authorities simply cannot rely on this source rule and must consider alternatives. To the extent that this source rule applies to

¹⁰⁵ See Treasury Paper, supra note 1, § 6.2 (explaining in the context of neutrality that, ideally, tax rules should not affect such economic choices).

See supra note 102 and accompanying text.

See supra note 39 (defining digitization and describing the types of information that may be digitized and transmitted electronically).

See TREASURY PAPER, supra note 1, § 7.1.5 ("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.").

Leonard D. Levin, Tax Consequences of Electronic Commerce (Dealing with Magic), 38 TAX MGMT. MEM. 107, 108 (1997) (explaining that although "an audit trail [for Internet transactions]... may exist,... at present the required investment [of] time and resources necessary to extract the information may be beyond even government capabilities"); see also Thomas F. Field, Tax Experts at Amsterdam Conference Differ on Extent and Nature of Internet Threat, 15 TAX NOTES INT'L 1519, 1521 (1997) (comments of David Richardson, assistant director in the international division at the U.K. Inland Revenue) (noting that although audit trails often exist, "encryption can make records unintelligible once they are located").

transactions in physical commerce, any new rule risks violating the neutrality principle. However, the neutrality principle must yield in the face of administrative impossibility.

3. Income from the Provision of Electronic Services

Under U.S. tax law, the place where the labor or services are performed determines the source of services income. 110 The continued vitality of this traditional source rule is also threatened by the expanding volume of Ecommerce activity. In earlier times, the performance of services and the utilization of those services most likely took place in the same geographic location. Thus, often it did not matter whether a country employed a source rule for services based on the jurisdiction of performance or on the jurisdiction of utilization. 111 E-commerce, however, makes it less likely that the location of the service provider will coincide with the location of the service consumer. 112 The Treasury Paper offers as examples a remote diagnosis performed by a doctor via telecommunications links and a meeting taking place via videoconference in lieu of a face-to-face meeting. 113 In either case, the service provider may be in the United States while the service consumer is in a foreign country.

Where such a divergence occurs, both the performance jurisdiction and the utilization jurisdiction have strong claims to tax the services income. 114 The performance jurisdiction provides the location from which the service activity may be conducted. The utilization jurisdiction, on the other hand, supplies the consumer of those services, from whom the service renderer derives its income. The increasing tendency for the location of the service consumer to diverge from the location of the service provider, combined with the increasing difficulty in determining where the service is actually performed, and the strengthening claim of the utilization jurisdiction to tax services income may call for a reexamination of the current U.S. rule in this area.

¹¹⁰ See I.R.C. §§ 861(a)(3), 862(a)(3) (1996) (noting that income derived from performance occurring within the U.S. is treated as income from U.S. sources, while income from performance occurring outside the United States is not).

See ALI PROJECT, supra note 95, at 57 (noting that place of performance and place of utilization are the two basic approaches to determining the source of income from services).

¹¹² See TREASURY PAPER, supra note 1, § 7.4.1 (acknowledging that E-commerce "[weakens] the relationship between a service provider's location and the service consumer's location").

113 See id.

I am assuming for purposes of this discussion that the service is "performed" in the service provider's country.

One commentator, David L. Forst, suggests that such a reexamination is unnecessary because "the determination of which country has the right to tax [services] revenue can be readily analyzed under existing principles and authorities." Forst relies principally on *Commissioner v. Piedras Negras Broadcasting Company*. In *Piedras Negras*, the taxpayer, a Mexican corporation with its principal office and place of business in Mexico, operated a radio broadcasting station. The station derived income from radio advertising and from renting its broadcasting facilities. The taxpayer executed all of its income-producing contracts and performed all services required under the contracts in Mexico. Although the station had little physical connection with the United States, it had many U.S. listeners, and ninety-five percent of its income came from U.S. advertisers. The court held that the taxpayer did not derive any income from U.S. sources, noting that "[Congress clearly intended] that the source of income is the situs of the income-producing service."

According to Forst's interpretation of the case, "to determine the source of an enterprise's income one must look to the location of the enterprise's physical and human capital that produces the income." This situs-based approach seems, in most cases, to favor sourcing the income in the jurisdiction of the service provider. As such, it does not account for the strong claim that the utilization jurisdiction can make to tax electronic services income. Because of the ease with which services may now be rendered electronically, the potential impact of embracing a situs-based approach to sourcing services income derived in E-commerce requires consideration. This approach, if internationally accepted, might successfully deal with the double taxation problem, but also may unfairly favor developed countries

Forst, *supra* note 90, at 1463. Although Forst makes this argument specifically in reference to advertising conducted in E-commerce, it is not inconsistent with his approach to extend the argument to cover all types of electronically conducted services.

^{116 127} F.2d 260, 261 (5th Cir. 1942) (holding that a Mexican-based radio station, whose profits were generated from facilities located outside the United States and whose business was conducted from locations outside the United States, for U.S. tax purposes, is considered to have a "source of income" outside the United States).

¹¹⁷ See id. at 260.

¹¹⁸ See id.

¹¹⁹ See id.

¹²⁰ See id.

¹²¹ Id. at 261.

¹²² Forst, *supra* note 90, at 1464.

(which are more likely to export services electronically) over developing countries. 123

Absent international agreement, the United States could employ a situs-based interpretation of its place-of-performance source rule for services income. A unilateral application of the situs-based approach by the United States, however, could hinder the competitiveness of U.S. exporters of electronic services by subjecting them to double taxation. Indeed, if the United States retains its place-of-performance source rule for services provided electronically, while other nations retain (or adopt) a place-of-utilization source rule, U.S. exporters of electronic services will find themselves facing residence-source as well as the very undesirable source-source forms of double taxation. Although the U.S. foreign tax credit normally provides relief from residence-source double taxation, the United States allows no credit where the taxpayer is also subject to source-source double taxation.

Concern for the competitiveness of U.S. providers of electronic services in the market for international services may prompt the United States to adopt a rule ensuring that a certain amount of foreign source income is derived from cross-border electronic services transactions. Such a rule would enable U.S. providers of electronic services to utilize the foreign tax credit, thus alleviating some of the burden of double taxation. From a U.S. government revenue-raising perspective, however, the greater the amount of foreign source income generated, the more the United States relinquishes taxing jurisdiction to foreign nations. Therefore, from a U.S. tax policy standpoint, the challenge lies in striking a balance between maintaining a competitive international environment for U.S. exporters of electronic services while not sacrificing too much in tax revenue.

In addition to traditional types of services that have now taken electronic form, E-commerce has given rise to an entirely new breed of services sometimes referred to as "online information services." The most common types of these services made available by online service providers include "Internet access and electronic mail facilities, chat rooms and online shop-

¹²³ See infra Part III.A.1.c for further discussion of the potential dispute over the allocation of taxing rights between developed and developing countries that E-commerce may create.

¹²⁴ See supra Part I.A (explaining the different types of double taxation as well as the foreign tax credit).

See Maguire et al., supra note 64, at 1491 (suggesting a rule to mitigate the double taxation problem: sourcing income from "international electronic information services" 75% to the United States and 25% to foreign countries).

Policymakers face a similar challenge in the area of non-electronic services. Due to the special nature (and exponential growth rate) of electronic services, however, the challenge to policymakers appears to be much greater in the context of electronically rendered services.

ping and Web hosting services."¹²⁷ Despite the labeling of such online arrangements as services, it does not automatically follow that they should be treated as such for tax purposes.¹²⁸ Nonetheless, even though these common arrangements might not qualify as "pure" services, their "predominant character[istic]... is that of a service" in that they enable the customer to find and retrieve information.¹²⁹ Accordingly, classifying these arrangements as services for tax purposes seems appropriate. In devising source rules for online information services, policymakers again must try to assess the impact of such rules on the international tax system, taking into account, inter alia, fairness and competitiveness concerns.

D. The Future of Source Rules in E-Commerce

The previous discussion raises serious doubt about whether existing source rules are adaptable to the world of E-commerce. At the extreme, source based taxation may fail altogether to provide a workable rule for E-commerce transactions. Where source concepts retain viability, the taxing authorities face other serious challenges. For example, failure to reach an international consensus on new source rules applicable to E-commerce may result in double taxation of online vendors, possibly stunting the rapid development of the Internet. Furthermore, the taxing authorities may find it very difficult to devise source rules that maintain neutrality in the age of E-commerce.

The preceding analysis demonstrates the need to devise new source rules or at least to change the manner of applying existing source rules.¹³¹

Maguire et al., *supra* note 64, at 1490; *see also* Cigler et al., *supra* note 100, at 344 (noting that "all... online service providers allow dial-in access and work as both a repository of information and a host for [their] users"). For a more complete list of common online arrangements, see Maguire et al., *supra* note 64, at 1488.

¹²⁸ See Cigler et al., supra note 100, at 344 (noting that "[one could argue] that the primary business of an online service provider is actually providing its users with limited use of copyrighted material"); Maguire et al., supra note 64, at 1488 (undertaking an analysis of common types of online arrangements to determine whether they should be classified as services for tax purposes).

Maguire et al., supra note 64, at 1488; see Cigler et al., supra note 100, at 344 (concluding that online service arrangements are likely to be classified as services for tax purposes).

¹³⁰ Consider, for example, the serious difficulty of applying a rule that sources income based on the place of use of a consumer of intangible property. See *supra* Part I.C.2.c for a discussion of the realistic difficulties of using the consumer location to determine the place of use with respect to electronic, as opposed to traditional physical, commercial transactions.

Consider especially the "place of use" rule, see supra Part I.C.2 (analyzing alternative rules for determining the place of use), and the title passage rule, see supra Part I.C.1.b (discussing the difficulties in applying the title passage rule to E-commerce), as examples of source rules that translate very poorly, if at all, to E-commerce.

Quite possibly, new source rules or the modified application of existing rules would source income differently with respect to E-commerce (as opposed to physical) transactions, violating the neutrality principle. Failure to achieve neutrality will affect the means (physical or electronic) of transmitting information when the tax savings gained from altering the manner of distribution are great enough. Any departure from a decision otherwise driven purely by market forces could lead to inefficiencies.

Despite the compelling theoretical justification for implementing "neutral" source rules, tax administrators must also give regard to practical considerations. The Treasury Department, perhaps the leading proponent of neutrality, concedes that traditional source concepts "[are] often difficult, if not impossible, to apply" in the technologically advanced world of E-commerce. Technology, it seems, may require sacrificing the goal of creating totally neutral source rules. At the extreme, technology may even require forgoing source-based taxation entirely. In any case, the taxing authorities clearly must give due regard to technological considerations in devising or adapting any rules for the taxation of E-commerce.

II. THE EFFECT OF E-COMMERCE ON THE CONCEPTS OF "PERMANENT ESTABLISHMENT" AND "U.S. TRADE OR BUSINESS"

The potential for E-commerce to render traditional tax rules obsolete does not end with source-of-income principles. Such long-standing tax concepts as "permanent establishment" and "U.S. trade or business" face similar threats to their survival. The concepts of PE and U.S. trade or business, though not directly related, have many similarities. Both evidence a preference for residence-based taxation by generally excluding from source basis taxation income earned by nonresidents who do not have a sufficient nexus with a source jurisdiction. In addition, both rely largely on physical indicators of presence of a taxpayer within a source country to assess whether the appropriate taxing threshold has been crossed. E-commerce, because of its tendency to diminish (or eliminate) physical presence within a

¹³² See TREASURY PAPER, supra note 1, § 7.1.5.

See infra Part III.A (exploring the possibility of replacing source-based taxation with a residence-based regime).

Abrams & Doernberg, *supra* note 2, at 1589 (noting that "the most significant implication of the growth of electronic commerce for tax policy may be that technology rather than policy will determine the tax rules of the 21st century").

¹³⁵ These similarities, combined with the general "difficulties in [applying the U.S. trade or business concept]," prompted the Treasury Department "to consider replacing the Code's U.S. trade or business concept with the permanent establishment concept." TREASURY PAPER, *supra* note 1, § 7.2.1.1 n.52.

source country, jeopardizes the continued viability of these physically dependent concepts.

A. Permanent Establishment

Most international tax treaties incorporate the PE concept, usually defined as a "fixed place of business through which the business of an enterprise is wholly or partly carried on." Under the typical treaty, a contracting state gives up its right to tax "business profits" earned within its borders (source income), unless those profits are attributable to a PE located in that state. A PE may also arise by imputation, "where a person—other than an [independent] agent . . . is acting on behalf of an enterprise and has, and habitually exercises, in a Contracting State an authority to conclude contracts that are binding on the enterprise." 138

The U.S. Model Tax Convention defines the term "permanent establishment" to specifically include places of management, branches, offices, factories, workshops, and natural resource extraction sites. This definition illustrates the PE concept's reliance on physical manifestations of presence. The PE concept as defined does not seem to contemplate the technologically-sophisticated types of E-commerce that exist in the modern economy. One might immediately think that a concept developed to address tax issues in a predominantly physical economy has no chance of adapting to the modern age of E-commerce. The possibility exists, however, that the PE concept is flexible enough to have at least a fighting chance for survival in cyberspace despite its traditional reliance on factors of physical presence. The following sections explore two critical questions regarding the relevance of the PE concept to E-commerce. First and foremost, does a non-resident who owns or uses a computer server to conduct business in a source

¹³⁶ U.S. Model Tax Convention, *supra* note 41, art. 5, ¶ 1. This Comment focuses on the definition and interpretation of the term "permanent establishment" as employed by the U.S. and OECD model tax treaties. For a broader analysis that discusses the potential impact of E-commerce on other formulations of the PE concept, see Kyrie E. Thorpe, *International Taxation of Electronic Commerce: Is the Internet Age Rendering the Concept of Permanent Establishment Obsolete?*, 11 EMORY INT'L L. REV. 633, 655-87 (1997), considering interpretations of the PE concept rendered by the OECD model treaty, the U.N. model treaty, and a sampling of developed as well as developing nations.

¹³⁷ See U.S. Model Tax Convention, supra note 41, art. 7, ¶ 1 (setting forth rules for the taxation of business profits); see also OECD Model Tax Convention, supra note 41, art. 7 cmt. (describing the rationale for the PE concept by stating that "[u]ntil an enterprise of one State sets up a PE in another State it should not properly be regarded as participating in the economic life of that other State to such an extent that it comes within the jurisdiction of that other State's taxing rights").

¹³⁸ U.S. Model Tax Convention, *supra* note 41, art. 5, ¶ 5.

¹³⁹ See id. ¶ 2(a)-(f).

jurisdiction have a PE in that jurisdiction?¹⁴⁰ Second, can a Web site form the basis for finding a PE?¹⁴¹

1. Does the Foreign Owner and Operator of a Local Computer Server Have a Permanent Establishment in the Local Jurisdiction?

Consider the following situation involving a nonresident Internet service provider ("ISP") that sets up and maintains a computer server located in the U.S. Among other things, the ISP leases hard disk space on its server to Internet vendors who use the space to maintain their Web sites. Employees of the ISP are present in the United States only to set up the server. The ISP performs all maintenance on its server either by remote control from its home country or through the use of independent contractors (independent agents) in the United States. This Part analyzes whether the ISP may be deemed to have a PE in the United States.

The OECD commentary to its model tax treaty offers guidance on whether automatic equipment constitutes a PE. Although the OECD's conception of automatic equipment, consisting of vending and gaming machines, is quite narrow and somewhat outdated, its commentary on automatic equipment is nevertheless sufficiently general so that it may reasonably apply to computer servers. For instance, the commentary explains that whether automatic equipment will constitute a PE "depends on whether or not the enterprise carries on a business activity besides the initial setting up of the machines.... A permanent establishment may exist... if the enterprise which sets up the machine also operates and maintains [the machine] for its own account." This test seems to favor a finding of a PE in our example because the ISP continues to operate and maintain the server in the United States for its own account.

One commentator points out, however, that the language of the OECD commentary usually requires that people perform the business activities in the country where the equipment is located.¹⁴⁴ In the absence of human per-

¹⁴⁰ See, e.g., TREASURY PAPER, supra note 1, § 7.2.4 (asking "whether a foreign person who owns or utilizes a computer server located in the United States should be deemed to have a U.S. PE").

See, e.g., Owens, supra note 13, at 1846-47 (considering whether a Web page could give rise to a PE).

¹⁴² See OECD Model Tax Convention, supra note 41, art. 5, cmt. ¶ 10 (establishing a framework for determining whether automatic equipment gives rise to a PE).
143 Id.

See Forst, supra note 90, at 1468 (contending that "for a permanent establishment to arise in a country through the fixed presence of automatic equipment, people, whether the enterprise's employees or dependent agents, must carry on a business activity in that country"). The commentary that provides the basis for Forst's contention states that the "carrying on of

formers, he argues, "a permanent establishment will not exist." A literal reading of the commentary supports his conclusion. The drafters of the commentary, working in the context of a more physically driven economy, probably did not foresee computers usurping the functions of humans in the conduct of business operations. But in the modern economy, "computers... are making the decisions that were formerly made by humans alone," and they will have even greater authority in the future. ¹⁴⁶ Consequently, the emerging trend to de-emphasize physical and human factors in business operations strains the traditional interpretation of PE. The PE concept must, therefore, be interpreted more broadly by taxing authorities if it is to retain relevance in the modern electronic economy.

The Second Chamber of the German Supreme Tax Court recently rendered a very expansive interpretation of the PE concept in a case involving automatic equipment. Such an interpretation could possibly breathe new life into the endangered PE concept. In what is referred to as "the pipeline case," a Dutch corporation owned underground pipelines in the Netherlands and Germany, through which it supplied oil to German oil companies. According to the translated facts of the case:

[T]he pressure for the transportation of the oil was supplied from the Netherlands, from which all the oil transportation within Germany was regulated by remote control through a computer. The Dutch company had no employees in Germany, and all its technical and marketing personnel were situated in the Netherlands. All maintenance and repair of the pipelines in Germany were done by independent contractors.

business" aspect of the PE concept usually involves "persons... dependent on the enterprise [who] conduct the business of the... enterprise at the fixed place." OECD Model Tax Convention, supra note 41, art. 5(1), para. 1.2 (emphasis added).

¹⁴⁵ Forst, *supra* note 90, at 1468.

James D. Cigler & Susan E. Stinnett, Treasury Seeks Cybertax Answers with Electronic Commerce Discussion Paper, 8 J. INT'L TAX'N 56, 95 (1997) (discussing the extent to which computers will continue to displace humans in the future of business decision-making). The ability of a computer to defeat the human chess champion provides one illustration of how far the technology related to artificial intelligence has advanced. See Noel D. Humphreys, What's the Source, What's for Sale?, PA. LAW., Nov.-Dec. 1997, at 43 (predicting, based on the victory of IBM's "Deep Blue" computer over a human chess expert, that future computers "will mechanically replace services previously performed by humans").

¹⁴⁷ The "Pipeline" case, Bundesfinanzhof [BFH] II R 12/92, Betriebs-Berater, 52 (1997), 138 (finding that a Dutch corporation that owned automatic equipment in Germany had a German PE, despite the corporation's lack of a human presence in Germany).

See Friedrich E.F. Hey, German Court Rules Remote-Controlled Pipeline Constitutes
 a PE, 14 TAX NOTES INT'L 651, 651 (outlining the facts of the case).
 Id.

The court held that the Dutch corporation did have a PE in Germany. ¹⁵⁰ In so holding, the court interpreted the term "permanent establishment" to include "any fixed place of business that serves the business activities of the taxpayer... with a fixed nexus with the earth's surface, of a certain duration... and over which... the taxpayer has more than only temporary dominion and control." Significantly, the court explained that in the case of fully automated equipment, a PE can exist even in the absence of a human presence. ¹⁵² The court's broad interpretation would favor a finding of a PE in the above example. The fact that the ISP had no employee presence in the United States would not matter since the ISP could exploit the fixed place of business (the server) from abroad.

Before concluding that the server, based on the existing authority regarding automatic equipment, should constitute a PE, other determinants as to what constitutes a PE should be considered. For example, the OECD commentary also mentions that if an enterprise of one state merely leases equipment to an enterprise of another state "without maintaining...a fixed place of business in the other state," the leased equipment will not constitute a PE solely on the basis of the lease contract. This begs the question: Does the equipment itself (the server in our example), which is maintained by a nonresident taxpayer, constitute a fixed place of business in the other state? If it does—and based on the preceding discussion of automatic equipment that is likely the case—then the fact that the ISP's contracts are limited to the mere leasing of equipment in the other state is irrelevant. Therefore, a broad reading of the term "permanent establishment" (such as the one rendered by the German Tax Court) would likely preclude the ISP from availing itself of the "mere leasing" exception to the PE concept.

An expansive view of PEs may have theoretical appeal, especially where, for example, the human presence has been replaced by a form of "virtual" presence, such as the remote control of equipment from a foreign country. In such a case, neutrality would require that the enterprise conducting the activities from a remote location receive the same treatment as the enterprise that physically sends its employees to the site of the equipment for its operation and maintenance. According to the neutrality principle, if the latter activity gives rise to a PE, so should the former. Further-

¹⁵⁰ See id.

¹⁵¹ *Id*.

¹⁵² See id. at 652 ("The deployment of persons... to the fixed place of business is not always required to constitute a permanent establishment; in the case of fully automated equipment, the exploitation of the fixed place of business for purposes of the taxpayer's business is sufficient."). But see Forst, supra note 90, at 1468 (claiming that a human presence is a prerequisite to finding a PE).

OECD Model Tax Convention, supra note 41, art. 5, cmt. ¶ 9.

more, a broad interpretation would apparently ensure the vitality of the PE concept in the age of E-commerce. But, at least in the case of computer servers, such an interpretation is problematic. Two aspects of computer servers, in particular, combine to provide a compelling reason not to define the PE concept broadly. First, computer servers are easily relocated. Second, the location of a computer server is largely irrelevant because a server can achieve worldwide Internet access regardless of its location.

The implications are obvious. If a jurisdiction, such as Germany, defines "permanent establishment" broadly, an ISP will simply locate its servers elsewhere. Therefore, even a very broad interpretation of the PE concept, despite its possible theoretical appeal, will likely have no bite. Certainly, the formulation of easily circumvented rules does not make good tax policy. To conclude, in deciding whether the ISP in our example has a PE in the United States, although one could reasonably argue from a theoretical standpoint (and under existing authority) that the ISP should have a PE in the United States, tax policy and technology considerations seem to override such a determination, precluding a finding of a United States PE.

2. Does the Foreign Owner and Operator of a Web Site Have a PE in the Jurisdiction of Its Consumers?

This section analyzes the following typical situation. A nonresident business entity, X, leases space on a U.S.- or foreign-based computer server which is owned and operated by an unrelated party. X loads its Web site onto the server, thereby making it accessible to Internet users throughout the world. X has no employees in the United States. The issue under analysis here is whether these facts warrant a finding that X has a PE in the United States.

a. Can the Definition of Permanent Establishment Expand to Include a Web Site?

As I concluded in the previous section, the owning and operating of a computer server by a foreign person in the United States should not give

¹⁵⁴ See, e.g., TREASURY PAPER, supra note 1, § 7.2.3.1 ("Computer servers can be located anywhere in the world.").

See supra note 104 and accompanying text (explaining that once a server has been set up with an Internet Protocol ("IP") address, any Internet user can access that address).

decision, "prudent tax planning would dictate that servers be located outside Germany"); see also Field, supra note 109, at 1403 ("[S]ervers will go offshore [to low-tax or tax-haven jurisdictions] if we try to subject them to tax—as soon as sufficient bandwidth is available." (quoting Patricia Brown of the U.S. Treasury Department)).

rise to a PE. It follows that a foreign person who merely leases space on a U.S.-based server likewise would not have a PE in the United States. One must consider, however, that the owner and operator of a Web site that achieves Internet access via a U.S. server may interact with U.S. individuals and businesses to a greater extent than may the owner of the server. Whereas the owner of the server perhaps does little more than rent out disk space on its server, the Web site operators may conduct substantial and numerous business activities in the United States with the aid of the server. For example, a Web site operator may engage in the electronic transmission of goods and/or services to U.S. customers. Because relocating a Web site to a non-U.S.-based server is even easier and less costly than relocating a server to a non-U.S. jurisdiction, the PE trigger cannot depend on the leasing of space on a server in the United States. Rather, the analysis must look to other factors; for example, the level of interaction between the Web site and U.S. consumers. Accordingly, the following discussion focuses on the nature of the Web site, not the location of the server(s) upon which the Web site is stored.

Disregarding the server "home(s)" of X's Web site, X has no connection at all with the United States unless an Internet user in the United States accesses X's Web site. Even then, however, X still has no physical presence in the United States. Instead, X has merely made information available through its Web page which has been routed to a computer terminal in the United States probably through a U.S.-based server. Could such an attenuated form of presence give rise to a PE in the United States? Some fear that tax administrators may answer this question affirmatively. 157

It seems difficult to reconcile the claim that X may have a PE in the United States with the "fixed place of business" clause embedded in the definition of PE. Indeed, attributing any location at all to the information made available by the Web site would seem arbitrary. Perhaps the computer screen of the user or the local computer server accessed by the user could provide a basis for determining the location of the information. Even then, the location is not "fixed," because any Web site presence (either on the screen or on the local server) disappears when the user terminates the Internet session or links to a different Web site. If not for the German Tax

¹⁵⁷ See Maguire et al., supra note 64, at 1494 (expressing concern that other countries may follow the lead of some U.S. states and regard the presence of intangible property as constituting a taxable nexus); Owens, supra note 13, at 1846 (cautioning that "some tax administrators... may take into consideration the location of intangible assets in assessing whether a permanent establishment has arisen in the source country").

¹⁵⁸ See, e.g., TREASURY PAPER, supra note 1, § 7.2.3.1 (noting that "[e]lectronic commerce doesn't seem to occur in any physical location but instead takes place in the nebulous world of 'cyberspace'").

Court's incredibly broad interpretation of the PE concept, I would not feel the need to pursue this issue any further. That decision, however, causes one to speculate as to the lengths to which the PE concept might be stretched.

b. Possible Exceptions to Classification as a PE

Assuming that the definition of PE is flexible enough to embrace X's Web site, it does not follow that X necessarily has a PE in the United States. Perhaps X can avail itself of one of the exceptions to PE classification. In particular, two of these exceptions may provide X relief from an initial PE designation. The U.S. Model Tax Treaty provides that "[n]otwithstanding the preceding provisions of this Article, the term 'permanent establishment' shall be deemed not to include: ... the use of facilities solely for the purpose of storage, display or delivery of goods or merchandise belonging to the enterprise" (the "warehouse exception"). Nor does a PE include "the maintenance of a fixed place of business solely for the purpose of carrying on, for the enterprise, any other activity of a preparatory or auxiliary character",161 (the "auxiliary activity exception"). Both of these exceptions may apply where a country tries to invoke PE jurisdiction based on the use of a server within its borders. This situation may arise, for example, when an Internet user utilizes a local server to gain access to a foreign person's Web site. The local server is called into action notwithstanding the fact that the Web site itself may be stored permanently on a server in a foreign jurisdiction. 162

Regarding the warehouse exception, the Treasury Department suggests that "[f]or a business which sells information instead of goods, a computer server might be considered the equivalent of a warehouse." Therefore, a local server that merely stores or displays information of a foreign Web site owner (that is in the business of selling information) should not result in a

Although not directly a PE issue, it should be noted that some U.S. states also have taken a very broad view of what constitutes a taxable nexus, going so far as to claim tax jurisdiction for sales tax purposes based on a customer's accessing of the Internet. See Field, supra note 109, at 1520 (reporting on statements made by Allyn Yamanouchi, global technology tax counsel for Citibank, who cited concern over the aggressive positions adopted by U.S. states). These aggressive state tactics, however, may be eliminated if Congress enacts the Internet Tax Freedom Act. See S. 442, 105th Cong. (1997) (proposing a moratorium on state taxation of the Internet).

¹⁶⁰ U.S. Model Tax Convention, supra note 41, art. 5, ¶ 4-4(a).

¹⁶¹ Id ¶4(e)

For a more complete view of the paths traveled by a typical Internet communication, see Abrams & Doemberg, *supra* note 2, at 1581-85.

¹⁶³ TREASURY PAPER, supra note 1, § 7.2.4.

PE in the local jurisdiction. The auxiliary activity exception may apply where a foreign owner of a Web site merely supplies information, accessible to users in the United States who connect via a local server. Because activity of a "preparatory or auxiliary" character "would normally include the supply of information,"164 a PE should not arise in this instance. Significantly, considering the extensive presence of advertisers in E-commerce. 165 the OECD commentary also lists advertising as an activity of a preparatory and auxiliary nature. 166 In these situations, where the foreign web-site owner "simply post[s] information on an Internet Web site which is accessible to users in foreign jurisdictions," an analogy can be made to personal iurisdiction cases involving Internet activity. 167 In one such case, the court reasoned that "[a] passive Web site that does little more than make information available to those who are interested in it is not grounds for the exercise [of] personal jurisdiction." This rationale is consistent with the apparent conclusion, under existing interpretations of international tax treaties, that merely supplying information (or advertising) over the Internet does not constitute taxable presence.

c. Dependent Agency Giving Rise to a PE

Many Internet communications, however, involve more than merely supplying information. Some may involve a high degree of interaction between the end user and the vendor (or at least the vendor's software). The Internet's capacity for such interaction undoubtedly accounts for some, if not most, of its popularity. This interaction also raises the question: could a Web page constitute a PE "on the theory that it acts as a type of dependent agent that can conclude contracts on behalf of the company?" 169

As previously mentioned, a PE may arise by imputation (through an agency relationship), "where a person—other than an [independent agent]... is acting on behalf of an enterprise and has and habitually exer-

Owens, supra note 13, at 1846 (citing OECD Model Tax Convention, supra note 41,

art. 5, ¶ 23).

165 See Marla Matzer, Advertising & Marketing: New Study Casts Doubt on Web Advertising Data, L.A. TIMES, July 30, 1998, at D6 (noting that "[a]n estimated one billion dollars was spent on Internet advertising [in 1997]" despite the absence of reliable data regarding how many people see an online advertisement).

¹⁶⁶ See OECD Model Tax Convention, supra note 41, art. 5 cmt. ¶ 4.23 (using advertising as an example of an auxiliary activity).

Zippo Mfg. Co. v. Zippo Dot Com, Inc., 952 F. Supp. 1119, 1124 (W.D. Pa. 1997).
 Id.

Owens, *supra* note 13, at 1846. Owens answers, "[a]lmost surely not... [because a] Web page... cannot itself accept orders," *id.*, but I do not believe the question can be dismissed so summarily.

cises in a Contracting State an authority to conclude contracts that are binding on the enterprise." Developments in modern technology raise new imputation issues. Certain "intelligent agent software" is capable of interacting with an Internet user on behalf of an Internet vendor, and may even accept and process orders. According to a literal reading of the U.S. Model Tax Convention or the OECD Model Tax Convention, a dependent agent must be "a person." Therefore, software, regardless of how "intelligent," seemingly could not qualify as a dependent agent. One must consider, though, that taxing authorities (perhaps drawing inspiration from the German Tax Court's pipeline decision) may place less emphasis on actual human presence and argue that a "virtual" human presence suffices to invoke a PE on the basis of a dependent agency relationship.

A possible problem with the preceding agency analysis is that the "smart" software may reside on a server (or servers) outside the jurisdiction of the Internet user. In such a case, the agency activity—for example, the acceptance and processing of orders—will not occur on the local server. Where the intelligent agent activity takes place on a server outside the local jurisdiction, no PE should arise.

What if the intelligent agent software resides on a server in the local jurisdiction? I have already concluded that the existence of a PE should not depend on the location of the server on which the Web site owner stores its software. The ease with which a vendor can relocate its software to servers in other jurisdictions mandates that conclusion. Therefore, even if the agency functions are performed on a local server, PE classification based on the server's location, though arguably appropriate in theory, does not make sense from a policy standpoint.

¹⁷⁰ U.S. Model Tax Convention, *supra* note 41, art. 5, ¶ 5; *see also* OECD Model Tax Convention, *supra* note 41, art. 5, ¶ 5 (similar provision).

¹⁷¹ See Forst, supra note 90, at 1470 (employing an example involving intelligent agent software).

¹⁷² See supra notes 144-45 and accompanying text (discussing the contention that people, and not automatic machines, must carry on business activities in the country to constitute a PE).

PE).

173 See, e.g., Thorpe, supra note 136, at 666 (commenting that a software agent "technically ... does not satisfy the first agency requirement ... of the OECD Model Treaty" that a "person" act on behalf of a company).

¹⁷⁴ See Forst, supra note 90, at 1470 (framing the ultimate issue as "whether a taxpayer can have a permanent establishment in a particular country through his virtual presence in that country").

¹⁷⁵ See supra Part II.A.1 (concluding that the foreign owner and operator of a local computer server does not automatically have a PE in the local jurisdiction).

d. Policy Implications of a Broad Definition of PE

A PE concept that casts a net so large as to capture a foreign person whose Web site is accessed in another jurisdiction cannot be sustained on policy grounds. As the preceding analysis demonstrates, any connection between the foreign owner of a Web site and the jurisdiction over an Internet user of the Web site is extremely tenuous. 176 If owning a Web site can support a finding of a PE, an Internet vendor may suddenly find itself having a PE in every jurisdiction where it has Internet sales, resulting in a prohibitive tax compliance burden. 177 One of the functions of the PE concept is to prevent burdensome tax reporting obligations. As one commentator explains, "[t]he high tax threshold embodied in the [PE] rule is thought to facilitate international trade by preventing foreign taxpayers who do not have a substantial physical presence in a country from having to bear the costs of learning about the tax system of that country." The accessing of a foreign person's Web site simply does not constitute "substantial physical presence" in the consumer's country. Lowering the PE threshold in the context of Ecommerce could severely threaten the growth of the Internet, defeating the Treasury Department's goal of not impeding "these new technologies." 179 Distorting the definition of a PE in an attempt to give it meaning in the context of E-commerce will not work. 180

Taxing authorities that require further convincing need only consider the difficulty in attributing income to a web-site PE, once found. Many Internet vendors utilize multiple servers, perhaps located in different coun-

¹⁷⁶ This assumes that the foreign owner has no other presence in the local jurisdiction.

¹⁷⁷ Congress has begun to address a similar domestic problem regarding the potential state taxation of Internet transactions. The Internet Tax Freedom Act, which proposes to regulate state taxation of the Internet, was introduced at least in part to address compliance concerns. See S. 442, 105th Cong. § 2(7) (1997) (finding that "[c]onsumers, businesses, and others engaging in interstate and foreign [electronic] commerce . . . could become subject to more than 30,000 separate taxing jurisdictions in the United States alone").

Michael J. McIntyre, The Design of Tax Rules for the North American Free Trade Alliance, 49 TAX L. REV. 769, 788-89 (1994).

¹⁷⁹ TREASURY PAPER, supra note 1 (Executive Summary).

¹⁸⁰ See 1998 Daily Tax Rep. (BNA) 36 (Feb. 24) (comments of Jeffrey Owens, OECD head of fiscal affairs) ("In the new approaches to taxes [and E-commerce], permanent establishment will have to be abandoned.... How far can we adapt the concept we are used to working with?"). But see id. (comments of Bruce Cohen, former associate international tax counsel at the Treasury Department and author of the Treasury's discussion paper on the taxation of E-commerce) (implying adaptability of existing tax concepts to E-commerce).

¹⁸¹ Under the typical tax treaty, only business profits attributable to a PE in another jurisdiction are subject to tax in that other jurisdiction. *See* U.S. Model Tax Convention, *supra* note 41, art. 7, \P 1.

tries. 182 Furthermore, "[t]he [consumer] may not be able to identify which server is handling its transactions, and the server used by the [vendor] may not be capable of identifying the physical location of the [consumer]." Therefore, even when a PE theoretically exists, pinpointing its location might not be possible.

In the context of international shipping and air transport, "difficulties...encountered in attributing income to multiple permanent establishments" prompted parties to tax treaties to forgo source-based taxation. Because the same (perhaps even greater) difficulties arise in the Ecommerce context, source-based taxation may again yield to an alternative taxing regime, such as residence-based taxation. The PE concept depends on the applicability of source-based taxation principles. A PE represents a taxing threshold that allows source-based taxation principles to operate once it is crossed. If international consensus dictates that source principles will yield to other methods of taxation in cases when attributing income to multiple PEs becomes too difficult or impractical, then whether or not a PE exists becomes irrelevant. Other forms of taxation will apply, making it unnecessary to consider the PE question.

Returning to the example, in deciding whether X has a PE in the United States, policy considerations again mandate the conclusion that the activities involved do not give rise to a U.S. PE. Based on the preceding analysis, further attempts by taxing authorities to expand the scope of the PE concept in E-commerce do not appear warranted.

B. U.S. Trade or Business

In the absence of an applicable tax treaty, nonresident alien individuals and foreign corporations are subject to U.S. tax at ordinary graduated rates on their taxable income "effectively connected with the conduct of a trade or business within the United States." They also face a flat rate of tax (usually 30%) on U.S.-source gross income from "fixed or determinable an-

¹⁸² See Peter A. Glicklich et al., Internet Sales Pose International Tax Challenges, 84 J. TAX'N 325, 325 (1996) (discussing the use of "mirror" servers).

¹⁸³ Id

¹⁸⁴ U.S. Model Tax Convention, *supra* note 41, art. 8, ¶ 1 (Technical Explanation).

See id. (conferring taxing rights solely on the state in which the enterprise is located); OECD Model Tax Convention, supra note 41, art. 8, \P 1 (conferring taxing rights on the state from which the enterprise is managed).

But see Forst, supra note 90, at 1463 (arguing that source-based principles will remain vital in the age of E-commerce).

¹⁸⁷ I.R.C. § 871(b)(1) (1994) (nonresident alien individuals); id. § 882(a)(1) (foreign corporations).

nual or periodical gains, profits, and income" ("FDAP income") which is not connected with a U.S. business. ¹⁸⁸

1. Defining the Scope of the U.S. Trade or Business Concept as it Relates to E-commerce

Before reaching the "effectively connected" question, one must first determine whether a foreign person has a trade or business within the United States. Unfortunately, though the Internal Revenue Code provides examples of what the term "trade or business within the United States" "includes" and "does not include," it does not specifically define what the term means. Consequently, the determination of whether a foreign person's activities constitute a U.S. trade or business relies on an analysis of the facts and circumstances.

In general, the existence of a U.S. trade or business depends on whether the foreign person has engaged in any "substantial, regular, or continuous ordinary business activity in the United States." E-commerce creates the opportunity for foreign persons to limit or eliminate their presence in the United States, yet still "engage in extensive transactions with U.S. customers." This aspect of E-commerce will make it more difficult for the United States to invoke taxing jurisdiction over foreign persons, applying the current U.S. trade or business standard. The United States's response to this potential loss in tax revenue remains to be seen.

One possibility is for the United States to expand the meaning of U.S. trade or business, thereby lowering the taxing threshold to embrace certain forms of E-commerce. For example, a foreign person who uses a computer server in the United States could be viewed as engaged in a trade or business within the United States. The Treasury Department acknowledges, though, the possibility that the use of a server "is not a sufficiently significant element in the creation of . . . income to be taken into account for purposes of determining whether a U.S. trade or business exists." The ability of foreign persons to utilize servers in other jurisdictions is an even stronger

¹⁸⁸ Id. § 871(a)(1) (nonresident alien individuals); id. § 881(a)(1) (foreign corporations).

For example, "the term ... includes the performance of personal services within the United States," but generally does not include "[t]rading in stocks or securities through a resident broker, commission agent, custodian, or other independent agent." *Id.* § 864(b).

¹⁹⁰ Commissioner v. Spermacet Whaling & Shipping Co., 281 F.2d 646, 650 (6th Cir. 1960) (quoting Spermacet Whaling & Shipping Co. v. Commissioner, 30 T.C. 618, 634 (1958)) (upholding the Tax Court's conclusion that the foreign corporation was not engaged in a U.S. trade or business due to a lack of such activity).

¹⁹¹ TREASURY PAPER, *supra* note 1, § 7.2.3.1.

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reason not to pursue a tax rule based on server location. As argued in the preceding analysis concerning PEs, basing taxing jurisdiction on the location of a server would be an ineffective way to retain a tax revenue base. 193 This analysis suggests that U.S. taxing authorities should not aggressively try to expand the scope of the term "U.S. trade or business" to adapt to Ecommerce.

Existing U.S. case law, specifically the classic case of *Piedras Negras* Broadcasting Co. v. Commissioner, 194 also supports a narrower construction of the U.S. trade or business concept in the context of E-commerce. 195 Piedras Negras, although decided in the early 1940s, remains surprisingly relevant to the U.S. trade or business issue in the context of E-commerce. In Piedras Negras, the court held that a Mexican radio station's income earned from broadcasting advertisements (directed largely toward U.S. audiences and paid for predominantly by U.S. advertisers) did not have a U.S. source and therefore was not subject to U.S. tax. 196 Significantly, the Board of Tax Appeals also found that the radio station was not engaged in a U.S. trade or business by virtue of its broadcasting activities. 197 This finding suggests that a foreign person with no physical presence in the United States could engage in substantial business activity with U.S. customers over the Internet without crossing the "U.S. trade or business" taxing threshold.

The Treasury Department notes that Piedras Negras might support a "mere solicitation" exception to the U.S. trade or business concept. 198 Such an exception would preclude, for example, foreign persons who operate on-

See supra Part II.A.1 (stating that the relative ease of relocating software to servers in other jurisdictions makes PE classification based on the location of the server impractical). Indeed, the Treasury Department concedes that if the location of a server is relevant to the U.S. trade or business determination, "foreign persons will simply utilize servers located outside the United States since the server's location is irrelevant." TREASURY PAPER, supra note

<sup>1, § 7.2.3.1.

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43</sup> B.T.A. 297 (1941), aff'd, 127 F.2d 260 (5th Cir. 1942). 195 See id. at 313 (holding that the income of a foreign corporation taxpayer engaged in the operation of a radio station was not derived from a source within the United States, although the majority of listeners were in the United States and the majority of income came from U.S. advertisers).

¹⁹⁶ See id. at 261 (agreeing with the Tax Court that the radio station had no income from U.S. sources). For a more complete summary of the case, see supra Part I.C.3.

¹⁹⁷ See Piedras Negras, 43 B.T.A. at 310 (maintaining that the "business of providing and selling advertising space" is a local business, regardless of where the advertisements are broadcast).

¹⁹⁸ See TREASURY PAPER, supra note 1, § 7.2.1.1 ("[A] foreign person not physically present in the United States who merely solicits orders from within the United States only through advertising and then sends tangible goods to the United States in satisfaction of the orders is unlikely to be engaged in a [U.S.] trade or business.").

line sales catalogs over the Internet and sell to U.S. customers from being classified as engaged in a U.S. trade or business. If the revenue loss potential from this exception is great enough, the United States may target certain foreign persons whose solicitation of U.S. customers is substantial, regular, or continuous. 199 I would not endorse such an aggressive move by U.S. taxing authorities, nor would I expect one, given the Treasury Department's expressed doubts about "whether it is appropriate or practical to treat foreign persons engaged in E-commerce with U.S. customers as being engaged in a U.S. trade or business if they are physically located outside the United States."200

2. "Effectively Connected Income"

Where a foreign person is engaged in a U.S. trade or business, the Code provides for the taxation of the net income effectively connected with the conduct of that U.S. trade or business.²⁰¹ In general, effectively connected income includes most income "from sources within the United States." 202 In addition, effectively connected income includes certain types of income earned by a foreign person, "if such person has an office or other fixed place of business within the United States to which such income, gain, or loss is attributable."203 I have already addressed, in the context of PEs, whether certain activity conducted over the Internet could be viewed as occurring at a fixed place of business in the United States.²⁰⁴ Reiterating earlier statements, any interpretation of "fixed place of business" that encompasses equipment, such as computer servers, which merely provide access to a foreign person's Web site, should be rejected as unduly broad.²⁰⁵ Even if a fixed place of business could be established, difficulties would arise in determining the income "attributable to" such a fixed place. 206 Moreover. un-

¹⁹⁹ See, e.g., Glicklich et al., supra note 182, at 328 (raising the possibility, based on Rev. Rul. 56-165, 1956-1 C.B. 849, that regular and active solicitation in the U.S. could cause a taxpayer to be engaged in a U.S. trade or business).

TREASURY PAPER, supra note 1, § 7.2.3.1.

²⁰¹ See I.R.C. §§ 871(b), 882(a) (1994).

²⁰² Id. § 864(c)(3). For potential problems in determining the source of income in Ecommerce transactions, see supra Part I.C.

²⁰³ I.R.C. § 864(c)(4)(B) (1994).

See supra Part II.A.2 (discussing whether the accessing of a foreign person's Web site could be deemed to occur at a fixed place of business in the United States). It was necessary to address the "fixed place of business" question in the PE section because the existence of a "fixed place of business" is a prerequisite to finding a PE. See supra note 136 and accompanying text.

See supra Part II.A.2.

See supra notes 181-85 and accompanying text (discussing the attribution problem in the PE context).

der existing standards, adequate tax planning could ensure that foreign source, Internet-generated income earned by foreign persons engaged in a U.S. trade or business will not be "effectively connected." Given the impracticality of expanding the meaning of "fixed place of business," and the ease with which taxpayers conducting business over the Internet can avoid earning income that is "effectively connected," the effectively connected concept will not function well in the context of E-commerce.

3. Internet-Generated "FDAP" Income

A foreign person engaged in E-commerce, but not engaged in a U.S. trade or business, still might be subject to tax in the United States. Even in the absence of a U.S. trade or business, the United States asserts the right to tax U.S. source FDAP income. U.S. payors of FDAP income must collect this flat rate tax (usually 30% of gross income subject to the tax, unless a lower treaty-designated rate applies) by deducting and withholding it from foreign persons. 209

Though not specifically designated by the Code as FDAP income, the applicable regulations make clear that FDAP income includes income from royalties. This fact has significant implications for E-commerce because many transactions involving the electronic transfer of digitized information arguably produce royalty income. The recently proposed "computer program" regulations, however, would remove certain royalty payments from FDAP classification. Specifically, royalty payments made with respect to certain licensing arrangements that commonly occur over the Inter-

²⁰⁷ See Glicklich et al., supra note 182, at 328 ("Under [current] standards, it should be possible to make a strong argument that a properly structured foreign-source sale over the Internet does not give rise to effectively connected income.").

See I.R.C. §§ 871(a)(1)(A), 881(a)(1) (1994) (defining FDAP income as "interest[.]... dividends, rents, salaries,... and other fixed or determinable annual or periodical gains, profits, and income").

209 See id § 1441 (stating that U.S. official results in the content of the

²⁰⁹ See id. § 1441 (stating that U.S. officials must withhold the flat rate tax from nonresident alien individuals); id. § 1442 (stating that U.S. officials must withhold the flat rate tax from foreign corporations). This Comment uses the term "foreign persons" to refer to both nonresident alien individuals and foreign corporations.

See Treas. Reg. § 1.871-7(b)(1) (as amended in 1997) (providing that royalties are considered "items of fixed or determinable annual or periodical gains, profits, or income").

See supra note 41 and accompanying text (explaining the inclusion of payments made for the use of copyrights of computer software in the formulation of royalties).

²¹² Prop. Treas. Reg. § 1.861-18, 61 Fed. Reg. 58152, 58156-58 (1996) (discussing the classification of income from transactions involving "computer programs"). See *supra* Part I.B for a full discussion of E-commerce classification issues.

net would not constitute FDAP income.²¹³ Departing from traditional copyright law principles, the proposed regulations do not treat the granting of a right to copy as the transfer of a copyright unless "[a]ccompanied by the right to distribute those copies to the public."214 Therefore, common licensing agreements that grant the purchaser a right to copy for internal use only, will likely be classified under the proposed regulations as sales of copyrighted articles (resulting in the generation of non-FDAP income).²¹⁵ In the absence of these new regulations, the same arrangements would likely be classified as licenses resulting in the generation of royalty (FDAP) income.

The proposed regulations, by narrowing the class of FDAP income, would appear at first glance to deprive the United States of a significant source of tax revenue. This assumes, however, a substantial rate of compliance with the withholding provisions applicable to FDAP income.²¹⁶ In reality, compliance with these provisions, even if they were applicable to such licensing arrangements, would probably be quite low. 217 U.S. purchasers of software over the Internet, in most cases, would have no indication that they were dealing with a foreign party. Even when the seller's foreign identity is known, the average American buyer of software would likely be unaware of his or her withholding obligations, and the IRS would likely be unaware of any violations. 218 Consequently, the effect of the proposed regulations to narrow the class of FDAP income would not appear to threaten the existing U.S. tax revenue base to any significant degree.

Prop. Treas. Reg. § 1.861-18(h), 61 Fed. Reg. 58152, 58156-58 (1996) (using examples to show that a license agreement granting the right of use but not of public distribution, conducted over the Internet, constitutes a sale of copyrighted material and does not generate royalty income).

²¹⁵ See id. (illustrating that the granting of a right to copy for internal use only is "a transfer of copyrighted articles").

²¹⁶ See I.R.C. §§ 1441, 1442 (1994) (dealing with withholding of tax on nonresident aliens and foreign corporations, respectively).

²¹⁷ See Cigler et al., supra note 100, at 348 (noting that if Internet software sales resulted in royalty income, "monitoring by the IRS to ensure compliance with the withholding provisions . . . may become more difficult").

²¹⁸ See, e.g., Saba Ashraf, Virtual Taxation: State Taxation of Internet and On-Line Sales, 24 FLA. St. U. L. REV. 605, 610 (1997) (noting that companies engaged in Ecommerce are confused about their tax collection obligations, and citing a study by KPMG Peat Marwick in which 20% of company executives surveyed admitted that they did not know whether their companies were even subject to sales and transaction taxes on Internet sales). See generally, Owens, supra note 13, at 1838 (arguing that, as a result of increased Internet activity conducted without middlemen, "[w]ithholding taxes . . . will become less viable sources of revenue").

C. An Attempt to Apply the Neutrality Principle: The Mail Order Analogy

The neutrality principle requires that economically similar income be taxed in the same way, regardless of whether the income derives from Ecommerce or from more conventional modes of commerce.²¹⁹ The mail order industry, because it operates in E-commerce as well as conventional commerce, provides a basis for testing the neutrality principle. This test will reveal how the new and unique features of E-commerce may make it difficult to interpret the PE and U.S. trade or business concepts in a neutral fashion.

Historically, a foreign-based mail order business could forgo the physical presence that would give rise to a PE or a U.S. trade or business only by enduring some competitive disadvantages that correspond with the lack of presence. 220 A heightened presence in the country could produce certain business advantages. For example, the company could place an employee or hire a dependent agent in the United States to enter into contracts on its behalf and provide on-site representation of its products.²²¹ This strategy could enhance the marketability of the company's products by creating greater product recognition in a specific market.²²² It also creates the opportunity for customers, if they desire, to deal face-to-face with a company representative. Furthermore, an on-site representative could introduce new product lines into the market more rapidly than a periodically printed catalog. 223

This heightened presence, however, comes with a tax cost. An employee or dependent agent in the United States with the authority to conclude contracts on behalf of the company will suffice to create a PE, 224 or, in the absence of a tax treaty, a U.S. trade or business.²²⁵ Tax administrators

²¹⁹ See supra notes 17-19 and accompanying text (explaining the importance of the neutrality principle to an economically efficient tax system).

See Owens, supra note 13, at 1846 (employing a mail-order example to show how "[t]he principle of physical presence comes under pressure when a business is able to exploit a market in a country without establishing a significant physical presence there"). Owens limits his analysis of the mail order example to the context of PEs, but it is easily extended to cover the analogous U.S. trade or business concept as well.

221 See id.

²²² See id. (noting that on-site representation may make a company and its products known within a specific geographical region).

²²³ See id. (pointing out that "[c]ompanies with rapidly changing product lines might find catalogue representations too limiting").

²²⁴ See U.S. Model Tax Convention, supra note 41, art. 5, ¶ 5 (allowing a PE to arise on the basis of a dependent agency).

²²⁵ See I.R.C. § 864(b)(1) (1994) (covering employee situation); id. § 864(c)(5) (dealing with dependent agent situation); see also Hanfield v. Commissioner, 23 T.C. 633, 638 (1955) (holding that a Canadian manufacturer of post cards, distributed in United States by an exclu-

have always considered the relationship between taxing jurisdiction and physical presence to be a fair one: "no jurisdiction to tax by a country also means no right to the business advantages following from physical presence "226

The Internet provides a mail-order business with advantages previously attainable only by establishing a physical presence within the United States. By shifting activities to the Internet, the company can eliminate physical ties within the country without significantly jeopardizing its competitive position. 227 The company can aggressively market products over the Internet through the use of electronic advertising and e-mail campaigns.²²⁸ Additionally, the company can provide customers with up-to-date descriptions and pictures of the company's products through the use of an on-line catalog. 229 The lack of a human presence does eliminate the possibility of faceto-face interaction between customer and company representative which some customers desire. Nevertheless, the mail-order company that conducts its business over the Internet seems to enjoy substantially the same competitive advantages as a traditional mail-order business that establishes physical presence within the country. As a result, the trend of Internet vendors selling into a jurisdiction without establishing a physical presence there, once de minimis, now "will become a substantial trading pattern." ²³⁰

Despite the varying levels of presence within a country, the income generated by an Internet mail-order business is economically similar to the income earned by a traditional mail-order business. The slight competitive edge enjoyed by the conventional mail-order business that establishes physical presence in the United States does not justify differential tax treatment. Therefore, neutrality requires that the income from both types of mail-order businesses be taxed in a similar fashion. As mentioned, the company with an employee or dependent agent present in the United States will have a U.S. PE or a U.S. trade or business and, therefore, will be subject to U.S. taxation. The Internet mail-order business, on the other hand, will have no physical presence in the United States, despite the fact that it directs advertising to U.S. customers who, in turn, may access its Web site

sive agent pursuant to a contract consignment, was engaged in business within the United States).

226 Owens, *supra* note 13, at 1846.

²²⁷ See id. ("[T]he interactive nature of the Internet . . . can give the customer the feel of the seller's presence, and both the customer and the seller can realize many of the advantages that presence usually brings").

228 See id. (noting that Internet advertisements and personalized e-mails can be targeted

to users of a certain profile).

229 See id. (discussing the advantages of mail-order conducted over the Internet).

Richard L. Doernberg, Electronic Commerce and International Tax Sharing, 16 TAX NOTES INT'L 1013, 1013 (1998).

in the United States. Therefore, applying reasonable interpretations of the PE and U.S. trade or business concepts, the Internet mail-order business will not owe any U.S. taxes.²³¹ To achieve neutrality, the authorities would either have to raise the taxing thresholds for PE and U.S. trade or business to exempt the conventional mail-order business, or lower the respective thresholds to encompass the Internet mail-order business.

As discussed earlier, lowering the taxing threshold to embrace such remote forms of "virtual" presence cannot be justified as a practical matter, even if theoretically enticing. Lowering the threshold in this manner would foster abuse and disrespect for the tax system. But one cannot expect alternatively that the taxing authorities will raise the threshold and forgo taxing revenue attributable to a clearly established physical presence within its borders. These authorities might fear that raising the thresholds in one context would inevitably weaken and perhaps destroy the concepts altogether, resulting in a substantial erosion of their tax bases.

The preceding discussion illustrates the obstacles to achieving neutrality brought about by the special features of E-commerce. In the mail-order example, if the taxing authorities fail to achieve neutrality, the conventional mail-order business (with a physical presence in the United States) would face a discriminatory tax burden. Because the tax savings associated with the elimination of its U.S. presence likely outweigh the competitive benefits derived from having such a presence, the conventional mail-order business would probably take the necessary steps to terminate that presence. Thus, the failure to achieve neutrality would result in tax considerations assuming a large role in a mail-order company's economic decisions about its commercial activities. Although such an outcome may not be ideal in terms of economic efficiency, the neutrality principle must sometimes yield to other principles, such as administrability and simplicity. If neutrality proves to be unattainable in the age of E-commerce with respect to the concepts of PE and U.S. trade or business, the possibility arises that taxing authorities will look to other tax concepts that may be more susceptible to a successful application of the neutrality principle.

III. MODIFYING THE INTERNATIONAL TAX REGIME TO ADAPT TO THE AGE OF E-COMMERCE: THE POSSIBLE RESIDENCY SOLUTION

Clearly, modern day E-commerce threatens the continued viability of certain traditional tax concepts. First, E-commerce threatens the applicability of source-based taxation by making it difficult or impossible to pinpoint

²³¹ See, e.g., supra Part II.A.2 (advising against a broad construction of the PE concept); Part II.B.1 (advising against broad interpretation of the U.S. trade or business concept).

the exact situs of certain economic activity. Additionally, E-commerce jeopardizes the tax threshold concepts of PE and U.S. trade or business. These threshold concepts, which rely significantly on a taxpayer's physical presence within a country, do not adapt well to the world of cyberspace, where the need to establish physical presence in a country is rapidly diminishing. The challenge for tax administrators now lies in the development of new—or, if possible, the modification of existing—international tax laws that are adaptable to the dynamic and "high-tech" nature of E-commerce. Any such laws should attempt to reconcile the possibly conflicting goals of potential efficiency gains of the "maximiz[ing] the and ... protect[ing]" the various governments' revenue bases. 232 Although the evolution of E-commerce may cause some tax concepts to weaken and fade away, perhaps other existing tax concepts will enjoy an even larger role in the future.

A. The Possible Ascendancy of Residence-Based Taxation²³³

Where the nature of an economy undermines the effective application of source-based taxation principles, speculation naturally turns to the possibility of using residence-based principles to fill the resulting gap in the tax law. Indeed, the Treasury Department observes that "[t]he growth of new communications technologies and electronic commerce will likely require that principles of residence-based taxation assume even greater importance." The Treasury Department also notes an apparent trend in U.S. tax policy to supplant source-based taxation with residence-based taxation when source principles come under pressure. The erosion of source-based taxation principles, however, does not by itself support the international adoption of a residence-based approach to taxing E-commerce transactions. The adoption of a tax system solely by default cannot be defended as good policy. Consequently, taxing authorities should first examine the potential impact of a tax system that would rely to a greater extent on residence-based principles.

²³² Owens, *supra* note 13, at 1833.

²³³ For an overview of source-based and residence-based taxation principles, see *supra* Part I.A.

²³⁴ TREASURY PAPER, supra note 1, § 7.1.5.

²³⁵ See id. ("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.").

1. The Pros and Cons of Residence-Based Taxation

a. Advantages

Residence-based taxation does offer several advantages over its source-based counterpart. First, in the context of E-commerce, adopting a pure residence-based approach would spare taxing authorities from the difficult task of modifying the PE and "U.S. trade or business" concepts to adapt to electronic transactions. The purpose of these concepts is to set a threshold for source taxation. Once the threshold is crossed, income attributable to the PE or U.S. trade or business is sourced according to the location of the PE or in the United States, respectively. Otherwise, residence-based taxation will generally prevail. In a residence-based taxing regime, the PE and U.S. trade or business concepts would no longer serve a useful function and could be disregarded.

Second, as a practical matter, residence (at least in the case of individuals) "is a relatively easy concept to establish," and may be determined in accordance with "bright-line rules." Supporting a move toward residence-based taxation, the Treasury Department observes that "[a]n individual is almost always a . . . resident of a given country[,] and, at least under U.S. law, all corporations must be established under the laws of a given jurisdiction." This observation, however, implicitly overstates the ease with which residence-based taxation can be applied in a corporate context. Unlike individuals, corporations, especially multinational enterprises, may operate in multiple places at any given time, rendering it difficult to determine the official "residence" of any particular corporation. Furthermore, though the U.S. tax law "defines corporate residence according to state of incorporation," other countries, such as Brazil, "define corporate residency as according to place of central management."

The difficulty in developing bright-line rules to determine the residence of a corporation, combined with the varying definitions of corporate residence adopted by the world's nations, represent barriers to the expansion of residence-based taxation principles in the corporate setting. These obsta-

Avi-Yonah, *supra* note 20, at 1311 (identifying I.R.C. § 7701(b)(3)(A) as a bright-line rule for determining residency, which employs a substantial presence test by counting the number of days an individual is present in the United States).

²³⁷ TREASURY PAPER, supra note 1, § 7.1.5.

See Avi-Yonah, supra note 20, at 1313 (claiming that residence-based taxation should not be followed in the case of multinational corporations due to the difficulty of determining the residence of such corporations and the complex, perhaps impossible, task of imputing earnings to shareholders).

²³⁹ Mitchell, supra note 15, at 215 (explaining why corporations may encounter residence/residence double taxation).

cles, though not insignificant, are not insurmountable. Consider, for example, that tax treaties have effectively dealt with corporate residency conflicts by establishing independent rules "designed to assign all taxpayers residency in one country, or the other, or neither," thereby "eliminat[ing] the possibility of residence double taxation." The fact that the residences of individuals and corporations can be determined much more readily than the sources of income in a world increasingly dominated by E-commerce lends support to the argument that residence-based taxation is preferable to source-based taxation in the E-commerce context.

A third justification for the residence-based approach is that it better satisfies the generally accepted "ability-to-pay" and "progressivity" principles. Prevailing tax theory posits that the income tax should be used as a means of allocating the cost of government based on ability to pay and that such ability "is best measured by total income, comprehensively defined and determined without regard to source." The progressivity principle rests on the assumption "that ability to pay rises more than proportionally with income." Source-based income taxation violates both of these principles:

The source country taxes only a fraction of a taxpayer's total worldwide income, thus violating the ability-to-pay principle. In addition, the source country does not base the rate of tax on the taxpayer's total income, thus violating the progressivity principle. Indeed, the source country generally does not even attempt to determine the taxpayer's total income.

Residence-based income taxation, on the other hand, requires the computation of tax on the basis of a taxpayer's worldwide income in accordance with the ability-to-pay principle.²⁴⁵ Furthermore, although residence-based taxation does not mandate progressive rate structures, it does not inherently violate the progressivity principle as does a source-based approach.

²⁴⁰ Id. at 220. See U.S. Model Tax Convention, supra note 41, art. 4, for an example of residency rules provided for by treaties.

See Robert A. Green, The Future of Source-Based Taxation of the Income of Multinational Enterprises, 79 CORNELL L. REV. 18, 29 (1993) (pointing out the failure of source-based taxation to satisfy these principles).

²⁴² Id. (citing Joseph A. Pechman, The Future of the Income Tax, 80 AM. ECON. REV. 1, 6 (1990)).

²⁴³ Id.

²⁴⁴ *Id; see also* Owens, *supra* note 13, at 1845 (noting the "distorting effects of gross basis tax[ation] at source").

²⁴⁵ But cf. Nancy H. Kaufman, Fairness and the Taxation of International Income, 29 LAW & POL'Y INT'L Bus. 145, 155 (1998) (questioning whether the ability-to-pay principle necessitates a worldwide tax base).

Finally, residence-based taxation is superior to source-based taxation in advancing the goal of "capital-export neutrality" ("CEN").246 CEN exists when a decision to allocate economic resources among nations is not affected by tax considerations.²⁴⁷ Thus, CEN results in the investment of economic resources in projects that yield the highest pre-tax return. Residencebased taxation furthers the goal of CEN because it taxes all the income of a resident at the same rates whether earned within or without the resident country. If all nations successfully implemented a system of residencebased taxation, "in principle, it would lead to allocation of the world's capital to its most productive use." 248 By contrast, source-based taxation would lead to inefficient allocations of economic resources, tending to result in relative over-investment in low-tax jurisdictions and relative underinvestment in high-tax jurisdictions.²⁴⁹ Through the use of its foreign tax credit, the United States can achieve CEN even under a source-based regime, but only to the extent that foreign tax rates do not exceed U.S. tax rates. 250 Consequently, residence-based taxation is better suited to achieve the goal of CEN.

b. Disadvantage: Administrative Difficulties—Overcoming the Risk of Capital Flight

Despite the many factors working in its favor, residence-based taxation does have its drawbacks. For starters, "even developed countries find it hard to effectively enforce residence-based taxation on the global income of individuals, especially from tax havens, and developing countries find this task impossible." Taxpayers can often avoid taxes in their resident country by investing their capital abroad because the resident country will lack the information necessary to enforce the tax. This phenomenon is known as "capital flight." As a result, a resident taxpayer, who otherwise would

²⁴⁶ See, e.g., Avi-Yonah, supra note 20, at 1312 ("[E]conomists have pointed out that residence-based taxation is compatible with the goal of capital export neutrality.").

Accordingly, CEN is properly viewed as a subset of the broad principle of neutrality advocated by the Treasury Department. *See supra* notes 17-19 and accompanying text (discussing the neutrality principle).

²⁴⁸ McLure, Jr., *supra* note 21, at 325.

See id. ("[S]ource-based taxation discourages investment in high-tax jurisdictions and encourages investment in low-tax jurisdictions.").

²⁵⁰ See Robert J. Peroni, Back to the Future: A Path to Progressive Reform of the U.S. International Income Tax Rules, 51 U. MIAMI L. REV. 975, 977-78 (1997) (observing that the United States, with good reason, "does not follow pure capital export neutrality in the design of its foreign tax credit").

Avi-Yonah, supra note 20, at 1336.

²⁵² See, e.g., McLure, Jr., supra note 21, at 325 (discussing how the failure to enforce residence-based taxation could lead to capital flight).

invest capital in the resident country, might decide instead to invest abroad where the possibility exists for escaping taxation. A failure to administer residence-based taxation could, therefore, prevent the world's nations from achieving CEN by permitting tax considerations to affect the economic allocation of resources.²⁵³

As E-commerce grows, "[c]apital mobility is likely to increase substantially," creating an even greater risk of capital flight. Proponents of the source principle would point out that a source-based system is better suited to attack the capital flight problem. After all, "[t]he country of source is generally in the best position to enforce a tax on transnational income.... [which it] can monitor... by requiring local firms and financial intermediaries to report the income payments they make and to withhold taxes on such payments." The source country's ability to better enforce a tax on multinational income, however, does not provide a sufficient basis for abandoning the prospect of an expanded role for residence-based taxation. Nevertheless, if taxing authorities do decide to move toward a system of residence-based taxation, they must find a way to address the escalating risk of capital flight.

c. Disadvantage: Potential Unfairness to Developing Countries

Perhaps the greatest barrier to implementing a worldwide system of residence-based taxation will be the reluctance of developing countries to submit to such a regime. In general, developed countries consist of relatively wealthy, capital-exporting nations. On the other hand, developing countries consist generally of relatively poor, capital-importing nations. Whereas the flows of income between developed nations tend to be more or less balanced, the flows of income between developed and developing nations tend to be unbalanced in favor of the developed (capital-exporting)

²⁵³ See id. (noting that capital flight may prevent the advantages of CEN from being achieved).

Owens, supra note 13, at 1837; see also Jeffrey Owens, Emerging Issues in Tax Reform: The Perspective of an International Bureaucrat, 15 TAX NOTES INT'L 2035, 2042 (1997) (claiming that the "most troubling problem for tax reformers today is the decreasing ability of individual governments to sustain taxes on capital income [in a globalized economy]").

²⁵⁵ Green, *supra* note 241, at 31.

See id. at 32 (concluding that, despite the source country's superior ability to collect a tax, "it is difficult to find a persuasive underlying justification for the host country's assertion of entitlement to tax the domestic source income earned by foreign persons").

²⁵⁷ See, e.g., Mitchell, supra note 15, at 227 (noting that developed countries presumably are net exporters of capital, goods, and services).

²⁵⁸ See id. (presuming developing countries to be net importers of capital, goods, and services).

nation.²⁵⁹ Consequently, switching from a source-based to a residence-based tax system would have little effect from a tax collection standpoint as between developed nations,²⁶⁰ but could have a major impact on the division of taxing revenues between developed and developing nations.²⁶¹

The resulting shift in taxing revenues in favor of capital-exporting countries (like the United States) explains why such countries "can be expected to prefer residence-based taxation." Perhaps, then, it comes as no surprise that the Treasury Department advocates the ascendancy of residence-based taxation. In the case of E-commerce, the United States accounts for an estimated 90% of the world's commercial Web sites (and presumably, therefore, derives a substantial percentage of global revenues from Internet commerce). The United States, therefore, would be the primary beneficiary of a policy endorsing the residence-based taxation of E-commerce transactions. Consequently, one might naturally view the Treasury Department's enthusiastic statements about the ascendancy of residence-based taxation with some degree of skepticism. Not surprisingly, the *Treasury Paper* fails to mention the potential unfairness to developing nations that could result from a move toward residence-based taxation.

Forst notes that the resulting imbalance in taxing revenues between developed and developing nations, combined with "the natural desire of coun-

²⁵⁹ See id. (presuming even income flows between developed nations and uneven income flows between developed and developing nations).

²⁶⁰ Because the income flows between larger, developed nations tend to be balanced, "it often does not make a substantial difference to the direction of revenue collections if each country" gives up its right to tax source income in favor of a residence-based taxation system. Owens, *supra* note 13, at 1845.

²⁶¹ Because income tends to flow disproportionately from developing countries into developed countries, "[u]nder a residence-based taxing regime, the treasuries of the capital exporting [developed] countries grow richer... [while] the treasuries of capital importing [developing] countries remain poor since these countries [would not be entitled to] collect tax revenue from foreign investment." Forst, *supra* note 90, at 1472.

McLure, Jr., supra note 21, at 326. The 1996 U.S. Model Tax Convention offers a prime example of the trend in U.S. tax policy toward favoring residence-based taxation. In that model treaty, withholding on interest and royalties would be eliminated and withholding on dividend income would be capped at a relatively low 15%. See U.S. Model Tax Convention, supra note 41, art. 10 (dividends); id. art. 11 (interest); id. art. 12 (royalties). Since these types of income are often taxed by other countries through the imposition of a withholding tax at the source of payment, the reduction or elimination of withholding taxes on such income allows the residence country to tax a greater portion of that income. See, e.g., Mitchell, supra note 15, at 228 (discussing how U.S. tax treaty policy favors residence-based taxation).

²⁶³ See TREASURY PAPER, supra note 1, § 7.1.5 (predicting that the trend toward residence-based taxation "will be accelerated by developments in electronic commerce").

²⁶⁴ See Forst, supra note 90, at 1472.

²⁶⁵ See generally TREASURY PAPER, supra note 1 (raising a wide range of issues but failing to address the concerns of developing nations).

tries to tax foreigners, will make an international consensus on residencebased taxation difficult to achieve." He contends not only that existing source principles can adapt to the world of E-commerce but also that "an international consensus on the taxation of electronic commerce is far more likely to coalesce around some variation of source-based principles than residence-based principles."267 These contentions, however, are disputable.

First, one may question whether the approach advocated by Forst is truly a source-based approach. 268 Under his interpretation of conventional sourcing rules, income is sourced according "to the location of the physical and human capital responsible for originating the income."269 To the extent that E-commerce allows a company to replace a physical and human presence in a country with a "virtual," electronic presence, his "source-based" approach will yield the same results as a residence-based approach.²⁷⁰ Indeed, Forst acknowledges, in closing, that where "electronic commerce does away with human intermediaries who facilitate business transactions[.]... the country of source will more often coincide with the country of residence."271 As E-commerce evolves, the number of situations where virtual presence transplants human presence will likely increase dramatically.²⁷² Consequently, Forst's "source" rule will essentially merge with a pure residence-based approach.²⁷³

Second, one could object to Forst's contention that source-based as opposed to residence-based principles will more likely form the basis of an international agreement on the taxation of E-commerce. Admittedly, most countries seem to agree upon the principle that the country of source has the

²⁶⁶ Forst, supra note 90, at 1472. See generally Doemberg, supra note 230, at 1015 (noting that any approach to taxing E-commerce that disproportionately favors capitalexporting nations may not command an international consensus).

²⁶⁷ Forst, *supra* note 90, at 1471.

Indeed, another commentator adopts a similar approach and labels it a modified form of residence-based taxation. See Thorpe, supra note 136, at 694 (advocating a residencebased regime in which a company's residence is determined by the "location where the majority of the corporate activity takes place . . . [or the location] to which the entity has the most ties").

269 Forst, supra note 90, at 1465.

Recall the example where the mail order company conducting its business over the Internet was able to eliminate its human presence in the country of consumption without incurring any substantial competitive disadvantage. See supra Part II.C.

²⁷¹ Forst, *supra* note 90, at 1472.

²⁷² See, e.g., supra note 146 and accompanying text (discussing how computers are increasingly fulfilling the functions previously performed only by humans).

Developing, capital-importing countries would, therefore, find such a rule unacceptable. Since Thorpe's proposed rule, see supra note 268, in most cases, would also award taxing jurisdiction to capital-exporting countries (where the bulk of corporate activity takes place), it would likewise meet resistance from developing nations.

primary right to tax income.²⁷⁴ This fact notwithstanding, nations would still find it very difficult to reach an agreement on a source-based taxing system for E-commerce. As the Treasury Department points out, E-commerce makes it increasingly difficult "to apply traditional source concepts to link an item of income with a specific geographical location."²⁷⁵ By itself, this feature of E-commerce represents a major setback to advocates of a source-based approach. A country that maintains an aggressive territorial system of taxation gains nothing in a world where the source of income cannot be determined.

Even assuming that, at least to some extent, workable source rules could be devised for E-commerce transactions and that countries agree generally to a source-based approach, the varying definitions of what constitutes "source" would seriously impede international agreement. Capitalimporting, developing nations will likely define source income much more expansively than developed countries.²⁷⁶ Even where developing countries have moved toward residence-based taxation, they are reluctant to abandon broadly defined source principles.²⁷⁷ For example, Mexico recently "adopted legislation which reinforces aggressive source rules which treat any payment by a domestic person to a foreign person as Mexican-source income subject to withholding tax." Such developing countries are not likely to agree to a Forst-like approach, despite its label as a "source-based" taxing system. The difficulty in pinpointing the source of a particular flow of income and the widely varying interpretations of what qualifies as source income combine to refute the conclusion that source-based principles are more likely than residence-based principles to provide the foundation for an international consensus on taxing E-commerce.

See TREASURY PAPER, supra note 1, § 7.1.3 (noting that the source country generally has the right to tax income while the residence country has the responsibility to avoid double taxation); Levin, supra note 109, at 109 (commenting on the "amazing degree of agreement worldwide on the basic application of source-based . . . tax systems").

TREASURY PAPER, supra note 1, § 7.1.5.

²⁷⁶ See, e.g., Doemberg, supra note 230, at 1014 ("One way or another, the electronic commerce importing states... are going to lay claim to what they regard as their share of income [from E-commerce, perhaps by employing a] creative (or some may argue distorted) view of source-based taxation.").

Although "[s]everal Latin American [developing] countries have begun to move to a residence-based system, . . . [their] reliance on territorial [source] principles has [not] been totally abandoned." Levin, *supra* note 109, at 112.

²⁷⁸ Id. (noting also that, according to the Brazilian sourcing approach, "the dominant criteria is whether the payments originate in Brazil, even if the payments are for services performed entirely outside the country").

2. Implementing a System of Residence-Based Taxation in the World of E-commerce: The Need to Improve and Expand the International Tax Treaty Network

It should be clear by this point that too many barriers exist to successfully implement a source-based regime in E-commerce. In fact, the continued viability of source-based taxation itself, and along with it, the concepts of PE and U.S. trade or business, is highly questionable in the emerging electronic economy. Having ascertained the impracticality of a sourcebased system, some questions still remain: can taxing authorities invoke other existing tax principles to fill the resulting holes in the international tax Specifically, can international taxing administrations devise a workable system of residence-based taxation agreeable to both developed and developing nations? The discussion thus far clearly reveals that residence-based principles will have more staying power than source-based principles in the age of E-commerce. Moreover, residence-based taxation enjoys several distinct advantages over a source-based approach.²⁷⁹ Any worldwide system of residence-based taxation (even one limited to the taxation of E-commerce), however, must overcome the two major drawbacks to a residence-based approach: (1) the risk of capital flight and (2) the potential unfairness to developing nations.²⁸¹ The failure to effectively address these issues will prevent the world's nations from agreeing on a residence-based approach. Without considerable international consensus, opportunities for double taxation and tax evasion will prevail, and the international tax system will falter. As will become evident shortly, the evolution of the international tax treaty network is essential to overcoming the problems associated with the implementation of a residence-based regime.

a. Reducing the Risk of Capital Flight

Some recent proposals offer promise for establishing an international system of residence-based taxation to effectively deal with the problem of capital flight and its attendant problem of tax evasion. Professor Reuven Avi-Yonah suggests two complementary courses of action to successfully implement residence-based taxation and solve the capital flight problem.²⁸² The first calls for increasing the number of tax treaties between developed

See supra Part III.A.1.a (outlining the advantages of a residence-based system).
 See supra Part III.A.1.b (addressing the risk of capital flight in a residence-based sys-

tem).

See supra Part III.A.1.c (discussing the unfair imbalance in taxing revenues between developed and developing nations that would result from a pure residence-based approach). ²⁸² See Avi-Yonah, supra note 20, at 1337-38 (proposing a two-part solution).

and developing countries and enhancing the information exchange provisions contained in those treaties. Significantly, Avi-Yonah notes that this is one area where taxing authorities can use the developments in information technology to their advantage. If successful, this first step would allow developing countries to benefit from the computerized databases of the most advanced administration . . . in a developed country."²⁸⁵

The second step calls for the withholding of taxes at the income source by developed countries for the benefit of the residence country. The country imposing this "backup withholding" would retain the tax "unless the investor furnishes documentation showing that the income has been declared in his or her residence country. Although the second step is noteworthy, the first step—in particular, the call for enhancing information exchange programs between nations—is critical to successfully implementing such a proposal.

In light of "the need to improve the exchange of information on cross-border income flows" to prevent the flight of capital and, thus, "to ensure that such income does not escape taxation," the OECD has recommended the use of taxpayer identification numbers ("TINs") in the international context. This recommendation would obligate the source-of-payment country to obtain a TIN from every resident and nonresident payee and to compile information, according to the TIN of each payee, regarding "the type and amount of income earned" by each payee. Finally, the recommendation would require the source-of-payment country to share with "each residence country the relevant information about all of the payees in that

See id. at 1337 (pointing out that this strategy allows developed countries to share with developing countries "the data necessary for effective enforcement of residence-based taxation, especially data on tax haven investments").

See id. (suggesting that the new technology will improve the potential for nations to collect and share information); see also Owens, supra note 13, at 1837-39 (noting that although new communication technologies create "new avenues for tax evasion and avoidance," they also "open up possibilities to improve the administration of tax systems," including the exchange of information). Canada is one country that has already contemplated utilizing new technologies to increase tax compliance. See Peter Menyasz, Revenue Canada to Shift Policy to Deal with Electronic Commerce, 1998 Daily Tax Rep. (BNA) 85 (May 4) (outlining recommendations issued by Canada's Advisory Committee on Electronic Commerce to deal with noncompliance, including one that calls for the development of Internet software which would be able to track nonfilers).

Avi-Yonah, supra note 20, at 1337.

²⁸⁶ See id.

²⁸⁷ *Id*.

David E. Spencer, OECD Information Exchange Recommendations Are a Significant First Step in Resolving Tax Evasion, 8 J. INT'L TAX'N 353, 354 (1997) (discussing the OECD's TIN recommendation).

²⁸⁹ Id. at 357.

residence country that received income from the source country during [a given] period."²⁹⁰ The OECD recommendation, if successfully employed, would improve the chances of implementing Avi-Yonah's proposal for enforcing residence-based taxation because it would greatly enhance the capacity of nations to share information regarding cross-border investments.

Certainly, Avi-Yonah's proposal, or any other that attempts to administer a system of residence-based taxation on a global scale, would face many challenges. For example, certain countries classifiable as "international financial centers" have an economic incentive to thwart information exchange programs.²⁹¹ These countries "encourage[] capital flight from other countries by providing [preferential] tax treatment for nonresidents [such as] tax exemptions and protection from disclosure."²⁹² Nonresidents, eager to avoid taxation in their resident countries, reward these international financial centers with substantial investment.²⁹³ One could reasonably suspect, therefore, that international financial centers would oppose attempts to enhance the exchange of information between nations.²⁹⁴

The increased risk of capital flight from developed countries posed by the Internet may cause OECD-member international financial centers (such as the United States and the United Kingdom) to think twice about opposing improved information exchange mechanisms. Consider that "electronic money and the Internet substantially increase the ease and safety with which bank accounts can be opened abroad" in a tax haven jurisdiction. This feature of the Internet creates the real possibility that OECD-member international financial centers could lose more in investment as a result of capital flight to tax havens than they would be able to induce from nonresidents by offering them tax-advantaged treatment on investments. This potential net decrease in investments and tax revenues to OECD-member international financial centers could prompt them to change their policies regarding bank

²⁹⁰ Id

²⁹¹ Id. at 354 (offering the U.S., the U.K., Luxembourg, Switzerland, the Bahamas, the Cayman Islands, and Panama as examples of international financial centers).

²⁹² Id.

See id. (discussing how the policies of international financial centers contribute to the problem of capital flight and undermine the enforcement of taxation on cross-border income flows).

²⁹⁴ See id. (noting that "[i]t is not clear whether... international financial centers will cooperate in implementing... recommendations" designed to improve information exchange policies with an aim toward enforcing tax compliance on international income flows). But see id. at 384 (noting that "[a]ttitudes toward certain issues, such as bank secrecy... and tax haven treatment, have been evolving," implying that these issues may be scrutinized more carefully in the future).

²⁹⁵ TREASURY PAPER, *supra* note 1, § 8.3.3 (discussing the possibility of capital flight of electronic money to "bank secrecy jurisdiction[s]").

secrecy and to join the effort to improve the international exchange of information.

Ideally, non-OECD tax haven jurisdictions would also participate in a program designed to facilitate the exchange of information on cross-border flows of income. Although the prospect of tax haven cooperation is unlikely, Professor Avi-Yonah notes that "it is possible to limit the[] attractiveness [of tax haven investments] through... information exchange programs." Avi-Yonah points out that a major attraction of tax havens is that they serve "as a conduit for investments into developed countries, which do not have effective withholding taxes on payments to tax haven 'residents." His plan, he argues, will reduce the attractiveness of tax havens by providing for backup withholding in developed countries. Despite the potential barriers to implementation, the Avi-Yonah and OECD proposals foster optimism about controlling the problem of capital flight in a residence-based tax system.

b. Providing Fairness to Developing Countries

Because it has been impossible for developing countries in the past to enforce the residence-based taxation necessary to prevent capital flight.²⁹⁹ these nations may look favorably upon a proposal that would promise the effective implementation of a worldwide residence-based regime. Such a proposal would permit developing countries to effectively collect taxes from the foreign investments of their residents. This potential increase in revenue bases, however, would have to be balanced against a potential decrease in the tax revenue bases of developing nations resulting from a switch to an international system of residence-based taxation. Initially, developing countries may be reluctant to subscribe to a residence-based regime that would require relinquishment of taxing claims on domestic-source income. This is especially true because a large part of their tax revenue currently derives from taxation at source. To the extent, however, that it becomes more difficult to trace the source of income from business transactions, developing countries may suffer a greater reduction of their tax revenue base if they maintain a source-based regime. The increasing difficulty of enforcing taxation at source could, therefore, lead developing countries to reconsider their posture on residence-based taxation.

²⁹⁶ Avi-Yonah, supra note 20, at 1338.

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²⁹⁸ See id. ("This attractiveness will be reduced if backup withholding is implemented by the developed countries.").

See supra notes 251-52 and accompanying text (describing capital flight as a problem in the lack of enforcement of residence-based taxation).

Since a "pure" residence-based approach would greatly favor developed, capital-exporting nations over developing, capital-importing nations, 300 a departure from a pure system of residence-based taxation is necessary in order to achieve an international consensus. 301 To effectively encourage the movement to a residence-based taxation system, developed countries, particularly, the United States, must ensure that developing countries receive a piece of the economic pie which their residents help create. 302 In deciding how to allocate tax revenues from worldwide E-commerce income, the modification of existing tax treaties among developed countries and the expansion of the tax treaty network between developed and developing countries must play a critical role.

Although concluding tax treaties between developed and developing nations has always been a time-consuming and difficult task, ³⁰³ a variety of legal, economic, and political conditions have presently created a favorable climate for expanding the international tax treaty network. ³⁰⁴

First, political changes in the global community, led by the United States, could bolster the prospect for expansion of the tax treaty network. The United States has already "display[ed] eagerness to enter into tax treaties with developing nations." Through its "recent and rapid expansion of its tax treaty network with developing countries," the United States has also

The United States, in particular, would benefit tremendously in terms of tax revenue if the international tax community adopted a residence-based approach toward the taxation of E-commerce. See supra note 264 and accompanying text (noting that U.S. Web sites account for 90% of the world's commercial Web sites).

³⁰¹ See, e.g., Doernberg, supra note 230, at 1015 (recognizing "the need [for any method of E-commerce taxation] to maintain a tax-base balance between electronic commerce exporting and electronic commerce importing states"). Doernberg considers an approach that would maintain the current PE concept, but would permit an E-commerce importing country to levy a withholding tax of 10%, even in the absence of a PE, on cross border payments that erode the tax base of the source country (i.e., payments that are deductible in the importing country).

³⁰² See, e.g., Kaufman, supra note 245, at 154-56 (arguing that "internation equity," which exists "when states distribute among themselves the competence to tax in a way that conforms to prevailing views of [international] justice," is a prerequisite to achieving an equitable international tax system).

³⁰³ See, e.g., Mitchell, supra note 15, at 209 (noting that, "[d]espite promotion by politically powerful forces, nearly fifty years of intermittent negotiations have failed" to produce a tax treaty agreement "between the United States and [the developing nation of] Brazil"); see also Tillinghast, supra note 8, at 455 (noting generally that "tax treaties are incredibly slow-moving creatures").

³⁰⁴ See, e.g., Mitchell, supra note 15, at 224-27 (discussing the favorable conditions that could foster the conclusion of a tax treaty between the United States and Brazil).

³⁰⁵ Id. at 225; see also Tillinghast, supra note 8, at 474 (noting that "the United States is intent on extending its income tax treaty network to cover other [developing] countries in Latin America").

gained valuable experience in negotiating and concluding such treaties.³⁰⁶ A successful U.S. effort to increase the number of tax treaties with developing nations would pressure other developed countries to enter into similar agreements. If governments of developed countries fail to keep pace with the United States in terms of treaty expansion, their businesses could suffer competitive disadvantages relative to American businesses that enjoy treaty benefits in the developing markets.³⁰⁷

Second, legal changes within developing nations may increase the opportunities for expanding the tax treaty network. An increasing number of developing countries are adopting systems of worldwide residence-based taxation, thus diminishing the differences in taxation systems between developing and developed countries. This "greater legal symmetry" should improve tax treaty negotiations between developed and developing nations because it "reduces the number of issues on the table."

Finally and most importantly, in a world of increasing capital mobility, both developed and developing countries stand to gain financially by expanding the global tax treaty network. Increasing the number of tax treaties, with an emphasis on improving the information exchange provisions contained therein, could help nations enforce residence-based taxation and reduce opportunities for tax evasion brought about by the communications revolution. The challenges of preventing new tax avoidance techniques made possible by the modern global economy are too great for any tax administration, working in isolation, to handle. Even working together, tax administrations of both developed and developing countries face difficult

Mitchell, *supra* note 15, at 225 (noting that the United States "now has tax treaties with China, India, Mexico, Khazakstan, Ukraine, Thailand and other developing nations").

The United States itself worries about such a loss of competitive advantage. One reason that the United States desires a tax treaty with Brazil is that Brazil has entered into tax treaties with other countries, making "those treaty countries' goods, services, and capital cheaper to Brazil than similar exports from the United States . . . [thereby] threaten[ing] the United States's current market share in Brazil . . . [and] allow[ing] foreign businesses to establish themselves in Brazilian markets for the long term." *Id.* at 226-27.

³⁰⁸ See, e.g., Peter D. Byrne, Tax Treaty Prospects in Latin America, 16 TAX NOTES INT'L 45, 47 (1998) ("Most of the major Latin American economies have abandoned the territorial principle in favor of the worldwide system of taxation."); Levin, supra note 109, at 112 (noting that "[s]everal Latin American countries have begun to move to a residence-based system for domestic taxpayers").

Mitchell, supra note 15, at 225.

See, e.g., Avi-Yonah, supra note 20, at 1337 (emphasizing the importance of "enhanc[ing] information exchange programs under tax treaties, so that developed countries can share with developing countries the data necessary for effective enforcement of residence-based taxation"); see also supra Part III.A.2.a (explaining how comprehensive information exchange programs may effectively deal with the capital flight problem).

challenges regarding the tax enforcement of E-commerce.311 A global approach, however, involving sophisticated information exchange techniques, and utilizing new communications technologies, offers great promise to developed and developing nations. To the extent that information-sharing agreements contained in treaties prevent taxpayers from exploiting new technologies for tax avoidance purposes, the treaty countries will retain a greater portion of their tax revenue bases.

In a system of worldwide residence-based taxation, information-sharing policies will benefit countries whose residents earn foreign-source income that would otherwise elude taxation. In the case of E-commerce, the United States stands to benefit the most from information sharing in a residencebased regime. 312 Countries whose residents generate a smaller portion of income from E-commerce, but whose participation in an informationexchange program nonetheless permits E-commerce exporting countries like the United States to retain a greater portion of their tax bases, will no doubt desire compensation for their contribution.³¹³ Since informationsharing programs would enable E-commerce exporting countries to collect taxes that otherwise would escape taxation altogether, these countries could share with their treaty partners some of the tax collected and still experience a net gain in tax revenues. Paying member countries in this manner constitutes a departure from a pure residence-based taxation approach. This alternative, however, may be necessary to produce a greater degree of worldwide cooperation in information exchange programs.

The amount payable to a member country could be based on the magnitude of purchases made by member country residents of electronic goods or services provided by residents of an exporting country. A "smart card," which would be used by a purchaser when making electronic payments over the Internet, could store information relating to the purchaser's residence.³¹⁴ Upon payment, relevant information, such as the purchaser's residence and the dollar amount of goods and/or services purchased, could be transferred automatically to a central processing center. The processing center would

³¹¹ See Owens, supra note 13, at 1837-38 (discussing the many challenges of tax en-

forcement in cyberspace).

312 See supra note 300 and accompanying text (observing that a residence-based approach to E-commerce taxation favors developed, capital-exporting nations, particularly the United States).

³¹³ Cf. Avi-Yonah, supra note 20, at 1338 (suggesting the payment of a 10% fee to a country for collection and transmittal of taxes as an incentive for developing countries to participate in the backup withholding).

³¹⁴ See Nigel Tutt, Clinton Adviser Discusses Internet Sales Tax, 16 TAX NOTES INT'L 1936, 1936 (1998) (comments of Ira Magaziner, President Clinton's senior adviser on Internet issues) (discussing potential use of smart cards in sales tax context to store residency information).

periodically compile E-commerce sales information and disseminate it to various international taxing authorities. By utilizing "smart card" or other similar technology, it would be possible to tabulate the amount of purchases made by residents of any given country and to provide for an international allocation of tax revenues acceptable to both developed and developing countries.³¹⁵

A major advantage of this approach is that it would not require nations to attempt to locate the elusive and manipulable "source" of the transaction. Rather, it focuses on the easier-to-establish residence concept, fooking specifically to the *people* involved in the transaction. From the perspective of a developing country, this approach offers a reasonable substitute for their traditional territorial method of taxation because, like a territorial approach, it financially rewards a developing country when its residents conduct business with residents of other nations. This system of modified residence-based taxation, although it places collection authority in the hands of the capital-exporting, residence country, attempts to allocate an equitable share of tax revenues to capital-importing countries. Such a proportionate sharing system, since it promises to protect (or even en-

The implementation of a worldwide identification system that employs smart card technology would not be a simple task. See TREASURY PAPER, *supra* note 1, § 8.4, for a discussion of some of the problems regarding identity verification on the Internet. Although these problems are of great significance, an in-depth analysis of such problems is beyond the scope of this Comment. For purposes of this Comment, it is sufficient to note that "smart card" technology is available, and that international cooperation is imperative in order to successfully implement any global identification system.

³¹⁶ See Forst, supra note 90, at 1471. In cyberspace, "[e]fforts to determine 'where' the events in question occur are decidedly misguided, if not altogether futile." *Id.* (quoting David R. Johnson & David Post, Law and Borders—The Rise of Law in Cyberspace, 48 STAN. L. REV. 1367, 1378 (1996)).

³¹⁷ See supra note 236 and accompanying text (discussing the fact that residency may be determined in accordance with "bright-line" rules).

³¹⁸ See Doernberg, supra note 230, at 1020 (considering a "human residence" approach to the taxation of E-commerce). "No matter how much of our lives is spent [on various activities] in cyberspace, people still sleep and reside here on earth." Id.; see also 1998 Daily Tax Rep. (BNA) 36 (Feb. 24) (quoting Bruce Cohen, author of the TREASURY PAPER) ("The most important question to consider in the electronic tax debate is where the people are located.").

The fact that a country will share in tax revenues whether or not it is classified as the "residence" country could facilitate an international agreement as to the definition of residency. In contrast, under a pure system of residence-based taxation, in which the residence country would collect and retain 100% of the tax revenues from E-commerce, definitional conflicts would surely arise.

An analogous proportionate sharing system can be found in at least one major international treaty. See Convention on the Law of the Sea, Dec. 10, 1982, art. 82, 21 I.L.M. 1261. Article 82 of the Convention on the Law of the Sea requires coastal states to make payments to a central collection authority in respect of amounts earned exploiting non-living resources

hance) the tax revenue bases of the worldwide taxing authorities while also addressing the special needs of developing countries, could garner significant international support. A substantial degree of international agreement could lead to the implementation of such a proposal and, in turn, significantly limit the possibilities for double taxation and tax avoidance in E-commerce.

c. The Possibility of Concluding Multilateral Tax Treaties

To some, the proposal just presented may seem radical and overly optimistic. Skeptics must consider, though, that even the development of the existing international tax regime was an unexpected "miracle." The existence of the current, coherent regime proves that "despite each country's claim to sovereignty in tax matters, it is possible to reach an internationally acceptable consensus that will be followed by the majority of the world's taxing jurisdictions." Perhaps the next "miracle" in the evolution of the international tax system will be the development of a network of multilateral tax treaties to deal with, inter alia, the taxation of E-commerce.

The numerous tax treaties that countries have signed to date have been predominantly bilateral in nature.³²³ Additionally, commentators are generally pessimistic about the prospects of shifting the emphasis from a bilateral to a multilateral tax treaty regime.³²⁴ At the extreme, one commentator declared a few years ago that "in practice and administration it is virtually impossible to pass beyond the bilateral level."³²⁵ Despite the historical reluctance to embrace multilateral tax treaties, the world's governments have

in certain areas of the continental shelf. See id. The collection authority is responsible for distributing those payments to treaty members "on the basis of equitable sharing criteria, taking into account the interests and needs of developing states." Id.; cf. H.R. 3849, 105th Cong. § 6(g)(3) (1998) (advocating a simplified system for administration and collection of sales and use tax for E-commerce "that would provide for a single statewide sales or use tax rate... and would establish a method of distributing... to political subdivisions within each State their proportionate share of such taxes").

³²¹ See Avi-Yonah, supra note 20, at 1303-04 (calling the current international tax regime "a flawed miracle," citing as miraculous the fact that "contrary to a priori expectations, a coherent international tax regime exists that enjoys nearly universal support").

³²² Id.

See Michael J. Graetz & Michael M. O'Hear, The "Original Intent" of U.S. International Taxation, 46 DUKE L.J. 1021, 1106-07 (1997) (noting the "enormous success" of bilateral tax treaties relative to the "limited success" of multilateral tax treaties).

³²⁴ See id. (noting that "[t]he habit and flexibility of dealing bilaterally, along with the entrenchment of the principles" of the traditional bilateral tax treaty model would make such a shift "extremely difficult").

³²⁵ H. David Rosenbloom, Sovereignty and the Regulation of International Business in the Tax Area, 20 CAN.-U.S. L.J. 267, 268 (1994).

recently shown a much greater willingness to negotiate both tax and non-tax agreements on a multilateral level.

Consider, for example, the surprising degree of multilateral regulatory cooperation that has accompanied the rapid growth in global financial law. 326 Global financial law issues, despite involving great complexity and "the conflicting interest of different governments,... are being addressed by increased multilateral cooperation." 327 Given the trend of confronting complicated international law issues through enhanced multilateral cooperation, it is no longer so far-fetched to believe that the world's taxing authorities will come together in the near future and conclude multilateral tax treaties that address tax issues of global significance. Indeed, some influential governments (including the United States) are expressly advocating the pursuit of multilateral tax agreements. 328

As barriers to international trade continue to fall, multilateral tax treaties are a logical choice to replace traditional bilateral tax treaties. Since the issues arising in the modern economy are often international in nature, there are fewer reasons to engage in tax treaty negotiations on a country-by-country basis. A successful campaign by the world's taxing authorities to enter into multilateral tax treaties could result in the much needed expansion of the international tax treaty network at an accelerated pace. This expansion could increase the chances of installing a coherent international system for taxing E-commerce transactions.

Surely, the evolution of multilateral tax treaties that provide for the implementation of an international system for the taxation of E-commerce will not occur overnight. Nor should we expect one major paper to resolve an

³²⁶ See Spencer, supra note 288, at 383-84 ("[I]t is clear how significant multilateral regulatory cooperation on global financial law issues has been since 1980, when the degree of such... cooperation that would develop could not have easily been foreseen.").

³²⁷ Id. at 384 (noting that "[t]he present institutional framework includes . . . the OECD, the Basle Committee, and the International Organization of Securities Commissions").

³²⁸ See Friedrich Rödler, Austria Proposes Multilateral Tax Treaty, 15 TAX NOTES INT'L 1060, 1060-61 (1997) (reporting that the Austrian Ministry of Finance has expressed support for a multilateral tax treaty to cover the countries of the European Union). The United States is considering the use of multilateral tax conventions specifically in the context of Ecommerce. See H.R. 3849, 105th Cong. § 9 (1998) (encouraging the President to seek multilateral, in addition to bilateral, agreements to ensure that the electronic commercial transactions are free from undue regulation, international tariffs, and discriminatory taxation); S. 1888, 105th Cong. § 2(9) (1998) (similar provision).

³²⁹ See Mitchell, supra note 15, at 210 ("[T]ax treaties are like dinosaurs in the modern world of international trade. They are bilateral in a world of multilateral trade agreements, and they take just short of forever to conclude."); Tillinghast, supra note 8, at 455-58 (suggesting that bilateral tax treaties are becoming outdated "in a thrivingly multilateral world," and expressing hope for a multilateral tax treaty convention).

international legal issue of the magnitude of E-commerce taxation.³³⁰ In the real world, the resolution of "global financial law issues, whether tax or nontax, normally develops over time, in a step-by-step process."³³¹

Although the process of developing a multilateral approach to resolve E-commerce taxation issues will understandably take time, taxing authorities must realize the importance of reaching a significant international consensus on these issues as soon as possible. The "dizzying pace" at which the world economy is evolving will require the multilateral tax treaty negotiation process to be much more efficient than the process associated with "slow-moving" and change-resistant bilateral tax treaties. The trend of world governments to join forces in an effort to resolve issues of international legal significance creates hope that concluding (as well as updating) multilateral tax treaties will take place on an accelerated basis. A more efficient multilateral negotiation structure could, in turn, provide the foundation for implementing a coordinated international approach to the taxation of E-commerce.

d. The Potential Impact of Failing to Expand the International Tax Treaty Network

An unsuccessful treaty effort would create a substantial risk of double taxation on cross-border flows of E-commerce income. Governments would face the desperate task of trying to collect tax on an increasingly elusive stream of electronic payments. Furthermore, the lack of a coordinated treaty effort would permit tax evasion strategies to go undetected by the taxing authorities in a greater number of instances. Combating these possibilities of double taxation and tax evasion requires a concerted effort on the part of developed and developing nations alike to conclude multilateral tax treaties that enhance information-sharing arrangements and address the division of tax revenues derived from transactions in E-commerce. A residence-based system for taxing E-commerce, functioning in the context of a comprehensive international tax treaty network, offers hope to taxing ad-

³³⁰ See Amy Hamilton, Internet Tax Talks Come Home to U.S. Treasury, 15 TAX NOTES INT'L 1832, 1833 (1997) (""[I]nternational tax issues are not going to be resolved in one major paper."") (quoting Bruce Cohen, author of the TREASURY PAPER).

See id. ("We should expect to see [international tax issues] resolved in a piecemeal fashion..." (quoting Bruce Cohen)); Spencer, supra note 288, at 384 (concluding that "the resolution of tax evasion on cross-border income flows should be viewed as a naturally lengthy and evolving process").

³³² See Tillinghast, supra note 8, at 455 ("[T]ax treaties are incredibly slow-moving creatures. They are time-consuming to negotiate and impossible to update on a regular basis.").

ministrations that they will meet the challenge of maximizing the potential efficiency gains of E-commerce without jeopardizing their revenue bases.³³³

CONCLUSION

The communications revolution has prompted a fundamental change in the way that people conduct business in the modern economy. At everincreasing rates, transactions occur electronically, in "virtual" storefronts, rather than by conventional means of commerce. This trend will only accelerate as we enter the twenty-first century. The changing business environment brought about by the rise in E-commerce presents challenges to the existing system of international taxation. Certain long standing international tax principles—source-based taxation, permanent establishment, and U.S. trade or business—face serious threats to their survival. To the extent that these principles will lose their meaning in an increasingly electronic economy, taxing administrations must address the gaps in the international tax system that they leave behind.

Before attempting to devise completely new rules to deal with the taxation of E-commerce, these administrations should, in the spirit of neutrality, first consider the prospect that other traditional tax principles might play a larger role in the international tax arena. Residence-based taxation is one such principle that potentially could deal with some of the international tax problems posed by the evolution of E-commerce. The slightly modified form of residence-based taxation advocated by this Comment may provide the foundation for an international tax system capable of addressing these problems. This variation of residence-based taxation may draw support from both capital-exporting, developed nations and capital-importing, developing nations. Accordingly, this system of worldwide taxation may offer the best opportunity to attain the international consensus necessary to avoid uncertainty in the taxation of E-commerce and, more importantly, prevent the possibilities of double taxation and tax avoidance. If successfully implemented, the new residence-based approach would serve the dual goals of promoting the efficient growth of E-commerce and retaining the tax revenue bases of the world's nations.

³³³ See Owens, supra note 13, at 1833 ("The challenge for tax administrations in the 21st century will be how to maximize the potential efficiency gains of the Internet and at the same time protect their revenue base.").

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