International

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Exclusive Source or Residence-Based Taxation – Is a New and Simpler World Tax Order Possible?

Contents

1. Introduction

The continued globalization of world economies and the related developments in information and communications technologies have brought into sharper focus the question whether maintaining the existing international tax principles provides an effective way of taxing international transactions. Since most countries assert their jurisdiction to tax based on the dual taxing principles of residence and source,[1] it is likely that attempts to resolve any problems will be made in the context of these principles. While traditionally most countries define their jurisdiction to tax by reference to both of these principles, this article explores whether, in an increasingly globalized world, it is more appropriate that one principle yield completely to the other.[2] That is, this article explores whether either an exclusive residence-based tax system or an exclusive source-based tax system would provide a viable (and perhaps simpler) solution to accommodate international transactions, many of which now occur electronically.

2. Exclusive Residence-Based Taxation

2.1. Introductory remarks

The anticipated difficulties with continuing to apply source-based tax principles (including the permanent establishment concept) in an electronic commerce setting[3] raise the question whether these difficulties can be overcome by adopting an exclusive residence-based tax system. Under such a system, source countries would not have jurisdiction to tax electronic commerce transactions, which would be taxed exclusively in the countries where the enterprises conducting the business are considered to be resident. While such an approach may, at first glance, appear to be too arbitrary and one-sided in favour of residence countries, many believe that, unless electronic commerce transactions are taxed in the country where the enterprises engaging in the transactions are resident, the transactions may escape taxation alto-

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1. Under these principles, residents are generally taxed on their worldwide income (residence principle) and non-residents only on their domestic-source income (source principle); see e.g. Woellner, Robin et al., *Australian Taxation Law* (2001), at 1343.
2. It is recognized that already under the existing international tax rules, in order to avoid double taxation one principle must necessarily yield to the other. This occurs in a number of ways through tax treaties, where countries restrict their source-based taxing rights with respect to non-resident taxpayers in order to exercise their residence-based taxing rights. For example, the permanent establishment concept represents a preference for residence-based taxation by establishing a threshold for source-based taxation of business profits. However, unlike the current international tax regime, where one principle yields to the other in *some* situations, this article is concerned with whether either residence or source-based taxation yielding *completely* to the other provides a viable solution in an increasingly globalized world to accommodate electronic commerce transactions.
3. These difficulties include the problem of determining a physical presence in the source country as well as the increased mobility of enterprises, making it more difficult to link items of income with specific geographical locations.

gether.[4] The US Treasury has been a prominent advocate of residence-based taxation and has at different times indicated its preference for such a system. In 1996, and relevantly in the context of electronic commerce, the US Treasury hinted at the possible ascendancy of residence-based taxation in the face of emerging technologies:

> The growth of new communications technologies and electronic commerce will likely require that principles of residence-based taxation assume even greater importance. In the world of cyberspace, it is often difficult, if not impossible, to apply traditional source concepts to link an item of income with a specific geographical location. Therefore, source-based taxation could lose its rationale and be rendered obsolete by electronic commerce. By contrast, almost all taxpayers are resident somewhere.[5]

The US Treasury has also contended that the move towards residence-based taxation represents a continuation of an apparent trend (at least in US tax policy) to replace source-based taxation with residence-based taxation when the source principles come under pressure and lose their significance.[6] According to the US Treasury, this trend will be accelerated by developments in electronic commerce.[7] To others, however, the trend towards residence-based taxation may not be self-evident, and it is contended that the difficulty (perceived or actual) in applying source-based tax principles to electronic commerce transactions does not by itself support the international adoption of an exclusive residence-based tax system.[8] Rather, if an exclusive residence-based tax system is to be adopted, its potential impact needs to be critically examined in light of accepted tax policy principles to ascertain whether it can provide a more feasible and viable alternative to the current arrangements. This analysis is undertaken below.

2.2. Implementation

In examining the feasibility of an exclusive residence-based tax system, consideration must first be given to how it could be implemented. To be effective, such a system would need to be adopted on an international basis, and this is arguably best achieved in conjunction with the extensive tax treaty network that presently exists. In this way, the income from electronic commerce activities could be carved out from Arts. 5 and 7 of the OECD Model Tax Convention, and the right to tax such income could then be allocated to countries in which the enterprises conducting such activities are resident.

Such an approach could be implemented in three alternate ways. First, the business profits rule in Art. 7 of the OECD Model could be modified to specify that the income from electronic commerce transactions may be taxed only in the country in which the enterprise is resident. Alternatively, an exclusive residence-based tax system could be implemented by including electronic commerce transactions in the "negative list" in Art. 5(4) of the OECD Model, thereby excluding such transactions from the definition of permanent establishment. Finally, a separate article could be included in the OECD Model dealing specifically with the profits arising from electronic commerce transactions which allocates such profits exclusively to the residence country. Such an article could be modelled on Art. 8 of the OECD Model, which deals with shipping and air transport profits. Art. 8 allocates such profits to the country of the effective management of the enterprise. Similarly, a new provision for electronic commerce transactions could allocate the profits arising from them to the place of effective management of the enterprise generating the profits.

Of these three alternatives, it is suggested that the last one may be the most workable since it would deal separately with electronic commerce transactions and therefore avoid any ambiguity of the alternative approaches. This alternative would also treat electronic commerce transactions consistently with how other activities that are taxed on a residence-basis are treated under the OECD Model.[9] Finally, credible analogies between electronic commerce transactions and air or shipping profits may be drawn, which provide further support for including a separate article, similar to Art. 8 of the OECD Model, to deal with electronic commerce transactions. These analogies are analysed in the next section.

4. In many respects, the debate of residence versus source-based taxation precedes the current debate in the context of electronic commerce transactions. The present international tax system, under which business profits are taxed only in the source country if a permanent establishment exists, represents in many ways a balance or compromise between the two systems, despite recommendations by commentators at various times that tax systems adopt either the residence principle or the source principle exclusively.

5. US Department of the Treasury, Office of Tax Policy, *Selected Tax Policy Implications of Global Electronic Commerce* (1996), at [7.1.5]; available at www.ustreas.gov/taxpolicy/internet.html (hereafter "US Treasury Report").

6. The US Treasury Report, id. at [7.1.5], giving the examples of adopting residence-based rules for sales of non-inventory property and similar rules for space and ocean activities in support of the US Treasury's assertion, adding that "[i]n situations where traditional source concepts have already been rendered too difficult to apply effectively, the residence of the taxpayer has been the most likely means to identify the jurisdiction where the economic activities that created the income took place, and thus the jurisdiction that should have the primary right to tax such income". Earlier examples of the US Treasury's preference for a residence-based tax system can also be found in the literature; see e.g. Bradford, David and the US Treasury Tax Policy Staff, *Blueprints for Basic Tax Reform* (1977), at 89, advocating that the United States seek, as a long-term objective, a worldwide system of residence-based taxation; and US Treasury, *The President's Tax Proposals to the Congress for Fairness, Growth and Simplicity* (1985), at 383.

7. The US Treasury's analysis in this respect may, however, be challenged as the examples used to support its assertion (sales of non-inventory property and space and ocean activities) are arguably a misleading parallel to electronic commerce transactions. See e.g. Avi-Yonah, Reuven S., "International Taxation of Electronic Commerce" 52 *Tax Law Review* 507 (1997), at 526: "[T]he source rule for sales of non-inventory property has always favoured residence-based taxation because of the difficulty of establishing basis for nonresident taxpayers. The space and ocean activity rules reflect a sense that the income truly has no source in the sense of being earned outside all taxing jurisdictions." By contrast, electronic commerce transactions arguably have a source in a conventional sense as the production and consumption activities take place in physical locations – though determining these locations and linking items of income to them may be difficult issues, thereby making the application of the traditional source rules to electronic commerce transactions more problematic than in a traditional context.

8. Sweet, John K., "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", 146 *University of Pennsylvania Law Review* 1949 (1998), at 1991, observing that "[t]he adoption of a tax system solely by default cannot be defended as good policy".

9. Including, in this context, Art. 8 (Shipping, inland waterways transport and air transport) and Art. 17 (Artistes and sportsmen) of the OECD Model.

2.3. An analogous provision – Art. 8 of the OECD Model and the avoidance of double taxation

There is a long history of shipping profits being exempt from source-country taxation,[10] and a more recent history of air navigation profits being similarly exempt.[11] Both of these exemptions are now in Art. 8 of the OECD Model, which allocates exclusive taxing rights with respect to shipping and air transport profits to the country in which the enterprise's place of effective management is situated.

This rule recognizes that, given the itinerant nature of shipping and air transport, it is likely that such profits could be subject to tax in more than one country in the absence of a bright-line rule which allocates the right to tax such profits to either the source or residence country.[12] Moreover, international shipping and air transport operations are typically spread out over many countries in which permanent establishments may be established to accommodate the various aspects of the operations. In this context, Prof. Klaus Vogel noted that taxation under the permanent establishment principle would result in the problem of how to attribute a proper share of the enterprise's profits to each of its permanent establishments.[13] To overcome these problems, Art. 8 of the OECD Model allocates exclusive taxation of shipping and air transport profits to the country in which the enterprise's effective management is located and exempts such profits from tax in the countries in which the activities take place, even if a permanent establishment is maintained in those countries.

Like shipping and air transport activities, electronic commerce operations may be conducted in many countries and could therefore give rise to the same concerns regarding multiple taxation that led to the adoption of Art. 8 of the OECD Model. Because conflicting claims may give rise to double taxation, a rule similar to Art. 8 could be introduced which allocates exclusive taxing rights with respect to the income from electronic commerce transactions to the residence country. Such an allocation of taxing rights would avoid the potential for multiple claims to tax the same income, and the likelihood of double taxation would thus be greatly reduced.[14]

Therefore, one of the major reasons for (and advantages of) implementing an exclusive residence-based tax system is that it would assist in avoiding double taxation that could arise from multiple claims to tax the income from electronic commerce transactions. This article next examines the other advantages that may be associated with an exclusive residence-based tax system for electronic commerce transactions and then analyses the disadvantages of such an approach.

2.4. Advantages of an exclusive residence-based tax system

2.4.1. Permanent establishment standard may be disregarded

If an exclusive residence-based tax system were adopted for electronic commerce transactions, the tax authorities would not need to determine whether a permanent establishment existed in the source country for the income arising from those transactions because a residence-based system allocates the taxing rights with respect to such income on the basis of the residence of enterprises rather than where the activities take place (i.e. source country).[15] By exempting such income from taxation in the source country, the need to determine the existence of a permanent establishment is removed with respect to electronic commerce transactions. This would be a desirable outcome as it avoids the difficult issue of determining whether a permanent establishment exists, and if so where, for electronic commerce transactions.[16]

2.4.2. Certainty and simplicity

Determining residence (at least for individuals) is relatively easy and may be done according to bright-line rules[17] because an individual can only be in one place at

10. Seligman, Edwin R., *Double Taxation and International Fiscal Cooperation* (1928), at 52, noting that the profits of foreign ships were exempt from source-country taxation in the Netherlands as early as 1819, and observing that shipping profits were exempt from source-country taxation under the first shipping treaty between France and Belgium in 1843; both cited in Doernberg, Richard and Luc Hinnekens, *Electronic Commerce and International Taxation* (1999), at 303.
11. Doernberg and Hinnekens, id. at 304, noting that the League of Nations added air navigation in 1928 to shipping among its list of activities that should be subject to exclusive residence-country taxation. See also Hund, D., "The Development of Double Taxation Conventions with Particular Reference to Taxation of International Air Transport", 36 *Bulletin for International Fiscal Documentation* 3 (1982), at 111; and Lang, D., "Taxation of International Aviation: A Canadian Perspective", 40 *Canadian Tax Journal* 881 (1992).
12. Doernberg and Hinnekens, supra note 10, at 304: "Article 8, which denies taxing authority to a source state with respect to shipping or air transport profits, was born out of a recognition that the peripatetic nature of shipping and air transport would mean that enterprises conducting such business might be subject to tax in multiple jurisdictions with the attendant likelihood of double taxation."
13. Vogel, Klaus, *Klaus Vogel on Double Taxation Conventions* (3rd ed., 1997), at 48. also observing that "[a] further consequence of attributing shares in profits to the various permanent establishments would be fragmented taxation".
14. Apart from the US Treasury advocating an exclusive residence-based tax system, the literature reveals support from other commentators who also favoured a move to such a system, many on the basis of concerns that electronic commerce transactions will be subject to double taxation, which could be avoided by implementing a pure residence-based system. See e.g. Lejeune, Ine et al., "Does Cyber-Commerce Necessitate a Revision of International Tax Concepts?", 38 *European Taxation* 2 (1998), at 50 (Part II), 58: "One cannot at present rule out that, on the basis of sovereignty principles, electronic transactions will be subject to double taxation. The best guarantee in order to avoid double taxation issues would in any case be to abandon the PE concept in favour of exclusive residence-based taxation."
15. As indicated earlier, similar considerations led to the adoption of Art. 8 of the OECD Model, which has a residence-based rule for shipping and air transport profits.
16. These difficulties are beyond the scope of this article and are not detailed here.
17. Avi-Yonah, Reuven S., "The Structure of International Taxation: A Proposal for Simplification", 74 *Texas Law Review* 1301 (1996), at 1311, referring to US Internal Revenue Code Sec. 7701(b)(3)(A) as an example of a bright-line rule for determining residence, and noting that this rule utilizes a

a given time. But determining corporate residence is not always easy, and countries may use different approaches to determine it. For example, some countries define corporate residence according to the country of incorporation (e.g. the United States), while other countries define corporate residence according to other tests (e.g. place of central management and control).[18] Further, as multinational enterprises (MNEs) operate in many places at a given time, determining the residence of a particular corporation at a particular time becomes difficult.[19]

Nevertheless, it is arguable that determining the residence of individuals and corporations in an electronic commerce setting is an easier task than the alternative of determining the source of income in electronic commerce.[20] This would therefore support residence-based taxation over source-based taxation, at least in the context of electronic commerce.

2.4.3. Ability to pay and progressivity

Prof. Robert Green has argued that source-based taxation is incompatible with the ability to pay principle,[21] which "is best measured by total income, comprehensively defined and determined without regard to source".[22] Progressivity assumes that "ability to pay" rises more than proportionally with income.[23]

Because source-based taxation does not apply to a taxpayer's worldwide income, it can be argued such taxation is inconsistent with the ability to pay principle. It can also be argued that the progressivity principle is breached because taxes levied by source countries are not based on total income. In addition, in many cases, source-country taxes are levied on a gross basis, which can be distorting.[24]

It can therefore be argued that the ability to pay principle is better served by residence-based taxation because it takes into account the taxpayer's worldwide income, thereby better reflecting the taxpayer's global ability to pay.[25] And although not all residence-based tax systems necessarily have progressive rates, they are considered less distorting than source-based approaches, especially where source countries levy tax on a gross basis.

2.4.4. Efficiency and capital-export neutrality

Prof. Richard Musgrave has been credited as being the first to distinguish between capital-export neutrality and capital-import neutrality.[26] According to his definition, "export neutrality means that the investor should pay the same total (domestic plus foreign) tax, whether he receives a given investment income from foreign or from domestic sources .... Import neutrality means that capital funds originating in various countries should compete at equal terms in the capital market of any country".[27] Prof. Vogel observed that export neutrality consequently implies a system of worldwide taxation with a foreign tax credit, while import neutrality implies a system of exemption, that is, of source-based taxation.[28]

The issue then becomes whether capital-export neutrality is to be preferred over capital-import neutrality. The literature generally shows a preference for capital-export neutrality.[29] If this preference is main-

"substantial presence test" by counting the number of days an individual is present in the United States. Other jurisdictions have similar rules; see e.g. the 183-day rule for individuals in Australia's residence rules in the definition of "resident" in Sec. 6(a) of the Income Tax Assessment Act 1936 (Cth). In this respect, the US Treasury, supra note 5, at [7.1.5], observed 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".

18. Mitchell, Richard, "United States–Brazil Bilateral Income Tax Treaty Negotiations", 21 *Hastings International & Comparative Law Review* 209 (1997), explaining how the adoption of different residence tests can lead to residence/residence double taxation.

19. See Avi-Yonah, supra note 17, at 1313, arguing that residence-based taxation should not be used in the case of MNEs because of the difficulty in determining their residence and the complex task of imputing earnings to shareholders.

20. See e.g. Ault, Hugh J. and David F. Bradford, "Taxing International Income: An Analysis of the US System and its Economic Premises", in Razin, Assaf and Joel Slemrod (eds.), *Taxation in the Global Economy* (1990), at 30-31, referring to and describing the difficulties of identifying a geographical source of income. It is expected that the problems of determining the source of income will be exacerbated by electronic commerce, partly due to the increased mobility that electronic commerce offers, combined with the difficulties of linking items of income with specific jurisdictions.

21. See Green, Robert A., "The Future of Source-Based Taxation of Income of Multinational Enterprises", 79 *Cornell Law Review* 18 (1993), at 29, arguing that source-based taxation fails the ability to pay principle.

22. Id., citing Pechman, Joseph A., "The Future of the Income Tax", 80 *American Economic Review* 1 (1990), at 6. Against this, it could be argued that failing to comply with the ability to pay principle should not, of itself, mean that the residence country should have sole taxing rights. In this respect, Prof. Avi-Yonah has argued that if one looks to economic allegiance, taxes should be owed to both residence and source countries; Avi-Yonah, supra note 17, at 1311, also citing Tillinghast, David R., *International Aspects of International Transactions* (1984), observing that the tax jurisdiction of residence and source countries rests on the economic benefits conferred on the taxpayer by both governments.

23. Green, supra note 21, at 29.

24. See e.g. OECD, *Electronic Commerce: The Challenges to Tax Authorities and Taxpayers* (1997), available at www.oecd.org/dsti/sti/it/ec/act/turkudoc.htm (hereafter "OECD Turku Discussion Document"), at [92]: "Curtailing of source jurisdiction rather than residence jurisdiction ... makes sense because of the distorting effects of gross basis taxes at source (e.g. withholding taxes) and the greater ease of enforcing net taxation by assessment in residence countries." See also Wiedow, A., "To Withhold or Not to Withhold", 34 *European Taxation* 9 (1994), at 293, 294, cited in Doernberg and Hinnekens, supra note 10, at 305: "[T]his sharing of taxation rights [between source and residence countries] is out of date in a worldwide, 'global' economy and this is reflected in the general tendency towards a reduction of withholding taxes between industrialized countries."

25. For a contrary position, see Kaufman, Nancy H., "Fairness and the Taxation of International Income", 29 *Law & Policy of International Business* 145 (1998), at 155, querying whether a worldwide tax base is necessary for purposes of the ability to pay principle.

26. Vogel, Klaus, "Worldwide vs. source taxation of income – A review and re-evaluation of arguments (Part II)", *Intertax* 310 (No. 10, 1988), at 311.

27. Id., citing Musgrave, Richard, "Criteria for Foreign Tax Credit", in *Taxation and Operations Abroad, Symposium* (1960), at 84-85.

28. Id.

29. See e.g. McLure, Jr., Charles E., "Substituting Consumption-Based Direct Taxation for Income Taxes as the International Norm", 45 *National Tax Journal* 145 (1992), at 146-147 and 153 (footnote 13), explaining that capital-export neutrality is necessary to achieve an efficient allocation of the world's investments, while capital-import neutrality is necessary for an efficient allocation of savings, considered to be a less significant goal; and Vogel, supra note 26, at 311, observing that Peggy Musgrave argued for giving priority to capital-export neutrality (over capital-import neutrality): "[I]t is generally correct as well to conceive of a tax neutrality with respect to all investors of one country, so that tax considerations will not influence their decisions to invest at home or abroad. Such capital-export neutrality will ensure that each national supply of capital available at that tax level will be allocated internationally in its most efficient manner." Prof. Vogel also referred to other commentators who supported this view, including Richard Musgrave and Bernard Snoy, with Snoy stating that "in a world where capital markets are perfect and where the

tained,[30] it can be argued that capital-export neutrality is best achieved by a residence-based tax system because it taxes all investors at their residence-country rate, irrespective of where they derived their income. With countries having different rates of tax, this approach would thus best serve the goal of capital-export neutrality as the tax applicable to international income would equal the tax on domestic income in a capital-exporting country; therefore, capital-export neutrality would be the result.

In terms of efficiency, Charles McLure argued that if all nations implemented a residence-based tax system, this would lead to the allocation of the world's capital to its most productive use.[31] Conversely, source-based taxation, he argued, would lead to an inefficient allocation of economic resources as it "discourages investment in high-tax jurisdictions and encourages investment in low-tax jurisdictions".[32]

Finally, capital-export neutrality can be achieved in a source-based tax system through the use of foreign tax credits; however, because most countries apply a restricted tax credit system,[33] as a practical matter, capital-export neutrality could be achieved only to the extent the foreign tax rates were lower than the domestic tax rates.

2.4.5. *Political accountability, redistribution of income and equity considerations*

In many cases, the country in which a person is resident is also where he has his political allegiance. Taxation based on residence can therefore, in some respects, be equated to taxation with representation – that is, taxpayers through their elected representatives decide (albeit indirectly) how much tax they pay.[34] In addition, if personal income taxes are to have a redistributive function through progressive rates, these considerations are arguably best accommodated in the residence country since most individuals generally have only one residence and are part of one country.[35]

2.5. Disadvantages of an exclusive residence-based tax system

2.5.1. *Reliance and emphasis on the definition of residence*

Moving to an exclusive residence-based tax system obviously places a great reliance and emphasis on the definition of residence. As noted earlier, for individuals, it should be possible to establish bright-line rules to determine residence, but to implement a full residence-based tax system, it is necessary to determine the residence of corporations.[36] The varying definitions used by countries to determine corporate residence and the difficulties of formulating bright-line rules for determining it (especially for MNEs) both represent impediments to adopting an exclusive residence-based tax system in the corporate context. In addition, the need to secure an internationally acceptable and applicable definition of residence that cannot be easily manipulated in an electronic commerce context represents a further barrier to adopting a residence-based tax system for electronic commerce.

As observed earlier, some countries use formalistic rules, such as the place of incorporation test, to determine corporate residence. Such tests are vulnerable to manipulation in both traditional and electronic commerce environments. Even countries that use other tests, such as the place of central management and control test or the place of effective management test,[37] face challenges in applying the tests in an electronic commerce setting. Determining the place of top-level management becomes problematic in an electronic commerce environment, especially in light of more mobile directors and technologies such as videoconferencing facilities, which allow for decentralization of the management functions.

Given these difficulties, a review of the current definitions of residence and tax rules is necessary to determine whether an internationally acceptable and rigorous test for residence can be adopted to enable an exclusive residence-based system to operate effectively.[38] If an inter-

financing of corporate investment projects is not subjected to internal funds constraint, tax neutrality towards capital import is clearly not a prerequisite for efficient allocation of resources"; id., citing Snoy, Bernard, *Taxes on Direct Investment Income in the EEC, A Legal and Economic Analysis* (1975), at 37, and noting that further support for capital-export neutrality can be found in Sato, M. and R. Bird, "International Aspects of the Taxation of Corporations and Shareholders", 22 *IMF Staff Papers* 408 (1975): "[O]nly capital-export neutrality accords with the objective of world efficiency."

30. It has been argued that the debate on capital-export neutrality versus capital-import neutrality is less significant and relevant in a globalizing economy; see e.g. Frisch, Daniel J., "The Economics of International Tax Policy: Some Old and New Approaches", 47 *Tax Notes* 581 (1990).

31. McLure, Jr., Charles E., "US Tax Laws and Capital Flight from Latin America", 20 *University of Miami Inter-American Law Review* 321 (1989), at 325.

32. Id.

33. Many countries, including the United States, operate a restricted foreign tax credit system – for many reasons, including the concern that granting a full credit for the taxes paid in other countries may operate as a subsidy arrangement for one country if the foreign tax rates exceed the domestic tax rates. Pure capital-export neutrality, however, cannot be achieved under a restricted foreign tax credit system.

34. See Avi-Yonah, supra note 17, at 1312: "In democratic countries, it is considered important for individuals to have a right to participate – through their representatives – in deciding how much tax they have to pay." Arguably, however, the converse of this is more significant, i.e. the preference of democratic legislatures to raise taxes on foreigners because they cannot vote; id.

35. Id., citing Blum, Walter J. and Harry Kalven, Jr., *The Uneasy Case for Progressive Taxation* (1953) on the importance of distributional concerns in income taxation. See also Kaplow, Louis and Steven Shavell, "Why the Legal System is Less Efficient than the Income Tax in Redistributing Income", 23 *Journal of Legal Studies* 667 (1994), at 677, recommending that taxation be used as a redistributive device in preference to other methods.

36. As an alternative to determining corporate residence, Prof. Green advocated that the earnings of publicly-traded MNEs be imputed to their shareholders; Green, supra note 21, at 70-74. However, determining the residence of corporations is more difficult than determining the residence of individuals and imputing earnings to shareholders is a difficult task; see e.g. Avi-Yonah, supra note 7, at 526: "[I]t is not at all clear what residence means in the case of a multinational, especially now that the shareholder base, sources of capital, and location of business activities of multinationals may all be dispersed over many taxing jurisdictions."

37. See Art. 4(3) of the OECD Model, which uses the place of effective management as the tie-breaker in cases of dual residence of non-individual taxpayers.

38. See e.g. US Treasury Report, supra note 5, at [7.1.5], suggesting the possible ascendancy of residence-based taxation, but noting that "a review of

national consensus can be reached on a uniform test for residence, these impediments can be removed. But if such a consensus cannot be reached, the likelihood of moving to an exclusive residence-based system is greatly diminished.

2.5.2. Revenue-sharing between countries, international consensus and the risk of double taxation

An exclusive residence-based tax system avoids the uncertainties of determining where income arises and the risk of countries taking divergent approaches which may give rise to double taxation because such a tax system minimizes the opportunities for conflicting claims between residence and source countries. Despite this, however, an exclusive residence-based system would represent a fundamental shift in taxing rights, which may jeopardize the current allocation of tax revenues and revenue-sharing between source and residence countries. Many countries would not regard this as an equitable outcome, and it is therefore unlikely to receive international support. Further, if such an approach were adopted, many countries might resort to unilateral measures to preserve their tax base, which could lead to double taxation.[39]

Even in a traditional context, countries face conflicting objectives in deciding whether to apply residence or source-based taxation, and there is therefore an inherent tension between countries that are capital exporters and those that are capital importers. Capital-exporting countries tend to prefer a residence-based tax system, while capital-importing countries tend to focus on source-country taxation, which reflects their contribution to the income-generating process in taking capital and employing it in a productive capacity.[40] Under the current international tax rules, while income is not shared equally between capital-exporting and capital-importing countries, the inherent tension between capital exporters and capital importers is resolved by applying the residence and source principles as well as tax treaty concepts, such as the permanent establishment threshold. The application of these rules represents a compromise between competing interests and achieves a sharing of tax revenues between capital-exporting and capital-importing countries.

An exclusive residence-based tax system would invariably favour countries that are net exporters of goods and services sold electronically. If the level of trade and income flows between capital-exporting and capital-importing countries are relatively even, the consequences of such an approach would be minimal as each country could recover any lost revenue from its residents.[41] Currently, capital-exporting countries are mainly developed countries, while capital-importing countries are more often than not developing countries.[42] Flows of income between developed countries tend to be more or less balanced, while those between developed and developing countries tend to be unbalanced in favour of developed countries.[43] On this basis, moving to a residence-based system should have a minimal tax impact as between developed countries,[44] but such a move could impact substantially on the division of tax revenues between developed and developing countries.[45]

In an electronic commerce context, capital-exporting developed countries (including especially the United States) currently lead the world in the production and

current residency definitions and taxation rules may be appropriate". In 2001, the OECD released a discussion document regarding the place of effective management rule; see OECD, *The Impact of the Communications Revolution on the Application of "Place of Effective Management" as a Tie-Breaker Rule* (February 2001), available at www.oecd.org/daf/fa/e_com/ec_4_POEM_Eng.pdf.

39. A 1999 decision of India's Authority for Advance Rulings is a striking example of the double taxation possibilities that could arise if countries took unilateral measures to preserve their taxing rights. This decision suggested that if source countries perceive that they are not sharing in the tax base generated by electronic commerce, they may take creative measures to tax payments which they believe erode their tax base; Doernberg, Richard L., "International Tax Issues: The Taxation of Business Profits", paper presented at the International Fiscal Association Asia Regional Conference on E-Commerce and International Taxation (Mumbai, India, November 2000).

40. See McLure, supra note 31, at 325-326: "Capital-exporting countries support residence-based taxation because they want to keep the revenue generated by the foreign investment of their residents .... Capital-importing countries favour relatively high source-based taxes on repatriated income for which capital-exporting countries provide foreign tax credits."

41. OECD Turku Discussion Document, supra note 24, at [92]: "Where flows of income from business, investment, etc. are balanced between two countries, it often does not make a large difference to the direction of revenue collections if each country agrees to significantly curtail its source jurisdiction to tax on a reciprocal basis as its residence taxation of income sourced in the other country is correspondingly increased."

42. See Dagan, Tsilly, "The Tax Treaties Myth", 32 *International Law and Politics* 939 (2000), at 989: "Developing countries are, more often than not, capital importers. Their outbound investments are typically insignificant in comparison to the amounts of inbound investments they receive." See also Mitchell, supra note 18, at 227, observing that developed countries generally tend to be net exporters of capital, goods and services, while developing countries tend to be net importers of capital, goods and services; and Sweet, supra note 8, at 1996. While it is accepted that the relative positions of developed and developing countries as either capital exporters or capital importers may change over time, the assertions made in this article are in the context of the prevailing economic situation.

43. See Owens, Jeffrey, "The Tax Man Cometh to Cyberspace", 14 *Tax Notes International* 1833 (1997), observing that flows of income between developed countries tend to be balanced. For the position of developed countries, see also Miyake, Maiko and Magdolna Sass, "Recent Trends in Foreign Direct Investment", 76 *Financial Market Trends* 23 (2000), at 24, a review indicating that, of the 29 OECD Member countries at the time of this study (1999), 13 had net direct investment inflows – i.e. Australia, Austria, Canada, the Czech Republic, Hungary, Iceland, Italy, Korea (Rep.), Norway, Poland, Sweden, Turkey and the United States.

44. See Dagan, supra note 42, at 990 (footnote 111): "The OECD [Model is] designed primarily for treaties between countries where the flows of income are roughly reciprocal ... when investment flows are more or less reciprocal, the revenue sacrifices more or less offset each other." See also McLure, supra note 31, at 327: "The OECD convention primarily concerns fiscal relations between developed countries. Because capital flows among developed countries can be expected to be roughly in balance over the long run, the distinction between capital-importing and capital-exporting countries may have little significance."

45. See Dagan, supra note 42, at 990 (footnote 11): "In a treaty between a developed and a developing country the flows are largely in one direction: income flows from the developing country to the developed country." See also Avi-Yonah, supra note 17, at 1313, observing that an objection to pure residence-based taxation is "that it results in more revenue being collected by developed countries and less by developing countries". See further Forst, David L., "The Continuing Vitality of Source-Based Taxation in the Electronic Age", 15 *Tax Notes International* 1455 (1997), at 1472: "[U]nder a residence-based taxing regime, the treasuries of the capital exporting countries grow richer ... [while] the treasuries of the capital importing countries remain poor since these countries [cannot] collect tax revenue from foreign investment."

export of goods and services sold electronically.[46] These countries would be the greatest beneficiaries of an exclusive residence-based tax system, and this perhaps explains why they prefer residence-based taxation. However, the imbalance in revenue-sharing that would exist between source and residence countries under an exclusive residence-based approach, combined with the propensity of countries to tax non-residents, will make reaching an international consensus on this approach difficult.[47] While net exporters of goods and services sold electronically will try to strengthen the residence rules, net importers will, one way or another, claim what they perceive to be their share of income from electronic commerce transactions. This may ultimately lead to double taxation as both source and residence countries try to preserve their tax base.

2.5.3. Risk of capital flight

If an exclusive residence-based tax system is adopted, then, apart from altering the present allocation of revenues between residence and source countries, at a wider level it could lead to an erosion of the worldwide tax base because residence-based taxation increases the risk of capital flight to low-tax jurisdictions.[48] Capital flight refers to the decision of resident taxpayers to invest abroad rather than domestically because of the possibility of low (or nil) taxation in the offshore jurisdiction. If corporations establish themselves in a tax haven or low-tax country with a view to carrying on their electronic commerce activities there, an effective residence-based tax system would need to be implemented using anti-deferral rules, such as controlled foreign company (CFC) legislation. Theoretically, this should provide a solution to the problem of capital flight, but the existence of these rules is not universal,[49] and even countries with CFC rules will encounter some problems with trying to apply them in an electronic commerce context.

CFC rules are typically complicated to apply and difficult to enforce in a traditional context, and it can only be expected that these difficulties will be accentuated in an electronic commerce setting. For example, the effective application of CFC rules depends on being able to obtain the information necessary to enforce residence-based taxes, but in an increasingly globalized world, obtaining this information is increasingly difficult, making the administration of a residence-based system very difficult as a practical matter.[50] Moreover, there may be enforcement problems in an electronic commerce environment because of the difficulty in verifying the identity of taxpayers to whom foreign income accrues and ascertaining the amount of that income.

Apart from the administrative difficulties in applying CFC rules in an electronic commerce setting, there are substantive problems that are likely to be encountered when applying such rules.[51] For example, many CFC regimes (e.g. the UK CFC legislation) contain an "exempt activities test", which is satisfied if a business is established in a particular country and is managed and controlled there and if its activities are of a trading nature. It will be easier to satisfy this type of test in an electronic commerce environment than in a traditional setting, where establishing a business in a particular country entails greater effort and expense.[52] If such a business is established in a low-tax jurisdiction (e.g. Bermuda or Jersey) and is centrally controlled and managed there (which may be possible through the use of e-mail and videoconferencing technologies as well as intranets), the CFC rules may be circumvented, but the business would still be able to access world markets effectively from its electronic presence in the low-tax country. If the CFC rules do not prove effective in combating capital flight, an erosion of the worldwide tax base could result, which would be an undesirable outcome for all countries.[53]

46. See e.g. OECD, *The Economic and Social Impact of Electronic Commerce: Preliminary Findings and Research Agenda* (1999), at 34, indicating that the US currently accounts for approximately 80% of the global total in electronic commerce; and Forst, supra note 45, at 1472, observing that the US accounts for about 90% of the world's commercial web sites.

47. See McLure, Jr., Charles E., "Taxation of Electronic Commerce: Economic Objectives, Technological Constraints, and Tax Laws", 52 *Tax Law Review* 269 (1997), at 361-362: "[A] wholesale move to residence-based taxation would entail radical shifts in the international distribution of tax revenues, especially from [developing countries] to developed countries. Many would not think this fair and it will not be popular in many countries."

48. See e.g. Avi-Yonah, supra note 17, at 1336: "[E]ven 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."

49. A 1996 OECD report on CFC legislation showed that 14 OECD Member countries had CFC legislation; see OECD, *Controlled Foreign Company Legislation, Studies in Foreign Source Income* (1996). Korea (Rep.) and Mexico enacted CFC legislation in 1997, bringing the total number of countries with CFC rules to 16; this number now appears to be closer to 21, with more countries (e.g. Venezuela) expected to enact CFC legislation; see Sandler, Daniel, *Tax Treaties and Controlled Foreign Company Legislation: Pushing the Boundaries* (2nd ed., 1998); and "Venezuela Moves Closer to Major Income Tax Reform", (1999) *Worldwide Tax Daily*, at 205-H.

50. It is outside the scope of this article to examine tax administration issues in detail, but for present purposes, the difficulty of obtaining information could be due to the encryption of electronic information as well as to the problem of locating and tracing information transmitted on electronic networks.

51. In addition to the difficult tax administration issues associated with enforcing CFC assessments, many commentators have expressed concerns that CFC rules will be easily circumvented in an electronic commerce setting; see e.g. Morgan, John et al., "Don't Be Afraid of the Internet", (1997) *International Tax Review* 19, at 20: "[C]ompanies are gaining access to worldwide markets without the need for a local sales force and/or distribution networks. They can therefore choose to locate content or other income generating rights in a particular territory, thereby effectively choosing where their income will be taxed. It is this increased flexibility in deciding where to locate an entity and from where to make sales that could lead to significant planning opportunities ... controlled foreign company ... or Subpart F provisions will also need to be considered. However, it should be possible to structure operations to circumvent this legislation." See also Lambooij, Machiel, "Rethinking Corporate Residence" (speech on 6 June 1997), available at www.lovotax.nl/lovotax/tax/document.html?doc_id=175>: "New businesses ... do not need to be physically located where their customers are domiciled .... A sales and distribution company can be set up in a convenient low tax location. Assuming the effective management of this company is really located there, in the absence of new source rules ... there is little tax authorities can do to tax these profits." See further Deloitte & Touche LLP and Information Technology Association of America, *Taxation of Cyberspace* (2nd ed., 1998), at 368, noting that if CFCs can engage in extensive commerce in information and services through web sites or computer networks located in a tax haven, it may become increasingly difficult to enforce CFC rules.

52. Such businesses can be established completely online; see e.g. "Offshore Information Services", available at www.offshore.com.ai/, offering many services, including establishing a virtual offshore presence in a jurisdiction such as Anguilla.

53. Other CFC regimes (e.g. the US Subpart F rules) are similarly challenged by electronic commerce. These regimes depend on how income is character-

Given these present difficulties, companies certainly have an incentive to base their operations in low-tax jurisdictions, including tax havens. The likelihood of this occurring can also be explained by other developments. As electronic commerce grows, it is likely that capital mobility will increase substantially, thereby creating an even greater risk of capital flight than presently exists.[54] Prior to the advent of electronic commerce, access to foreign companies in low-tax jurisdictions was limited for most taxpayers.[55] Now, however, access to foreign companies and offshore banking facilities is more widely available to anyone via the Internet.[56]

Many argue that businesses will be unwilling to establish their business operations offshore due to security, technological and financial constraints. This is not a credible argument. Even before the advent of electronic commerce, businesses were sensitive to establishing themselves in other countries in direct response to more favourable corporate laws,[57] and especially in response to more favourable tax laws.[58] A good example is the response of businesses to the residence-based taxation of shipping activities.[59] Prof. Avi-Yonah has observed that most of the income in these cases is earned by ships registered in tax havens.[60]

Regarding electronic commerce, the Australian Taxation Office reported that, in 1997, there were more than 60 racecourse sites, 300 casino sites, up to 200 bingo/keno/lotto sites, and a dozen virtual casinos, operating mainly in the Caribbean.[61] As electronic commerce develops, these trends can only be expected to increase significantly; this is supported by a recent report on the growth of business presences in low-tax jurisdictions.[62]

In light of the above analysis, in an electronic commerce environment under an exclusive residence-based tax system, the risk of capital flight is likely to increase. If this occurs, countries with CFC regimes will have to rely increasingly on them to enforce residence-based taxation, but if such rules prove ineffective, an erosion of the worldwide tax base could occur.

Therefore, any move to an exclusive residence-based tax system should be preceded by a comprehensive review of CFC rules. This would be necessary to ensure that the rules remain relevant in an electronic commerce context to guard against capital flight to low-tax jurisdictions.

2.6. Summary

While there are advantages to an exclusive residence-based system, the disadvantages of such a system which were analysed above must be overcome in order for it to become a reality. Specifically, the risk of capital flight, combined with the potential unfairness to countries that are net importers of goods and services sold electronically, means that it is unlikely that many countries would support a pure residence-based approach. Therefore, the required international consensus would not be present to enable the successful implementation of such a system. In addition, the difficulties of finding an internationally acceptable and rigorous test for corporate residence represent a further obstacle to the adoption of an exclusive residence-based tax system for electronic commerce transactions. Until all of these obstacles are overcome, such a system is unlikely to provide a feasible and internationally acceptable solution to accommodate the taxation of electronic commerce transactions.

ized. For example, if income is characterized as a royalty or licence fee channelling it through a foreign sales company located in a low-tax country would be ineffective due to the Subpart F rules. However, as electronic commerce enables businesses to deal directly with consumers, income that previously may have been characterized as passive income (e.g. royalties) may now be considered as active income (i.e. business profits), which would not be subject to the Subpart F rules. See e.g. US Treasury, Office of Tax Policy, *The Deferral of Income Earned Through US Controlled Foreign Corporations* (2000), recognizing that electronic commerce threatens the effectiveness of CFC rules. See also Avi-Yonah, Reuven S., "The U.S. Treasury's Subpart F Report: *Plus Ça Change, Plus C'est la Même Chose*?", 55 *Bulletin for International Fiscal Documentation* 5 (2001), at 185.

54. See Owens, supra note 43, at 1833. See also Owens, Jeffrey, "Emerging Issues in Tax Reform: The Perspective of an International Bureaucrat", 15 *Tax Notes International* 2035 (1997), at 2042, observing that the "most troubling problem for tax reformers today is the decreasing ability of individual governments to sustain taxes on capital income".

55. Apart from the prohibitive costs of establishing an offshore company, the costs of transporting, insuring and storing tangible goods would make such operations viable only for MNEs.

56. See e.g. "Offshore Information Services", supra note 52, offering comprehensive services to establish a virtual business presence offshore.

57. See e.g. Avi-Yonah, supra note 7, at 527, referring to the massive shifting of the formal residence of companies to New Jersey and then to Delaware as these US states adopted favourable corporate laws.

58. Diane Ring used the example of the mutual fund industry in the United States to illustrate how attentive businesses are to lower tax rates and how prepared they are to be mobile in order to take advantage of the lower rates. In the United States, the mutual fund industry, which is substantially based in Massachusetts, sought significant tax concessions from that state. The companies asserted that they were a portable industry and were ready to move to take advantage of recent tax laws in several other states that were designed to attract the mutual fund industry away from Massachusetts. In response, Massachusetts made several tax concessions to keep the industry there. Ring, Diane M., "Exploring the Challenges of Electronic Commerce Taxation Through the Experience of Financial Instruments", 51 *Tax Law Review* 663 (1996), at 667, arguing further that such examples can easily be seen to be translated to the global arena. The literature alludes to other similar possibilities; see e.g. Pilkington, Catherine and Sue Farron, "International Direct Taxation of E-Commerce: Developing a New Conceptual Model from Marketing Principles", paper presented at the 10th Tax Research Network Conference (Birmingham, UK, September 2000), at 5: "[T]he capabilities of the technology of the Internet could enable an ultimate shift of tax bases to tax havens." See also Hinnekens, Luc, "New Age International Taxation in the Digital Economy of the Global Society", 25(4) *Intertax* 116 (1997), at 117: "The new digital technology ... widens the scope of international tax planning and tax avoidance. The process also breeds the tax competitiveness of individual States on those international markets. But fiscal competition to the detriment of other countries and beggar-thy-neighbour tax policies are hardly the answer. The State's tax base becomes even further eroded ('race to the bottom')." For more recent examples of similar concerns, see e.g. Kormendy, Peter and Allesandra Fabro, "Hardie Leads the Way in Tax Shift Offshore", *The Australian Financial Review* (Sydney), 25 July 2001, available at afr.com/companies/2001/07/25/FFXWSAAKIPC.html.

59. This example is especially relevant to electronic commerce transactions as Art. 8 of the OECD Model, which taxes air transport and shipping profits on a residence basis, may provide an analogue for adopting such a rule to accommodate electronic commerce transactions.

60. Avi-Yonah, supra note 17, at 530, citing Loree, Philip J., "Shipping Federation Chairman Testifies on Competitiveness", 91 TNI 39-26, 12 September 1991 (on LEXIS).

61. Richardson, Colin L. and Peter B. White, "Electronic Commerce and the Australian Taxation System: An Exploratory Study of Six Industries", in Australian Taxation Office, Electronic Commerce Project Team, *Tax and the Internet – Volume 2* (1997), at 18.

62. *The Wall Street Journal* recently reported on the growing boom of dot-com companies in Bermuda as companies set up shop in low-tax jurisdictions to enjoy tax advantages over their competitors: see "Dot-Coms Go Offshore", available at interactive.wsj.com/articles/SB978914055626662536.htm.

3. Exclusive Source-Based Taxation

3.1. Introductory remarks

The source principle of taxation (sometimes referred to as the "territorial approach or principle") entitles a country to tax income originating within its borders.[63] One explanation for the rationale of this principle is that it is the source country, as the "place of income-generating activity",[64] rather than the country in which the income-producer resides (i.e. residence country) that economically contributes to the production of income; therefore, the source country should be compensated for its contribution.

Electronic commerce, it is widely believed, is putting pressure on the source principle, and proponents of this view therefore argue that residence-based taxation will eclipse source-based taxation.[65] The merits and problems associated with adopting a residence-based tax system were analysed earlier, and it was observed that electronic commerce presents many challenges to such a system.[66] In light of these problems and despite the claim that determining the source of income in an electronic commerce setting will be problematic,[67] a source-based tax system may provide a viable solution to accommodate electronic commerce transactions. This proposition is analysed below.

3.2. Implementation

An exclusive source-based tax system that applies to electronic commerce transactions may be implemented in two main ways. First, the business profits rule in Art. 7 of the OECD Model could be modified to specify that the income arising from electronic commerce transactions may be taxed only in the source country. This way, such a system could be implemented within the existing tax treaty network and could be adopted on an international basis by countries that follow the OECD Model in their treaty negotiations.

Alternatively, a new article could be added to the OECD Model which deals specifically with the profits arising from electronic commerce transactions and allocates exclusive taxing rights with respect to such profits to the source country. Such an article could be modelled on Art. 17 of the OECD Model, which permits the source country to tax the income derived by artistes and sportsmen in that country, despite the absence of a permanent establishment there.[68] This rule ensures that a source country can levy tax on the typically significant amounts of money that performers and artistes generate from performances in that country. Similarly, a new provision for electronic commerce transactions could allocate the profits arising from these transactions to the customer's country, despite the absence of a permanent establishment.

Prof. Vogel observed that one of the main reasons for the source-based rule in Art. 17 of the OECD Model was the recognition that the residence country of an artiste or sportsman would often find it difficult to keep track of a performer's income due to "[his] mobility and to the numerous different income-earning opportunities available to [him]".[69] The residence country would also be dependent on the various source countries for information regarding the income earned by the artiste or sportsman. Similarly, given the mobility that electronic commerce offers, as well as the numerous markets that may be accessed by an electronic commerce trader, a source-based system modelled on Art. 17 may respond to some of the concerns associated with collecting tax with respect to electronic commerce transactions.

Art. 17 of the OECD Model could therefore be used as an analogue for an exclusive source-based tax system to accommodate electronic commerce transactions. If a source-based tax system modelled on Art. 17 could be introduced for electronic commerce transactions, consideration should be given to the relative merits and problems of introducing such a system. The remainder of this article analyses the arguments for and against adopting a source-based tax system.

3.3. Arguments in favour of an exclusive source-based tax system

In a traditional context, the prospect of adopting a tax system based exclusively on the source principle has been comprehensively reviewed by Prof. Vogel.[70] He argued that considerations of efficiency and equity, as a rule, support exclusive taxation in the source country.[71]

63. Prof. Musgrave argued that, according to the doctrine of entitlement, source countries should be entitled to tax income originating within their borders since the countries in which consumers reside provide services that are complementary to the consumption of their residents; Musgrave, Peggy B., "Interjurisdictional Coordination of Taxes on Capital Income", in Cnossen, Sijbren (ed.), *Tax Coordination in the European Community* (1987), at 198; Musgrave, Peggy B., "Principles for Dividing the State Corporate Tax Base", in McLure, Jr., Charles E. (ed.), *The State Corporation Income Tax: Issues in Worldwide Unitary Combination* (1984), at 230.

64. Musgrave, R. and P. Musgrave, "Inter-Nation Equity", in *Modern Fiscal Issues: Essays in Honor of Carl S. Shoup* (1972), at 71, cited in Doernberg and Hinnekens, supra note 10, at 306 (footnote 641).

65. See e.g. Forst, supra note 45, at 1455, observing that the US Treasury believes that, with respect to electronic commerce, residence-based taxation will likely be more prominent than source-based taxation: "Transactions in cyberspace will likely accelerate the current trend to de-emphasize traditional concepts of source-based taxation, increasing the importance of residence-based taxation."

66. For example, it was seen that determining the place of central management and control and effective management, in circumstances where decisions may be made by many directors in different countries through video-conferencing technologies, would be problematic in an electronic commerce context. See also Avi-Yonah, supra note 7, at 14, arguing that residence is meaningless for MNEs and therefore source-based taxation is preferable to residence-based taxation; and Australian Taxation Office, Electronic Commerce Project Team, *Tax and the Internet – Volume 1* (1997), at 62, arguing that residence-based approaches may not be an automatic solution to the problems created by electronic commerce as the source and residence principles are equally at risk in an electronic commerce environment. For other problems with a residence-based tax system, see 2.5.

67. See e.g. US Treasury Report, supra note 5, at [7.1.5], quoted in 2.1.

68. Art. 17 therefore operates as an exception to the rules in Art. 7 of the OECD Model; see Para. 1 of the Commentary on Art. 17 of the OECD Model.

69. Vogel, supra note 13, at 971.

70. Vogel, Klaus, "Worldwide vs. source taxation of income – A review and re-evaluation of arguments", in three parts: Part 1, *Intertax* 216 (No. 8/9, 1988); Part II, supra note 26; and Part III, *Intertax* 393 (No. 11, 1988).

71. Vogel, Part III, id. at 401, concluding that a general preference should be given to a territorial system of taxation, in terms of both efficiency and equity considerations.

Some of these arguments deserve further discussion in the context of electronic commerce transactions. This is undertaken below.

3.3.1. Neutrality

Prof. Vogel argued strongly that the source principle comports best with the neutrality principle, both in terms of the dualism between capital-export neutrality and capital-import neutrality and in terms of transaction costs.

(a) *Capital-export neutrality versus capital-import neutrality*. Neutrality essentially requires that economic processes not be affected by external influences such as taxation. Capital-export neutrality and economic efficiency were discussed above as an argument to advance residence-based taxation (see 2.4.4.). According to the argument, taxing worldwide income coupled with a foreign tax credit is thought to produce capital-export neutrality, whereas exempting foreign income is thought to result in capital-import neutrality. As the principles of import and export neutrality support the source and residence principles, respectively, the issue becomes which principle should prevail. In the earlier discussion, it was observed that there has been a long-held view by economists (which is also reflected in the literature[72]) that only capital-export neutrality is consistent with economic efficiency, thereby implying a preference for residence-based taxation.[73]

The long-held view has, however, been challenged and, on the basis of these challenges (which suggest that capital-import neutrality should prevail), it may be argued that source-based taxation should be preferred over residence-based taxation. Otto Gandenberger, in a paper presented in 1983, put forward three arguments contrary to what has been argued in favour of capital-export neutrality.[74] First, Gandenberger argued that, if a residence-based tax system is used and the tax rate in the residence country is higher than the rate in the source country, a smaller after-tax profit reduces an enterprise's chance to finance new investment in the source country. The reason is that the enterprise has to anticipate a higher overall tax burden than its competitors in a lower-tax country (because of taxation in the residence country), and it therefore may be influenced in its decision (made in the residence country) whether to invest in the source country. This outcome is contrary to achieving capital-export neutrality. Second, Gandenberger argued that the level of taxation in a country is likely to correspond to the level of public goods provided, so that a country providing fewer public goods often has a lower tax rate than one providing more public goods. If this is true and if the source country has a lower tax rate than the residence country, an enterprise's decision whether or not to invest in the lower-tax country may be affected since it would receive fewer public goods in the lower-tax country than in the residence country, but it would be subject to the residence country's higher tax rate.[75] Finally, Gandenberger showed that, contrary to what has been written in favour of capital-export neutrality, source-country taxation is adopted by many countries, particularly in cases of deferral.[76] Based on these arguments, Gandenberger concluded that, contrary to the prevailing economic theory, capital-import neutrality should be preferred over capital-export neutrality, implying taxation in the source country.

Other prominent economists, including Leif Mutén, have argued the advantages of source-state taxation and the disadvantages of a residence-based tax system, particularly for developing countries.[77] Norman Ture advanced the argument by redefining neutrality to mean "that the taxation does not alter the (explicit or implicit) relative prices of goods, services, activities, production inputs, and so forth, in the private sector".[78] According to him, this definition means that "neither country will attempt to use its fiscal powers to change relative prices in the other country, any more than it would in the absence of taxes".[79] From this, Ture concluded that residence-based taxation distorts neutrality (as formulated by him) and is therefore inconsistent with economic efficiency. He also argued that only exclusive taxation in the source country and exemption in the residence country will yield a neutral outcome as only such a system would leave the international flow of capital and commerce unaffected.

(b) *Transaction costs*. Prof. Vogel argued that, in considering whether residence or source taxation is preferred in terms of neutrality, a complete analysis should take into account not only taxes, but also other state-induced burdens and benefits.[80] Most important among these

72. See the references cited in note 29, supra.
73. See e.g. Vogel, Klaus, "Taxation of Cross-Border Income, Harmonization, and Tax Neutrality under European Law", in Vogel, Klaus (ed.), *Taxation of Cross-Border Income, Harmonization, and Tax Neutrality under European Law* (1994), at 22: "According to an opinion which has been held for decades almost exclusively among economists, only capital export neutrality comports with the goal of economic efficiency, i.e. of allocating production factors in such a way that productivity will be (Pareto-) optimal."
74. See Vogel, Part II, supra note 26, at 312, citing Gandenberger, Otto, "Kapitalexportneutralität versus Kapitalimportneutralität. Allokative Überlegungen zu einer Grundfrage der internationalen Besteuerung", 7 *Aufsätze zur Wirtschaftspolitik* (Mainz: Forschungsinstitut für Wirtschaftspolitik, 1983). What follows on this point has been adapted from this source.
75. In other words, an enterprise investing in a lower-tax source country would pay a premium to do so as it would receive fewer public goods there compared with those it would receive in its residence country, but it would still be subject to the residence country's higher tax rate.
76. See also Vogel, Part I, supra note 70, at 221, pointing out that Latin America has traditionally emphasized source-based taxation in its income tax laws; and at 222, observing that the International Chamber of Commerce adopted a resolution in 1955 to the effect that source countries should have the "sole right" to tax international income. Vogel also gave the example of the International Fiscal Association, which in its 1961 and 1984 Congresses, affirmed its support for source-based taxation.
77. Mutén, Leif, "Some Topical Issues Concerning International Double Taxation", in Cnossen, Sijbren (ed.), *Comparative Tax Studies. Essays in Honor of Richard Goode* (1983), at 317. Thomas Horst and Sijbren Cnossen have likewise questioned the preference given to capital-export neutrality, claiming, inter alia, that it restrains international investment; both cited in Vogel, supra note 73, at 24.
78. See Vogel, supra note 73, at 24, citing Norman Ture.
79. Id.
80. Vogel, supra note 73, at 27: "An exclusive comparison of taxes levied by different states ... is not meaningful on an abstract level because if the comparison disregards other state-imposed burdens, among which transaction costs are the most important, what may be inferred from such reasoning

additional burdens are transaction costs.[81] If they are taken into account in determining economic efficiency, it can be argued that capital-export neutrality (which supports residence-based taxation) is an unattainable ideal because a residence country cannot ensure that investments, wherever made by its residents, are subject to the same transaction costs in the foreign countries in which the investments are made.[82] By contrast, capital-import neutrality (which supports source-based taxation) is attainable as foreigners would be subject to the same transaction and production costs in the source country as local enterprises and, if no additional burdens are imposed by the residence country on the foreign investor, competition between local and foreign enterprises in the source country is equal, unobstructed and therefore neutral.[83]

(c) *Summary*. Whether the distinction between capital-export and capital-import neutrality is accepted or rejected, in light of the above analysis, it can argued that the taxation of direct investments in source countries is economically efficient only when the foreign investor pays the same rate of tax and is subject to the same level of transaction costs as local enterprises in the same (source) country. This is consistent with source-based taxation, and the reasons underlying this conclusion are equally applicable with respect to electronic commerce transactions.

3.3.2. Economic allegiance

The problems that electronic commerce is expected to create are in many ways similar to the problems which existed between capital-importing and capital-exporting countries in the 1920s and which led to the development of the current international tax treaty system. Before World War I, an international consensus on how to divide international tax revenues did not exist, and it was only after World War I that the double taxation of income became a pressing problem.[84]

A compromise had to be found to balance the taxing rights of the jurisdiction in which an enterprise was resident (residence country) and the jurisdiction in which the income arose (source country). Economic allegiance was chosen as the guiding principle – eventually leading to the concept of "permanent establishment". The residence country had an unlimited right to tax unless the enterprise had an economic allegiance to the source country, in which case the source country could tax the income attributable to such an allegiance. In determining economic allegiance, the location of a person's true economic interests had to be ascertained, and this was defined as "the place where wealth is produced, that is, the community of economic life which makes possible the yield of the acquisition of the wealth".[85]

Accepting that economic allegiance determines where income is taxed, it is also necessary to analyse whether the country of residence or source should have the primacy to tax a person's income. The early deliberations of the League of Nations proposed an answer that depended on the type of income, with business income being primarily allocated to the source country,[86] while other types of income (e.g. dividends and interest) were allocated to the residence country.[87] Georg von Schanz, to whom Prof. Vogel referred as one of the earliest advocates of economic allegiance based on the location of business and economic activities, recommended a division of the tax base, but with the source country getting a greater share than the residence country because of Schanz's assertion that economic allegiance to a source country is greater than that to a residence country.[88]

Herbert Dorn also supported the assertion that the source country should enjoy primacy of taxation under the principle of economic allegiance, adding that the pragmatic aspects of a source country's ability to control, determine and enforce taxation were important additional factors that support this assertion.[89] Arthur Harding similarly argued for source-based taxation on the ground that economic production resulted not just from individuals, but from their interaction with and contribution from the source country.[90]

cannot be of theoretical value nor of any practical use. The *ceteris paribus* reservation cannot help here, for in this particular comparison *ceteri* are practically never *pares*."

81. Id. at 26: "'Classical' literature on international income taxation ... implicitly presumed that between states only factor costs and taxes were different. It is evident that this is far from reality ... not only those costs which are attributable to the individual contract (or product) must be considered, but general costs of transactions incurred by running the individual enterprise or by making the investment overheads must be accounted for, too. It is practically the total legal environment that determines transaction costs."

82. Id. at 27: "[The residence] state has no influence whatsoever on transaction costs and on other state-induced costs incurred by the foreign investment."

83. Prof. Vogel noted, however, that in order for a source-country tax system to be truly neutral, both taxation and the aggregate of state-induced costs and benefits must fall equally on investments by residents and foreigners. Id. at 28.

84. Tax rates had risen to match rising government expenditures and income tax systems were more widely adopted. Moreover, amendments to the constitutions of countries, including the United States, provided for income taxes to be levied on the worldwide income of a country's citizens. In addition, the post-war operation of several successor governments in areas that had previously been subject to a single authority (e.g. trading operations) became cross-frontier in character. In light of these developments, it became necessary to find a way to overcome international double taxation.

85. Forst, supra note 45, at 1455. Economic allegiance was preferred over political allegiance or citizenship because of the prevailing belief that in modern times – when capital and individuals are mobile – persons often have few, if any, ties to their home country. By contrast, it was thought that the country in which a person had an economic interest has the greatest right to tax income.

86. This was the case in particular because the place where the income of a business originated coincided with the location of the head office and the jurisdiction in which business rights were enforceable.

87. See note 86, supra. This broadly corresponded with the prevailing international tax regime, where business profits are predominantly allocated to the source country and passive income (e.g. dividends and interest) is allocated to the residence country (although double taxation treaties frequently reduce or eliminate the rates of source-country withholding taxes).

88. Vogel, Part I, supra note 70, at 219: "The state of residence to which the taxpayer is connected ... should get its share, but it should get less than the source state where income is produced .... Three-fourths of the income in question should be taxed in the state of source, and one-fourth in the state of residence."

89. Id, at 220.

90. Id. at 221: "It appears that the State may tax all property, goods, labor, services and the like, which have become identified with the economic structure of the State, by incorporation into or integration with the business mechanism so defined ... the right to tax then depends upon the fact that the economic wealth is being used in the coordinated economic task of the social group; that it is producing utility or wealth or service in connection with, as a part of, and because of the economic solidarity of the social group."

Therefore, an analysis based on economic allegiance supports taxation in the source country. Basing economic allegiance on where activities occur makes sense when world trade is physical – when international trade consists principally of the physical shipment of tangible goods or the physical movement of persons to perform services at different locations; in this case, the source country corresponds to the place where the operations or activities giving rise to profits occur. Today, however, world trade is less tangible as no physical presence in the source country is needed to derive income. It can therefore be argued that economic allegiance is no longer a valid principle to support the argument that income should be taxed in the source country. In an electronic commerce environment, the more stable basis for determining taxing rights may be to look to the location of the individuals who make decisions or generate activities that give rise to profits, though this location is more likely to coincide with residence countries than source countries.[91]

Hence, while arguments based on economic allegiance may strongly support source-based taxation in a traditional context, the declining relevance of economic allegiance in an electronic commerce context arguably militates against adopting a source-based tax system.

3.3.3. Equity considerations

Critics of residence-based taxation have argued that such taxation may be unjust to a taxpayer who had to earn income in other countries, possibly under adverse conditions. Residence-based taxation may also be considered unjust as it disrupts the source country's tax policy decisions.[92]

Vendors who sell products in other countries may therefore argue that it is more equitable to be taxed in the source country at the same level as their competitors in that country, particularly if the level of taxation in the source country is lower than in the residence country. A foreign vendor who utilizes another country's facilities (public goods) should arguably not be taxed more than anyone else who, under the same circumstances, uses the facilities to the same extent. This reasoning supports the taxation of electronic commerce transactions in source countries.

Taxation in source countries is also justified since traditionally it is the source country that has provided most or all of the benefits relevant for production. At the same time, however, a certain integration of the seller's activities into the source country's economy has been necessary before the source country could tax the income from such activities. This has usually been satisfied by the existence of a permanent establishment. As electronic commerce allows vendors to sell products to consumers in a source country without such integration or a physical presence there, it calls into question the taxing rights of a source country with respect to the income arising from electronic commerce transactions. Prof. Vogel argued, however, that even if such integration has not occurred, taxation in the source state must be considered:

> It cannot convincingly be denied that providing a market contributes to the sales income at least to some extent as providing the goods does. There is no valid objection, therefore, against a claim of the sales state to tax part of the sales income.[93]

On this basis, source countries can assert their right to tax the income derived from sales to their residents, as this income would not have been derived but for the market provided by the source country.[94]

3.3.4. Benefit theory

It can be argued that taxes are the price paid for all state services by all taxpayers collectively and that countries can therefore assert their right to tax based on the services (benefits) provided. Schanz showed that both the residence and source countries could assert a claim to tax on this basis, but in his view, the source country's claim was greater than that of the residence country.[95] In this context, Prof. Vogel argued that, as it is usually the source country that has provided most or all of the benefits relevant for the production of income and therefore incurred the costs of providing these benefits, exclusive taxation should occur in the source country as compensation to the government bearing these costs.[96]

In an electronic commerce setting, it is arguable whether source countries provide most or all of the benefits relevant for the production of income. From an economic perspective, the only contributions of a source country are often the customer base and the telecommunications infrastructure to reach customers. It can therefore be argued that source countries should not have any taxing rights with respect to the income from electronic commerce transactions because all the income is created in the residence country, with limited interaction with the source country.

This conclusion can, however, be challenged on two grounds. First, Prof. Arvid Skaar has provided support

91. See e.g. Magney, Tom, "Some Aspects of Source of Income (In the Last Decade of the Twentieth Century)", paper presented at the 5th National Tax Retreat of the Taxation Institute of Australia, Queensland, 7-9 August 1997), at 46: "[B]ehind all initiatings, negotiations and other activities leading to the conclusion of a transaction there must be activities (including decision making) by individuals (ie human beings) and it is where these individuals are physically located when the relevant activities take place or decisions are made which is of prime importance in determining the source of income."
92. See e.g. Vogel, Part I, supra note 70, at 222, referring to the German legal experts, Hans Flick, Klaus Tipke, Arno Schulze-Brachmann and Horst-Walter Endriss, all of whom have defended this view.
93. Vogel, Part III, supra note 70, at 401.
94. This argument is especially strong in cases involving customized or made-to-order products because such products would not have been made without the market provided.
95. Vogel, Part I, supra note 70, at 219; and Vogel, Part III, supra note 70, at 395, noting that Schanz suggested that the source state should levy three fourths of the tax that it would ordinarily levy on residents and that the residence state should levy one fourth of the tax it would ordinarily levy on the domestic-source income of non-residents.
96. Vogel, Part III, supra note 70, at 398. Some of the benefits traditionally provided by source countries include "the provision of infrastructure or education, as well as more specific government policies such as keeping the exchange rate stable or interest rates low"; Avi-Yonah, supra note 7, at 520.

for the view that, even if a business does not have a permanent establishment in the source country, it benefits substantially from the source country's infrastructure and should therefore make a contribution to the source country. According to him:

> The circumstance that short-term business operations may accumulate substantial profits from domestic sources indicates on the contrary that the taxpayer benefits substantially from the infrastructure of the host country, even though no PE exists. It seems that an enterprise which does not need to invest in immovable facilities, or other fixed places of business, may still derive considerable advantages from the community in which its income sources are located. Today, the performance of a business activity in another country, the duration of the activity and the profits arising from it, are per se significant arguments ... [that] requires all enterprises which obtain such benefits from a country to render a corresponding contribution to this society, whether or not they have a PE.[97]

Second, although residence-country companies might claim that, because they have no physical presence in the source country, they derive no benefits from any effective representation in the political process, source countries provide significant benefits to companies that carry on business activities within them. These companies benefit from the source country's legal system inasmuch as they rely on it to enforce payment for transactions, to uphold intellectual property rights (e.g. trademarks) and to maintain a stable and competitive business environment.[98] The costs of providing all of these benefits further justify the right of source countries to impose tax as compensation for providing these benefits.

3.3.5. Desire of source countries to tax foreigners

In his writings on the work of the League of Nations, Mitchell Carroll observed that taxation based on the source principle is widely applied, reflecting the desire of governments (particularly in developing countries) to tax foreigners.[99] Prof. Vogel similarly observed that "no country which levies an income tax forgoes taxing domestic source income, irrespective of who has derived it".[100] As source countries typically have the first opportunity to collect tax on payments derived from within their borders, it is, as a practical matter, difficult to prevent them from taxing the payments.[101] Therefore, even if exclusive residence-based taxation is preferred, it is unlikely to be followed in practice, especially in the case of business income derived from large markets, where the presence of substantial assets and/or intermediaries of businesses has made source taxation enforceable.

In an electronic commerce environment, it can be expected that source countries will also seek to tax the payments made with respect to transactions arising within their borders. Applying source-based taxation in an electronic commerce context may be more difficult than in a traditional setting due to the reduced need for intermediaries and because businesses do not need to maintain a substantial physical presence (and therefore assets) in customer markets. While these factors will make the practical enforcement of source taxation difficult, it is argued that source countries will nevertheless persist in trying to tax these transactions, perhaps by using intermediaries such as payment providers or Internet service providers (ISPs) as the collection agents.

3.4. Arguments against an exclusive source-based tax system

3.4.1. Revenue-sharing between source and residence countries

In his writings regarding the League of Nations, Carroll opined that, as less developed countries became more industrialized, moves away from source-based tax principles towards residence-based tax approaches could occur.[102] He also cautioned, however, that source-based tax principles could not be applied where countries were not economically balanced and in the case "of countries whose relations were distinctly those of debtor and creditor".[103] With respect to electronic commerce, as only a few developed countries (chiefly the United States) presently dominate the export of goods and services provided electronically, adopting an exclusive residence-based tax system would benefit primarily these countries to the detriment of countries that import such goods and services.

If source countries are not given the opportunity to tax the income arising from electronic commerce transactions, this would create an imbalance between countries that are net exporters of goods and services provided

97. Skaar, Arvid A., *Permanent Establishment: Erosion of a Tax Treaty Principle* (1991), at 559.
98. Other benefits provided by the source country include waste disposal facilities for packaging materials, consumer protection laws, and an infrastructure on which delivery vehicles can travel (in the case of physically delivered electronic commerce products).
99. Carroll, Mitchell B., *Prevention of International Double Taxation and Fiscal Evasion* (1939), at 17: "Governments are dominated by the desire to tax the foreigner, or in other words ... taxes based on the idea of origin are ... still very widely applied....". See also Forst, supra note 45, at 1455, citing the League of Nations: "A survey of the whole field of recent taxation shows how completely the Governments are dominated by the desire to tax the foreigner. It seems to be clearly instinctive that in laying down general principles to treat 'origin' as of first importance and 'residence' as of secondary importance."
100. Vogel, Part I, supra note 70, at 217.
101. Graetz, Michael J. and Michael M. O'Hear, "The 'Original Intent' of US International Taxation", 46 *Duke Law Journal* 1021 (1997), at 1037, quoting Adams, Thomas S., "Interstate and International Double Taxation", 22 *National Tax Association Proceedings* 193 (1929), at 197: "Every state insists upon taxing the non-resident alien who derives income from source [sic] within that country, and rightly so, at least inevitably so."
102. Carroll, supra note 99, at 15: "[T]he possibility of a development away from earlier stages of economic thought typified by a strict adherence to the principles of origin ... [may become possible] ... as semi-developed countries become more industrialised, [and] with the resulting attenuation of the distinctions between debtor and creditor countries, the principles of personal faculty at the place of personal residence will become more widely understood and appreciated, and the disparity between the two principles will become less obvious ...."
103. Id. at 17. See also Forst, supra note 45, at 1455, noting the observations of a committee appointed by the League of Nations that "international agreement on residence-based taxation is difficult because residence-based taxation creates an imbalance between wealthier, capital exporting countries and poorer, capital importing countries. Under a residence-based taxing regime, the treasuries of the capital exporting countries grow richer as their residents make and earn income from foreign investments. On the other hand, the treasuries of capital importing countries remain poor since these countries cannot collect tax revenue from foreign investment". The decision of India's Authority for Advance Rulings (see note 39, supra) clearly demonstrates that source countries will act to preserve their tax base if they perceive that it is being eroded.

electronically and countries that are net importers of such goods and services. This result would unfairly favour developed countries (which are currently more likely to export such goods and services) over developing countries, an outcome that would be not be acceptable to source countries because it fails to share the tax base between source and residence countries.[104] Moreover, to the extent source countries perceive that they are not properly able to share in the tax base generated by electronic commerce, they can be expected to resort to unilateral or creative measures to tax electronic commerce transactions.

3.4.2. Appropriate threshold for source taxation of electronic commerce

A major obstacle to adopting a source-based tax system to accommodate electronic commerce transactions is that electronic commerce makes it possible for a business to sell goods and services to persons in source countries without a physical presence there. In these circumstances, source countries are not able to tax foreign businesses under the currently accepted international tax principles, including the permanent establishment standard, as the physical presence requirements inherent in this standard are not satisfied by foreign businesses that sell goods and services electronically to persons in source countries.

The volume of trade occurring through the physical shipment of tangible goods or the physical movement of persons to perform services at different locations is decreasing. Thus, if source-based taxation is to remain relevant, it will be necessary to find a new threshold that does not depend on an economic allegiance based on physical presence. There is support for this in the writings of Prof. Skaar, who observed that the permanent establishment threshold has lost its force for new and mobile industries, further noting that "an enterprise's connection to the soil is no longer a reliable evidence of economic allegiance".[105] Therefore, if source-based taxation is to be adopted to accommodate electronic commerce transactions, for both substantive and practical reasons, a new threshold not related to physical presence will be needed on which to base the taxing rights of source countries.

3.4.3. Collection and enforcement problems

Even if a source-based tax system were implemented for electronic commerce transactions, it would be difficult to collect and enforce source taxes because businesses could operate without a physical presence or assets in the source country.

Prof. Vogel posited that, in a traditional context, the source-based rule in Art. 17 of the OECD Model is likely to be more effective (and therefore more accurate) than a residence-based approach in view of the potential difficulties faced by a residence country in ascertaining and taxing the income of artistes and sportsmen earned in other countries.[106] This rule is an effective solution in a traditional context as artistes and sportsmen usually act through intermediaries (such as promoters or agents) who operate as tax withholding agents. But seeking to apply the rule in an electronic commerce context is problematic because electronic commerce does not rely on businesses maintaining a physical presence or other representation in the source country which could operate as a tax withholding agent or as security for a tax liability. Further, to the extent electronic commerce facilitates trade without the need for human intermediaries, residence countries enjoy a primacy of taxing rights as goods and services sold electronically increasingly become available from foreign jurisdictions.[107]

3.4.4. Characterization of income

Adding to the difficulties of implementing a source-based tax system for electronic commerce transactions are the difficulties of characterizing income as either business profits or royalties. As this issue is beyond the scope of this article, it is not analysed in detail, except to briefly restate the problem created by electronic commerce. Under the OECD Model, the classification of income as either royalties or business profits is not particularly important because the result is that the payment is taxable in the source country only if the income is attributable to a permanent establishment there; otherwise, the income is taxable only in the residence country. However, many OECD countries assert source-country (withholding) taxing rights under Art. 12 of the OECD Model; thus, for these countries, the distinction between royalties and business profits is significant. The income from most electronic commerce transactions (involving both software and other digital products) is classified as business profits rather than royalties, meaning that the source country may not levy a withholding tax on the income. This outcome further detracts from implementing a source-based tax system for electronic commerce transactions.

3.4.5. Disagreements regarding source

To effectively implement a source-based tax system, there needs to be an international consensus regarding

104. It is probable that source countries would be unlikely to accept this outcome and that they will act unilaterally to preserve their tax base if they perceive that it is being eroded; this was demonstrated by the decision of India's Authority for Advance Rulings (see note 39, supra).
105. Skaar, supra note 97, at 573.
106. Vogel, supra note 13, at 971.
107. For example, purchasing books or airline tickets on a web site rather than from a local bookseller or travel agent means that the intermediary (middleman) is eliminated, resulting in a loss of revenue for the source country. The problem manifests itself particularly in high-value digital products, such as software, that can be provided by large software companies over the Internet. These sales may be effected by the head office (e.g. in the US) and are not attributable to a permanent establishment in the residence country of the customer who buys the software. There may be strong incentives to adopt such a business model not only for cost reasons but also for tax reasons. For example, a US software company may be motivated to adopt this model in relation to sales to European customers who live in countries that have higher tax rates than the US. In these cases, by not being taxed in the European (source) countries, the US company avoids any excess credit provision that may arise where the foreign tax rates exceed the US tax rates; see US Internal Revenue Code Sec. 904, according to which an excess credit position arises where the foreign income tax paid exceeds the allowable foreign tax credit under Sec. 904.

the determination of the source of income for electronic commerce transactions. If a consensus cannot be reached, the prospect of double taxation increases.[108]

In addition, to successfully implement a source-based tax system for electronic commerce transactions, it will be necessary to reach an international agreement on how to apportion income among jurisdictions which legitimately claim that the income is sourced in their jurisdiction. Double taxation could result if two countries both view themselves as the source country with respect to the same income, and an effective mechanism to allocate taxing rights between competing claims will need to be in place to ensure that income is subject to tax in only one jurisdiction. Reaching a consensus on the proper source of electronic commerce income will, however, not be an easy legal matter, and the ability to reach a consensus is further complicated by political considerations and competition between countries for taxing rights with respect to the income generated by electronic commerce.

3.5. Summary

The preceding discussion raises serious substantive and practical doubts as to whether a source-based tax system can successfully be implemented for electronic commerce transactions. At one extreme, source-based rules may simply not be viable in an electronic commerce environment. Even where these rules seem viable, other challenges emerge, such as the need to reach an international consensus on the source of electronic commerce income. Failure to reach a consensus may result in double taxation and also constitutes an impediment to international trade and the continued development of electronic commerce. Apart from the theoretical problems, practical concerns emerge with applying source rules in an electronic commerce context, including the difficulties with collecting and enforcing source-based taxes where the foreign vendor has no physical presence or other representation in the source country.

This analysis therefore suggests that it will be necessary either to consider new source rules or to revise the manner in which the existing rules are applied. For example, a new threshold that establishes economic allegiance by economic presence rather than physical presence may need to be considered in the context of applying the permanent establishment standard to electronic commerce transactions. But concerns will also arise with this approach as it may mean treating electronic commerce transactions differently from traditional transactions, thereby raising the possibility of violating the principle of neutrality.

4. Conclusion

This article has examined the possibility of adopting either an exclusive residence-based tax system or an exclusive source-based tax system as possible solutions for the taxation of electronic commerce transactions. While not as extreme as the polarized approaches of maintaining the existing principles or introducing a new tax (e.g. a tax on transmission or a "bit" tax), these approaches are nevertheless predicated upon and proceed from opposite philosophies. Both exclusive residence-based taxation and exclusive source-based taxation have strong theoretical justifications, but it does not seem that either approach can be implemented internationally. The inherently one-sided nature of each approach makes it unlikely that an international consensus will emerge on fundamental changes of this kind in the foreseeable future.

108. This article accepts that reaching such a consensus will not be easy.