I. INTRODUCTION

The continued globalisation of world economies and related developments in information and communications technologies has brought into sharper focus the question of whether maintaining 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, it is likely that attempts to resolve any problems will be made within the context of these principles. While traditionally most countries define their jurisdiction to tax by reference to both of these principles, this Paper explores whether in an increasingly globalised world, it is more appropriate that one principle yields completely to the other.

That is, this Paper explores whether either an exclusive residence or source-based taxation system will provide a viable (and perhaps simpler) solution to accommodate international transactions, many of which now occur electronically.

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1 Under which residents are generally taxed on their worldwide income (the residence principle) and non-residents are taxed on their domestic source income only (the source principle): see, eg, Robin Woellner et al, Australian Taxation Law (2001), 1343.

2 It is recognised that already under existing international tax rules, to avoid double taxation, one principle must necessarily yield to another. 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 Paper is concerned with whether either residence or source-based taxation yielding completely to the other provides a viable solution in an increasingly globalised world to accommodate electronic commerce transactions.
II. **EXCLUSIVE RESIDENCE-BASED TAXATION**

A. **Introduction**

The anticipated difficulties with continuing to apply source-based tax principles (including the permanent establishment concept) in an electronic commerce setting raises the possibility of whether adopting a system of exclusive residence-based taxation can overcome these difficulties. Under such a system, source countries would not have taxing jurisdiction over electronic commerce transactions, which would be taxed exclusively in the countries where enterprises that conduct such business are considered to be resident. While such an approach may appear at first glance 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 enterprises are resident, they may escape taxation altogether. The US Treasury has been a prominent advocate of residence-based taxation and has at various 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 tax 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.

The US Treasury has also contended that moves toward 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 source principles come under pressure and lose their significance. According to the US Treasury, this trend

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3 These difficulties include problems in 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.

4 In many senses, 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 only taxed in the country of source 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 should adopt either the residence or source principle exclusively.


6 The US Treasury Report cites the examples of the adoption of residence-based rules for sales of non-inventory property and similar rules in the case of space and ocean activities in support of their 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’: Ibid [7.1.5]. Earlier examples of the preference of the US Treasury for a residence-based system of tax can also be found in the literature: see, eg, David Bradford and the US Treasury Tax Policy Staff, *Blueprints for Basic Tax*
will be accelerated by developments in electronic commerce. However, to others, the trend toward residence-based tax 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. Rather, if an exclusive residence-based 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 current arrangements. This analysis will be presently undertaken.

B. Implementation

In considering the feasibility of adopting an exclusive residence-based tax system, consideration must first be given to how such a system 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, income from electronic commerce activities could be carved out from Articles 5 and 7 of the Organisation for Economic Co-operation and Development Model Tax Treaty (‘OECD MC’) and the right to tax such income could then be allocated to countries in which enterprises that conduct such activities are resident.

Such an approach could be implemented in three alternate ways. First, a modification to the business profits rule in Article 7 of the OECD MC could be introduced which specifies that in the case of electronic commerce transactions, such income shall only be taxed in the country in which an enterprise is resident. Alternatively, a second way of introducing an exclusive-residence based system for electronic commerce transactions might be to include electronic commerce transactions in the so-called ‘negative list’ in Article 5(4) of the OECD MC, thereby excluding the income arising from such transactions from the definition of a permanent establishment. Finally, a separate Article could be included in the OECD MC, which would deal specifically with profits arising from electronic commerce transactions that would allocate such profits exclusively to residence countries. Such an Article could be modelled on

Reform (1977) 89 (advocating that the United States seek, as a long-term objective, a worldwide system of residence-based taxation); US Treasury, The President’s Tax Proposals to the Congress for Fairness, Growth and Simplicity (1985) 383.

The analysis of the US Treasury in this respect may, however, be challenged, as the examples used to support their assertion (sales of non-inventory property and space and ocean activities) are arguably a misleading parallel to electronic commerce transactions. See, eg, Reuven S Avi-Yonah, ‘International Taxation of Electronic Commerce’ (1997) 52 Tax Law Review 507 (‘the 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 traditional source rules to electronic commerce transactions more problematic than in a traditional context.

Article 8 of the OECD MC, which deals with shipping or air transport profits. This Article allocates such profits to countries where the effective management of the enterprise exists. In a similar way, a new provision for electronic commerce transactions could allocate profits arising from these transactions to the place of effective management of the enterprise generating the profits.

Of these three alternatives, it is suggested that the last alternative may be the most workable approach, as it would separately deal with electronic commerce transactions and therefore avoid any ambiguity of alternative approaches. Also, such an approach would treat electronic commerce transactions consistently with how other activities which are taxed on a residence-basis are treated under the OECD MC. Finally, credible analogies between electronic commerce transactions and air or shipping profits may be drawn, which provides further support for adopting a separate Article, similar to Article 8 of the OECD MC, to deal with electronic commerce transactions. These analogies are analysed in the next part of the Paper.

C. An Analogous Provision - Article 8 of the OECD MC and the Avoidance of Double Tax

There is a long history of shipping profits being exempted from source-state taxation, and a more recent history in the case of air navigation profits being similarly exempted. Both of these exemptions are now contained in Article 8 of the OECD MC, which allocates taxing authority in relation to shipping or air transport profits exclusively to the country in which the place of effective management of the enterprise is situated.

This rule recognises that given the itinerant nature of shipping and air transport, it is likely that such profits could be subject to taxation by more than one country in the absence of a bright-line rule which allocates the right to tax such profits to either source or residence countries. Moreover, international shipping and air transport

9 Including, in this context, Article 8 (shipping and air transport) and Article 17 (artistes and sportspersons) of the OECD MC.

10 Edwin R Seligman, Double Taxation and International Fiscal Cooperation (1928) 52 (noting that the profits of foreign ships were exempted from source country tax by the Netherlands as early as 1819); Ibid (observing that shipping profits were exempted from source-country taxation under the first shipping treaty between France and Belgium in 1843), both cited in Richard Doernberg and Luc Hinnekens, Electronic Commerce and International Taxation (1999) 303.


12 Doernberg and Hinnekens, above n 10, 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.’).
operations are typically spread out over many countries in which permanent establishments may be established to accommodate the various aspects of such business operations. In this context, Professor Vogel notes that taxation under the permanent establishment principle would result in problems of how to attribute a proper share of profits made by the enterprise to each of its permanent establishments.\textsuperscript{13} To overcome these problems, Article 8 of the OECD MC exclusively allocates the taxation of profits from shipping and air transport to the place where the effective management of the enterprise is located and exempts such profits from tax in countries where the activities are exercised, even if a permanent establishment is maintained in those countries.

Similar to shipping or 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 creation of Article 8 of the OECD MC. Because conflicting claims may give rise to double taxation, a rule similar to Article 8 could be introduced which could allocate exclusive taxing authority for income which arises from electronic commerce transactions to residence countries. By allocating taxing authority in this way, the potential for multiple claims over taxing the same income would be avoided and therefore the likelihood of double tax arising would be greatly reduced.\textsuperscript{14}

Therefore, one of the major reasons (and advantages) of implementing an exclusive residence-based taxation is that it would assist in avoiding double taxation that could arise out of multiple claims to tax income arising from electronic commerce transactions. The next part of the Paper will examine other advantages that may be associated with moving to an exclusive residence-based tax system for electronic commerce transactions, before analysing the disadvantages of such an approach.

D. Advantage of Adopting an Exclusive Residence-Based Tax System

1. Permanent Establishment Standard May Be Disregarded

If an exclusive residence-based system were to be adopted for electronic commerce transactions, then taxation authorities would not need to determine whether a permanent establishment existed in the country of source for income arising from these transactions. This is because such a system would allocate the profits that arise

\textsuperscript{13} Klaus Vogel, \textit{Klaus Vogel on Double Taxation Conventions} (3\textsuperscript{rd} ed, 1997) 482 (also observing that ‘[a] further consequence of attributing shares in profits to the various permanent establishments would be fragmented taxation.’).

\textsuperscript{14} Apart from the US Treasury advocating a system of exclusive residence-based taxation, the literature reveals support from other commentators who have also expressed support for 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, eg, Ine Lejeune \textit{et al}, ‘Does Cyber-Commerce Necessitate a Revision of International Tax Concepts? - Part 2’ (1998) 38(2) \textit{European Taxation} 50, 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.’).
from electronic commerce transactions on the basis of the residence of enterprises, rather than where the activities take place.\textsuperscript{15} By exempting profits from countries where the activities arise (ie, source countries), the need to determine whether a permanent establishment exists would be removed in the case of electronic commerce transactions. This would be a desirable outcome as it avoids the difficult issue of determining whether and where a permanent establishment exists for electronic commerce transactions.\textsuperscript{16}

2. Certainty and Simplicity

The determination of residence (at least in the case of individuals) is relatively easy and may be determined in accordance with ‘bright-line rules.’\textsuperscript{17} However, while the determination of individuals may be a relatively easy matter as individuals can only be in one place at a given time, determining corporate residence is not always an easy matter and different approaches may be used by countries to determine corporate residence. For example, some countries define corporate residence according to the country of incorporation (eg, the United States), while other countries define corporate residency according to other tests (eg, place of central management and control).\textsuperscript{18} Further, as multinational enterprises (‘MNEs’) operate in many places at a given time, determining the residence of any particular corporation at a particular time becomes a difficult issue.\textsuperscript{19}

Nevertheless, it is arguable that determining the residence of individuals and corporations in an electronic commerce setting will be an easier task than the alternative of having to determine the source of income in electronic commerce\textsuperscript{20} and

\textsuperscript{15} It was seen earlier in this Paper that similar considerations led to the adoption of Article 8 of the OECD, which adopts a residence-based rule for shipping and air transport profits.

\textsuperscript{16} These difficulties are beyond the scope of this Paper and will therefore not be detailed here.

\textsuperscript{17} Reuven S Avi-Yonah, ‘The Structure of International Taxation: A Proposal for Simplification’ (1996) 74 Texas Law Review 1301, 1311 (referring to the Internal Revenue Code (US) s 7701 (b)(3)(A) as an example of a bright-line rule for determining residency. This rule utilises a ‘substantial presence test’ by counting the number of days an individual is present in the United States). Similar rules exist in other jurisdictions: see, eg, the 183-day rule for individual taxpayers under Australian residency rules: paragraph (a) of the definition of ‘resident’ in section 6 of the Income Tax Assessment Act 1936 (Cth). In this respect, the US Treasury has 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.’: see US Treasury Report, above n 5, [7.1.5].


\textsuperscript{19} See Avi-Yonah, above n 17, 1313 (arguing that in the case of multinational enterprises, residence-based tax should not be adopted because of the difficulty in determining the residence of such corporations as well as the complex task of imputing earnings to shareholders).

\textsuperscript{20} See, eg, Hugh J Ault and David F Bradford, ‘Taxing International Income: An Analysis of the US System and its Economic Premises’ in Assaf Razin and Joel Slemrod (eds), Taxation in the Global Economy (1990) 30-31 (referring to and describing the difficulties associated with identifying a geographical source of income). It is expected that the problems of determining the source of
this would therefore support the adoption of residence-based taxation over source-based taxation, at least in the electronic commerce context.

3. Ability to Pay and Progressivity
Professor Robert Green has argued that source-based taxation is incompatible with the ability to pay principle,\footnote{See Robert A Green, ‘The Future of Source-Based Taxation of Income of Multinational Enterprises’ (1993) 79 Cornell Law Review 18, 29 (arguing that source-based taxation fails the ability to pay principle).} which ‘is best measured by total income, comprehensively defined and determined without regard to source.’\footnote{Ibid (citing Joseph A Pechman, ‘The Future of the Income Tax’ (1990) American Economic Review 1, 6). Against this, it could be argued that failing to comply with the ability to pay principle, should not, of itself, mean that the country of residence should have sole taxing authority. Professor Avi-Yonah has argued in this respect that if one looks to economic allegiance, taxes should be owed to both residence and source countries. See Avi-Yonah, above n 17, 1311 (also citing David R Tillinghast, 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)).} Progressivity assumes that ‘ability to pay rises more than proportionally with income.’\footnote{Green, above n 21, 29.}

Because source-based taxation does not apply to a taxpayer’s worldwide income, it is arguable that it is inconsistent with the ability to pay principle. It is also arguable that the progressivity principle is breached because taxes levied by source countries are not based on total income. Also, in many cases, source taxes are levied on a gross basis, which can be distorting.\footnote{See, eg, OECD, ‘Electronic Commerce: The Challenges to Tax Authorities and Taxpayers’ (18 November 1997), available at <http://www.oecd.org/dsti/st/i/ec/act/TURKUDOC.HTM> [92] (‘OECD Turku Discussion Document’) (‘Curtiling 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.’); A Wiedow, ‘To Withhold or Not to Withhold’ (1994) European Taxation 294, cited in Doernberg and Hinnekens, above n 10, 305 (‘this 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.’).}

It can therefore be argued that the ability to pay principle is better served by residence taxation, because taxation under such an approach is calculated on the worldwide income of taxpayers, thereby better reflecting a taxpayer’s global ability to pay.\footnote{For a contrary position, see Nancy H Kaufman, ‘Fairness and the Taxation of International Income’ (1998) 29 Law & Policy of International Business 145, 155 (querying whether a worldwide tax base is necessary for the purposes of the ability to pay principle).} And though residence-based tax systems do not necessarily all have progressive rate
structures, they are considered less distorting than source-based approaches, especially in cases where gross-based taxes are adopted by source countries.

4. Efficiency and Capital Export Neutrality

Professor Richard Musgrave has been credited as being the first to distinguish between capital export and capital import neutrality. 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.’

Professor Vogel has 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.

The issue then becomes one of whether capital export neutrality is to be preferred over capital import neutrality. The literature generally shows a preference for capital export neutrality. If this preference is maintained, then it is arguable capital-export neutrality is best achieved by adopting a residence-based tax system. This is because such an approach would tax all investors at their residence country rate, irrespective of where such income was earned. With countries adopting varying rates of tax, this approach would accordingly serve the goal of capital-export neutrality best as the tax


28 Ibid.

29 See, eg, Charles McClure Jr, ‘Substituting Consumption-Based Direct Taxation for Income Taxes as the International Norm’ (1992) 45 National Tax Journal 145, 146-7, 153 (n 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); Vogel, above n 26, 311 (observing that Peggy Musgrave has argued for a priority of capital export over capital import neutrality: ‘it 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.’). Professor Vogel also refers to other commentators who have supported this view, including Richard Musgrave and Bernard Snoy, with Snoy stating that: ‘in a world where capital markets are perfect and where the 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.’: Ibid (citing Bernard Snoy, Taxes on Direct Investment Income in the EEC, A Legal and Economic Analysis (1975) 37); Ibid (noting that further support for capital export neutrality can be found in Sato and Bird, ‘International aspects of the Taxation of Corporations and Shareholders’ (1975) 22 IMF Staff Papers 408 (‘only capital-export neutrality accords with the objective of world efficiency’)).

30 It is has been argued that the capital-export neutrality versus the capital-import neutrality debate is less significant and relevant in a globalising economy: see, eg, Daniel J Frisch, ‘The Economics of International Tax Policy: Some Old and New Approaches’ (1990) 47 Tax Notes 581.
applicable to international income would equal the tax on domestic income in the capital-exporting country and therefore capital-export neutrality would result.

In terms of efficiency, McLure argues that if all nations implement a residence-based tax system, it would lead to the allocation of the world’s capital to its most productive use. Conversely, source-based taxation, he argues, would lead to an inefficient allocation of economic resources as it ‘discourages investment in high-tax jurisdictions and encourages investment in low-tax jurisdictions.’

Finally, though capital-export neutrality could be achieved under a source-based tax system through the use of a foreign tax credit, because most countries apply a restricted tax credit system, it would only be practically achievable to the extent that foreign rates of tax were less than domestic rates.

5. Political Accountability, Redistribution of Income and Equity Considerations

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

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32 Ibid.

33 Many countries, including the United States, operate a restricted foreign tax credit system. This is for many reasons including the concern that to grant a full credit for taxes paid in other countries where foreign rates exceed domestic rates may operate as a subsidy arrangement for one country. However, by operating under a restricted foreign tax credit system, pure capital-export neutrality cannot be achieved.

34 See generally, Avi-Yonah, above n 17, 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 – that is, the preference that democratic legislatures have for raising taxes on foreigners because they cannot vote: Ibid.

E. Disadvantages of Adopting an Exclusive Residence-Based Tax System

1. Reliance and Emphasis on the Definition of Residence

Moving to a system of exclusive residence-based taxation self-evidently places a great reliance and emphasis on the definition of residence. It was noted earlier that in the case of individuals, it should be possible to establish bright-line rules to determine residency. However, to implement a system of full residence-based tax, it will be necessary to determine the residence of corporations.\(^{36}\) The varying definitions adopted by countries to determine corporate residence combined with the difficulties of adopting bright-line rules to determine corporate residence (especially in the case of MNEs), both represent impediments to adopting an exclusive residence-based system in a corporate context. Also, 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 adopt other tests, such as the place of central management and control test, or the place of effective management test,\(^ {37}\) face challenges in applying these 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 a decentralisation of management functions to occur.

In light of these difficulties, a review of the current residence definitions and tax rules will be necessary to determine whether an internationally acceptable and rigorous test of residence may be adopted to enable an exclusive residence-based system to operate effectively.\(^ {38}\) If international consensus can be reached as to the adoption of a uniform residence rule, then these impediments may be removed. However, if such

\(^{36}\) As an alternative to determining corporate residence, Professor Robert Green has advocated that the earnings of publicly traded MNEs could be imputed to their shareholders: see Green, above n 21, 70-74. However, determining the residence of corporations is more difficult than determining the residence for individuals and the imputing of earnings to shareholders will be a difficult task: see, eg, Avi-Yonah, above n 7, 526 (‘it 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 Article 4(3) of the OECD MC, which uses the place of effective management as a tie-breaker rule in cases of dual-residency of non-individual taxpayers.

\(^{38}\) See, eg, US Treasury Report, above n 5, [7.1.5] (suggesting the possible ascendancy of residence-based taxation but noting that ‘a review of current residency definitions and taxation rules may be appropriate.’). In February 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 <http://www.oecd.org/daf/fa/e_com/ec_4_POEM_Eng.pdf> (‘OECD Residence Report’).
consensus cannot be reached, then the likelihood of moving to an exclusive residence-based system would be greatly diminished.


An exclusive residence-based tax system avoids the uncertainties of determining where income arises, as well as avoiding the risk of divergent approaches being taken by countries which may give rise to double taxation, as it minimises the opportunities for conflicting claims between residence and source countries. Despite this, however, such a rule would represent a fundamental shift of taxing authority, which may jeopardise the current allocation of tax revenues and revenue-sharing that exists between source and residence countries. Many countries would not regard this as being an equitable outcome and it is therefore unlikely to receive international support. Further, if such an approach were to be adopted, many countries may resort to unilateral measures to preserve their tax bases, which may lead to double taxation.  

Even in a traditional context, countries face conflicting objectives in deciding whether to apply residence or source-based taxation, and therefore an inherent tension between countries that are capital-exporters and capital-importers exists. Capital-exporting countries tend to prefer adopting tax systems based on residence, while capital-importing countries tend to focus on source-country taxing rights, which reflects their contribution to the income-earning process in taking capital and employing it in some productive capacity. Under 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 through the application of the residence and source principles, as well as through tax treaty concepts such as the permanent establishment threshold. The application of these rules represents a compromise between competing interests and it achieves a sharing of tax revenues between capital-exporting and capital-importing countries.

Adopting an exclusive residence-based system would invariably favour countries that are net exporters of electronic commerce goods and services. If the level of trade and flows of income between capital-exporting and capital-importing countries is relatively even, the consequences of such an approach would be minimal as each

39 The decision of the Indian Authority for Advance Rulings is a striking example of the double taxation possibilities which could arise by countries adopting unilateral measures to preserve their taxing authority. This Ruling suggests that if source countries perceive that they are not sharing in the tax base which is generated by electronic commerce, they may adopt creative measures to tax payments that they believe may erode their tax base: Richard L Doernberg, ‘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 Charles M McLure Jr, above n 31, 325-6 (‘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.’).
country could recover any lost revenue from its own resident taxpayers.\textsuperscript{41} Currently, capital-exporting countries are mainly developed countries, while capital-importing countries are more often than not developing countries.\textsuperscript{42} Flows of income between developed countries tend to be more or less balanced, while the flows of income between developed and developing countries tend to be unbalanced in favour of developed countries.\textsuperscript{43} On this basis, moving to a residence-based tax system should have a minimal tax impact as between developed countries,\textsuperscript{44} however, such a move could impact substantially on the division of tax revenues between developed and developing countries.\textsuperscript{45}

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

\textsuperscript{41} OECD Turku Discussion Document, above n 24, [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.’).

\textsuperscript{42} See Tsilly Dagan, ‘The Tax Treaties Myth’ (2000) 32 International Law and Politics 939, 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.’); Mitchell, above n 18, 227 (observing that developed countries tend to generally be net exporters of capital, goods and services, while developing countries tend to be net importers of capital, goods and services); See also, Sweet, above n 8, 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 the Paper are in the context of the prevailing situation in the economy.

\textsuperscript{43} See Jeffrey Owens, ‘The Tax Man Cometh to Cyberspace’ (1997) 14 Tax Notes International 1833 (observing that in the case of developed countries flows of income between these countries tends to be balanced). For the position of developed countries, see also, Maiko Miyake and Magdolna Sass, ‘Recent Trends in Foreign Direct Investment’ (2000) 76 Financial Market Trends, 23, 24 (a review which indicates that of the 29 OECD member countries in existence at the time of this study (1999), 13 member countries had net direct investment inflows. These countries are Australia, Austria, Canada, Czech Republic, Hungary, Iceland, Italy, Korea, Norway, Poland, Sweden, Turkey and the United States).

\textsuperscript{44} Dagan, above n 42, 990 (n 111) (‘The OECD [MC 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.’); McLure, above n 31, 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.’).

\textsuperscript{45} See Dagan, above n 42, 990 (n 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, above n 17, 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’); David L Forst, ‘The Continuing Vitality of Source-Based Taxation in the Electronic Age’ (1997) 15 Tax Notes International 1455, 1472 (‘under 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’).
electronic commerce goods and services. These countries would be the greatest beneficiaries of a system of exclusive residence-based taxation and perhaps this explains why such countries prefer residence-based taxation. However, the imbalance of revenue-sharing that would exist between source and residence countries if an exclusive residence-based approach was to be adopted, combined with the propensity of countries to tax non-residents, will make reaching an international consensus on this approach difficult to achieve. While net exporters of electronic commerce goods and services will try to strengthen residence rules, net importers will, one way or another, claim what they perceive to be their share of income arising from electronic commerce transactions. This may ultimately lead to double taxation as both source and residence countries try to preserve their tax bases.

3. The Risk of Capital Flight
If an exclusive residence-based system of taxation was to be 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. This is because the adoption of residence-based taxation would increase the risk of capital flight to low-tax jurisdictions. Capital flight describes a situation where resident taxpayers decide to invest abroad rather than domestically because of the possibility for low (or nil) taxation in the offshore jurisdiction. If corporations establish themselves in tax-haven (or low-tax) countries with a view of carrying on their electronic commerce activities from those countries, then an effective system of residence-based taxation would need to be implemented by reference to anti-deferral rules, such as controlled foreign companies (‘CFC’) legislation. Theoretically this should provide a solution to the problem of capital flight, however, the existence of these rules is not universal, and even for countries which have adopted CFC rules, several problems will be encountered with trying to apply these rules in an electronic commerce context.

46 See, eg, OECD, The Economic and Social Impact of Electronic Commerce: Preliminary Findings and Research Agenda (1999) 34 (‘OECD Economic and Social Report’) (indicating that the US currently accounts for approximately 80% of the global total of electronic commerce); Forst, above n 45, 1472 (observing that the US accounts for about 90% of the world’s commercial web sites).

47 See Charles E McClure Jr, ‘Taxation of Electronic Commerce: Economic Objectives, Technological Constraints, and Tax Laws’ (1997) 52 Tax Law Review 269, 361-2 (‘[A] wholesale move to residence-based taxation would entail radical shifts in the international distribution of tax revenues, especially from [less developed countries] to developed countries. Many would not think this fair and it will not be popular in many countries.’).

48 See, eg, Avi-Yonah, above n 17, 1336 (‘even developed countries find it hard to effectively enforce residence-based taxation on the global income of individuals, especially from tax havens, and developing countries find this task impossible.’).

49 A 1996 OECD Report on Controlled Foreign Company (‘CFC’) Legislation showed that 14 OECD Member countries had CFC legislation: see OECD, Controlled Foreign Company Legislation, Studies in Foreign Source Income (1996). Korea and Mexico adopted CFC legislation in 1997, bringing the total number of countries with CFC rules to 16, and this number now appears to be closer to 21 countries, with more countries (eg, Venezuela) expected to enact CFC regimes: see Daniel Sandler, Tax Treaties and Controlled Foreign Company Legislation: Pushing the Boundaries (2nd ed, 1998); ‘Venezuela Moves Closer to Major Income Tax Reform’ (1999) Worldwide Tax Daily, 205-II.
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, as the effective application of CFC rules relies on being able to obtain the necessary information to enforce residence-based taxes, in an increasingly globalised world obtaining this information will become increasingly difficult to obtain, making the administration of residence-based regimes a very difficult practical matter.\[^50\] Moreover, enforcement problems may exist in an electronic commerce environment because it may be difficult to verify the identity of taxpayers to whom foreign income accrues and to ascertain the amount of such income.

Apart from administrative difficulties with seeking to apply CFC rules in an electronic commerce setting, there are substantive problems which are likely to be encountered when seeking to apply these rules.\[^51\] For example, many CFC regimes (eg, UK CFC legislation) contain an ‘exempt activities test’, which is satisfied if a business is established in a particular country, is managed and controlled from 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 territory would entail greater effort and expense.\[^52\] If such a business is established in a low-tax jurisdiction (such as Bermuda or Jersey), and if it is centrally controlled and managed there (which may be possible through use of e-

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\[^50\] It is outside the scope of the Paper to examine tax administration issues in detail, but for present purposes, difficulties in obtaining information could exist due to the encryption of electronic information, as well as the difficulty in locating and tracing information transmitted on electronic networks.

\[^51\] Apart from the difficult tax administration issues associated with enforcing CFC assessments, many commentators have expressed concerns that CFC measures will be easily circumvented in an electronic commerce setting: see, eg, John Morgan \textit{et al.}, ‘Don’t Be Afraid of the Internet’ (1997) \textit{International Tax Review} 19, 20 (‘companies 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.’). Michael Lambooij, ‘Rethinking Corporate Residence (Speech)’ (6 June 1997), available at <http://www.lo votax.nl/lo votax/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.’); Deloitte & Touche LLP and Information Technology Association of America (‘ITAA’), \textit{Taxation of Cyberspace} (2nd ed, 1998) 368 (noting that if controlled foreign companies 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, eg, Offshore Information Services, available at <http://www.offshore.com.ai/> (offering many services, including the establishment of virtual offshore presences in jurisdictions such as Anguilla).
mail and videoconferencing technologies as well as intranets), then the CFC rules may be circumvented while such a business would still be able to access world markets effectively from its electronic presence in the low-tax country. If CFC rules do not prove effective to combat capital flight, then an erosion of the worldwide tax base could result, which would be an undesirable outcome for all countries.\footnote{Other CFC regimes (eg, US Subpart F rules) are similarly challenged by electronic commerce. These regimes depend on how income is characterised. For example, if income is characterised as a royalty or licence, then channeling it through a foreign sales company located in a low-tax country would be ineffective due to Subpart F. However, as electronic commerce affords the ability for businesses to deal directly with consumers, income which previously may have been characterised as passive income (eg, royalties) may now be considered as active income (ie, business profits), which would not be subject to the Subpart F rules. See, eg, US Treasury, Office of Tax Policy, \textit{The Deferral of Income Earned Through US Controlled Foreign Corporations} (2000) (‘US CFC Report’) (recognising that electronic commerce threatens the effectiveness of CFC rules). See also Reuven S Avi-Yonah, ‘The US Treasury’s Subpart F Report: Plus Ça Change, Plus C’est la Même Chose?’ (2001) \textit{International Bureau of Fiscal Documentation} \textbf{18}.
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Given these present difficulties, there certainly exists an incentive for companies 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.\footnote{Jeffrey Owens, above n 43, 1833. See also, Jeffrey Owens, ‘Emerging Issues in Tax Reform: The Perspective of an International Bureaucrat’ (1997) \textit{15 Tax Notes International} 2035, 2042 (observing that the ‘most troubling problem for tax reformers today is the decreasing ability of individual governments to sustain taxes on capital income.’).} Prior to electronic commerce, access to foreign companies in low-tax jurisdictions was limited for most taxpayers.\footnote{Apart from the prohibitive costs with establishing an offshore company, the costs associated with transporting, insuring and storing tangible goods would only make such operations viable for MNEs.} Now, however, access to foreign companies and offshore banking facilities is more widely available to anyone via the Internet.\footnote{See, eg, Offshore Information Services, available at <http://www.offshore.com.ai/>, which offers a comprehensive service to establish a virtual offshore business presence.}

Many would argue that businesses will be unwilling to establish their business operations offshore from companies in such jurisdictions due to security, technological and financial constraints. This is not, however, a credible argument. Even before the advent of electronic commerce, businesses have been sensitive to establishing themselves in other countries in direct response to more favourable corporate laws,\footnote{Diane Ring uses 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 these 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} and especially in response to more favourable tax laws.\footnote{See, eg, Avi-Yonah, above n 7, 527 (referring to the massive shifting of formal residency of companies to New Jersey and then to Delaware as these jurisdictions adopted favourable corporate laws).} A good
example is the response of businesses to the taxation of shipping activities on a residence-basis. Professor Avi-Yonah has observed that most of the income in these cases is earned by ships that are registered in tax havens.

In an electronic commerce context, it has been reported by the Australian Taxation Office 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. As electronic commerce develops, these trends can only be expected to increase significantly and this is supported by recent commentary on the growth of business presences in low-tax jurisdictions.

In light of the above analysis, the risk of capital flight can be expected to increase in an electronic commerce environment under a system of exclusive residence-based taxation. If this occurs, then countries which have CFC regimes will need to place increased reliance on these measures to enforce residence-based taxation, however, if such rules prove ineffective, then an erosion of the worldwide tax base could occur. Therefore, any move toward a system of exclusive residence-based taxation would need to be preceded by a comprehensive review of CFC rules, to ensure that such

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59 This example is especially relevant to electronic commerce transactions as Article 8 of the OECD MC, which taxes air and shipping profits on a residence-basis, may provide an analogue for such a rule being adopted to accommodate electronic commerce transactions.

60 See Avi-Yonah, above n 17, 530 (citing Philip J Loree, ‘Shipping Federation Chairman Testifies on Competitiveness’ (1991) 91 Tax Notes International 39-26). 


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rules remain relevant in an electronic commerce context to guard against the risks of capital flight to low-tax jurisdictions.

F. Summary
While there are advantages of adopting an exclusive residence-based system, the disadvantages of adopting such a system that have been analysed in this Paper must be overcome in order for such a system to become a reality. Specifically, the risks of capital flight, combined with the potential unfairness to countries that are net importers of electronic commerce goods and services means that it is unlikely that many countries would support a pure residence-based approach and therefore the required international cooperation would not be present to enable the successful implementation of such a system. Also, the difficulties of adopting an internationally acceptable and rigorous definition of corporate residence represents a further obstacle to the adoption of an exclusive residence-based taxation system to accommodate 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.

III. EXCLUSIVE SOURCE-BASED TAXATION
A. Introduction
The source principle of taxation (sometimes referred to as the territorial approach or principle) entitles a country to tax income that originates within its borders. One explanation for the rationale of source-based taxation is that the source country should be entitled to tax income originating within its borders because it is the source country as the ‘place of income-generating activity’ rather than the country where the income-producer resides (ie, the residence country) that economically contributes to the production of income and 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. The merits and problems associated with adopting a residence-based taxation system were analysed earlier where it was observed that

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


65 See, eg, Forst, above n 45, 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.’).
electronic commerce presents many challenges to adopting a residence-based system of taxation. In light of these problems and despite claims that determining the source of income in an electronic commerce setting will be problematic, adopting a source-based taxation system may provide a viable solution to accommodate electronic commerce transactions and this part of the Paper is directed at analysing this proposition.

B. Implementation

An exclusive source-based taxation system which applies to electronic commerce transactions may be implemented in two main ways. First, a modification to the business profits rule in Article 7 of the OECD MC could be introduced which specifies that in the case of electronic commerce transactions, such income shall only be taxed in the country of source. In this way, such a system could be implemented within the existing tax treaty network and may be adopted on an international basis by countries that adopt the OECD MC in their treaty negotiations.

Alternatively, a second way of introducing a source-based tax regime for electronic commerce transactions would be through the introduction of a separate Article in the OECD MC, which would deal specifically with the profits arising from electronic commerce transactions by allocating them exclusively to source countries. Such an Article could be modelled on Article 17 of the OECD MC, which permits tax authorities in the country of source to levy taxes on the income derived by artistes and sportsmen in the country of source, despite the absence of any permanent establishment there. Despite there not being a permanent establishment in the source country, this rule ensures that source countries can levy taxes on the typically significant amounts of money that performers and artistes generate from performances within their jurisdiction. In a similar way, a new provision for electronic commerce transactions could allocate profits arising from these transactions to the customer’s country, despite the absence of any permanent establishment.

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 videoconferencing technologies, would be problematic in an electronic commerce context. See also, Avi-Yonah, above n 7, 14 (arguing that residence is meaningless for MNEs and therefore source-based taxation is more preferable than residence-based taxation); Australian Taxation Office, Electronic Commerce Project Team, Tax and the Internet - Volume 1 (1997) 62 (‘First Australian Report’) (arguing that residence-based approaches may not be an automatic solution for the problems created by electronic commerce as source and residence principles are equally at risk in an electronic commerce environment). Other problems with adopting a residence-based tax system were identified in detail earlier in the Paper and accordingly they will not be repeated here.

See eg, US Treasury Report, above n 5, [7.1.5] (‘In the world of cyberspace, it is often difficult, if not impossible, to apply traditional source concepts to link an item of income with a specific geographic location.’).

Article 17 of the OECD MC therefore operates as an exception to the rules in Article 7 of the OECD: see paragraph 1 of the Commentary to Article 17 of the OECD MC.
Professor Vogel has observed that one of the main reasons for the source-based rule in
Article 17 of the OECD MC 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 ‘their mobility and to the numerous different income-earning opportunities
available to them.’69 Also, the country of residence would be dependent on the
various source countries for information regarding income earned by the artiste or
sportsman. In a similar way, 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 based modelled on Article 17 of the OECD MC may respond
to some of the concerns associated with collecting tax from these transactions.

Article 17 of the OECD MC could therefore be used as an analogue for adopting an
exclusive source-based taxation system to accommodate electronic commerce
transactions. If a source-based system of taxation that was modelled on Article 17 of
the OECD could be introduced to accommodate electronic commerce transactions,
consideration needs to be given to the relative merits and problems of adopting such a
system and the remainder of this Paper will be directed to analysing the arguments for
and against the adoption of a source-based system of taxation.

C. Arguments in Favour of Adopting a Source-Based Tax Regime
In a traditional context, the prospect of adopting a system of taxation based
exclusively on the source principle has been comprehensively reviewed by Professor
Vogel.70 Professor Vogel has argued that considerations of efficiency and equity, as a
rule, support exclusive taxation by source countries.71 Some of these arguments
deserve further consideration in the context of electronic commerce transactions and
this will be presently undertaken.

1. Neutrality
Professor Vogel has 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 also in terms of transaction costs.

a. Capital Export Neutrality versus Capital Import Neutrality
Neutrality essentially requires that economic processes should not be affected by
external influences such as taxation. The concept of capital export neutrality and
economic efficiency was discussed earlier as an argument to advance the taxation on
the basis of residence. According to the argument, worldwide taxation coupled with a
foreign tax credit is thought to produce capital export neutrality, whereas exemption

69 Vogel, above n 13, 971.

70 Klaus Vogel, ‘Worldwide vs Source Taxation of Income - A Review and Re-evaluation of
Taxation of Income - A Review and Re-evaluation of Arguments (Part II)’ (1988) 10 Intertax 310
(‘Vogel - Part II’); Klaus Vogel, ‘Worldwide vs Source Taxation of Income - A Review and Re-
evaluation of Arguments (Part III)’ (1988) 11 Intertax 393 (‘Vogel - Part III’).

71 Vogel - Part III, above n 70, 401 (concluding that a general preference should be given to a territorial
system of taxation, both in terms of efficiency and equity considerations).
of 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 then becomes one of 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\textsuperscript{72}) that only capital export neutrality is consistent with economic efficiency, thereby implying a preference for residence-based taxation systems.\textsuperscript{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 put forward in 1983, put forward three arguments contrary to what has been argued in favour of capital export neutrality.\textsuperscript{74} First, if a residence system of taxation is employed where the rate of tax in the residence country is higher than the source country, then Gandenberger argues that a reduced after-tax profit would reduce the chance of an enterprise to finance new investment in the source country. This is because such an enterprise would have to anticipate a higher overall tax burden than its competitors in a lower taxed 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 country of source. This outcome would be contrary to capital export neutrality being achieved. Second, Gandenberger argues that the level of taxation in any country is likely to correspond to the level of public goods provided, so that a country providing less public goods will often have a lower tax rate than one providing more public goods. If this is true and if the country of source has a lower tax rate than the residence country, an enterprises decision whether to invest in the lower taxed country may be affected since it would receive less public goods in the lower taxed country than the country of residence, yet it would be subjected to the higher residence country’s tax rate.\textsuperscript{75} Finally, Gandenberger shows that contrary to what has been written in favour of capital export neutrality, source state taxation is adopted by many countries.

\textsuperscript{72} For references, see above n 29.

\textsuperscript{73} See, eg, Klaus Vogel, ‘Taxation of Cross-Border Income, Harmonization, and Tax Neutrality under European Law’ in Klaus Vogel (ed), \textit{Taxation of Cross-Border Income, Harmonization, and Tax Neutrality under European Law} (1994) 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.’).

\textsuperscript{74} See, Vogel - Part II, above n 70 (citing Otto Gandenberger, ‘Kapitalexportneutralität versus Kapitalimportneutralität. Allokative Überlegungen zu einer Grundfrage der internationalen Besteuerung. Aufsätze zur Wirtschaftspolitik’ (1983) Nr. 7. Mainz: Forschungsinstitut für Wirtschaftspolitik.). What follows on this point is adapted from this source.

\textsuperscript{75} In other words, an enterprise investing in a lower-taxed source country would be paying a premium to do so as it would receive less public goods in the country of source compared with those it would receive in its country of residence, yet it would still be subjected to a higher residence country rate of taxation.
particularly in cases of deferral. Based on these arguments, Gandenberger concluded that, contrary to prevailing economic theory, capital import neutrality should be preferred over capital export neutrality, implying taxation by source countries.

Other prominent economists, including Leif Mutén, have argued the advantages of source state taxation and the disadvantages of a residence-based tax system, particularly in the case of developing countries. Norman Ture has advanced the arguments by trying redefining neutrality as meaning ‘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.’ 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.’ From this, Ture argues that residence-based taxation distorts neutrality (as formulated by him), and therefore is inconsistent with economic efficiency. He further argues that only exclusive taxation by source countries and exemption by residence countries will yield a neutral outcome as it is only such a system that would leave the international flow of capital and commerce unaffected.

b. Transaction Costs
Professor Vogel argues that in considering whether residence or source taxation is to be preferred in terms of neutrality, a complete analysis should consider not only taxes, but should also consider other state-induced burdens and benefits. Most important among these additional burdens are transaction costs. If transaction costs are taken

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76 See also, Vogel - Part I, above n 70, 221 (pointing out that Latin America has traditionally emphasised source-based taxation in its income tax laws); Ibid 222 (further 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 gives the example of the International Fiscal Association, which in congresses held in 1961 and 1984, affirmed its support for source-based taxation).


78 See Vogel, above n 73, 24.

79 Ibid.

80 Ibid 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 cannot be of theoretical value not of any practical use. The ceteris paribus reservation cannot help here, for in this particular comparison ceteri are practically never pares.’).

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

c. Summary
Whether the distinction between capital export and capital import neutrality is accepted or rejected, in light of the above analysis, it is arguable 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 subjected to the same level of transaction costs as local enterprises in source countries. This would be consistent with the adoption of source-based taxation, and the reasons underlying this conclusion would be equally applicable to accommodate electronic commerce transactions.

2. Economic Allegiance
The problems that electronic commerce is expected to create is in many ways similar to the problems which existed between capital importing and capital exporting nations in the 1920s and which led to the development of the current international tax treaty system. Before the First World War I, an international consensus on how to divide international tax revenue did not exist and it was only by the time the First World War had ended, that the problem of the double taxation of income had become more pressing.

A compromise had to be found to balance the taxing rights of the jurisdiction where the enterprise was a resident (residence country) and the jurisdiction where the income arose (source country). Economic allegiance was chosen as the guiding principle – eventually leading to the concept of a ‘permanent establishment’. The

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82 Ibid 27 (‘[The residence] state has no influence whatsoever on transaction costs and on other state-induced costs incurred by the foreign investment.’).

83 Vogel notes, however, that in order for a source-tax system to be truly neutral, it is not taxation alone but the aggregate of state-induced costs and benefits which must fall on investments by residents and foreigners equally: Ibid 28.

84 Rates of taxation 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 applied to the worldwide income of its citizens. Also, the post-war operation of several successor governments within areas that had previously been subject to a single authority (e.g., trading operations), now became cross-frontier in character. In light of these developments, it became necessary to find a way to overcome international double taxation.
country of residence had an unlimited right to tax unless the enterprise had an economic allegiance in the source country, in which case, the source country could tax income attributable to such an allegiance. In determining economic allegiance, the location of a person’s true economic interests would need 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.’

Accepting that economic allegiance determines where income is taxed, it is also necessary to analyse whether the country of residence or source should have 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 primarily being allocated to source countries, while other types of income (e.g., dividends and interest) being assigned to the country of residence. Georg von Schanz, who Professor Vogel refers to as being 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 country of source receiving more than the country of residence because of Schanz’s assertion that economic allegiance to a source country would be greater than that to a residence country.

Herbert Dorn also supported the argument 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 which support this conclusion. Hardin similarly argued for source-based taxation on the basis that economic production resulted not just from individuals, but from their interaction and contribution from the country of source.

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85 See Forst, above n 45, 1455. Economic allegiance was preferred over political allegiance or citizenship because of the prevailing belief that in modern times - when capital and people are mobile - persons often have few, if any ties to their home country. By contrast, it was believed that those countries where a person had an economic interest have the greatest right to tax income.

86 This was especially the case since the place where the income of these businesses originated would coincide with the location of the head office and the jurisdiction in which business rights would be enforceable.

87 Ibid. This broadly corresponds with the prevailing international tax regime, where business profits are predominantly assigned to source countries, and passive income (e.g., dividends and interest) is allocated to the country of residence (though double tax treaties frequently reduce or eliminate rates of source-country withholding tax).

88 See, Vogel - Part I, above n 70, 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 Ibid 220.

90 Ibid (‘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
Therefore, an analysis based on economic allegiance supports taxation in the country of source. Basing economic allegiance on where activities occur makes sense when world trade is physical, since international trade principally consists of the physical shipment of tangible goods or the physical movement of persons to perform services at different locations and therefore the country of source would correspond to the place where the operations or activities giving rise to profits would occur. However, world trade is now less tangible, as no physical presence in the country of source is needed to earn income. It can therefore be argued that economic allegiance is no longer a valid principle to support an argument that income should be taxed in the country of source. 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 the adoption of source-based taxation systems.

3. Equity Considerations

Critics of residence-based taxation have argued that such an approach may be unjust to a taxpayer who may have 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 that sell products in other countries may therefore argue that it is more equitable to be taxed in the country of source at the same level as competitors in that country, particularly if this level of tax in the country of source is lower than in the state of residence. A foreign vendor who utilises the other country’s facilities (public goods) should arguably be taxed at no more than anyone else, who, under the same circumstances, uses these facilities to the same extent. This reasoning supports taxation of electronic commerce transactions by source countries.

Taxation by source countries is also justified since traditionally it is the country of source that has provided most or all of the benefits relevant for production. At the

91 See, eg, Tom Magney, ‘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) 46 (‘behind 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, eg, Vogel - Part I, above n 70, 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).
same time, however, a certain integration of the seller’s activities into the economy of the source country has been necessary before source countries could tax 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 source countries without such integration or physical presence in the source country it therefore calls into question the taxing right of a source country over income which arises from electronic commerce transactions. However, even if such integration has not occurred, Professor Vogel argues that taxation by the source state must be considered:

It cannot convincingly be denied that providing a market contributes to the sale 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.

On this basis, source countries can assert their right to tax income received from sales to their residents, as this income would not have been earned but for the market that they provide.

4. Benefit Theory

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

In an electronic commerce setting, it is arguable whether source countries provide most or all of the benefits relevant to the production of income. From an economic perspective, the only contribution of a source country would often only be the customer base and the telecommunications infrastructure to reach those customers. It is therefore arguable that source countries should not be entitled to exercise any

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93 Vogel - Part III, above n 70, 401.

94 This argument is especially strong in cases where customised or made-to-order products are involved, for such products would not have been made without the market provided.

95 See Vogel - Part I, above n 70, 219, Vogel - Part III, above n 70, 395 (noting that Schanz suggested that the source state should levy three-fourths of the tax that it would ordinarily levy on residents and the state of residence should levy one-fourth of the tax it ordinarily would levy on the domestic source income of non-residents).

96 See Vogel - Part III, above n 70, 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.’ see Avi-Yonah, above n 7, 520.
income taxing authority since all the wealth is created in the country of residence, with limited interaction with the source country.

This conclusion can, however, be challenged on two grounds. First, Professor Skaar provides support for the view that even if a business does not have a permanent establishment in the source country it benefits substantially from its infrastructure and therefore should 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.  

Second, though residence country companies might claim that because they have no physical presence in the source country they therefore derive no benefit from any effective representation in the political process, source jurisdictions 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 upon it to enforce payment for transactions, uphold intellectual property rights (eg, trademarks), and maintain a stable and competitive business environment. The costs of providing all of these benefits further justifies the right of source countries to impose a tax as compensation for providing these benefits.

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. Professor Vogel has similarly observed that ‘no country which levies an income tax forgoes taxing domestic source income, irrespective of who has derived it.’ As source countries typically have the first opportunity to collect taxes on payments derived

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98 Other benefits include the fact that the source country would need to provide for the waste disposal for packaging materials, consumer protection laws and an infrastructure upon which delivery vehicles can travel (in the case of physically delivered electronic commerce products).

99 Mitchell B Carroll, Prevention of International Double Taxation and Fiscal Evasion (1939) 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, above n 45, 1455 (citing the League of Nations: ‘A survey of the whole field of recent taxation show 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 See Vogel - Part I, above n 70, 217.
from within its borders, it is practically difficult to prevent these countries from taxing these payments.\textsuperscript{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 payments arising from transactions arising within their borders. The application of source-based taxation in an electronic commerce environment may be more difficult than in a traditional setting due to the reduced need for intermediaries, as well as by virtue of the fact that businesses do not need to maintain substantial physical presences (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 with trying to tax these transactions, perhaps by using intermediaries such as payment providers or Internet Service Providers (‘ISPs’) as the collection agents.

D. Arguments Against Adopting a Source-Based Tax Regime

1. Revenue-Sharing Between Source and Residence Countries

Mitchell Carroll opined in his writings on the League of Nations that as less developed countries became more industrialised, moves away from adopting source-based tax principles toward residence-based tax approaches could occur.\textsuperscript{102} However, he also cautioned that source-based tax principles could not be applied in cases where countries where not economically balanced, and in the case ‘of countries whose relations were distinctly those of debtor and creditor.’\textsuperscript{103} With respect to electronic commerce, as only a few developed countries (chiefly the United States) presently dominate the export of electronic commerce goods and services, adopting an

\textsuperscript{101} Michael J Graetz and Michael M O’Hear, ‘The “Original Intent” of US International Taxation’ (1997) 46 Duke Law Journal 1021, 1037 (quoting Thomas S Adams, Interstate and International Double Taxation’ (1929) 22 National Tax Association Proc 193, 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.’)).

\textsuperscript{102} Carroll, above 99, 15 (‘the 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.’).

\textsuperscript{103} Ibid 17. See also, Forst, above n 45, 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 the Indian Authority for Advance Rulings clearly demonstrates that source countries will act to preserve their revenue bases if they perceive it is being eroded.
exclusive residence-based system of taxation would principally benefit these countries to the detriment of countries that imported such goods and services.

If source countries were not given the opportunity to tax income arising from electronic commerce transactions, this would create an imbalance between countries that are net exporters of electronic commerce goods and services and countries that are net importers of such goods and services. Such a result would unfairly favour developed countries (which are currently more likely to export electronic commerce goods and services) over developing countries, an outcome that would be not be acceptable to source countries as it would be contrary to achieving a sharing of tax base between source and residence countries. Moreover, to the extent that source countries perceive that they are not properly being able to participate in the tax base generated by electronic commerce, it can be expected that they will resort to unilateral or creative measures to tax these transactions.

2. Appropriate Threshold for Taxing Electronic Commerce at Source
A major obstacle in adopting a source-based tax system to accommodate electronic commerce transactions arises since electronic commerce makes it possible to sell goods and services into source countries without any physical presence in those countries. In these circumstances, source countries will not be able to tax foreign businesses under currently accepted international tax principles including the permanent establishment standard, as the physical presence requirements that are inherent in this standard will not be satisfied by foreign businesses that sell electronic commerce goods and services into source countries.

With a decreasing amount of trade occurring through the physical shipment of tangible goods or the physical movement of persons to perform services at different locations, a new threshold that is not dependent on finding economic allegiance based on physical presence will need to be found if source-based taxation is to remain relevant. Support for this reasoning can be found in the writings of Professor Skaar, who has 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.’ Therefore if source-based taxation is to be adopted to accommodate electronic commerce transactions, for both substantive and practical reasons, a new threshold that is not related to physical presence will need to be found upon which to base taxing authority of source countries.

3. Collection and Enforcement Problems
Even if a source-based tax system were to be implemented to accommodate electronic commerce transactions, as businesses could operate with no physical presence or

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104 It seems clear enough that source countries would be unlikely to accept this outcome and will act unilaterally to preserve their tax base if they perceive it as being eroded, as the decision Indian Authority for Advance Rulings clearly demonstrates.

105 See Skaar, above n 97, 573.
assets in source countries, this would make the collection and enforcement of source taxes difficult.

In a traditional context, Professor Vogel posits that the source-based rule which Article 17 of the OECD MC adopts is likely to be more effective (and therefore more accurate) than residence-based approaches, in view of the potential tax collection difficulties faced by a residence country trying to ascertain and tax the income of artistes and sportsmen earned in other countries. While this rule is an effective solution in a traditional context, as artistes and sportsmen usually act through intermediaries (such as promoters or agents) which operate as tax withholding agents, seeking to apply it in an electronic commerce context is problematic. This is because electronic commerce does not rely on businesses maintaining any physical presence or other representation in the country of source, which may operate as a tax withholding agent, or as security for tax liabilities. Further, to the extent that electronic commerce facilitates trade without the need for human intermediaries to facilitate business transactions, countries of residence will enjoy a primacy of tax authority, as electronic commerce goods and services increasingly become available from foreign jurisdictions.

4. Characterisation of Income
Adding to the difficulties of implementing a source-based tax regime to accommodate electronic commerce transactions are the difficulties in characterising income as either business profits or royalties. As this issue is beyond the scope of this Paper, it will not be analysed in detail here, except to briefly restate the problem created by electronic commerce. Under the OECD MC, the classification as either royalties or business profits is not particularly important as the result is that the payment is taxable in the country of source only if attributable to a permanent establishment, but is otherwise only taxable in the country of residence. However, many OECD countries assert source country withholding taxing rights under Article 12 of the OECD MC. For these countries, the distinction between royalties and business profits is therefore a significant one. Most electronic commerce transactions (involving both software and other digital products) will be classified as business profits rather than royalties, meaning that source countries will not be able to exercise withholding tax rights over...
these transactions, an outcome which further detracts from implementing a source-based tax regime to accommodate electronic commerce transactions.

5. **Disagreements Regarding Source**

To effectively implement a source-based tax system, there would need to be an international consensus regarding the determination of the source of income for electronic commerce transactions. If agreement cannot be reached regarding the source of income that arises from electronic commerce transactions, then the prospect of double taxation increases.  

Also, international agreement as to how to apportion income among jurisdictions that legitimately claim income as being sourced within its borders needs to be achieved to successfully implement a source-based tax system to accommodate electronic commerce transactions. Double taxation could result if two countries view the same income as being sourced within their respective borders, and an effective mechanism to allocate taxing rights between competing claims will need to be in place to ensure that income is only subject to tax in one jurisdiction. Reaching consensus as to the proper source of electronic commerce income will, however, not be an easy matter of law, and the ability to reach consensus will be further complicated by political considerations and competition between countries for taxing rights over the tax base generated from electronic commerce transactions.

E. **Summary**

The preceding discussion raises serious substantive and practical doubts as to whether a source-based tax system can be implemented successfully to accommodate 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 international consensus on the source of income arising from electronic commerce. Failure to secure such consensus may result in double tax and constitute 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 difficulties with collecting and enforcing source-based taxes in circumstances where a foreign vendor has no physical presence or other representation in the country of source.

This analysis therefore suggests that either new source rules may need to be considered, or the manner of applying existing rules would need revision. 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. However, concerns will arise with this approach too, as this may mean treating electronic commerce differently to traditional transactions, thereby raising the possibility that the principle of neutrality would be violated.

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108 This Paper accepts that reaching such a consensus will not be easy.
IV. CONCLUSION
This Paper has examined the possibility of adopting either an exclusive residence-based or source-based system of taxation as possible solutions to accommodate the taxation of electronic commerce transactions. While not as extreme as the polarised approaches of maintaining existing principles or introducing a new tax (eg, a tax on transmission or a ‘bit’ tax), these approaches are nevertheless predicated upon and proceed from opposite philosophies. Despite both exclusive residence and source-based taxation having strong theoretical justifications, neither approach would seem to be implementable internationally; since the inherently one-sided nature of either approach makes it unlikely that international consensus will emerge on fundamental changes of this nature in the foreseeable future.