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Impact of electronic commerce on allocation of tax revenue between developed and developing countries*

Summary

The advent of digital technology increases productivity, and will, as a whole, make the world better off. Nevertheless, advanced countries have suggested that there be an increase of their share in inter-jurisdictional allocation of revenue, justifying their position with the rhetoric of tax neutrality and residence jurisdiction. Indeed, these suggestions can hardly be justified given that the economic and legal assumptions underpinning the existing norm of inter-jurisdictional revenue allocation are not valid in a digital era. Rather, tax neutrality will justify a new order that would assign more revenue to the developing countries. Maintaining the existing international tax order and fixing it in a makeshift way will not lead to this new order of international taxation, because digital technology enables a taxpayer to circumvent any such attempt.

Creating an entirely new norm and imposing it on developed countries appear to be beyond the reach of developing countries, judging from the past experiences of bargaining between developed and developing countries, which may have no other choice but to acquiesce in these changes. Despite this pessimism, the United Nations may consider revising the United Nations Model Double Taxation Convention between Developed and Developing Countries to the advantage of developing countries, inasmuch as the very role of the United Nations Model Convention is to provide bargaining leverage for a developing country in negotiating a real-world treaty. Proposed changes to the United Nations Model are as follows:

* The present paper was prepared by Professor Chang Hee Lee, Seoul National University College of Law. The views and opinions expressed are those of the author and do not necessarily represent those of the United Nations.

(a) Add a paragraph to article 7 (Business profits) that permits a host country to impose withholding tax on all payments to a non-resident e-supplier in general or, upon the host country's so electing, to a payment to a non-resident e-supplier from a domestic business that can deduct the payment;

(b) Change article 7(4) to permit a host country to adopt a formula apportionment if an e-supplier has a permanent establishment in the host country or if sales by a non-resident e-supplier exceeds a certain sum of money.

Contents

Introduction

1. The impact of the Internet and digital technology has been one of the favourite topics of international taxation for the past several years. It has been made clear that the existing norm of international taxation is seriously affected by the advent of electronic commerce and digital technology. Because the issue involves state-of-the-art technological innovation, suggestions for changing the international tax order have largely been proffered by the advanced countries and the international organizations consisting of or controlled by the same economically and technologically advanced countries. In essence, these countries argue for laissez-faire that is to say, that the existing norms, designed in the pre-digital era, should remain intact to the broadest extent possible.

2. The present paper addresses the impact of the Internet and digital technology on the allocation of tax revenue among nations, in particular between developed and developing countries. The thesis of the paper is threefold: (a) digital technology completely destroys the economic and legal basis for the existing rules of international taxation, implying the necessity of a complete overhaul; (b) extending the existing rules into the digital era, as suggested by developed countries, will increase the revenue share of developed countries to the detriment of developing countries; and (c) despite this foreseeable outcome, developing countries do not have much choice but to suffer. In terms of a practical policy implication, this paper points out that makeshift suggestions, within the boundary of the existing norms, will not help developing countries. The right solution, from the perspective of a developing country, will be to impose taxes even without a permanent establishment and adopt formula apportionment; however, changing tax treaties to this end appears to be beyond the reach of developing countries.

3. The thesis is presented in four parts. Part one addresses the first thesis and analyses the economic bases or assumptions underlying the existing rules or compromises of international revenue allocation, and shows that digital technology causes these assumptions to break down. Part two briefly summarizes the second thesis (which is more or less known to the world), namely, that the maintenance of the existing rules in, or their application to, the digital environment will result in the reallocation of revenue from developing to developed countries. Part three shows that the policy suggestions proffered thus far by the Organisation for Economic Cooperation and Development (OECD) and the European Union (EU) are misdirected anachronisms. Part four proceeds to the third thesis, offering the grim prediction that developing countries do not have much choice but to acquiesce in the advanced countries' self-serving suggestions.

4. This paper does not consider the tax administration issues raised by e-commerce, or more generally by the technological progress that facilitates the cross-border movement of goods, services and capital. As discussed in many studies,[1] the administration issues are more complex and subtle — and may indeed be more important — than the substantive law issues. For example, where capital

[1] See, for example, the document entitled "Electronic commerce and the challenge for tax administration" of 9 May 2001 (ST/SG/AC.8/2001/L.4), prepared by Walter Hellerstein for the tenth meeting of the Ad Hoc Group of Experts; and OECD, "Tax administration aspect of electronic commerce" (a report of the Forum on Strategic Management to the Committee on Fiscal Affairs, February 2001).

can instantly flow over the globe at a negligible transaction cost, even developed nations may have to enter into a tax competition to attract capital. At the level of substantive law, however, this development does not affect the residence jurisdiction of capital exporting countries, which reaches the capital income derived by its residents regardless of where it is invested. One may easily point to the tax deferral for the earnings retained in a foreign subsidiary, but a capital exporting country can unilaterally address the problem by anti-abuse measures such as the United States subpart F rules. Enforcing such a measure is hard work and the administrative difficulty of keeping track of the capital flow could be devastating. As mentioned above, addressing these administrative issues is simply beyond the scope of this paper.

I. Impact of digital technology on the existing norm of international taxation

5. The existing norm of international taxation embodies express and implicit compromises among nations for allocating tax revenue from international trade and investment. The legal concepts supporting these compromises can ultimately be reduced to the concept of the economic nature of income and that of the territorial connection between a country and economic activities. These concepts cannot survive in a digital age. They belong only to the world that can be adequately modelled by the traditional economic and legal concepts.

A. Allocation of income tax revenue

6. The essence of existing international tax rules is classification and assignment, that is to say, income is classified under a number of categories and taxing powers are assigned to each nation for each category of income. This classification of income is based on the property/service or capital/labour dichotomy.

1. Source versus residence taxation

7. In the contemporary world, international trade and investment are carried out ever more globally, and the production, consumption, saving and investment in each nation are intertwined with those of other nations. Economic efficiency from the global perspective will be best served when the tax burden on a cross-border trade or investment is the same as that within the border and thus when resources are efficiently allocated internationally. The world as a whole would gain by avoiding double taxation. Hence, the global community faces the task of dividing the revenue from income tax while avoiding double taxation.

8. The two competing ideas are source taxation and residence taxation. Source taxation or the territorial principle looks to the place where the income-generating activities arise, implying that the country in which the activities take place deserves to get the tax revenue. The residence principle, in contrast, looks to the place where the person who derives the income lives, implying that the country in which a person resides deserves to collect the revenue for the income derived by the person.

2. Treaty rules for avoiding double taxation

9. Under either approach, double taxation on international trade or investment will be eliminated inasmuch as the entire world follows the same rule. Suppose that the world consists of two countries A and B in identical conditions except that the citizens or residents in country A own all the capital in the world. The capitalists will then split their capital evenly between the two countries. Meanwhile, from the perspective of an individual country, it will gain by the amount of revenue it collects. The world as a whole, however, will lose if this attempt results in double taxation. The controversy between the capital importing and the capital exporting countries, or that between source and residence taxation, results from this tension. Following a historical path, the world has expressly and implicitly agreed on relatively stable rules for allocating tax revenue among the nations. These rules can be summarized in three basic statements:

(a) Each country is entitled to tax the income derived from an activity taking place within the country;

(b) Each country is entitled to tax the income derived by a person physically or legally residing in the country regardless of from where the income was derived;

(c) To avoid double taxation caused by the overlap of the first and second taxing powers, the source country will narrow its tax, and the residence country will admit to the primacy of the source tax to the extent so narrowed, by either exempting the income taxed in the source, or reducing its own tax by the amount of the source tax.

3. Economic basis for a tax treaty

10. The epitome of the international tax order — the primacy of the source taxation within the agreed boundary — was an inevitable yet most reasonable solution to the tension between maximizing the tax revenue of an individual country and yet avoiding double taxation in the global perspective. First, a source country has the physical power to collect as tax a portion of the income generated within its territory. Second, the residence country also has the physical power to collect tax from a person who resides in or wants to maintain a legal connection with the country. Given that the source country has already taken a part of the income as taxes, the residence country has four choices: (a) exempt the income, (b) credit the source tax, (c) deduct the source tax as an expense or (d) simply ignore the source tax. Of importance is the fact that the first or the second option is not an optimal strategy from the residence country's individual perspective. Given the source country tax on international investment income, gains to the residence country are the net income, that is to say, net of the source tax. In contrast, if the capital was invested within its own border, the gross product in its entirety would accrue to the residence country, divided between net income to the capital owner and the tax to the country. Accordingly. the individual interest of the residence country is better

served by taxing international investment income more heavily than domestic investment to a certain extent.[2]

11. Combining the implications of the two preceding paragraphs, partial double taxation becomes an unavoidable result of the game, with the consequence that the distorting taxation results in a less-than-optimal amount of international trade and investment, and thus makes the whole world worse off. This unfortunate equilibrium can be changed by a collusion of the participants. If the source country reduces its tax and the residence country admits to the primacy of the source tax within the agreed boundary, they can divide the gain arising from the elimination of the distorting taxes and the consequential improvement in economic efficiency. This collusion is the raison d'être of a tax treaty.[3]

12. Under a tax treaty, the residence country either credits the tax imposed by the source country or exempts the income derived from the source country. The first approach of the foreign tax credit system achieves capital export neutrality and an efficient allocation of capital. The second approach of exempting foreign income, in contrast, promotes competition or capital import neutrality, and an efficient allocation of savings.[4]

4. Classification and assignment

13. Under either approach, the gist of the agreement is that the source country reduces its tax to the agreed scope, and the residence country admits to the priority of the source tax to the extent so agreed, and eliminates the double tax burden. The central issue then is how to define the scope or boundary of the pre-emptive source country tax. The guideline that the early treaty designers recommended was classification and assignment, that is to say, classification of income according to the nature of its economic character and definition of the pre-emptive scope of the source tax, category by category. The classification fundamentally rested on the economists' distinction between labour and capital, the two factors of production in classical economics, which, in turn, translated into the legal classification of service income, on the one hand, and passive investment income and active business profits, on the other hand. Based on the classification, tax jurisdiction was assigned as follows:

(a) Compensation for labour or service income can be taxed in the source country where the service or labour was performed;

(b) Of capital income from passive investment, interests[5] and dividends[6] can be taxed in the country of source (residence of the payer) within an agreed limit.

[2] Indeed, the foreign tax deduction system is an optimal strategy from the capital exporting country's individual perspective, or the so-called national neutrality. Gary C. Hufbauer, *US Taxation of International Income* (Washington, D.C., Institute for International Economics, 1992), p. 56. M. Feldstein and D. Hartman, "The optimal taxation of foreign source income, *Quarterly Journal of Economics*, vol. 93 (1979), p. 613.

[3] The text assumes that the in and outflow of trade and investment are on balance.

[4] OECD, *Taxing Profits in a Global Economy* (Paris, 1991), p. 45.

[5] OECD Model, Double Taxation Convention on Income and on Capital, article 11.

[6] Ibid., article 10.

Royalties are assigned to payee's residence country,[7] place of using the royalty-generating property,[8] or the place of payment;[9]

(c) Business profits can be taxed by a non-resident country only when a permanent establishment can be found in its borders.[10] Absent a fixed place of business, existence of a dependent agent within the border also triggers taxability;[11]

(d) Given a permanent establishment within a country, the taxable income in the host country is the hypothetical arm's-length profit that the permanent establishment would make if it were an independent firm;[12]

(e) Business profits derived by a group of related companies are split by the resident countries commensurately with the hypothetical arm's-length income that would have been derived by each company if it had been an independent entity.

14. The decisive question under these assignment rules is the national territorial nexus of the economic activity, property or legal institution. What takes place within the border of a country decides its share in the tax revenue from cross-border economic activities.

B. Allocation of consumption tax revenue

15. "Place" or a territorial nexus is made the pivotal frame of reference also in the international allocation of consumption tax revenue. The value-added tax (VAT), the prevailing form of consumption tax in the contemporary world, operates under a tacit international consensus that each country will split the revenue based on the destination principle.[13] In short, consumption tax refers to the fact that a taxpayer must pay a portion of his or her intended consumption of goods and services to the government. In an open economy, the goods and services to be consumed may well have been produced in another country. For example, assume that a Japanese importer purchases consumption goods from a United Kingdom supplier for US$ 100, and resells it to a Japanese consumer at US$ 120. How will the countries divide revenue from the $120 consumption? Under the destination principle, the country in which the goods or services are consumed collects the tax. Hence the United Kingdom will not collect any revenue, and Japan will tax the $120 in its entirety. The destination principle assumes zero-rating for exports. When goods are exported, input tax is refunded to the exporter under the zero-rating and the exported goods do not bear any tax burden in the country of production or origin. In the country of import, consumption of the goods is taxed in the same way as those produced inside the border.

16. Almost invariably, the customs administration (or whoever watches over the customs line or economic border) collects tax from the importer of goods. Indeed, this is not a substantive part of the destination principle, but a collection mechanism for not losing revenue in case the importer is a final consumer or an exempt entity. If

[7] Ibid., article 12.
[8] Internal Revenue Code, article 861 (a) (4).
[9] Corporate Income Tax Act (Republic of Korea), article 93 (9).
[10] OECD Model, Double Taxation Convention on Income and on Capital, article 7 (1).
[11] Ibid., article 5 (5).
[12] Ibid., article 7 (2).
[13] The alternative rule-of-the-origin principle will be discussed in sect. III.C.

the importer is a taxable person (having direct obligation to the government to pay the output minus input tax periodically), tax paid for import is creditable from the output or sales tax of the taxpayer, and the border tax collection appears to only complicate the system without generating any revenue. If, however, the importer is a final consumer or an exempt organization, the customs administration is in the best position to collect the tax, unless the country wants to implement a direct consumption tax whereby it collects revenue directly from every consumer. Given that the customs agency must collect tax from at least some of the importers, requiring the agency to distinguish between taxable and non-taxable importers will make the administration too complex. It would be simpler for the customs agency to collect tax uniformly from every importer, and let the importer credit the tax if it has a VAT obligation to the government.

17. Unlike a cross-border supply of goods, a cross-border supply of services does not pass through the customs administration. Supply to a taxable entity does not lead to any revenue loss, because the value of the output to the consumer is subject to the tax anyway. Supply to a final consumer or an exempt entity results in revenue loss, however. The destination principle requires that the value of services be taxed in the country where it is consumed. The two alternatives to this end are (a) collecting the tax from the overseas supplier or (b) collecting the tax from the consumers and the exempts.[14] The choice between the two depends on which can be better enforced. Apparently, the second choice ("reverse charge" in VAT jargon) is less doomed than the first, and the traditional VAT system has taken this path. In the real world, however, this reverse charge obligation is enforced only for exempt organizations that may be audited anyway for income tax or withholding tax purposes. The importation of services by individual consumers has been largely left out of the actual administration of the VAT system, although this has not been considered a serious problem because such transactions have been rare indeed.

C. E-commerce causes assumptions underlying the existing rules to break down

18. The international tax rules that exist today are based on the dichotomy between capital and labour in the economists' jargon, and between property and service in the words of lawyers.[15] Depending on the legal system, the concept of "property" has been expanded to cover electricity and other manageable energy, but fundamentally it means tangible property that humans can see and touch. The concept of property corresponds to physical work. Property is something we make with our physical body. This concept of property and its economic importance began to change, however, with intellectual labour or brain work, which has been playing an ever more important role in what and how humans produce. The advent of digital technology during the most recent decades gave a decisive spur to the predominance of mental work, by enabling the work result to be saved and reused whenever needed. Information, software and other incorporations of intellectual labour that

[14] A third choice is to collect the tax from a financial intermediary involved in the payment for the services. This issue will be revisted in sect. III.C.

[15] Property obviously includes land, and is a broader concept than capital. For our purpose, however, suffice it to say that capital (meaning physical capital, or the man-made factor of production) belongs under the legal concept of property.

can be transmitted over the wire or through the air came to be no less significant than tangible property.

19. The existing norm of international taxation classifies income according to the nature of its economic character and assigns the tax revenue for each category of income. The Internet and digital technology cause this classification to break down, as has been discussed in a United States Treasury report[16] and elsewhere. The existing classification is based on the dichotomy between capital and labour, property and service, or capital income and service income. In microeconomics, the term “capital” means the factor of production created by humans, that is to say, the yet-unconsumed portion of the corporeal products of human labour. The dichotomy begins to fall apart in a digitized world. If the product of human labour can be saved and reused, this product exactly fits the definition of capital, regardless of whether it is tangible. Hence, the distinction between capital and service income becomes irrelevant.

20. Suppose two television companies, A and B, are interested in airing a performance by United States superstar Michael Jackson. If A pays Jackson for broadcasting the performance live, and B pays A to buy the recorded performance and broadcast it in a month, the economic natures of the two payments look different. Are they really different, however? What if B broadcasts the performance after one hour? After one minute? After one second? The mere differences in the legal formality do not make the two payments really different in economic substance. Under the existing rules, however, private law formality is decisive: A’s payment to Jackson is considered service income, and B’s payment to A, royalty income.

21. In another example, a company may purchase 100,000 disks of the Encarta from Microsoft or may purchase a single master disk plus the right to make 100,000 copies. No economic difference can be found between the two choices. Under the existing rules, however, Microsoft will be considered to have received business profits in the first case[17] and a royalty in the second.[18]

22. The existing rules attribute significance to the territorial nexus of an economic activity, physical premise or legal institution. This is no longer relevant in the digital age. For example, the concept of the permanent establishment was invented before the advent of the modern communication networks. Traditionally, selling goods into another country in massive scale was not possible unless an employee or an intermediary was actually engaged in the sales activity in the country, which in turn requires a business premise controlled by the seller or the intermediary. Such an employee, business premise or intermediary was considered a permanent establishment, triggering taxation by the country of importation.

23. The rule that business profits are not taxable without a permanent establishment presupposes that any massive sales into a country will necessarily involve a permanent establishment and trigger taxation. Accordingly, it was not even necessary to include a warehouse in the scope of a permanent establishment.[19]

[16] United States Treasury, “Selected Tax Policy Implication of Global Electronic Commerce”, 3 June 2003, para. 7.3 (http://www.ustreas.gov/taxpolicy/library/internet.html).

[17] U.S. Treasury Reg. 1.861-18 (h) Ex.9.

[18] U.S. Treasury Reg. 1.861-18 (c).

[19] OECD Model, Convention ..., article 5 (4) (a) and (b).

Without a sales activity within the border, the owner of goods could not sell them even if she kept a massive inventory within the border. Focusing on sales activity was enough.

24. In the digital era, however, e-commerce causes this very premise to break down. A foreign supplier, seated in his home office, can enter into a sales contract with any buyer in the country of import and sell massive amounts of goods through the postal system or other logistic means, without ever physically touching the territory of the importing country. If the existing rules apply to e-commerce, the importing country cannot collect income tax from the supplier, even where the supplier sells massive volume of products from the inventory kept within the border, as long as the supplier carries out all the sales activities outside the country.

25. The impact of e-commerce on service income is even more devastating. Under the existing rules, service income is basically taxed in the country where service is provided. This rule was based on the insight that personal service required physical contact between the parties to the contract. Splitting the tax revenue among nations commensurately with territorial contact was a most likely and reasonable compromise. For example, a doctor could not diagnose a patient without meeting her in his office or at the patient's location. An architect could not draw a design without actually examining the site of a building. Again, the advent of digital technology is incompatible with this assumption. A doctor can examine a patient on the other side of the globe, and an architect can examine the building site without ever standing there. Thus, the place or territorial contact becomes irrelevant for allocating revenue between nations.

26. The consumption tax is no less seriously affected. The destination principle operates under the assumption that the cross-border supply of a service is insignificant. This assumption will not hold in the digital age. Digital technology makes it possible to preserve anything that can be digitized, and moreover permits it to move along the wire or through the air, without ever passing through customs control. The country of import has the substantive right to collect the tax, but has no means to enforce it. Thus, the destination principle loses its validity. The same problem exists with customs duties. What used to be imported in the corporeal form of property can now be transferred over the Net directly to the consumer. The existing rules do not fit the digital age.

II. Extrapolating the traditional rules to e-commerce

27. The discussion on digital technology has been led by the United States and OECD. Neither has articulated a clear position on every issue raised so far. At the risk of oversimplification, it may be said that the developed countries have agreed on four principles:[20]

(a) An emphasis on international cooperation;

(b) The maintenance of existing rules and concepts, to the extent possible;

[20] For more detail, see Chang Hee Lee, "Impact of e-commerce on allocation of tax revenue between developed and developing countries", *Tax Notes International*, vol. 18 (1999), p. 2569.

(c) Taxation not discriminating between traditional and electronic commerce;

(d) Abstention from inventing a new tax.

28. In short, the perspective of the advanced countries is that digital technology is a challenge to administration rather than substantive law: the technology makes it harder to collect tax, yet the established substantive rules can and should apply to e-commerce. Not surprisingly, the suggestions by the developed countries are serving their own interests, inasmuch as they are the exporters of goods, services and capital.

29. The United States of America has already proposed making e-commerce duty-free, and many other countries are more or less positively disposed towards the concept. Canada has further suggested not to impose duties on whatever can be transmitted through the Net, even if it passes through the customs administration in the form of a physical medium.[21] As economists have demonstrated, the world as a whole would gain by eliminating or reducing customs duty, because exports and imports cancel out over the globe. If, however, customs duty is eliminated on e-commerce but remains on traditional commerce, the gains from the reduced duty will mostly accrue to the country that has a strong position in e-commerce, in most cases the United States. Apparently, this is why, even among the developed countries, many are positively considering, but are not yet really enthusiastic about, the United States proposal. Regarding international allocation of consumption tax revenue, advanced countries still endorse the existing norm of the destination principle, although the internal administrative practice within the EU Common Market is closer to the origin principle. A noteworthy development exists in the enforcement of the destination principle. Effective 1 July 2003, EU will, rather than vainly try to collect tax from final consumers for imported digital products, obligate non-EU suppliers to register and pay VAT to the extent that they provide digital products to EU consumers and VAT-exempt organizations.[22]

30. The suggestion for income tax also reflects the interest of the advanced countries as exporters of goods, services and capital. OECD has not revised a single sentence of the Model Convention, and has merely added some commentaries on how to apply the existing language of the Model Convention to e-commerce.[23] As revealed in the commentary, this will ensure to the benefit of the advanced countries. Thanks to e-commerce, a United States supplier may be able to sell as many products to China as would have required a sales office within China in traditional commerce, yet China will be barred from taxing the supplier’s income owing to the lack of a permanent establishment. “An Internet web site … does not in itself constitute tangible property. It therefore does not have a location that can constitute a ‘place of business,’”[24] “even if the enterprise has been able to determine that its web site should be hosted on a particular server at a particular location”.[25] In principle, “Internet service providers (ISPs) will not constitute an agent of the

[21] Revenue Canada, *Electronic Commerce and Canada’s Tax Administration: A report to the Minister of National Revenue* (Ottawa, 1998), para. 4.4.2, recommendation 48.

[22] Council directive 2002/38/EC of 7 May 2002 amending directive 77/388/EEC.

[23] OECD Model, Convention ..., commentary, paras. 42.1 through 42.10 on article 5, paras. 11.2 through 11.6 on article 12 and paras. 17.1 through 17.4 on article 12.

[24] Ibid., para. 42.2 on article 5.

[25] Ibid., para. 42.3 on article 5.

enterprises to which the web sites belong”, and a web site is not a “person”[26] as the term is used in the definition of a dependent agent of a permanent establishment (PE).[27]

31. Thanks to digital technology, a United States doctor may provide the same service to a Chinese patient as in a physical meeting, yet China will not be allowed to tax the doctor’s income because the income is sourced without China under the old independent service clause,[28] or is characterized as business profits[29] without a permanent establishment.

32. Even if a permanent establishment of an e-commerce supplier can be found, the amount of profits attributable to the establishment will be insignificant “relative either to the value of transactions processed through the permanent establishment or to the arm’s-length cost of securing the use of the hardware and software required to ensure the continuous operation of the server without human intervention”.[30]

33. Absent a permanent establishment, the tax revenue of the importing country may still be saved if the income is characterized as royalty. In many real-world treaties between a developed and a developing country, royalties are sourced by the residence of payer or place of using the royalty-generating property, and the importing country can tax royalty payments. This possibility is negated in e-commerce, however, because such income will normally be characterized as business profits. Electronic ordering or processing of tangible products will clearly result in business profits.[31] Payment to an ISP provider or a data warehouse will also be considered business profits.[32] Even where digital products and copyrights are involved, most income from e-commerce will be considered business profits, not taxable in the importing country. Payment for a computer program will constitute royalty “only where it is made to acquire information constituting ideas and principles underlying the program, such as logic, algorithms or programming languages or techniques, where this information is provided under the condition that the customer not disclose it without authorization and where it is subject to any available trade secret protection”.[33]

34. Indeed, of the 28 plausible forms of e-commerce, only 3 may generate royalty, as reported by a technical advisory group of OECD.[34] The revised OECD Model Convention commentary states that “(where) … the use of copyright is limited to such rights as are required to enable downloading, storage and operation on the customer’s computer, network or other storage, (or) performance or display device, such use of copyright should be disregarded in the analysis of the character of the payment for purposes of applying the term ‘royalty’”.[35] This statement must hold

[26] Ibid., para. 42.10 on article 5.

[27] OECD Model, Convention ..., article 5 (6): “any other agent of an independent status, provided that such persons are acting in the ordinary course of their business”.

[28] Ibid., article 14 before deletion.

[29] OECD, “Treaty Characterization Issues Arising from E-Commerce” (1 February 2001), annex II, category 18.

[30] OECD, “Attribution of Profit to Permanent Establishment Involved in Electronic Commerce Transactions”, para. 105 (February 2001).

[31] “Treaty Characterization Issues ...”, annex II, category 1.

[32] Ibid., paras. 30 and 31.

[33] Ibid., para. 23. The OECD Model commentary did not incorporate this statement, however.

[34] Ibid., annex II.

[35] OECD Model, Convention ..., commentary, para. 17.2 on article 12.

true even if, under the copyright law of the land, "transactions that permit the customer to electronically download digital products may give rise to use of copyright by the customer."[36] Doubtlessly, this is a wise and practical conclusion. From a business perspective, even if "the act of copying the digital signal onto the customer's hard disk … constitutes the use of a copyright under the relevant law ... this is merely an incidental part of the process". Nevertheless, this reveals that something more than mere application of the existing concepts is going on. Price for "the use of copyright under relevant law" is not considered "payments of any kind received as a consideration for the use of, or the right to use, copyright of literary, artistic or scientific work".[37]

35. In sum, the idea of maintaining the existing rule and concepts will benefit the countries that export goods, services and capital. At an even more fundamental level, the United States cautiously suggested that source taxation be abrogated and residence taxation made an exclusive basis for allocating revenue.[38] In the age of the electronic commerce, it is hard to tell where an economic activity takes place, but it is clear where a person lives or resides. In a world, however, where cross-border flow of capital is mostly unidirectional, this suggestion will result in a revenue gain to the capital-exporting countries to the detriment of the capital importing countries.

III. Misdirected developments to date

36. The progress of digital technology increases productivity, and the world as a whole can produce more output. Nevertheless, if they sit idle, developing countries will be unable to collect the revenue that they could claim in the pre-digital age. An easy temptation will be to fix the existing rules for protecting the interest of these countries. These makeshift supplements are an anachronism, however, and will not work.

A. Makeshift supplements are an anachronism

37. The existing rules do not protect the revenue interest of developing countries in e-commerce. Facing this predicament, these countries could think of expanding or altering the existing concepts of tax rules to increase their share in the revenue. For example, what used to be considered property under traditional commerce could still be so considered for customs purposes, even if delivered over the wire or through the air. The distinction between business profits and investment income could be redefined to expand source taxation. The concept of a permanent establishment could be expanded to cover a server owned by a foreign supplier.[39] A network provider could be considered a dependent agent.[40]

38. Unfortunately, these suggestions are hardly compatible with the progress of digital technology. Digital technology can easily circumvent any makeshift

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[36] Ibid.
[37] OECD Model, Convention ..., article 12 (2).
[38] "Selected Tax policy Implications ..." (note 15), para. 7.1.5.
[39] OECD Model, Convention ..., commentary 42.6 on article 5.
[40] Ibid., commentary 42.10 in principle denies this.

supplements to the existing rules unless impracticable or prohibitively expensive measures are taken.

39. Trying to maintain the service/property dichotomy or its corollary classification of income is an anachronism. The distinction was based on the physical difference between services and property. As long as something is digitized and processed physically in the same way, attempting to characterize this “something” either as a property or as a service is preposterous. Expanding the coverage of investment or royalty income and contracting the scope of business profits are not likely to help the developing countries either, because digital technology can be applied again to recharacterize the income and avoid the source tax. Moreover, suppose for argument’s sake that the world agrees that what is considered property under traditional commerce will be considered property even in e-commerce. Enforcing this rule would require the Government’s full access to what a person obtains through the Net. Obligating individual consumers to withhold gross-based tax from payment to non-resident e-suppliers presents the same problem. This is technically and administratively impracticable, and moreover, humankind has so far considered such an Orwellian prospect abhorrent.

40. Trying to redefine the legal significance of a place is also doomed. Asking where a property exists or where a service is provided is a mere anachronism. For example, if a server is considered a permanent establishment, the supplier may simply move its home page to another server out of the country of purchase, perhaps to a low-tax or no-tax jurisdiction.[41] Digital information does not exist on a particular spot. Suppose a United States resident and a Japanese resident develop a new software by collaborating over the Net and make it available to a Chinese resident. Where does this software exist? Where is it made? Where is it used? Software is not tangible. It exists only on the Net, and not in any physical place. Of course, somewhere in the world there is a medium in which the software is saved. Mere location of the medium, however, does not have any technical or economic significance. In contrast, the place of producing the software appears to be the United States and Japan for certain. Upon second thought, however, the result of the work exists only on the Net. The United States and Japan are mere places where the developers are resident. In the end, the only significant facts are that somebody lives or stays somewhere.

B. Tax neutrality

41. The proposition that the only place that could have legal significance is where we live or stay necessarily leads to residence taxation as the single basis of allocating international tax revenue. If the place of production loses its meaning, source taxation cannot survive. Under the single-rule-of-residence jurisdiction, obviously, the developed or capital exporting countries will gain at the expense of the developing or capital importing countries.

42. Is this an inevitable result of tax neutrality? Developed countries derive the prescription of maintaining the existing rules from the concept of tax neutrality in respect of the traditional and electronic forms of commerce. It was argued that

[41] See ST/SG/AC.8/2001/L.4, p. 13.

neutrality requires the same rules and concepts,[42] and thus maintaining the existing rules was implied to be an inevitable outcome of neutrality and economic efficiency. In fact, the reference to neutrality appears to be mere rhetoric or ideology. Neutrality means that taxes should not affect economic choices. To the extent that the total amount of tax burden remains unchanged, allocation of revenue among the nations does not affect business decisions. Compare three cases in which (a) a Japanese supplier has a sales office in China and sells goods in China on a massive scale, (b) a Japanese supplier does not have a sales office in China and sells only a limited amount of goods sporadically and (c) a Japanese supplier sells goods to China on a massive scale by e-commerce. None of these cases are identical. No mechanical concept of neutrality can be mandated, subjecting the third scenario to the same tax burden as the second. The right issue is which of the first two is closer to the third. The two relevant factors are the massive recurring sales compared with the existence of a sales office. To the eyes of many, the first factor must look more important than the second. Relying on tax neutrality constitutes no more than well-packaged rhetoric to justify placing an aura of a moral claim around the revenue interest of the advanced countries.

43. The permanent establishment rule is not a sacrosanct principle. It was derived from an administrative difficulty in taxing non-resident taxpayers on a net income basis. The concept was invented to enable a gross-based taxation or an exemption in case the local activities of non-residents are not significant enough to justify the chores of identifying net income. If we admit that the distinction between permanent establishment taxation and gross-based taxation is derived from this administrative consideration, the administrative difficulties raised by e-commerce should suffice to remove the distinction and the existing concept of permanent establishment as a tax nexus. Indeed, development on consumption taxes in the advanced countries attests very well to the fact that e-commerce demands redefining a tax nexus. The function of the permanent establishment in income taxation is essentially the same as that of the place of supply (which in principle is the place of business or fixed establishment of the supplier[43]) in VAT or the “substantial nexus” in United States sales taxation.[44] All these concepts define the hurdle in respect of obligating a non-resident to pay taxes directly to the Government of the importing country. Now EU obligates foreign firms to pay tax even without any local place of business. In regard to United States sales taxation, the United States Supreme Court ruled that an importing State may find a substantial nexus between itself and a non-resident supplier, even without any physical presence.[45]

44. Another self-contradiction exists within the current argument for residence jurisdiction, as it applies to corporations. It is often argued that the source jurisdiction based on the place of production cannot survive e-commerce, and thus residence jurisdiction must become the sole rule for allocating revenue among nations. E-environment thus appears to justify the advanced countries’ moral claim

[42] “Selected tax policy implications ...” (note 15), para. 6.2.

[43] Council directive 77/388/EEC, article 9 (1).

[44] *Complete Auto Transit, Inc.*, v. *Brady*, 430 U.S. 274 (1977) etc.

[45] *Quill Corporation v. North Dakota,* 504 US 298, at 308. Although the decision upheld the contention that a physical presence is necessary for taxation by the importing State, it was based on the inter-State commerce clause of the United States Constitution. Leaving aside the self-inflicted “American problem”, “there would no longer be any basis for prohibiting the States from requiring a remote vendor” to collect tax (ST/SG/AC.8/2001/L.4, p. 31).

to revenue, because a typical digital supplier will be a corporation resident in an advanced country. This is superficial, and indeed misleading, rhetoric. When we say that the place of residence is the only stable concept in a digital environment, we refer to the place where the physical body of a human being resides. The digital environment invalidates the concept of the place of residence of a corporation;[46] a corporation does not “live”, and even less does it live at a “place”.

C. Consumption tax

45. Without having any express agreement, the existing norms allocate consumption tax revenue under the destination principle. Presumably, the principle does not incorporate any shrewd policy decision by the international community, but is a mere by-product of the historical ascent of the VAT. Left to the discretion of each country, zero-rating is most natural in that it avoids taxing exports. Importing countries in turn are willing to tax foreign goods, because imported goods must at minimum be taxed at the same rate as domestically produced goods.

46. The primary problem with the destination principle is its economic inefficiency compared with the alternative rule of splitting revenue based on the origin principle. The former assigns consumption tax revenue to the country of consumption, while the latter allocates revenue based on the value added in each country. In the previous example, in which a United Kingdom exporter sells a product to a Japanese importer for $100, and the latter then resells it to a Japanese consumer for $120, the destination principle assigns the revenue entirely to Japan. In contrast, the origin principle permits the United Kingdom to tax $100 and Japan $20, the amount of value added in its territory.

47. Under the destination principle, the international community must maintain a customs line or economic border for tax adjustment. The Government of the United Kingdom must refund the VAT to the exporter, and Japan must tax the import. This requires time and effort and obstructs international trade. In contrast, the origin principle does not involve border tax adjustments. Assuming that the tax rates are 10 per cent in both countries, the United Kingdom supplier will collect $10 from the Japanese importer in the same way as he does domestic sales and pay it to the Government of the United Kingdom, and the Japanese importer will credit $10 from its $12 output VAT collected from the final consumer. No time or effort is lost on the border. This is why the Neumark Commission[47] recommended the origin principle in 1963, and EU has a long-term perspective of moving in that direction.[48] In that customs duties will not be imposed on transactions within the EU Common Market, moving from the destination to the origin principle is inevitable.

48. Nevertheless, EU is apparently not very interested in extending the origin principle to the global community. As a sequel to callback services, EU has extended the VAT obligation to non-EU e-suppliers. These changes incorporate the destination principle that “rules for the consumption taxation of cross-border trade

[46] ST/SG/AC.8/2001/L.4, p. 18; and Avi-Yonah, “*International taxation of electronic commerce*”, *Tax L. Rev.*, vol. 52, p. 527.

[47] Report of the Fiscal and Financial Committee on Tax Harmonization in the Common Market, Common Market reports, para. 3459 (CCH 1963).

[48] Council directive 77/388/EEC, article 281.

should result in taxation in the jurisdiction where consumption takes place".[49] Indeed they correctly implement the existing VAT, in that they address the administrative difficulty of zero-rating the export and taxing the import of services — a problem aggravated by e-commerce.

49. Nevertheless, these changes are another makeshift anachronism. Obligating foreign suppliers rather than domestic consumers to pay the tax is based on the simple fact that the number of suppliers is far lower than the number of domestic consumers; therefore, it could be easier to enforce the tax on foreign companies. This, however, assumes that the non-resident foreign companies, and ultimately the foreign Governments that control them, will cooperate with the country trying to collect the tax. If they refuse to cooperate, the country will be back at square one, having to collect the tax from each individual consumer within its borders.

50. A tempting alternative to this bewildering situation is to engage a financial intermediary or another third party somehow involved in the payment process to collect tax from the flow of money paid to an e-supplier.[50] In addition to opposition by the financial intermediaries,[51] the suggestion suffers from the difficulty that the intermediary must distinguish between taxable and non-taxable payments, requiring that the intermediary and ultimately the Government have full access to the information on spending by all individual taxpayers. This will contradict the principle of human freedom and privacy, which very many people, if not all, consider a sacrosanct value. Even the fancy suggestion of using tamper-proof software or some other technological solution is no less doomed. Technologically, it would perhaps be possible to invent software that can "automatically calculate the tax due on a transaction and remit the tax to the destination jurisdiction".[52] This possibility, however, assumes that Governments would cooperate to force the software on business enterprises, and punish violators. It may be an option for the far far future of an Orwellian world government, but, as yet, would not be an acceptable option in the eyes of many, if not all.

51. For the foreseeable future, the push for the origin principle is not likely to be strong. In a world that still has border control for customs duty purposes, the origin principle is premature. The origin principle also needs harmonization of tax rates, which, in turn, requires an international agreement. In the previous example, if the tax rates in the United Kingdom and Japan are 20 and 10 per cent, respectively, Japan would not want the 20 per cent United Kingdom tax to encroach on its 10 per cent output tax. Moreover, the United States does not have a VAT at the federal level; thus, it cannot lead any discussion on allocating consumption tax revenue among nations. All this background information explains why OECD confined the scope of its consumption tax review to national-level taxes alone.[53]

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[49] OECD Working Party No. 9, "Consumption Tax Aspects of Electronic Commerce", para. 5 (5 April 2001).

[50] Ibid., para. 51.

[51] Even an OECD report states that "the responsibility for collection should not be imposed upon any third-party intermediary or set of intermediaries", and "any such party participation should", in its view, "be voluntary and based upon market-driven commercial viability ... provided with appropriate incentives".

[52] OECD, "Consumption tax aspects ...", para. 52.

[53] Ibid., para. 18.

IV. Prospects for a new order

52. If makeshift repairs of the existing rules cannot maintain the relative share in tax revenue between developing and developed countries, the world presumably needs an entirely new international tax regime to allow for technological progress and the distribution of its fruits in a more equitable fashion. As stated by heads of State and Government at the Millennium Summit, “the central challenge we face today is to ensure that globalization becomes a positive force for all the world’s people”[54] and “the benefits of new technologies, especially information and communication technologies … (must be) available to all”.[55] Nevertheless and unfortunately, inventing new rules for the world and enforcing them appear to be beyond the power of developing countries, which may not have much choice beyond lamenting their inability to gain a fair share in the fruits of technological development.

53. Developed countries have already made it clear that they do not want any new forms of taxation, and developing countries probably do not have any bargaining power with which to redesign and impose a new international tax order on developed countries. In a one-to-one negotiation between a developed and a developing country, the latter obviously does not have much bargaining power. From bilateral trade and investments, a large economy gains relatively less than a small economy, and this results in an absolute difference in their bargaining powers. Conceivably, the only way that small economies or developing countries can strengthen their bargaining power is through collective action with the advanced countries.

54. Indeed, the world already has experimented with collective bargaining in this sense, well before the advent of the digital age — that is to say, with the United Nations Model Double Taxation Convention between Developed and Developing Countries.[56] Developing countries could align their position with the model to an extent, yet in essence the model is not much more than an extension or a variation of the OECD Model Taxation Convention, in the sense that a tax treaty was considered a tool for reducing the source tax. Moreover, in the real world, the OECD Model Taxation Convention has exercised more influence than the United Nations Model, as an inevitable result of the bilateral nature of a real-world treaty. This result was reached in an environment where the validity of source taxation was not questioned much. Mired in a worse situation, developing countries apparently do not have the power to reshape the international tax order in their favour.

55. In the long run, value-added taxation will also probably be covered by bilateral or multilateral tax treaties, but this would not help developing countries either. As clarified above, the destination principle needs international cooperation if it is to apply to services as well. Even the fancy idea of tamper-proof software will necessitate an international agreement that “would provide for the verification by the tax authority in the ‘supplying’ jurisdiction (on behalf of the ‘consuming’ jurisdiction) of the installation and operation of such software”.[57] Once the consumption tax is so covered by an international agreement and progresses to a

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[54] United Nations Millennium Declaration (see General Assembly resolution 55/2), para. 5.
[55] Ibid., para. 20.
[56] United Nations publication, Sales No. E.01.XVI.2.
[57] OECD, “Consumption tax aspects ...”, para. 51.

multilateral agreement or a net of bilateral agreements amounting to a de facto multilateral agreement, it would be most natural to move further to the more efficient rule-of-the-origin principle. Again, developing countries as net importers are likely to be losers. As compared with the consequences of the destination principle, a net exporter country will gain revenue to the detriment of net importers.

56. Given that digital technology circumvents an anachronous extrapolation of existing rules, developing countries can maintain the status quo in revenue terms only by a more fundamental change in the international norm, such as withholding tax at source for business profits or other categories of income.[58] Achieving this in a bilateral treaty appears to be hopeless, however. Perhaps a developing country may have a better chance with a formula apportionment of business profits. Doubtlessly, the formula apportionment, especially if the profits of multinational enterprises as a group are consolidated for apportionment, is not consistent with the accepted norm of the arm's-length principle.[59] Nevertheless, the world has been witnessing an expansion rather than a contraction of this "heretic" rule. The profit split method, initiated by the United States and endorsed by OECD,[60] consolidates the profits of related parties and apportions it. In response to the failure of the arm's-length principle in global trading, the United States adopted a formula apportionment.[61] More fundamentally, the whole turmoil of United States super-royalty issues was about the United States frustration with the arm's-length principle.[62] All these circumstances reveal that a formula apportionment may be quite agreeable to the advanced countries. Once on the road of formula apportionment, how to split profits is at best based on arbitrary factors, and a developing country may try its luck at something better than futilely attempting makeshift remedies within the traditional concepts.

57. **In conclusion, the advent of digital technology increases productivity, and will, as a whole, make the world better off. Nevertheless, advanced countries have suggested an increase of their share in inter-jurisdictional allocation of revenue, justifying their position with the rhetoric of tax neutrality and residence jurisdiction. Indeed these suggestions can hardly be justified in that the economic and legal assumptions underpinning the existing norm of inter-jurisdictional revenue allocation are not valid in a digital era. Tax neutrality will rather justify a new order that would assign more revenue to the developing countries. Maintaining the existing international tax order and fixing it in a makeshift way will not lead to this new order of international taxation, however, because digital technology enables a taxpayer to circumvent any such attempt.**

58. **Unfortunately, creating an entirely new norm and imposing it on developed countries appears to be beyond the reach of developing countries, judging from the past experiences of bargaining between developed and developing countries. Despite this pessimism, however, the United Nations may consider revising the United Nations Model Double Taxation Convention to the**

[58] Avi-Yonah, loc. cit., p. 527; Richard Doernberg and Luc Hinnekens, *Electronic Commerce and International Taxation* (The Hague, Kluwer Law International, 1999), p. 320.

[59] OECD Model, Convention ..., commentary 25 on article 7 (4).

[60] OECD, "Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations".

[61] Internal Revenue Service Notice 94-40, 1994-1 CB 351.

[62] Chang Hee Lee, "A strategic tax approach for capital-importing countries under the arm's-length constraint", *Tax Notes Int'l*, vol. 18, part I, p. 677.

benefit of developing countries, because the very role of the Model Convention is to provide bargaining leverage for a developing country in negotiating a real-world treaty. More specifically, proposed changes to the Model Convention are as follows:

(a) **Add a paragraph to article 7 (business profits) that permits a host country to impose withholding tax on all payments to a non-resident e-supplier in general, or, upon the host country's election, to a payment to a non-resident e-supplier from a domestic business that can deduct the payment;**

(b) **Change article 7 (4) to permit a host country to adopt a formula apportionment if an e-supplier has a permanent establishment in the host country or if sales by a non-resident e-supplier exceed a certain sum of money.**