

THE IMPACT OF E-COMMERCE ON CROSS-BORDER TAXATION

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Abstract

This essay offers a technical analysis on the impact of electronic commerce on cross-border taxation. The jurisdiction, the characterization of income, transfer pricing and tax administration are said to raise the potential problems on taxation of electronic commerce for both tax authorities and taxpayers at international level. The OECD (Organization for Economic Cooperation and Development) sources will be used to discuss those problems.

Keywords: *electronic commerce, taxation, the OECD*

A. Introduction

Using the Internet as a tool for gaining a range of information has recently become popular around the world. It can be said that the Internet affects people how to communicate with others across the world. In the context of business, the Internet offers new model of transactions in which people can buy or sell goods and services online. In other words, people can choose, order and pay certain goods or services without leaving their seats or a company can operate its business without face-to-face meeting with its employees or clients around the world.¹ Clearly, the Internet brings a worthwhile development in economic and business ac-

tivities by "changing a classic model of business"² which usually needs a physical presence of person to make certain transactions.

However, the new type of commercial transaction using the Internet also raises some significant issues. One of those issues is the impact of Internet commerce on taxation. This issue has become a major concern among countries in the world since the online transaction may occur not only within a single jurisdiction but also in many jurisdictions throughout the world. The fact that people can conduct their business from one jurisdiction to another jurisdiction has raised difficulties for tax authorities to identify the jurisdiction in which the transaction has³ . In this case, the possibility of tax avoidance

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¹ Zak Muscovitch, *Taxation of Internet Commerce* available at <http://www.firstmonday.dk/issues/issue2-10/muscovitch>, p. 4

² President William J. Clinton and Vice President Albert Gore, Jr., 2004, *Framework for Global Electronic Commerce* available at Electronic Commerce Law Material 2004, p. 1.

³ Michael St J R Butler, Victor T. Chew, et al, *Taxation of Global E-Commerce* available at Asian Comparative Tax Law System Course Material 2004, p.487

and evasion in cross-border transactions via the Internet is much greater than in the classic model of business.⁴ As a consequence, it will lead to a significant loss of tax revenues in countries in which the online transaction occurred.

Further, the problem of double taxation may also occur in relation to the cross-border transaction via the Internet since the existing tax system is said to be inadequate to apply as stated by Daniel Tunkel and Stephen York in the following statement:

*The traditional methods of taxation rely on being able to verify location. This may be the location of the seller, the buyer or the good sold. Most countries only seek to tax the people in that country or goods and services in or transferred to that country. However, where people, goods and services move across international borders, there may be competing claims to tax by the various countries involved.*⁵

From that point of view, it is clear that the existing tax system cannot keep up with the improvement of technology. The transaction via the Internet requires no physical presence of people, whereas the traditional tax method is based on the physical presence within a jurisdiction.⁶ Therefore, the traditional tax method cannot be applied effectively to the electronic transaction. If tax authorities in such jurisdictions insisted on applying the

traditional tax method, it would trigger conflicts among countries in order to be able to impose tax on such income.

As has been mentioned above, the cross-border transaction via the Internet can raise potential problems for tax authorities and taxpayers. On one side, tax authorities have difficulties in verifying where a transaction has occurred and on the other side, taxpayers may pay double taxes in different jurisdictions. It seems that in the case of electronic transactions, the problem of jurisdiction has raised tax issues for both tax authorities and taxpayers at the international level.⁷ In this case, it is important to identify the location where electronic transactions has occurred in order to establish which country has a taxing authority on the income derived by a non-resident from the electronic transactions. The requirement to tax a non-resident in such jurisdictions is the existence of taxable presence.

Based on the above explanation, this paper is intended to provide technical analysis on various issues which are related to the impact of electronic commerce on taxation. First, this paper explains a global concept of permanent establishment which is used in the OECD (Organization for Economic Cooperation and Development) Model Tax Convention to determine the existence of taxable presence. Then, this paper attempts to discuss this concept in connection with a web site and an ISP (Internet Service Provider).

⁴ Zak Muscovitch, *Taxation of Internet Commerce* available at <http://www.firstmonday.dk/issues/issue2-10/muscovitch>, p.4

⁵ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.290-292

⁶ Julian JB Hickey, *E-Commerce: Law, Business and Tax Planning*, 2000, p.207

⁷ Annete Nellen, *E-Commerce: To Tax or Not to Tax?* Available at <http://www.ecominfocenter.com/index.html?page=/services/emerchants/taxation/reference-websites.html>, p.13

The paper also attempts to discuss the characterization of income by using OECD sources. This characterization of income is important to be discussed since different types of income will have different tax treatment. This issue is also related to the tax treatment of electronic payments.

On transfer pricing issues, this paper provides a brief explanation on the issues raised by e-commerce for transfer pricing. Finally, the paper attempts to explain and discuss the benefit and the problem raised by e-commerce in connection with tax administration and collection.

B. The Concept of Permanent Establishment

Having a taxable presence in certain jurisdiction is the most important requirement for tax authorities to impose tax on certain electronic transactions. The OECD Model Tax Convention provides a Permanent Establishment (PE) concept to determine the existence of a taxable presence in certain jurisdictions. A general principle of permanent establishment which is adopted by some countries in their legislation is that a government in one country can impose tax on the profit derived by a non-resident if the profit is attributable to the permanent establishment in that country⁸. In the case of

electronic transactions, there are two issues about PE in the following⁹: (1) Whether a website or a web server can be considered to be a PE; (2) Whether an Internet Service Provider (ISP) or telecom company can create a PE for businesses utilizing their services to engage in electronic commerce.

Before discussing those issues more depth, it is important to understand the concept of PE based on the OECD Model Tax Convention. The term PE can be found in Article 5 (1) of the Model. It defines PE as "a fixed place of business through which the business of an enterprise is wholly or partly carried on"¹⁰. Further, Article 5 (2) governs a list of examples which may constitute a PE as follows: (a) A place of management; (b) A branch; (c) An office; (d) A factory; (e) A workshop, and (5) A mine, an oil or gas well, a quarry or any other place of extraction of natural resources.¹¹

Based on Article 5 (1) and Article 5 (2) of the Model, it can be reasonable to assume that the concept of PE requires the existence of premises which are used for carrying on the business. However, the Commentaries of the OECD Model provide that even though there are no premises for carrying on the business, the PE may exist if facilities such as machinery or equipment are available.¹²

⁸ Michael St J R Butler, Victor T. Chew, et al, *Taxation of Global E-Commerce* available at Asian Comparative Tax Law System Course Material 2004, p.487

⁹ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.297

¹⁰ The OECD Model Tax Convention on Income and on Capital, 2000, p. 26

¹¹ *Ibid.*

¹² The OECD Model Tax Convention on Income and on Capital, Commentary on Article 5 Concerning The Definition of Permanent Establishment, 2000, p. 74

In the context of electronic commerce, the existence of facilities such as “automated equipment”¹³ in certain jurisdictions may be regarded as a PE.

However, there are exclusions from definition of permanent establishment under Article 5 (4) of the OECD Model Tax Convention as follows : (a) The use of facilities solely for the purpose of storage, display or delivery of goods or merchandise belonging to the enterprise; (b) The maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of storage, display or delivery; (c) The maintenance of a stock of goods or merchandise belonging to the enterprise solely for the purpose of processing by another enterprise; (d) The maintenance of a fixed place of business solely for the purpose of purchasing goods or merchandise or of collecting information, for the enterprise; (e) The maintenance of a fix place of business solely for the purpose of carrying on, for the enterprise, any other activity of a preparatory or auxiliary character; (f) The maintenance of a fixed place of business solely for any combination of activity mentioned in sub-paragraphs (a) to (e), provided that the overall activity of the fixed place of business resulting from this combination is of a preparatory or auxiliary character.¹⁴

A number of business activities mentioned in Article 5 (4) of the Model have preparatory or auxiliary character.¹⁵ Therefore, if a non-resident conducted a business activity in such jurisdictions which had a preparatory or auxiliary feature, it would not be treated as a permanent establishment even though the activity is carried on wholly or partly at a fixed place of business.

Regarding the first issue whether a website or a web server constitutes a permanent establishment, the concept of permanent establishment in the OECD Model Tax Convention can be used. Basically, a website or a web server is treated as a permanent establishment if it satisfies the definition of permanent establishment in Article 5 (1) of the Model. In this case, ‘a fixed place of business’ has become a key feature of a permanent establishment.¹⁶ The Commentaries on Article 5 (1) of the Model Tax Convention provide further conditions to be a permanent establishment in the following¹⁷: (1) The existence of a “place of business”, i.e. facilities such as premises or, in certain instances, machinery or equipment; (2) This place of business must be “fixed”, i.e. it must be established at a distinct place with certain degree of permanence; (3) The carrying on of the business of the enterprise through this fixed place of business. This means usually

¹³ Michael Chissick and Alistair Kelman, *Electronic Commerce: Law and Practice*, 2002, p. 290

¹⁴ The OECD Model Tax Convention on Income and on Capital, 2000, p. 27

¹⁵ The OECD Model Tax Convention on Income and on Capital, Commentary on Article 5 Concerning The Definition of Permanent Establishment, 2000, p. 80

¹⁶ The OECD Model Tax Convention on Income and on Capital, Commentary on Article 5 Concerning The Definition of Permanent Establishment, 2000, p. 74

¹⁷ Ibid.

that the person who, in one way or another, are dependent on the enterprise (personnel) conduct the business of the enterprise in the State in which the fixed place is situated.

Based on the Commentaries, a permanent establishment exists not only because of the location of a site but also because of the activity. In this context, the location of a site alone is unlikely to give rise to a permanent establishment¹⁸. To be a permanent establishment, the website or web server needs to have such business activities which are conducted in the State in which the website or the web server is located.¹⁹ However, the exception in Article 5 (4) of the Model limits the activity which can create a permanent establishment. As has been mentioned above, the activity is deemed not to be a permanent establishment if it has a preparatory or auxiliary character²⁰. In this case, it is necessary to identify whether the business activity in certain jurisdictions has a preparatory or auxiliary characteristic. Even though it is a difficult task, the Commentaries provide various examples of activities which can be used to differentiate between the activity which has a preparatory or auxiliary character and that which has not²¹. Following are some examples of business activities which

have preparatory or auxiliary characters:²² (a) Advertising or information purposes; (b) Storing, displaying or delivering; (c) Solely for the purpose of purchasing; (d) Servicing of patents or know-how contract. Therefore, if the business activity conducted through a website or web server has functions solely for advertising or information purposes, the website is unlikely to be a permanent establishment.

In the context of having automated equipment or machinery in certain jurisdictions, it may constitute a permanent establishment if the enterprise which sets up the machines also operates and maintains them for its own account²³. However, a permanent establishment does not exist if the enterprise merely sets up the machines and then leases them to other enterprise²⁴. Thus, it is clear that the sitting equipment is regarded as a permanent establishment depending on other business activities conducted by the enterprise such as operating and maintaining the equipment.

A permanent establishment concept also recognizes the existence of agents in relation to the electronic transaction via the Internet. In this context, an agent is needed to negotiate a contract or an arrangement

¹⁸ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.297

¹⁹ Ibid.

²⁰ The OECD Model Tax Convention on Income and on Capital, Commentary on Article 5 (4) Concerning The Definition of Permanent Establishment, 2000, p. 26

²¹ The OECD Model Tax Convention on Income and on Capital, Commentary on Article 5 Concerning The Definition of Permanent Establishment, 2000, p. 80

²² Ibid, p. 80-81

²³ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.297

²⁴ The OECD Model Tax Convention on Income and on Capital, Commentary on Article 5 Concerning The Definition of Permanent Establishment, 2000, p. 77

for the delivery of the electronic goods and services in certain jurisdictions²⁵. This may make a non-resident who sells electronic goods and services and then enters into an arrangement, subjects to tax in the jurisdiction concerned²⁶. However, to attract tax charges on the non-resident, it is important to determine whether an agent constitutes a permanent establishment or not.

Article 5 (5) of the OECD Model Tax Convention governs the concept of agency as follows:

..., where a person – other than an agent of an independent status to whom paragraph 6 applies – is acting on behalf of an enterprise and has, and habitually exercises, in a Contracting State an authority to conclude contracts in the name of the enterprise, that the enterprise shall be deemed to have a permanent establishment in that State in respect any activities which that person undertakes for the enterprise, unless the activities of such person are limited to those mentioned in paragraph 4 which, if exercised through a fixed place of business, would not make this fixed place of business a permanent establishment under the provisions of that paragraph.²⁷

From the above Article, it is clear that the dependent agent may give rise a perma-

nent establishment if he/she acts on behalf of the enterprise and has the authority to conclude contracts in the name of the enterprise, whereas an independent agent is unlikely to give rise a permanent establishment.

The concept of agency is generally related to the second tax issues about permanent establishment. The use of the concept is relevant to determine whether an ISP or a telecommunication's company can be considered to have a permanent establishment in a country concerned. In the context of electronic commerce, the common contractual arrangement is that an ISP hosts a web site of an enterprise in the country where the server is located²⁸. If this is the case, a general rule of agency applies in which the ISP will not constitute a permanent establishment in that country²⁹. This is because the ISP does not have the a right to conclude contracts with the costumer in the name of the enterprise or the ISP usually acts as an independent agent both legally or economically in the ordinary course of business as stated in the revised commentary in the following³⁰:

ISPs will not constitute an agent of the enterprise to which the web sites belong, because they will not have the authority to conclude contracts in the name of these enterprises and will not regularly conclude such contracts or because they will constitute independent agents acting in the ordinary course of their

²⁵ Ibid.

²⁶ Ibid, p.218

²⁷ Article 5 (5) of The OECD Model Tax Convention, 2000, p. 26

²⁸ Michael Chissick and Alistair Kelman, *Electronic Commerce: Law and Practice*, 2002, p. 291

²⁹ Ibid.

³⁰ The revised PE Commentary on Article 5 (OECD 2000)

business, as evidenced by the fact that they host the web sites of many different enterprises.

Similar treatment applies in determining whether a telecommunication company can create a permanent establishment. In this case, the telecommunication company which provides a communication's link is deemed not to have a permanent establishment in a foreign jurisdiction³¹. This is on the basis that the telecommunication company conducted an activity for the purpose of passing information only through its infrastructure³². The main activity conducted by the telecommunication company is regarded as having a preparatory or auxiliary characteristic in which it is excluded from creating a permanent establishment in that jurisdiction as governed in Article 5 (4) of the Model.

Regarding the existence of a software agent, it has become an interesting discussion among the authors of electronic commerce whether it may give rise to a permanent establishment or not³³. In the circumstance, the capability of software to negotiate and to conclude contracts for the business is a key point to determine the existence of permanent establishment in a country concerned³⁴.

³¹ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.299

³² Ibid.

³³ Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.118-120

³⁴ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.297

³⁵ Ibid.

³⁶ Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.118-120

³⁷ Ibid.

³⁸ Article 3 of The OECD Model Tax Convention, 2000, p. 25

³⁹ Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.113

⁴⁰ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.296

If soft ware can perform the function of an actual agent for the business, it may be sufficient to create a permanent establishment.³⁵

However, some authors do not agree with the opinion that the soft ware agent has the same ability as an actual agent to negotiate and to conclude contracts on the behalf of the enterprise³⁶. This is because "a soft ware agent is not a legal person and has no legal capacity"³⁷. It orders to create a permanent establishment in a certain country, it requires that an agent must be a person as defined in the Article 3 of the OECD Model Tax Convention in the following: "the term "person" includes an individual, a company and any other body of person"³⁸. Based on Article 3 of the Model, it is clear that the software agent is not a "person". Therefore, it cannot give rise a permanent establishment in the country where the software is located.

In International Taxation, the concept of permanent establishment is regarded as an accepted principle to determine which country has a right to impose tax on electronic transactions³⁹. Despite the fact that most double tax treaties based on the OECD Model, each country can interpret the concept of permanent establishment differently⁴⁰. This is because the concept of permanent estab-

lishment is said to be incompatible with electronic transactions⁴¹. In this case, the critical point is on the requirement of physical presence in the country concerned. As has been mentioned before, electronic transactions require less physical presence or activity whereas the OECD Model Tax Convention still requires a physical presence in the country where the transaction occur. This brings such suggestion that it is necessary to amend the tax treaty commentary in relation to the permanent establishment concept in order to be able to catch electronic transactions.⁴²

In fact, the OECD has already revised the commentary on Article 5 of the OECD Model Tax Convention in respect of permanent establishment. The Revised Commentary makes the wording in Article 5 of the Model clear and unambiguous especially in determining whether a website or a server constitutes a permanent establishment. The same view has been taken that a website and an ISP are unlikely to give rise to a permanent establishment. Clearly, there is no significant change on the permanent establishment concept which can be used to cope with the increasing of electronic transactions in recent days.

There is an interesting suggestion in relation to the permanent establishment concept. The suggestion tends to keep the permanent establishment concept but to extend

the criteria for tax liability⁴³. In this case, the use of the supplied goods or services within jurisdiction concerned will be the main criteria to impose income taxes on a non-resident who supplies digital products in that jurisdictions⁴⁴. However, this suggestion is objected by another author who believe that it will have the same effect as changing the permanent establishment concept because it will be "income taxation of all cross-border supplies via the Internet"⁴⁵.

C. Characterization Of Income

Characterization of income has become one of the main tax issues of electronic commerce. This issue arises because different types of income will have different tax treatment. Therefore, it is important to make distinction of income which is generated from the electronic transactions. Basically, a traditional tax law has classified the following three types of income (a) Income from the sale of goods; (b) Income from the provision of services; (c) Income from the use of assets (which may be tangible, such as land or intangible, such as software).⁴⁶

In the context of electronic transactions, a payment from electronic commerce falls within the classification of the income above. An electronic payment which is classified as a payment for the sale of goods represents business profit under Article 7 of the

OECD Model Tax Convention. This Article governs the right of such country to impose tax on business profits as illustrated in the following:

*The profits of an enterprise of a Contracting States shall be taxable only in that state unless the enterprise carries on business in the other Contracting States through a permanent establishment situated therein. If the enterprise carries on business aforesaid, the profits of the enterprise may be taxed in the other State but only so much of them as is attributable to that permanent establishment*⁴⁷.

From the article, it is clear that the permanent establishment concept is a key point for the purpose of determining the tax right on the profits derived by an enterprise from the sale of goods in another jurisdiction. Therefore, if a tax authority of another jurisdiction found that a permanent establishment exists, the income of a non-resident from the sale of goods can be taxed but only so much of them as is attributable to the permanent establishment.

Another type of income in relation to electronic commerce is income from the provision of services. Previously, the OECD Model Tax Convention governed this type of

income under Article 14 concerning income from the independent services. That article provides similar tax treatment to income from the sale of goods in which the income from independent services may be taxed in the other jurisdiction if a non-resident who performs his / her activity has such a fixed base regularly in that jurisdiction. In this case, a tax authority of other jurisdiction may only tax the income which is attributable to that fixed base.

However, no clear distinction between the concept of a fixed base and the concept of a permanent establishment raises a question whether the income of a non-resident may fall within Article 14 or within Article 7⁴⁸. This is because a domestic tax laws or some double tax treaties require a distinction to be made since they contain special rules of either income from the sale of goods or income from the provision of services⁴⁹. On 29 April 2000, the OECD made a decision to delete Article 14 from the Model Tax Convention on the basis that "there were no intended differences between the concept of permanent establishment, as used in Article 7, and fixed base, as used in Article 14, or between how profits were computed and tax was calculated according to which of Article 7 or Article 14 applied"⁵⁰. As a result, the income derived from the provisions of services especially from the activities of an

⁴¹ Ibid.

⁴² Ibid, p. 299

⁴³ Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.115

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.301

⁴⁷ Article 7 (1) of The OECD Model Tax Convention, 2000, p.29

⁴⁸ Michael Chissick and Alistair Kelman, *Electronic Commerce: Law and Practice*, 2002, p. 293 and Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.123

⁴⁹ Michael St J R Butler, Victor T. Chew, et al, *Taxation of Global E-Commerce* available at Asian Comparative Tax Law System Course Material 2004,p.503

⁵⁰ The OECD Model Tax Convention, 2000, p.174

independent character falls within Article 7 concerning Business Profits⁵¹.

The last type of income is income from the use of assets which falls within Article 12 of the Model concerning the taxation of royalties. Article 12 (2) of the Model provides the definition of royalties as follows⁵²:

Payment of any kind received as a consideration for the use of, or the right to use, any copyright of literary, artistic or scientific work including cinematograph films, any patent, trademark, design or model, plan, secret formula or process, or for information concerning industrial, commercial or scientific experience.

In relation to taxing right on royalty payment, Article 12 (1) states that "royalties arising in a Contracting State and beneficially owned by a resident of the other Contracting State shall be taxable only in that other state"⁵³. From that Article, it is clear that a primary right to impose tax on royalties is on the hand of the country residence. However, in fact, many countries such as Australia, Japan and New Zealand tax royalties at source with specified rates⁵⁴. Normally, the source country will impose withholding tax in which the country of residence is required

to provide any relief for the tax paid to the source country⁵⁵.

In the concept of electronic commerce, there is a significant problem which has to be discussed in relation to the tax treatment of royalties. The problem concerned is whether payments received as a consideration for the computer software may produce royalty income or business income⁵⁶. Going back to the definition of royalties under Article 12 (2) of the Model, the Article does not provide a specific description about computer software in connection with electronic commerce. However, a discussion on that matter can be found in the OECD Commentary on Article 12 concerning the taxation royalties. According to the OECD Commentary, software is describe as "a program, or series of programs, containing instructions for the computer required either for the operational processes of the computer itself (operational software) or for the accomplishment of other tasks (application software)".⁵⁷

The character of payments as either royalties or business profits in connection with the transfer of software depends on the nature of the rights acquired by the transferee⁵⁸. Regarding the transferee's rights, they consist of partial or complete rights in the underlying copyright, or they may be partial

⁵¹ *Ibid.*

⁵² Article 12 (2) of The OECD Model Tax Convention, 2000, p.33

⁵³ Article 12 (1) of The OECD Model Tax Convention, 2000, p.33

⁵⁴ Commentary on Article 12 of The OECD Model Tax Convention, Para. 33-37, 2000, p. 161-162

⁵⁵ Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.120

⁵⁶ Zak Muscovitch, *Taxation of Internet Commerce* available at <http://www.firstmonday.dk/issues/issuc2-10/muscovitch.p.9>

⁵⁷ Commentary on Article 12 of The OECD Model Tax Convention, Para. 12.1, 2000, p. 156

⁵⁸ *Ibid.* Para 12. 2

or complete rights in a copy of the program⁵⁹. In this case of electronic payments made to acquire partial rights in the copyright, the payments are classified as royalties where the consideration is for granting rights in the program in a manner that would, without such license, constitute copyright infringements⁶⁰. Examples are licenses to reproduce and distribute to the public software incorporating the copyrighted program, or to modify and publicly display the program⁶¹.

Electronic payments are treated as business profits under Article 7 of the OECD Model Tax Convention where payments are made to acquire a limited right in relation to the copyright to enable the users to operate the program⁶². In this case, the user is allowed to copy the program to his / her own hard drive or for the archival purpose. In some countries, that action would constitute a breach of copyright if it were done without a license, whereas the copyright laws in other countries grant this right to the owner of the software⁶³. For the purpose of taxation, how the right of copying the program is given should be disregarded as long as it only makes possible the effective operation of the program by the user.⁶⁴

Another electronic payment which has the same character as the above payment is a payment under distribution arrangements in which the transferee obtains rights to make multiple copies of the program for operation only within its own business. Examples of such distribution arrangements are license for site, license for an enterprise or for a network⁶⁵. Further, such rights to make multiple copies are limited only for computers or networks⁶⁶. In other words, it is not permitted to make multiple copies for any other purposes.

Such payments are characterized as royalties where a software house or computer programmer agrees to supply information about the ideas and principles underlying the program such as logic, algorithms or programming language or techniques⁶⁷. This character of payments represents consideration for the use or the right to use knowledge which cannot be copyrighted⁶⁸.

In relation to the transfer of full ownership of the copyright, such payments are not considered as royalties under Article 12 of the OECD Model Tax Convention. In this case, difficulties arise where there are extensive but partial alienation of rights. This involves:

⁵⁹ *Ibid.*

⁶⁰ *Ibid.* p. 157

⁶¹ *Ibid.*

⁶² Commentary on Article 12 of The OECD Model Tax Convention, p. 157

⁶³ *Ibid.*

⁶⁴ *Ibid.*

⁶⁵ *Ibid.* p. 122

⁶⁶ *Ibid.*

⁶⁷ *Ibid.*

⁶⁸ *Ibid.*

- Exclusive right of the use during a specific period or in a limited geographical area;
- Additional consideration related to usage;
- Consideration in the form of substantial lump sum payment⁶⁹.

However, it depends on its particular facts of each case but such electronic payments may fall within Article 7 concerning Business Profits or within Article 13 concerning Capital Gains.

The OECD Commentary also provides the tax treatment where electronic payments are made under mixed contracts. Example of such mixed contracts is sales of computer hardware with built in software⁷⁰. If this is the case, the mixed contracts should in principle be broken down based on the information contained in the contract or the payments should be apportioned on reasonable basis with the appropriate tax treatment applied to each part⁷¹. However, the treatment of the principal part of the contract must prevail where some of the parts are only ancillary to the principal part as governed in the OECD Commentary in the following:

If one part of what is being provided constitutes by far the principal purpose of the contract and the other parts stipulated therein are only of an ancillary and largely unimportant character, then it seems possible to apply to the

*whole amount of the consideration the treatment applicable to the principal part.*⁷²

Based on the discussion provided by the OECD Commentary in respect of the computer software, it can be concluded that most electronic payments are treated as either business profits under Article 7 or capital gains under Article 13 rather than royalties under Article 12. This means that most electronic payments involving computer software are subject to full taxation instead of a withholding tax. As mentioned in the other paragraph, most double tax treaties are based on the OECD Model Tax Convention which generally adopts the same basic rules for taxation. In theory, many countries which have the same principles as the OECD Model Tax Convention will be bound to apply those principles in such matters. However, in practice, many countries may have different interpretation on such principles.

Canada is an example of a country which does not adhere to the interpretation in Paragraph 14 of the OECD Commentary. In this case, electronic payments with certain characteristics in connection with computer software are classified as business as business income under Article 7 of the Model Tax Convention. In contrast, Canada takes a different position in which "payments made by the users of computer software pursuant to a contract that requires that the source

⁶⁹ Ibid.

⁷⁰ Para. 17 of The OECD Commentary on Article 12, 2000, p. 158

⁷¹ Para. 11 and 17 of The OECD Commentary on Article 12, 2000, p. 155 and p. 158

⁷² Para. 11 of The OECD Commentary on Article 12, 2000, p. 155

code or program be kept confidential, are payments for the use of a secret formula or process and are thus royalties"⁷³. In respect of the use of software via the Internet, that position is said to be untenable. The reason of this opinion is that "software may be used while online, instead of actually downloading the program"⁷⁴. Therefore, it cannot be considered as the use of "a secret process or formula"⁷⁵.

Singapore is also a country which generally considers such principles in the OECD Commentary in relation to software transactions. In the case of license fees, Singapore holds the view that those kinds of payments are classified as royalties⁷⁶. Thus, it will be subject to royalty withholding tax at applicable rate. However, in practice, a royalty withholding tax seems not to be imposed on electronic transactions even though the tax authorities in Singapore appear to adhere to the principles in the OECD Commentary⁷⁷.

Based on the two examples above, it can be reasonable to assume that the principles in the OECD Model Tax Convention in respect of electronic transactions are basically used as a guideline to set out basic principles in tax treaties. The interpretation and the application such principle in the OECD

Model Tax Convention are in the hands of tax authorities in such jurisdictions. Therefore, each jurisdiction may take its own position regarding the tax treatment of software payments.

Regarding electronic payments to acquire digital goods, a similar issue to electronic payments in connection with computer software has been raised. The issue concerns the characterization of income as either royalty income or income from the sale of goods or the provision of services. As discussed previously, if a distinction between royalty income and income from the sale of goods or the provision of services has been made, it would lead to different income tax treatment. An example of such transactions involving digitized goods is buying a book or music by downloading it to a consumer's computer⁷⁸. If this kind of transaction is regarded as the transfer of copyright, it will give rise to royalty income⁷⁹. As a consequence, the income will be subject to withholding tax. If this is the case, the applicable rate of withholding tax may be reduced depending on the provision of a tax treaty⁸⁰. However, if a payment received from the above transactions is classified as payment for services or for the sale of goods (it will generate business profits),

⁷³ Para. 27 of The OECD Commentary on Article 12, 2000, p. 160

⁷⁴ Zak Muscovitch, *Taxation of Internet Commerce* available at <http://www.firstmonday.dk/issues/issue2-10/muscovitch>, p.9

⁷⁵ Ibid.

⁷⁶ Michael St J R Butler, Victor T. Chew, et al. *Taxation of Global E-Commerce* available at Asian Comparative Tax Law System Course Material 2004, p.502

⁷⁷ Ibid.

⁷⁸ Ibid, p. 503

⁷⁹ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.301

⁸⁰ Ibid, p. 302

the income will be subject to full taxation of the profits.

In this context, it is arguable that "transactions involving digitized information could involve considerable differences in substance that could justify a different tax treatment, for example, a consumer purchasing physical copy of a book is usually unable to manipulate the data in the book, while consumer downloading a digital version of the book may be able to alter its format, manipulate the data, etc.⁸¹ Further, The Treaty Characterization TAG emphasized on neutrality principle of taxation in which tax treatments should be neutral and equitable between traditional and electronic forms of commerce⁸². It means the tax treatment should be no difference between buying a physical book and buying a digitized book. In addition, the OECD Commentary provides that the tax treatment of computer software should be extended to apply to digital supplies⁸³.

It might be necessary to examine whether the treatment of income in connection with the transfer of computer software may really apply to digitized goods. In this case, the principles in the OECD Commentary which are applied in various transactions involving the transfer of computer software can be used to determine the character of payment to acquire digitized goods. Buying a digital version of a book or music by downloading it may be considered as having

a similar situation to acquiring of a program copy. The OECD Commentary governs the treatment for the payments to acquire a copy of computer software. In this context, the right to reproduce the program is limited. As discussed previously, the user is only allowed to copy the program into his or her own hard drive or to make an archive copy. It is not permitted to reproduce the program for any other purposes.

The acquisition of a program copy of computer software with having only limited rights to reproduce the program could be applied to the transaction for the acquisition of digital goods. It might be reasonable to assume that the consumer only has a limited right in the acquisition of digital goods. He or she may only have a right to download the content of books or music and a right to use it for his or her own business. If this is the case, income from buying digitized goods may be regarded as business profits under Article 7 of the OECD Model Tax Convention. As a consequence, this kind of income is subject to full taxation.

D. Transfer Pricing

Basically, transfer pricing is described as "the mechanism by which a multinational business allocates benefit and reward, setting the prices at which goods, services and assets are transferred between international parts of the business and consequently affecting their taxable profits"⁸⁴. From the above de-

scription, it might be reasonable to assume that associated enterprises which enter into such transactions in different jurisdictions may be able to shift profits from the higher tax jurisdiction to the lower tax jurisdiction to reduce overall tax liabilities. The ability to move profits from a high tax country to a low tax country is due to the disparity of tax system among countries in the world⁸⁵. Many national tax authorities are concerned with a potential loss of tax revenue because of the manipulation of prices by associated enterprises⁸⁶. The risk of double taxation may also arise when there is disagreement in making adjustment to the transfer pricing in certain jurisdictions.

In order to avoid the potential loss of tax revenue and the risk of double taxation, the OECD sets up principles and guidelines for transfer pricing which is generally adopted by many countries in their legislations. The OECD Transfer Pricing Guidelines are based on the arm's length principle in which "profits should be allocated for tax purposes between affiliated business on the same basis as would arise on transactions between independent enterprises"⁸⁷. In this case, taxpayers must consider the application of various

transfer pricing methods to determine the appropriate arm's length price for such transactions. In other words, they should choose a method which provides a higher degree of comparability and a more direct and closer relationship to the transactions⁸⁸. The use of comparable data and auditing procedures are necessary to meet the standard of reliability⁸⁹. However, this raised a significant problem for either tax administrations or taxpayers. It is said that a heavy administrative burden and uncertainty may arise where the application of transfer pricing requires a substantial amount of data to collect and to be analyzed.⁹⁰

In relation to electronic commerce, there are no particular difficulties to apply transfer pricing to electronic commerce⁹¹ since electronic transaction recognize to concept of permanent establishment.⁹² However, electronic commerce may create more complex business networks which may lead to transfer pricing issues⁹³. It is said, "electronic commerce is more collaborative and dispersed that traditional forms of commerce, and its supply chain is intrinsically connected. It facilitates connectivity both intra-group and inter-group"⁹⁴. From that

⁸⁵ Julian JB Hickey, *E-Commerce: Law, Business and Tax Planning*, 2000, p.109

⁸⁶ *Ibid*, p. 110

⁸⁷ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.303

⁸⁸ The OECD Transfer Pricing Guidelines (1995), Para. 1.70

⁸⁹ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.303

⁹⁰ The OECD Transfer Pricing Guidelines (1995), Para. 4.99

⁹¹ Julian JB Hickey, *E-Commerce: Law, Business and Tax Planning*, 2000, p.118

⁹² Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.302

⁹³ *Ibid*, p. 302

⁹⁴ Collin Lau and Andrew Halkyard, *From E-Commerce to E-Business Taxation* available at Asian Comparative Tax Law System, 2004, p. 515

⁸¹ Electronic Commerce: A Discussion Paper on Taxation Issues (OECD 1998)

⁸² Tax Treaty Characterization Issues Arising from E-Commerce (OECD 2001), Para. 16

⁸³ The OECD Model Tax Convention, Commentary on Article 12, Para. 12-17

⁸⁴ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.302

point of views, it can be reasonable to assume that the improvement of technology may increase the integration of businesses which may raise difficulties in the allocation of profits between affiliated business for the purpose of taxation. In fact, the OECD Transfer Pricing Guidelines provides transfer-pricing methods, which can be used to allocate profits between associated enterprises to determine an accurate arm's length price. The methods are divided into two categories: traditional method consist of comparable uncontrolled price method, resale method and cost plus method; and other methods consist of profit-split method and transactional net margin method.

As has been mentioned above, a method with a higher degree of comparability and a more direct relationship to the transactions is necessary to establish arm's length prices in electronic commerce. However, it is difficult to find comparable transactions in electronic commerce since "electronic commerce transactions may not be directly compared with similar trade in physical products. The cost structure and risk involved in the supply of digital music or software are not comparable to deliveries of CDs, etc"⁹⁵. Furthermore, the increasing integration of businesses makes comparable data more difficult to find. In this case, traditional methods of transfer pricing may not be sufficient

to apply to electronic transaction since those methods require comparable data to determine an accurate arm's length price. Where traditional methods is unable to apply because of the difficulties in obtaining comparable data, other methods which are profits split and transactional net margin methods may be used as a means to establish arm's length price appropriately.

Another transfer pricing issue raised by electronic commerce is related to compliance and enforcement.⁹⁶ It is said "compliance problems will increase, while it may become significantly more difficult for tax administrations to identify, trace, quantify and verify cross-border transactions as a result of the nearly instantaneous transmission of information and the effective removal of physical boundaries".⁹⁷ Clearly, electronic commerce has accelerated the growth of global businesses which would lead to more complex problems for tax authorities in many countries to control tax compliance and to enforce the existing tax system. Furthermore, different interpretation as to transfer pricing rules and regulations in different countries may lead to conflicts between taxpayers and tax authorities⁹⁸. Consistent interpretation of the OECD guidelines⁹⁹ and the use of Advance Pricing Agreements (APAs)¹⁰⁰ are practical solutions to reduce the conflicts. The advantage of applying those solutions is

⁹⁵ Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.130

⁹⁶ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.303

⁹⁷ Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.128

⁹⁸ *Ibid*, p. 130-133

⁹⁹ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.303

¹⁰⁰ Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.133

that there will be less negotiations with each tax authorities in respect of pricing arrangements.¹⁰¹

E. Tax Administration and Collection

It is no doubt that the improvement of technology brings such benefits in the administration and collection of tax. In this case, tax authorities can use the information technology to make taxpayers have an easy access to information in connection with taxation. Examples of this are "by establishing web sites where tax legislation and forms can accessed, minimizing business compliance costs by promotion of norms for acceptance of electronic material, and promote electronic assessment"¹⁰². From these examples, it may be reasonable to expect that the tax compliance will increase significantly. In relation to cross-border transactions, the use of electronic services as indicated by the above examples for the purpose of taxation is essential for cross-border taxpayers. In this context, the procedure and the information should be as simple as possible to improve tax compliance in relation to electronic commerce. As a general rule, "taxpayers are more likely to obey laws that are simple and easy to understand"¹⁰³.

Despite the benefits of information technology, tax authorities also face many significant problems on the taxation of electronic commerce. The difficulty to identify the actual taxpayers has raised a concern among tax authorities in many countries. This is because the sophistication of technology provides an environment in which individual or business may easily move from one location to another. It makes the identification on a particular transaction become more problematic for tax authorities. The use of Tax Identification Number on databases¹⁰⁴ is one of practical solutions to make the identification much easier. Another practical solution is the use of qualified techniques for determining who the actual taxpayer is¹⁰⁵. By using a qualified search engine, tax authorities may easily find names, trademarks, or other words or strings of words¹⁰⁶. As a consequence, the actual taxpayer cannot escape from their liabilities to pay tax.

Another significant problem on the taxation of electronic commerce is related to 'audit trails'. In traditional commerce, tax authorities do not have difficulties to verify the information provided by taxpayers. This is because traditional commerce requires paper-based information, for example, by

¹⁰¹ Julian JB Hickey, *E-Commerce: Law, Business and Tax Planning*, 2000, p.116; Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.303

¹⁰² Julian JB Hickey, *E-Commerce: Law, Business and Tax Planning*, 2000, p.260

¹⁰³ Neil Brooks, *Key Issues in Income Tax: Challenges of Tax Administration and Compliance* available in the course material for Asian Comparative Tax Law System, 2001, p.143

¹⁰⁴ Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.232

¹⁰⁵ *Ibid*.

¹⁰⁶ *Ibid*.

providing invoices, cheques or bank transfers¹⁰⁷. In the case of electronic transactions, tax authorities have the difficulties to follow and to check back the information provided by taxpayers. This is due to the structure by the Internet which makes such transactions leave without trail¹⁰⁸. Examples of this are transferring electronic cash or the existence of bank secrecy in most tax haven jurisdictions¹⁰⁹.

Regarding tax collection of electronic transactions, it has become a major challenge for tax authorities to collect tax effectively and efficiently. The involvement of intermediaries such as banks or credit card operators¹¹⁰ is seen to be a good option to solve the problems in relation to the collection of tax. In traditional commerce, the intermediaries assist tax authorities in collection and record keeping.¹¹¹ The function of intermediaries in traditional commerce can be used in electronic commerce to assist in the collection of the tax. However, there is possibility to remove the intermediaries from the commerce chain since electronic commerce offers manufacturers to supply directly to consumers¹¹². Another possible solution is "to allow assistance by one state in the collection of the tax for another state"¹¹³. This solution, in my opinion is a better solution in

which the risk for tax evasion can be minimized.

F. Conclusion

The rapid development of electronic transactions has raised significant tax issues for both tax authorities and taxpayers. As businesses may easily move from one jurisdiction to another, tax authorities may have difficulties to identify the location where electronic transactions occurred, while taxpayers may face the risk of double taxation. The identification of location where electronic transactions occurred is important to establish which country has the authority to impose tax on a transaction. For this purpose, a non-resident must have taxable presence in the jurisdiction concerned. In determining the existence of taxable presence, the concept of permanent establishment is used.

In relation to electronic commerce, there are two issues about permanent establishment: whether a website or a web server constitute a permanent establishment and whether ISPs or telecommunication company can create a permanent establishment. As has been discussed above, a web site will never be considered as a permanent establishment. In the case of ISPs, the concept of agency in Article 5 (5) of the OECD Model Tax Convention should be taken into consid-

eration. An ISP does not create a permanent establishment because the ISP does not have a right to conclude contracts with the customers on behalf of the website's owner, or the ISP usually acts as an independent agent both legally or economically in the ordinary course of business. Similarly, the telecommunication company does not constitute a permanent establishment since providing a communication link is regarded as having a preparatory or auxiliary characteristic.

Regarding characterization of income, the issue concerned is whether electronic payment received as consideration for computer software may produce either royalty income or business income. In the following is a brief summary of the discussion on the above issue: (1) Electronic payments are treated as business profits under Article 7 of the Model where the payments are made to acquire a limited right in relation to the copyright to enable the user to operate the program; (2) Electronic payment made to acquire partial rights in the copyright are treated as royalties where consideration is for granting rights in the program in a manner that would, without such license, constitute copyright infringements; (3) Electronic payments under distribution arrangements in which the transferee obtains rights to make multiple copies of the program for operation only within its own business are treated as business profits under Article 7; (4) Electronic payments are characterized as royalties where software house or computer programmer agrees to supply information about the ideas and principles underlying the program; (5) Electronic payments for the transfer of full ownership of the copyright are not considered as royalties. As can be seen above,

most electronic payments for software are treated as business profits under Article 7 of the OECD Model rather than royalties under Article 12 of the OECD Model. This means most electronic payments for software will be subject to full taxation basis instead of withholding tax.

A similar issue has been raised for electronic payments to acquire digital goods: whether the payments are treated as either royalties or business profits. In this particular issue, the tax treatment for computer software may apply to digital goods. The transaction to acquire digital goods may have the same characteristic as the transaction to acquire a program copy of computer program in which the user only has a limited right to produce the program. Therefore, income from buying digitized goods may be treated as business profits which will be subject to full taxation basis.

In relation to transfer pricing, there are two fundamental issues raised by e-commerce. The first issue is related to comparable data which is used to justify the accurate transfer pricing method for allocation of profits. In fact, it is difficult to find comparable data because of the increasing integration of businesses. Thus, traditional methods of transfer pricing cannot be used to establish an accurate arm's length price. The second issue is related to compliance and enforcement. In this case, the increasing compliance problems are triggered by the growth of global business in which tax authorities in many countries are unable to control tax compliance and to enforce the existing tax system.

In the case of tax administration and collection, the information technology brings

¹⁰⁷ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.314

¹⁰⁸ *Ibid.*, p. 315

¹⁰⁹ *Ibid.*

¹¹⁰ Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.49

¹¹¹ Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.315

¹¹² Daniel Tunkel and Stephen York, *E-Commerce: A Guide to The Law of Electronic Business*, 2000, p.315; Julian JB Hickey, *E-Commerce: Law, Business and Tax Planning*, 2000, p.118

¹¹³ Bjorn Westberg, *Cross-Border Taxation of E-Commerce*, 2002, p.50

both benefits and problems for the taxation of e-commerce. Regarding the benefit of the information technology, the use of electronic services for the purpose of taxation may increase tax compliance. However, simplicity of the procedure and the information provided on the Internet is needed to encourage taxpayers, especially cross-border taxpayers, to obey the law. Despite the fact that the information technology provides the benefit, it also brings some significant problem in rela-

tion to taxation of e-commerce. Those problems are the difficulty to identify the actual taxpayers and audit trails problem.

In relation to tax collection, it has become a major challenge to tax authorities. In this case, it has raised concern on how tax authorities can collect tax efficiently and effectively. The solutions for this are the use of intermediaries such as the banks to assist tax authorities to collect tax and the use of assistance from another country.

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