UNCTAD/ITE/IPC/2005/9

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
Geneva

TAXATION AND TECHNOLOGY TRANSFER: KEY ISSUES

CHAPTER 1

UNITED NATIONS
New York and Geneva, 2005

Chapter I
The application of international tax principles to technology transfer

The forms of technology can be grouped into three categories: *tangible assets*, *intangible property* and *knowledge and skills*. There are borderline cases that may be difficult to categorize. Software, for example, can be delivered in tangible (shrink-wrapped) form or electronically.[1] Know-how may be considered an item of property in one country but not in another.

These different forms of technology can be transferred from one country to another in various ways. The transfer may take the form of a change of ownership, of some form of licensing or leasing, or of the provision of services. Payment for the transfer may take the form of a sale price in money (or in the form of an item of property, such as the shares of a corporation), of some type of recurring rental payment (e.g. a royalty) or of a fee for services rendered. The type of property, the method of transfer and the method of payment may all affect the tax treatment of the transfer.

1. Basic international tax principles and international treaties

There exists a generally recognized set of tax principles that are applicable to international transactions. Although nothing comparable to a national tax system exists at the supranational level, it is possible to identify a number of basic international tax concepts that are recognized by the great majority of countries (Avi-Yonah, 1996).

The past three decades have seen considerable convergence of national tax systems, resulting in part from the work of various international bodies and in part from spontaneous responses to similar pressures (Easson, 1999; Stewart, 2003). Of the international organizations, the World Trade Organization (WTO) has had a wide and direct impact on national tax rules. Until recently, the GATT/WTO rules were restricted to issues of international trade in goods and applied only marginally to most forms of technology transfer. The rules affect principally customs duties and procedures and, to a lesser extent, consumption taxes. However, the agreements reached in the course of the Uruguay Round may have important application to direct taxes as well, in particular the use of tax incentives as a form of export subsidy.

Among other organizations, the influence of the Organisation for Economic Co-operation and Development (OECD) has been felt strongly in connection with its role in formulating a model treaty for the elimination of double taxation. Its Committee on Fiscal Affairs has also been a persuasive force in promoting the adoption of common tax principles among member countries and among other countries to which it has provided assistance.

1 Electronic delivery of goods and services presents numerous problems for tax administrations. See Owens, 1992; Cockfield, 2003; Li, 2003.

Worldwide, the total number of double taxation treaties is close to 2,300 (UNCTAD, 2004). Virtually all of these closely follow the OECD Model or the UN Model (which is in turn based on the OECD Model but has been adapted to meet the special needs of developing countries).[2] Together, the OECD and UN models have greatly influenced not only inter-state tax arrangements but also the design of those parts of domestic tax systems that apply to income generated by international trade and investment.

The interaction between importing-country and exporting-country tax rules may result in international double taxation. Double taxation is sometimes, but usually not entirely, eliminated unilaterally by the exporting country through the foreign tax credit mechanism. However, that mechanism is not very effective when the double taxation results from dual residence, different interpretations of "source", or different classifications of income, the latter being especially problematic in the case of technology transfer (van der Bruggen, 2001). Tax treaties attempt to eliminate double taxation in such cases by adopting common jurisdictional rules and definitions.

In the context of technology transfer, one of the most important functions of tax treaties is to reduce the rates of withholding tax that are imposed by the importing country on payments of royalties, technical fees and the like. Those provisions, while primarily intended to allocate taxing power between the states, in some cases also help to eliminate (or reduce) double taxation. Furthermore, close cooperation between the tax authorities of parties to tax treaties helps develop common tax definitions and classifications that reduce ambiguities among the tax rules of countries.

Even without the impetus provided by international organizations, the tax policies of most countries have over the past two decades exhibited many common trends. This has been reflected in the almost universal adoption of the value-added tax (VAT) as a major source of tax revenue, partly in place of less neutral types of consumption taxes and partly in preference to highly progressive personal income taxes. In terms of taxation of business profits, the trend has been towards lower marginal rates, a broader tax base and greater neutrality regarding different types of businesses and activities. As a result, many countries have restructured their tax systems unilaterally, rather than as a result of any concerted or coordinated international plan or programme.

The following sections briefly review the application of these general principles to transfers of technology.[3] However, it must be emphasized that, though these principles are widely recognized, details vary substantially from one country to another.

2. Taxation in the importing country

The most important of the importing country's taxes, insofar as technology transfer is affected, is usually the tax on business profits, referred to here as the corporate income tax

2 See the United Nations Model Double Taxation Convention between Developed and Developing Countries (http://unpan1.un.org/intradoc/groups/public/documents/un/unpan002084.pdf).

3 A comprehensive review is provided in the International Fiscal Association's report of its 1997 conference (IFA, 1997).

(CIT). [4] Personal income tax and social security contributions are of little relevance, except in the case of employment of expatriates (discussed further in Chapter II).[5] Sales taxes, such as the VAT, should normally be of little concern.[6] However, import duties can be a major obstacle to the importation of technology, especially where the technology takes the form of tangible goods or equipment. Other taxes, such as capital duties, stamp duties and transfer taxes, can also be important in some countries.

Taxation in the importing countries affects the transfer of technology in two ways: by increasing the cost of the actual transfer, and by reducing the subsequent return to the transferor.

(a) The cost of the transfer

Transfers involving the importation of tangible assets, such as machinery or equipment, frequently lead to the imposition of import duty. For fairly obvious reasons, the transfer of intangible property usually attracts no import duty, though it ought to be subject to VAT.[7] Since the importer receives a credit for that tax to set against its own VAT liability, the tax does not normally increase the cost of the transfer.[8]

In the case of a straightforward sale of assets (tangible or intangible) by the exporting firm (ECo) to the importing firm (ICo), there is often no further tax consequences in the importing country, though sometimes that country imposes some form of transfer tax, which increases the cost of the transfer. The sale may also give rise to a gain, realized by the ECo, but that gain is normally not taxable in the importing country except when the ECo is considered to be resident, or to have a permanent establishment, there. (In that case, the gain may be treated as part of the Eco's business profits and be taxed as such, or it may be taxed separately as a capital gain.) In practice, the transferred assets, whether they are tangible assets such as machinery or intangibles such as patent rights, will often have already been used by the ECo and will have lost some of their original value, so that no gain arises.

As an alternative to selling assets for cash, the ECo may contribute them to the capital of the ICo in return for shares in the ICo. That often occurs where the ICo is formed as a subsidiary of the ECo or is a joint venture in which the ECo has a substantial interest. Technically, the transaction remains a sale, the compensation being the shares received, and the “sale price” is normally taken to be the value of the shares received. Again, the transfer

4 Withholding taxes on non-residents can be considered part of the CIT system though they can, of course, also apply to payments made to individuals and corporations. However, technology transfer occurs almost exclusively between corporations.

5 Technical services may also be provided by self-employed individuals. For the most part, this situation differs little from one where the services are provided by a corporation, except that the tax rate may be different.

6 Problems do occur where the transfer takes the form of a cross-border provision of services, especially where the countries concerned have different rules for determining the place of supply.

7 Payments (e.g. royalties) for intangible rights that relate to imported (tangible) goods are subject to import duties in some countries; see, for example, the treatment of such rights in China (Fletcher and Shu, 2003).

8 The situation is different when the importer is not a taxable person for VAT purposes (e.g. is a non-profit research establishment). In that case there is no output VAT against which to claim a credit.

may give rise to a gain, which may be taxable in the importing country but more often is not.[9] In many countries, contributions to a company's capital attract some form of capital tax or stamp duty. It is also not uncommon for there to be restrictions on contributions in kind to a company's capital. (For details see Chapter II.)

A third method of transferring assets is to lease or license them in return for recurring payments in the form of rents or royalties. The transfer may again attract transfer taxes and/or taxation of any gain. The taxation of the recurring payments will be considered in the next section.

It is important to note that if the ECo and the ICo are related parties – for example, parent company and subsidiary – transactions between them may be subject to review under transfer pricing legislation (see section 3 (a).

(b) The return on the investment

Where TOT takes the form of a lump-sum sale of assets to an unrelated party, the tax consequences are normally limited to those described above. In most cases, however, TOT has ongoing tax implications. Where assets are transferred as part of the contribution of capital to a subsidiary or affiliate company, the transferor (ECo) will expect to receive a return on the investment in the form of dividends and perhaps a capital gain on the eventual disposal of its shares in that company. Where assets are leased or licensed to the transferee (ICo), whether it is related to the ECo or not, the ECo will expect to receive royalties or rental payments.

Not every TOT takes the form of a transfer of assets. In many cases, the ECo will provide technical services of one sort or another to the ICo in return for a fee or some other form of payment, such as a share of profits. (There are also instances where the TOT takes the form of a transfer of assets *and* the provision of services.) The provision of services may involve an extended presence in the importing country, or no presence at all.

Taxation in the importing country of the various types of payment falls into a number of categories. These include

- business profits
- fees, rents and royalties
- dividends and capital gains
- employee salaries

In determining how the various payments are to be taxed, it is first necessary to establish whether the ECo is considered to be carrying on business in the importing country. Although there is a generally recognized distinction between doing business *with* a country and doing business *in* that country, many countries have adopted very broad definitions of what constitutes conduct of business, so that very little physical presence (and sometimes no physical presence at all) is required in a country in order to render a non-resident liable to tax on business profits considered to have been derived from that country. However, where a tax

9 See Chapter II, section 3b below.

treaty is applicable, the right of the importing country to tax business profits is usually restricted to cases in which the non-resident (ECo) has a *permanent establishment* (PE) in that country, and is restricted to the profits that are attributable to that PE. Article 5 of the OECD Model Treaty defines "permanent establishment" in some detail as "a fixed place of business" through which the business of an enterprise is carried on, and which may be "a place of management, a branch, an office, a factory, a workshop and a mine, an oil or gas well, a quarry or any other place of extraction of natural resources". In addition, the PE may be a building site or construction or installation project, provided it lasts for more than 12 months. A subsidiary does not by itself constitute a PE of its parent company.[10]

The taxation of PE profits varies widely from country to country. Not only do CIT systems differ substantially (in aspects such as the tax rate, the computation of taxable profits, and details such as the carry forward of losses), there is also the problem of determining what part of the taxpayer's profit should be attributed to the PE. The objective in most systems is to treat the PE as if it were a separate entity, essentially similar to a subsidiary of the foreign parent. The problem, however, is that a PE is not a separate person: it is an integral part of the operations of the enterprise as a whole. Having no separate personality, it cannot enter into contracts with its head office, make payments to it, or transfer property to it: the funds or property already belong to the enterprise, and any "transfers" are for internal bookkeeping purposes only.

Two approaches to the problem may be taken (Burgers, 1995). One approach is to treat the branch as a fictional separate entity engaged in dealings at arm's length with its own head office and with others. The PE is treated as if it had bought and sold goods from and to its head office and had borrowed money and paid interest, rent, management fees and the like, in each case charging or paying a notional arm's length price. The alternative approach is to accept the unity of the enterprise and simply allocate or apportion various items of revenue and expenditure to the PE or the rest of the enterprise as appropriate. Whichever approach is used, actual application is very difficult.

Fees for services, whether these are provided by a non-resident company, a self-employed individual or some other entity such as a partnership, are normally included in business profits if the recipient of the fees carries on business in the importing country,[11] but they may otherwise escape tax there altogether (being treated essentially in the same way as payments for goods supplied by a non-resident). Alternatively, such payments may be treated much like royalties and be subject to withholding tax.

Withholding tax is normally imposed as part of the general income tax law of a country. The tax commonly applies to a wide range of payments made to non-residents – dividends, interest, royalties, rents, management fees, technical fees, fees to non-resident contractors or consultants, and other payments of a similar nature. In some countries, a single flat tax rate applies to all such payments; in others, different types of payment are taxed at different rates. Rates tend to be quite high, often around 25 to 30 per cent or even higher. However, exemptions for certain types of payments are common, and the rates are usually reduced substantially where a tax treaty is applicable.

---

10 The UN Model Treaty provides a somewhat broader definition.

11 Through a PE, where a tax treaty is applicable.

According to the OECD Model, royalties are defined as “payments 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 .... any patent, trade mark, design or model, plan, secret formula or process, or for the use of, or the right to use, industrial, commercial or scientific equipment, or for information concerning industrial, commercial or scientific experience". The definition is very broad and would seem to embrace virtually all forms of payment for all forms of technology. However, it should be remembered that the intention of the OECD Model was to *exempt* such payments from tax in the source country (hence the broad definition). In practice, although complete exemption of royalties is the exception rather than the rule, most tax treaties contain a somewhat narrower definition of those royalties that may be subject to withholding tax. The precise definition, in domestic legislation and in individual treaties, is therefore especially important in determining whether a particular payment is taxable. Questions frequently arise, for example, as to whether equipment rentals or payments for computer software constitute royalties or form part of the business profits of the payee, or should be regarded as some other form of income, which may or may not be subject to tax.

A common method of foreign investment involves the establishment in the host country of a subsidiary or an affiliated company. Technology might be supplied to the subsidiary, and paid for, in any of the ways described above. Alternatively, it might be contributed as part of the capital of the subsidiary. In addition to any royalties, rental payments and fees that may have been agreed on, the parent company (ECo) may receive dividends from its subsidiary (ICo) and may realize a capital gain if it eventually disposes of its shares in the subsidiary.

Normally, dividends are subject to withholding tax in the importing country, though tax treaties commonly reduce the tax rate to as little as 5 per cent or eliminate it entirely. As for the disposal of shares, some countries do not tax capital gains at all, or tax only a very limited range of gains, such as short-term gains on land and listed securities. Others tax capital gains fully, at the same rates as other types of income. In between, various other possibilities exist. It is common, for example, for gains realized on the disposal of business assets to be treated as part of the profits of the business, but for other types of gain to receive special treatment or exemption. The OECD Model allows the host country to tax capital gains of a non-resident derived from the disposal of immovable property and of movable property forming part of the business property of a PE. The UN Model goes further, permitting the host country to tax gains on the disposal of substantial shareholdings.

Technology transfer often involves the ECo sending employees to provide technical or management services to the ICo. In some cases, the employee remains on the payroll of the Eco; in others, especially where the ICo is a subsidiary of the ECo, the individual may become a (temporary) employee of the ICo. In either case, his or her remuneration will constitute employment income derived from duties performed in the host country and will normally be subject to personal income tax there. However, where the employment is for a relatively short term (e.g. not exceeding six months), tax treaties frequently provide an exemption from host-country tax.

(c) Anti-avoidance rules

Most countries have some sort of general provision in their tax legislation intended to nullify tax planning schemes that are considered unacceptable, or recognize a general “abuse of legislation" doctrine that can be used to counter tax avoidance. In addition to such general provisions, there are various types of specific anti-avoidance provision. Of these, the most important from the perspective of TOT are transfer pricing rules.

The expression "transfer pricing" refers to transactions in goods and services between related enterprises. Virtually all developed countries and many developing countries have some sort of transfer pricing provisions in their tax codes. Legislation in some countries is complex and highly detailed: in others, the legislation consists of a single simple provision. However, all transfer pricing legislation seeks to give the tax authorities of the country the power to examine the price charged in a transaction between related persons and to substitute for it an amount representing the price that would have been charged in a transaction between unrelated persons. Consequently, all transactions between a company importing technology (ICo) and a parent or affiliated company are reviewable. Such transactions include not only supplies of materials, components and finished products but also payments for intangibles, such as management fees, patent royalties, payments for technical assistance and know-how, and the like.

3. Taxation in the exporting country

As is the case with the importing country, the most important tax affecting TOT in the exporting country is usually the corporate income tax (CIT). CIT is often the only tax that has any real relevance to the export of technology. Relatively few countries now impose export taxes (and then only on scarce natural resources), and VAT is (or should be) remitted on the export of goods and services.

As with importing countries, taxation affects TOT in two ways: by increasing the cost of the actual transfer, and by reducing the real return to the transferor.

(a) The cost of the transfer

Very often no tax cost is occasioned in the exporting country by the actual TOT. However, tax liability arises only on receipt of the consideration for the transfer. The exporter (ECo) can send its employees abroad to provide services to a client, or may provide technical assistance to the client (ICo) without even stepping outside its home office. The ECo may sell to the ICo equipment that it has manufactured, or may grant a licence to use a patent that it owns. The fee for the services, the price (or rent) for the equipment, or the royalty for use of the patent will constitute part of the ECo's income and may be taken into account in determining its taxable profits in the exporting country. But the actual transfer itself will often be entirely costless from a taxation perspective.[12]

However, there are cases where the transfer itself leads to a tax liability. When the transfer involves the disposal of a capital asset (tangible or intangible), it may give rise to a taxable capital gain: if the asset is a depreciable asset, there may be a recapture of some of the depreciation previously claimed.

Immediate tax liability tends to depend on whether the asset in question remains in the ownership of the transferor. In the case of a sale of a tangible asset, there is a disposal of the asset and a potential liability to tax on any capital gain, or to recapture of depreciation

12 In some cases there may be a transfer tax or stamp duty.

allowances.[13] If, instead, the asset is leased, there will (in most tax systems) be no disposal for capital gains and depreciation purposes, and no immediate tax consequences.[14] That, however, may depend on the terms and length of the lease: a distinction is often made between operating leases and finance leases (where the intention is for the lessee to eventually acquire ownership of the asset). The situation is more complex for transfers of intangible property, such as patent rights. Intangible property, like tangible property, is usually regarded as capital property, and its disposal may therefore give rise to a capital gain or loss: in many tax systems it is treated as depreciable property, so that disposal may result in the recapture of depreciation allowances already claimed. A particular difficulty is that intellectual property rights (IPRs) are divisible and can be assigned or licensed in a variety of ways. Patent rights may be assigned outright (i.e. the ECo relinquishes all rights to the patent), the rights may be assigned in part (as where the ICo is given sole rights to exploit the patent in a particular country or region) or may simply be licensed (with the ECo retaining full rights to use the patent, and the ICo being given concurrent rights within a particular country or region). The latter situation usually does not give rise to any immediate tax consequences, whereas the first two (disposal and part disposal) may do so.

A further situation to consider is that where the ECo contributes property (tangible or intangible) to the capital of the ICo in return for shares in the ICo. Such a transaction may be treated in the same way as any other disposal of the property, in which case the property will usually be considered to have been disposed of at a price equal to its fair market value, which value will also become the acquisition cost of the shares.

(b) The return on the investment

Taxation in the exporting country tends to become a more important factor when one considers the income that is derived from TOT. Most countries claim the right to tax their own residents on their global income. An enterprise that is resident in one country and derives income from another country can consequently expect to be taxed in its home country as well as in the host country. There are, however, a few exceptions to this rule and numerous partial exceptions, with the result that there is often no home-country liability for several reasons. The main reasons are that (1) a few countries apply a "territorial system" and do not tax foreign-source income at all; (2) other countries exempt from tax certain types of foreign-source income; and (3) the methods used to eliminate double taxation may result in there being no additional tax liability in the home country.

In practice, the territorial system is now relatively rare. Among major capital-exporting countries, Hong Kong (China) is unique in having a purely territorial tax system. Companies resident in Hong Kong, whether locally owned or controlled by non-residents, are taxed only on income arising in or derived from a source in Hong Kong. France and Malaysia are unusual in that they apply the territorial principle to their companies (but not to resident

13 There may, of course, be a capital loss, or a "terminal loss" for depreciation purposes, in which case the transferor obtains a tax advantage.

14 The transferor may, since it still owns the property, be entitled to continue to claim depreciation. This sometimes produces a very advantageous situation for the transferor since, in the early years, the depreciation that the transferor is entitled to claim may exceed the (taxable) rent it receives. The United States has introduced special rules (called "Pickle lease" rules) to restrict this advantage.

individuals), though there are important exceptions to this rule in France. In addition, there are "tax havens" and countries that have established special holding company or "offshore" company regimes, under which qualifying companies are exempt from tax, or pay tax at a very low rate, on various types of foreign-source income.

A second group of countries do not adopt a general territorial approach but nevertheless exempt from taxation foreign-source business profits. The method of exemption varies widely. The Netherlands effectively exempts income attributable to a foreign branch by allowing a proportionate deduction of that income from total worldwide profits; Belgium unilaterally exempts 75 per cent of such profits, and many of its tax treaties provide for full exemption; Germany, too, normally provides for full exemption by treaty; Australia exempts business profits derived from certain listed countries, in which the profits will normally have been taxed at rates comparable to those imposed in Australia; and Singapore taxes such profits only if they are remitted to Singapore. Additionally, many countries provide an exemption in the case of dividends received by a company from a foreign affiliate, especially if these are derived from an active business carried on in the source country. In the Netherlands, the "participation exemption" effectively provides an exemption for all inter-affiliate dividends; Australia and Canada exempt such dividends if they are received from a listed country; Germany grants an exemption where the dividend is received from a country with which Germany has a tax treaty (and also from certain less developed countries). Consequently, dividends can frequently be remitted to the home country without additional tax liability.

Finally, where no exemption applies, it is usual to grant a credit for the tax already paid in the source country in respect of the income: there will consequently be many cases where no home-country tax is imposed, because the source-country tax is equal to or greater than the tax that would be imposed in the home country on an equivalent amount of income.

Taxation of the various types of payments, if they are taxable at all, falls into a number of categories:

- business profits
- fees, rents and royalties
- dividends and capital gains
- employee salaries

As was noted in section 2 of this chapter, the ECo may be considered to be carrying on business in the importing country, depending on the degree of its presence in that country and the manner in which the technology is transferred. However, the ECo will invariably also be carrying on business in the exporting country and, subject to the possibility of an exemption (considered above), will be liable to tax there on its worldwide profits. For the purposes of importing-country taxation, it is necessary to compute the amount of profit attributable to the activities conducted there, and that is done according to the importing country's rules and accounting practices. However, for exporting-country purposes, no separate calculation is normally necessary: the global profits of the enterprise are calculated according to its home-country principles. (There may be special rules regarding the deductibility of expenses incurred to earn foreign-source profits.) One consequence of this is that the amount of the importing-country profits that is reflected in the global enterprise profit may differ substantially from the amount that is separately taxable in the importing country. A further important consequence of this approach is that importing-country losses automatically reduce the global amount of profit taxable in the exporting country, unless there is any special limitation on the deduction of foreign losses.

In those exporting countries that do tax foreign-source business profits, payments such as equipment rentals, patent royalties, payments for know-how, and technical fees are normally included in the taxable income of the ECo, without the need for special categorization (i.e. are treated as part of the profits of the business).

In cases where technology is transferred to a foreign subsidiary (ICo), part (or all) of the return on the investment may take the form of dividends paid to the parent ECo. Unlike business profits, dividends from an affiliate are not normally taxable until they are declared and remitted to the parent company (the “deferral principle”). As was noted above, even in countries where foreign-source business income is not generally exempt, dividends received from foreign affiliates often are. Otherwise, they will be included in the taxable income of the ECo, though they may be taxed separately from its business income and according to different rules.

The subsequent disposition of its shares in the ICo may also produce a capital gain for the ECo, taxable in the exporting country. Again, capital gains are sometimes taxed separately from business income.

TOT often involves executives and technicians leaving their home country, normally temporarily to install and service equipment, demonstrate techniques, or run an operation until local managers and technicians can be trained. Such persons are often referred to as "expatriates".

Employees sent to the importing country frequently remain resident, for tax purposes, in the exporting country if the stay abroad is for less than one year. Often, an absence abroad of as much as three years is required in order to establish non-residence. In some cases the salary is paid by the ECo, in others by the ICo. In either case, the employee may be liable to personal income tax on his or her salary in the exporting country.

(c) Relief from double taxation

There are two types of double taxation: *juridical* double taxation and *economic* double taxation. Juridical double taxation occurs when a single person is taxed on the same income by two or more countries. Economic double taxation occurs when two separate persons are each taxed on the same income.

There are three principal ways in which international double taxation arises: when a person (natural or legal) is regarded as being resident in two (or more) countries; when an item of income is considered by two (or more) countries to derive from a source in that country; and when a person resident in one country receives income derived from a source in another country. All three situations can arise in connection with TOT. Double taxation may be eliminated unilaterally (by either country) or bilaterally (by agreement between countries).

In the first two types of situation, unilateral relief from double taxation is not feasible, but, as was noted in section 1 of this chapter, tax treaties frequently resolve the problems.

Most countries now provide unilateral relief in the third type of case (where income with a source in one country is received by a person resident in another country) even when there is no tax treaty between the two countries. Most often, the residence country (i.e. the technology-exporting country) grants a credit for tax paid in the source country (the technology-importing country). The amount of the credit is invariably limited to the amount of residence-country tax that would otherwise be payable: that is, no refund of source-country tax is given, but if the tax paid in the source country exceeds that which would otherwise be payable in the residence country, there is no additional residence-country tax. Such, at least, is the theory. In practice, there are various restrictions on granting the credit, or differences between countries in the way that taxable income is calculated, with the result that often some element of double taxation remains.

(d) Anti-avoidance rules

For the exporting country, because of double tax relief and the deferral principle, TOT often yields comparatively little tax revenue. Nevertheless, like technology-importing countries, exporting countries are concerned with protecting their tax base through anti-avoidance rules. In some respects, notably transfer pricing, the concerns of both countries are similar, but in other respects, different considerations may apply. The principal concern of the exporting country is to make sure that potentially taxable income, such as dividends, royalties, rents and fees, is held offshore and is not repatriated.

According to general international tax principles, income earned by a foreign subsidiary is only taxed in the home country when it is remitted to the parent company, or when the parent company becomes entitled to receive it. Home-country taxation can consequently be avoided (a) in the case of dividends, simply by not declaring them; and (b) in the case of royalties, rents, fees and the like, as well as of dividends, by diverting them to another affiliated company in a country that imposes little or no tax on them. The home country may attempt to counter this by controlled-foreign-company (CFC) legislation.

Most developed countries and a few developing ones have adopted CFC rules. Although those rules vary greatly in detail, they follow the same basic approach: a country taxes its own resident individuals or companies on their proportionate shares of the income of non-resident companies and other entities (such as trusts) as that income accrues and regardless of whether it is distributed to them or not.[15] Most countries that have adopted CFC rules apply them only to "passive" income and to what is termed "base company income". Consequently, some types of income derived from TOT fall outside the scope of most CFC rules. However, royalty income is caught (as base company income) in many countries, as is income from the provision of services provided by the CFC to related parties or to persons outside the country in which the CFC is situated. Thus, the rules may prevent the income earned from TOT from being retained in a tax haven or a low-tax jurisdiction and thereby avoiding home-country taxation.

15 Normally, the foreign company (or other body) must be controlled by residents of the home country, and only shareholders with a fairly large participating percentage are subject to the rules. Some countries apply their CFC rules only to subsidiaries located in low-tax jurisdictions. On CFC rules generally, see Arnold and Dibout (2001).

4. The use of third-country intermediaries

TOT often involves more than two countries. Between the ECo, in the exporting country, and the ICo, which may be a subsidiary or affiliate in the importing country, there may be interposed one or more intermediate companies located in other countries. Sometimes the reasons for structuring the operation in this way have nothing to do with taxation; sometimes they are entirely tax-motivated; and sometimes the structure is dictated by non-tax considerations but taxation plays an important part in determining the actual location of the intermediary (Easson, 1999).

An intermediate holding company may be used to enable dividends to be shifted from ICo to a country other than that where the ECo is located, or to enable capital gains to be realized in that other country on the disposal of shares in the ICo. Other types of payment may also be redirected: loan interest payments, rental payments and royalties, and payments for equipment or technical services may be made by the ICo to the intermediate holding company rather than directly to the ECo. Transnational enterprises frequently make use of "centres" – coordination centres,[16] distribution centres or financing centres. Research and development centres may be established to conduct R&D on behalf of all members of the group. Inellectual property may be transferred to a licensing centre, which in turn licenses the technology to other members of the group.

The establishment of such an intermediary may have a number of tax advantages. The intermediary may be located in a country that has a favourable tax treaty with the eventual importing country, thus reducing the rate of withholding tax imposed by that country. Similarly, it might take advantage of a tax treaty with the original exporting country, perhaps enabling profits to be repatriated as tax-free dividends.[17] The chief advantage, however, is that various types of income can be held in the intermediate country and from there redirected to finance other parts of the group's activities, rather than being repatriated to the ECo in the home country, where it would be subject to tax. Fortunately (for the transnationals), a wide range of locations offer low-tax or no-tax regimes for such activities.[18]

16 Such as operational headquarters (OHQ) or regional headquarters (RHQ) companies.

17 There may be other reasons. For example, some US TNCs have reportedly moved their IP licensing activities offshore mainly to avoid the considerable expense and inconvenience of complying with US transfer pricing requirements (Lev, 2002).

18 For example, Cyprus has an extensive network of tax treaties, many of which feature a zero rate of withholding on royalties, and it provides a special regime for international companies, with a low (4.25 per cent) tax rate (Bevir, 2001). The number of suitable locations is shrinking as a result of initiatives by the European Union and the OECD to counter harmful tax competition.