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TAXATION AND TECHNOLOGY TRANSFER: KEY ISSUES

CHAPTER 3

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Chapter III
Tax policy considerations involved in technology exports

1. General considerations

From a tax perspective, the objectives of technology-exporting countries are in many ways similar to those of technology-importing countries. They encourage their enterprises to develop new technologies and to exploit and to export the technology that they have developed, thereby increasing their ability to earn income. At the same time, they wish to derive tax revenue from what they consider to be a fair proportion of the profits resulting from the export. These two objectives can come into conflict, and tax rules that are designed to protect the domestic tax base can create disincentives to transfer technology abroad.

2. Tax implications for technology transfer

As is the case in technology-importing countries, a number of the exporting countries' tax provisions may have implications for TOT. Of particular importance are immediate tax liability occasioned by the transfer, transfer pricing rules, disallowance of expenditures incurred in creating the technology, and failure to allow tax-sparing credits.

As was noted in Chapter I, often no tax cost is occasioned in the exporting country by the actual TOT. However, where the transfer involves the disposal of a capital asset (tangible or intangible), it may give rise to a taxable capital gain, or, if the asset is a depreciable asset, there may be a recapture of depreciation. If the asset is sold to an unrelated party, any resulting tax liability will probably not be perceived as constituting an undue obstacle to the transfer. However, if the asset is contributed to a subsidiary or joint venture as part of its charter capital (in return for shares), there may be a tax liability (without there being actual proceeds of disposal out of which to pay the tax) that could substantially increase the cost of the transfer.

In some cases, where a company transfers technology property to a foreign company otherwise than by sale or license (e.g. in return for shares), it must include in its annual income an "imputed royalty", based on the amount of income it would have received if the property had been licensed in an arm's-length transaction.[37] Moreover, that imputed royalty is treated as home-country income, with the result that no credit can be given against it for foreign taxes (Rogers and Wunsch, 1997). In practice, various complex structures (often involving the creation of a foreign partnership) are often devised to avoid the tax (Parnes, 1993; Raedel and French, 1996).

Transfer pricing rules, of varying complexity, exist in most countries and are obviously necessary to protect a country's tax base. Such rules are often difficult to apply when there are no readily available comparables, which is often the case with technology property (because of its relative uniqueness), and especially so with intellectual property. Paradoxically, although they constitute an obstacle to TOT, the very complexity of the rules

37 The rule appears to be unique to the United States.

can have the unintended result of encouraging companies to move their intangible assets offshore (Lev, 2002).[38]

The rules on deduction of expenses may also constitute an obstacle to TOT. The problem can be illustrated by contrasting the Canadian and US approaches to the deduction of R&D expenses. Both countries allow the deduction, in computing taxable income, for expenditures incurred by their firms in conducting R&D, and both provide a variety of tax incentives for R&D activities carried on in their respective countries. Some of the technology that is developed may be exported to other countries and earn income there, which may, for reasons explained already, not be taxed in the exporting country. In Canada, that fact is considered unimportant. A Canadian company is able to develop technology in Canada and transfer it to an offshore subsidiary, which can then licence it to the eventual importers: the costs incurred in developing the technology remain fully deductible, even though the income derived from it may escape tax in Canada (Bernstein and Guilbault, 1997).

By contrast, the United States takes the position that expenditures should be deductible only to the extent that they produce income taxable in the United States. Thus, R&D costs must be apportioned and allocated between domestic-source income and foreign-source income: only that proportion of the R&D expenses that is attributable to US-source income is deductible. If the foreign jurisdiction taxes the income derived from the technology on a gross basis – for example, by treating it as a royalty and levying a withholding tax – or taxes it as business income without permitting the deduction of the expenses originally incurred in the United States, the result may be double taxation.

3. Incentives for technology transfer

Incentives to promote outward TOT are comparatively rare. However, there are various general tax incentives that are especially relevant to TOT.

(a) R&D incentives

A number of technology-importing countries provide special tax incentives to promote R&D activities. One motive is to encourage domestic firms to develop new technologies; another is to encourage TNCs to locate their R&D activities within the country, thereby providing employment, training local staff and producing other spillover benefits. Similar motives are apparent in technology-exporting countries: domestic firms are encouraged to become, or remain, more competitive by upgrading their technology, and are also encouraged to provide employment (Lenjosek and Mansour, 1999).

Special R&D incentives, which are comprehensively reviewed elsewhere (OECD, 2002b), usually take one of three forms:

- *tax deferrals* in the form of a delay in payment of a tax (e.g. special depreciation allowances and current deduction of long-term expenditures)
- *tax allowances* permitting the deduction of amounts additional to actual expenditures

38 The initial transfer to a foreign affiliate will be subject to transfer pricing review, but subsequent licensing of the technology by the affiliate can be undertaken without the further inconvenience of review by the home-country authorities. (The affiliate would obviously be located in a country with less stringent transfer pricing procedures.)

- *tax credits*, which are amounts deducted from tax liability

Many countries use income tax incentives to encourage R&D undertaken *within national boundaries* for business purposes (Canada, Department of Finance, 1998). Japan appears to be one of the few exceptions in extending its incentives to activities carried on in other countries.

The provision of R&D incentives to promote technology creation indirectly facilitates TOT to developing countries. However, growing political concern about outsourcing, including the perceived growing tendency by TNCs to conduct some of their R&D in developing countries where labour costs (and taxes) are substantially lower, may increase pressure on governments to grant more generous tax incentives in order to keep R&D activities, and jobs, at home (Billings and Pashke, 2004; Rashkin, 2003).

(b) Export incentives

Tax incentives to promote exports of technology are relatively rare among developed countries, in part because such incentives in the manufacturing sector could, in some circumstances, fall foul of the WTO Subsidies Code.[39] In one sense, the exemption from tax of foreign-source business income or the granting of tax-sparing credits could be considered a form of incentive to transfer technology:[40] certainly, they increase the advantage of investing in, or doing business in, countries where the tax payable is less than it would be at home.

A few countries do provide tax incentives specifically directed at the export of technology. For example:

- India permits the deduction (from taxable income) of 50 per cent of royalty and service fee income earned abroad from the use of patents or inventions, and of 100 per cent of profits from the export of computer software or the provision of technical services related to software.
- Japan allows a special deduction of the income derived from the export of certain technology or the provision of technical services outside Japan, in particular where a Japanese company exports technology-related rights to "newly developed areas" for the purpose of its manufacture, or provides technical services in such areas; the eligible areas are mostly developing countries.
- Korea grants an exemption for 50 per cent of the income derived from the transfer or licensing of technology.
- Sri Lanka provides an exemption for income earned from the export of technology by means of the provision of professional services, provided a reasonable amount of that income is repatriated to Sri Lanka; various other tax holidays and exemptions are given to exporters.

39 The US report (Rogers and Wunsch, 1997) on taxation of income derived from the supply of technology observed that in some cases technology exports could take advantage of the foreign sales corporation (FSC) provisions. Those provisions have subsequently been ruled by a WTO panel to be prohibited.

40 Without being within the WTO definition of a "subsidy".

(c) Tax sparing

As was already noted, countries – especially developing countries – frequently provide tax incentives to promote inward FDI generally, and inward TOT in particular. Where the exporting country adopts the tax credit method to provide relief from double taxation, it is evident that a reduction in the amount of tax payable in the source country can simply result in a reduction in the amount of credit that may be claimed in the residence country, with a corresponding increase in the amount of home-country tax payable. There would consequently seem to be little point in potential host countries' seeking to attract investment by offering tax incentives or generally low tax rates, since the benefit of the tax forgone, or "spared", would accrue not to the investor (ECo) but to the investor's home country.

One response to this problem is the "tax-sparing" credit. Developed countries (with the exception of the United States) that apply the credit method of avoiding double taxation commonly include such a provision in their tax treaties with developing countries, though in recent years tax sparing has become rather less popular, and several OECD member countries have become more restrictive in granting it in their treaties (Owens and Fensby, 1998; Thuronyi, 2003). The effect of a tax-sparing provision is to allow a home-country credit for the host-country tax that is deemed to have been "spared" as a result of specific incentive measures granted to investors. The credit usually applies to reductions in business profits tax, and often also to reductions in withholding taxes on dividends, interest or royalties granted under specific incentive legislation.

In practice, the importance of tax sparing may be exaggerated, since only in a relatively few circumstances do host-country tax reductions actually result in an increase in home-country tax liability (Margalioth, 2003: OECD, 2003: 87). That is so because:

- Some countries employ the exemption method to relieve double taxation, especially for income from active business (i.e. there is no home-country tax liability anyway).
- Where an investor operates in the host country through a subsidiary rather than a branch, home-country tax is normally deferred (if it is imposed at all) until such time as income is repatriated to the parent company, and that is often avoided by the interposition of a third-country intermediary.
- Even where the profits are repatriated and become liable to home-country tax, the parent company may be able to take advantage of excess foreign tax credits (from other investments in high-tax countries) to reduce or eliminate any liability.

In sum, with good tax planning, it would not to be too difficult to avoid having the benefit of low host-country taxation neutralized by the home country. Nevertheless, the existence of tax-sparing credits can be advantageous in the sense that it permits the ECo to employ a broader range of structures for transferring technology. In particular, it is often difficult to avoid home-country taxation of royalties and fees for services, since those will be included in the ECo's taxable income in its home country when they fall due, and (as was noted previously) CFC rules usually prevent the accumulation of such income in a tax haven or preferential tax regime. Tax-sparing credits, in respect of reduced rates of (or exemption from) withholding tax in the host country, could thus facilitate some forms of TOT.[41]

41 However, not all tax sparing provisions apply to reduced withholding taxes, and when they do, they often limit the extent of the relief.

4. Tax policy measures to promote technology transfer

As a recent UNCTAD study points out, home-country incentives for investment in, and TOT to, developing countries are usually of a hortatory nature only.[42] A number of writers have considered whether developed-country tax systems might do more to facilitate and encourage *investment* in developing countries. Encouraging FDI would also promote TOT. Various modifications to existing rules and practices have been proposed or considered, including the adoption of tax-sparing credits (Laurey, 2000), the granting of a deemed credit in the amount of tax that would have been paid to the foreign country had it not provided a tax subsidy (McDaniel, 2003), or (more radically) the exemption from tax for business income earned in developing countries, and in particular in sub-Saharan Africa (Brown, 2002).

Specifically, in order to facilitate TOT especially to developing countries, technology-exporting countries might consider allowing the deferral of capital gains taxation, or of the recapture of depreciation, where technological property is contributed to the capital of a foreign subsidiary. Thus, where the property is contributed to a subsidiary or joint venture as part of its charter capital (in return for shares), tax liability could be postponed by allowing a rollover, with the cost base of the transferred assets becoming the cost base of the shares, and with any tax liability deferred until the disposal of the shares. That is often done where the transfer is between companies that are both resident in the same country. However, it is rarely permitted in international transactions, largely because of the difficulty of monitoring subsequent transactions and because of the risk of abuse. For example, the asset might be promptly sold by the subsidiary to an unrelated party, so that in effect the subsidiary was used as a conduit for conducting an arm's-length sale while deferring tax liability indefinitely. The possibility of such abuses might well undermine the integrity of the entire capital gains and depreciation systems of the exporting country. It would also seem impractical to restrict rollover relief to those cases where the technology was transferred to developing countries.

In any event, although the imposition of immediate tax liability where such a transfer occurs does constitute an obstacle to TOT, it seems unlikely that it would actually deter a transfer otherwise considered advantageous. Consequently, the costs of such a measure, in terms of the risk of abuse, would probably outweigh any potential benefit.

Another possible measure would be to extend R&D incentives to include activities performed in other countries (and especially in developing countries), rather than restricting them to activities carried out in the home country, as is usually the case. One objection to that course is that R&D incentives tend to be difficult to monitor and would become much more so if the activities were carried on abroad. There is also a strong likelihood that a firm would receive two sets of tax incentives – from the home country and from the country in which the activities were carried out.[43]

42 UNCTAD, 2004:43. The only comprehensive international agreement addressing the issue of home-country incentives is the 2000 Partnership Agreement between the European Community and the members of the ACP countries (UNCTAD, 2004: 44).

43 Ireland, which grants tax incentives for R&D performed in other member countries of the European Union and the European Economic Area, has special provisions to prevent "double-dipping" (McLoughlin, 2004).

As was noted previously, one objective in granting R&D incentives is to encourage one's own firms to be innovative and thus enhance their competitiveness; in that case, it should not matter whether the R&D is conducted at home or abroad.[44] However, an equally important objective in many countries is to promote research activities within the country, in order to provide skilled employment and to boost the *country's* technical capacity. To grant incentives for R&D activities performed abroad would run directly contrary to that objective. It also seems doubtful whether extending the scope of R&D incentives would have any significant impact on the location of R&D activities: when firms outsource their R&D activities it is usually because of lower costs (especially labour costs) in the chosen location rather than for tax reasons.

A third possible measure to encourage TOT to developing countries would be to grant tax-sparing credits in respect of reduced rates of withholding tax on royalties and professional fees (where this is not already done). Although the recent tendency in developed countries has been to limit the scope and availability of tax-sparing credits, there seems to be relatively little risk of their being abused, and appropriate countermeasures are available to prevent abuse.[45] The cost to the home country of such credits is likely to be very small, and the availability of a credit might even have the effect of encouraging the repatriation of royalties and fees, rather than their being accumulated offshore in a tax haven. Nevertheless, as with the other suggested measures, the impact of improved tax-sparing credits on the level of TOT to developing countries is unlikely to be significant.

In sum, there are tax policy options that technology-exporting countries could provide to facilitate TOT to developing countries. However, the most effective approach would be to tailor tax policy to facilitating FDI in developing countries generally, in the expectation that increased TOT will be one of the benefits flowing from such investment.

44 This appears to be the position taken by Singapore.

45 E.g. limitation-of-benefits provisions.