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Tax Aspects of Technology Transfers Between the United States and Canada: A Canadian Viewpoint

by Robert D. Brown*

Canada is a net importer of technology and capital, primarily from the United States. However, as a country with a well developed economy and a relatively sophisticated tax system, Canada has adapted its tax and regulatory policies to recognize both the value of imported technology to Canada, and to secure appropriate tax revenues from payments made for the use of foreign technology in Canada. In recent years, Canadian investment abroad has increased more rapidly than foreign investment in Canada, even though foreign investment in Canada remains substantially larger than Canadian investment abroad. In this environment, some increased attention is beginning to be paid to the tax and regulatory aspects of the transfer of Canadian technology to foreign countries.

Forms of Transfer of Technology

The transfer of technology between Canada and the United States can take place in a number of ways, each with its own set of tax consequences:

- The simple sale of knowledge or know-how, sometimes involving the sale of patent rights but often times the transfer of technical information.
- The provision of technology or information on a continuing basis in exchange for a fee, as in the case of granting the right to use patents or copyrights for a royalty, or providing technical know-how for a recurring charge.
- The sale of goods or services embedded with advanced technology and the use of enhanced technical information.
- The establishment of joint ventures, including co-operative manufacturing agreements, cost-sharing arrangements with respect to research and development activities, and so forth.

In an increasingly complex world, the transfer of technology tends to involve more than granting legal permission to utilize information protected by patent or copyright. Rather, it increasingly involves providing on-the-spot know-how, frequently involving actual technical assistance of a continuing kind. The emphasis therefore shifts from the tax aspects of

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granting what might be called the legal right to acquire or use technology, to the tax consequences of more complex situations in which the transfer of advanced technology is closely associated with an overall business arrangement involving the provision of services or the sale of goods.

The tax aspects of technology transfers must take into consideration the tax legislation of Canada and the United States, the provisions of the Canada-United States Tax Treaty, and the joint enforcement and other co-operative actions of the Canadian and United States tax authorities.

Given the multitude of international investments across the border, many of the tax aspects of the transfer of technology must be reviewed in situations where the transfer is not at arm's length, as between a parent company in one country and a subsidiary in the other. In fact, the largest part of technology transfers between Canada and the United States occurs between parent companies and their subsidiaries.

This paper will concentrate on the Canadian tax aspects of technology transfers, leaving Mr. Goodrich to develop the U.S. side of the issue. However, the comments on the implications of the Tax Treaty to the trade in technology across the border would generally apply to transfers in either direction.

Importing Technology

U.S. residents transferring technology to Canada will be liable for tax in Canada if:

- The U.S. resident receives payments such as royalties from Canadian residents that are subject to a withholding tax under the Income Tax Act of Canada (with the withholding tax possibly being modified or overridden by the terms of the Tax Treaty), or
- The U.S. resident has sold taxable Canadian property or other assets subject to Canadian taxation (and again the Tax Treaty provisions do not overrule Canadian taxation), or
- The U.S. resident is considered to be engaging in business in Canada (through a permanent establishment in Canada under the terms of the Tax Treaty, and the income is attributable to the establishment).

Withholding Tax

Non-residents receiving any of the following sorts of income from Canada are subject to a Canadian withholding tax (at the general rate of 25%, but frequently reduced to 10% or further under the Tax Treaty with respect to the following:

- Management or administration fees¹

¹ Income Tax Act, R.S.C., cl. 63 ¶ 212(1)(a) (1970-1972).

- Rents, royalties or similar payments²
- Interest³
- Dividends⁴

The reduction allowances are, of course, a reflection of the general rule in international tax that the country of origin of such payments is entitled to levy its tax on such flows abroad, and the country where the recipient resides is then generally expected to provide some relief for such tax, usually through a foreign tax credit against its domestic tax.

Withholding Tax on Royalties

Payment for all or part of the provision of technical or other information is usually through royalties or similar payments. Under the provisions of the Income Tax Act of Canada, a withholding tax is levied on amounts paid or credited by a resident in Canada to a non-resident for rents, royalties or similar payments. Under the terms of § 212(1)(d) of the Income Tax Act, the term “royalty” has a substantially expanded meaning, and includes a wide variety of payments for the use of information or technology that would not be considered to fall within the ordinary meaning of the word royalties. For example, under the terms of the Income Tax Act, the withholding tax can apply to payments made for many types of information or even services where the amount of the payment is dependent upon production, use or profits, and certain capital payments made for the acquisition of intellectual property.⁵

The general rate of withholding tax on payments from Canadian residents abroad is 25%.⁶ However, under the terms of the Tax Treaty, this rate is reduced to 10%⁷ for amounts that are considered to be royalties within the terms of the Tax Treaty. It must be carefully noted that the definition of royalties under article XII(4) of the Tax Treaty is not identical with the meaning of “rent, royalty or similar payment” under § 212(1)(d) of the Income Tax Act of Canada, thereby introducing further complexities.

The provisions for withholding tax under the terms of the Income Tax Act include payments for “rent, royalty or a similar payment . . . including, but so as to restrict the generality of the foregoing, any payment . . . for the use of or the right to use in Canada any property, invention, trade name, patent, trademark, designer model, plan, secret formula, process or other thing whatsoever”

² *Id.* at ¶ 212(1)(d).

³ *Id.* at ¶ 212(1)(b).

⁴ *Id.* at ¶ 212(2).

⁵ *Id.* at ¶ 212(1)(d)(iii).

⁶ *Id.* at ¶¶ 212(1) and (2).

⁷ Convention between the United States of America and Canada with respect to Taxes on Income and Capital, June 14, 1983 (Entered into force Aug. 16, 1984. Not yet published. Amends unnumbered agreement dated Sept. 26, 1980). [Hereinafter U.S.-Canada Tax Treaty].

Interpretation Bulletin IT-303 contains several examples of items that would be covered by these words: franchise payments for the use of trademarks, trade names, and industrial designs; payments for the use of blueprints for the lay-out of plants, buildings or equipment; payments for the right to use special procedures, processes or recipes pertaining to a business, whether incorporated in a franchise, patent or trade mark; and payments for the use of or the right to use prototypes or designs for manufacture in Canada.⁸

The following points could be made about the interpretation of these general words:

- The description of royalty in the Income Tax Act is extraordinarily broad, but is still not all inclusive. It applies to royalties or similar payments, even if they are not specifically enumerated in the rest of the Section.
- The terms apply to any payment for the enumerated items, including even a single, lump sum payment to acquire a package of rights or the right to use.
- Revenue Canada nevertheless does not apply the provisions to amounts paid for the outright purchase of a patent or a license, as opposed to the right to use a patent or a license, unless the purchase price is dependent upon the use of, or production from, the patent or license.

Know-how and Information

Also caught in the definition of amounts subject to withholding as royalties are any payments, whether in a series or a lump sum, for “information” relating to industrial, commercial or scientific experience where the total amount payable is dependent in whole or in part upon the use of the information or the benefit derived therefrom, the production or sale of goods or services, or any profits.⁹ Where payments of this sort consist in part of a fixed sum followed by further payments dependent upon use, production or profits, only the latter are generally taxable. The Tax Treaty in contrast, defines “royalties” to mean, *inter alia*, payments received as consideration for information concerning industrial, commercial or scientific experience, and gains from the alienation of any rights from which royalties may arise to the extent that the gains are contingent upon the productivity, use or subsequent disposition of the rights.

Payments for Services

The general provisions of the Income Tax Act also subject all payments for “services” of an industrial, commercial or scientific character performed by a non-resident to withholding, where the total amount payable is dependent in whole or in part upon use, production or profits.

⁸ Interpretation Bulletin IT-303, ¶ 11 (April 8, 1976).

⁹ Income Tax Act, R.S.C., cl. 63 ¶ 212(1)(d)(iii).

The provisions apply tax even with respect to services performed entirely outside of Canada if the payment is related to the Canadian payer's use, production or profits.¹⁰ The terms are broad enough to include payments which are made to a non-resident who agrees not to use, nor permit other persons to use, any of the types of rights or information referred to in the general royalty rules.

The Tax Treaty, on the other hand, generally does not define royalties to include income for services rendered. Business profits derived from the provision of services by a U.S. resident would normally be subject to full Canadian tax, net of expenses, only if the income is reasonably attributable to a permanent establishment in Canada; otherwise, the service income will be taxable only in the U.S.¹¹ Although the rendering of technical services may be required to fulfill a contract, if the substance of the contract is know-how, then the consideration paid under the contract may fall within the Tax Treaty definition of royalty rather than the provision of services. Consequently, the consideration will be subject to withholding in Canada.

Tax Deduction Under the Regulations for Services

Just to add another layer of confusion, it should be noted that under § 105 of the Income Tax Regulations, all payments made from Canada, with respect to fees, commissions or other payment for services rendered in Canada, are subject to a 15% Canadian tax deduction. However, this tax is only a provisional payment as the non-resident's ultimate tax liability is in Canada — unlike the non-resident withholding taxes under § 212(1)(d) discussed above which are levied under part XIII of the Income Tax Act and act as a final tax on the non-resident. If the tax deducted under § 105 exceeds the non-resident's actual Canadian tax liability, it is refundable. For example, where the Canadian authorities are satisfied that a U.S. recipient is not liable for Canadian tax because he does not have a permanent establishment in Canada and, hence, is protected by the Tax Treaty, the tax will be refunded in full.

Management Fees

Canada's Income Tax Act provides for a 25% withholding tax on management fees paid to a non-resident. For this purpose, management fees do not include reimbursement of specific expenses incurred by the non-resident for the benefit of the payor, or fees for services performed in the ordinary course of business of an arm's length non-resident.¹² In practice, therefore, a Canadian subsidiary can reimburse its U.S. parent for its appropriate share of administrative, or even research, costs in-

¹⁰ See *id.* at ¶ 212(1)(d)(iii). However, there is an exception where such payments are deductible in computing the income of the payor of a business carried on outside of Canada. ¶ 212(1)(d)(x).

¹¹ U.S.-Canada Tax Treaty, art. VII, § 1.

¹² See Income Tax Act, R.S.C., cl. 63 ¶ 212(1)(a). The exclusion is contained in ¶ 212(4).

curred by the parent for the joint benefit of the parent and its foreign subsidiaries. These payments will be fully deductible in Canada and not subject to any withholding tax. In practice, most administrative charges are structured in this way, with the only major problem being how to determine the reasonable share to allocate to the Canadian subsidiary.

The previous Tax Treaty between Canada and the United States reduced the rate of withholding tax on management fees to 15%. The current Tax Treaty includes management fees derived from business profits. Such fees paid from Canada to the United States are not taxable by Canada unless the fees are reasonably attributable to a permanent establishment maintained in Canada by the U.S. resident. In that case such fees would be subject to normal Canadian taxation.

Unfortunately, the province of Ontario has made an irritating effort to get its own share of tax on payments to non-residents. For Ontario tax purposes, a deduction from income was denied for five out of fifteen royalties and management fees to related parties subject to a federal withholding tax. Effectively Ontario levied a 5% tax on such amounts. Ontario has changed the wording of its legislation to prohibit the deduction of a portion of management fees regardless of whether the Tax Treaty protects against federal withholding tax. This provision of Ontario law is unfortunate, and is justifiably resented by foreign investors.¹³

Exclusions

The provisions of the Income Tax Act generously specify a number of items that are not subject to withholding tax under the general Canadian law:

- Copyright royalties for any literary, dramatic, musical or artistic work, but not including movies or film videotapes for use in connection with television.¹⁴
- Payments under cost sharing arrangements where a Canadian payor shares “on a reasonable basis” with non-residents research and development costs in exchange for an interest in the results of such research. However, the exemption only applies where the arrangements are a true cost sharing package with the Canadian payor acquiring a definite interest in the results. The interest can, however, be limited to the right to use the results in Canada without further charge.¹⁵
- Payments made by a resident of Canada to an arm’s length non-resident that are deductible in computing the income from a business carried on as a branch outside Canada.¹⁶

¹³ If the underlying service is “rendered” in Canada, the fees will be subject to a Canadian federal tax deduction that may be refunded. *Supra*, p. 7.

¹⁴ Income Tax Act, R.S.C., cl. 63 ¶ 212(1)(d)(vi).

¹⁵ *Id.* at ¶ 212(1)(d)(vii).

¹⁶ *Id.* at ¶ 212(1)(d)(x).

Nature of Know-how

The term “know-how” is generally used to describe special business information that has been acquired through the conducting of business activity, whether it is secret processes, formulae, plans, drawings or other technical information. Unlike patents or copyrights, the knowledge or technique is not property protected by statute. The imparting of this specialized information to another is analogous to the rendering of a service made possible by the carrying on of a business. As a consequence, the transfer of know-how is most likely to be viewed in Canada as a transaction on income account unless the transferor effectively precludes itself from using the information again, for example, by terminating the related business endeavour. For example, the Federal Court of Appeal, in the *Canadian Industries* case¹⁷ held that information concerning the manufacture of goods for a lump sum was a transaction on revenue account, since the taxpayer was not precluded from continuing to use the information itself, vis-a-vis that customer or otherwise.

The transfer of know-how is unlike the licensing or alienation of patents, as no property right is transferred in the former case. Furthermore, since the nature of know-how is embedded in experience, its transfer frequently requires the provision of services to demonstrate its practical application. While these additional services may be treated as royalties under the Income Tax Act, they arguably may not be considered royalties under the Tax Treaty in some situations, but rather business profits.

Sale of Taxable Canadian Property

A non-resident of Canada may be subject to Canadian taxation on the sale of certain types of Canadian property, generally included in the definition of taxable Canadian property.

The types of Canadian property on which a non-resident is generally liable to Canadian tax on disposition (or deemed disposition) include: real estate, resource properties, capital property used in carrying on a business in Canada, shares of private corporations in Canada, and shares out of a substantial block (15%) of shares in a public corporation.¹⁸ Among the items not included in the definition are Canadian patents, copyrights, and other property interests in information, unless they can be included in the definition of “capital property used by him in carrying on a business” in Canada.

These are only the general provisions of the Income Tax Act that give Canada the right to tax capital gains realized by non-residents on the disposition of certain Canadian property. In situations involving U.S. taxpayers, the scope of these provisions is cut back substantially because

¹⁷ *Canadian Industries Limited v. Her Majesty, The Queen*, C.T.C. 222 (1980).

¹⁸ See Income Tax Act, R.S.C., cl. 63 ¶¶ 2(3)(c); 115(1)(b)(i)-(iv).

of the terms of the Tax Treaty. A U.S. resident disposing of property that is not connected with a Canadian permanent establishment is normally liable for Canadian tax only on gains from the sale of:

- Canadian real estate, and
- Certain shares of Canadian companies deriving their value principally from real estate, including resource assets.¹⁹

Carrying on Business in Canada

The third way that a non-resident can be liable for Canadian taxation in dealing with information transferred to Canadian purchasers is if the non-resident carries on business in Canada. The term “business” could include merely offering something for sale in Canada. However, the terms of the Tax Treaty reduce the scope of taxation substantially and a U.S. resident is only liable for Canadian taxation on income from carrying on a business if the U.S. resident has a permanent establishment in Canada and the income is attributable to that establishment.²⁰

The term “business profits” is not defined in the Tax Treaty, but is used to refer to income earned from the carrying on of a business, a term that is likewise not defined. Many of the limitations concerning the taxation of business profits earned by a U.S. resident in Canada result from the definition of permanent establishment and the requirement that the business profits earned by the U.S. resident be reasonably attributable to a Canadian permanent establishment before they are taxable in Canada. “Permanent establishment” is extensively defined in the Tax Treaty; essentially it means a fixed place of business through which the business is carried on, including a place of management, a branch, an office and so forth. The location of an agent who does not have independent status, or a person who habitually exercises authority to contract in the non-resident’s name, is deemed to be a permanent establishment. However, in certain circumstances, the U.S. resident will be deemed not to have a permanent establishment in Canada. One example is where the facilities are used for the purpose of storage, display or delivery of goods or merchandise. Another example is where the fixed place of business or agent is used solely for the purpose of advertising, the supply of information, scientific research or similar activities that have a preparatory or auxiliary character.²¹

The Tax Treaty provides that items of income that might be considered as covered by both the royalty provisions (Article XII) and the busi-

¹⁹ U.S.-Canada Tax Treaty, art. XIII, §§ 1 and 3.

²⁰ See Income Tax Act, R.S.C., cl. 63 ¶¶ 2(3)(b) and 253(b) and U.S. Canada Tax Treaty, art. VII, § 1.

²¹ U.S.-Canada Tax Treaty, art. V (b)(e). The OECD commentary to similar provisions in that model treaty implies that a fixed place of business maintained for the servicing of patents and know-how may not be a permanent establishment where such activity is not the sole purpose of the non-resident enterprise.

ness profits rules (Article VII) are subject to the royalty provisions and not the more general (and frequently more favorable) rules relating to business profits. However, the royalty provisions in the Tax Treaty provide that if the property or right underlying the royalty payment is effectively connected with a permanent establishment, then the royalty will be treated as business profits.²² Consequently, a royalty payment as defined in the Tax Treaty will only be taxable in Canada on a net income basis at regular tax rates if the underlying property is effectively connected with a permanent establishment; otherwise, the royalties—as defined in the Tax Treaty—will be subject to a withholding tax. In contrast, management fees and other fees for services rendered will be subject to taxation in Canada on a net basis at regular rates if they are reasonably attributable to a permanent establishment; otherwise, they are generally not taxable by Canada.

Canadian Tax Aspects of Importing Technology

For a Canadian resident who is importing technology, the ongoing costs associated with imported technology are usually deductible for federal income tax purposes.²³ Under the Income Tax Act a taxpayer may elect to deduct or capitalize under the provision defining scientific research and experimental development (R&D) expenditures; alternatively, he can claim them as a current deduction. This rule permits a taxpayer to match the expenditure with future income flows or claim them immediately. The rule applies to both capital and current expenditures made in Canada and replaces normal tax depreciation on the capital expenditures. Current expenditures incurred in Canada may be incurred directly by the taxpayer, on his behalf, or by payments to an approved R&D association, university, or to another corporation residing in Canada.

These special rules do not apply to expenditures incurred outside of Canada. Payments for current expenditures incurred outside of Canada must be deducted in the year incurred but may include expenditures incurred by the taxpayer or on his behalf, or payments to an approved association or university. Capital expenditures incurred outside of Canada are subject to normal tax depreciation rules.²⁴

Qualifying current and capital expenditures made in Canada may also qualify for an investment tax credit. A minimum of 20% of the expenditure qualifies as a credit that may offset federal income tax in the current year, or is available for three-year carryback or seven-year carry

²² *Id.* at art. XII, § 5.

²³ As was stated previously, Ontario denies a portion of the amount of certain royalties and management fees paid to related parties, regardless of whether there is a treaty exemption from the withholding. *Supra*, p. 9.

²⁴ See Income Tax Act, R.S.C., cl. 63 ¶¶ 37(1)(a) and 37(1)(b) for the rules regarding current and capital expenditures, respectively, made in Canada. ¶ 37(2) covers current expenditures made outside of Canada.

forward.²⁵ While most investment tax credits will be phased out under the corporate tax reform introduced in the February 1986 federal budget, the R&D investment tax credit will continue.

The effect of these rules is to provide a significant tax advantage to Canadians incurring R&D expenditures in Canada, and thus to erect a non-tariff barrier to the importation of research. The United States has its own incentives for domestic research.

As previously noted, the Income Tax Act does contain one provision of assistance in situations involving importing research results from abroad under a cost-sharing approach. A specific exclusion from withholding tax for payments under a bona fide cost-sharing arrangement is provided where the Canadian payor shares R&D expenses on a reasonable basis in exchange for an interest in any or all property or things of value resulting from the arrangement.

Non-Arm's Length Transactions

Given the abiding faith of bureaucrats in the honesty of taxpayers, it is not surprising that the Canadian tax rules contain provisions governing transactions between related parties, or in the Canadian context, "non-arm's length transactions." Unlike the corresponding provisions of the U.S. Internal Revenue Code, the Canadian provisions are relatively short and simple, and do not provide exhaustive details of the adjustments to be made in particular types of transactions. Also, unlike the general American rules, the Canadian non-arm's length provisions do not provide for corresponding adjustments to all parties to a non-arm's length transaction where Canada decides to adjust an assessment to one of the taxpayers. In practice, such adjustments are normally but not invariably permitted.

The general rules on non-arm's length transactions for goods, services and intellectual property are contained in § 69 of the Income Tax Act. Subsections 69(2) and 69(3) generally give Canada the power to adjust international transfer prices among related parties to a "reasonable" amount. The provisions are broad enough to deal with rentals or royalties or for the use of reproduction of any property, presumably including intellectual property.

With respect to international transfers of technology, these provisions have been most widely used by Canada to question the reasonableness of amounts paid by Canadian companies by way of royalties or by way of other payments for technology, know-how or other knowledge, to related parties abroad. Note that in the past, Canada may have been reacting in large part to efforts by the Internal Revenue Service to in-

²⁵ Income Tax Act R.S.C., cl. 63 ¶ 127(5) provides for the credit against federal tax; ¶ 127(9)(e)(iv) establishes the rate; ¶ (c) of the definition of "investment tax credit" establishes the carryover period.

crease such charges, but the Canadian authorities are now taking the initiative in reviewing and questioning these amounts.

In recent years, however, the Canadian revenue authorities have also been somewhat more active in reviewing the transfer of Canadian technology abroad, such as from a Canadian parent corporation to a foreign affiliate. While the law and its application should essentially be similar, in fact it appears that the revenue authorities have not been quite as vigorous in the questioning of the reasonableness of transfer pricing in this area; as for example, when a Canadian parent corporation furnishes Canadian developed technology to its United States subsidiary. It is anticipated, however, that with the very substantial growth of foreign investment by Canadian companies, the Canadian revenue authorities' interest in the export of technology will intensify.

Canada has no provisions to permit the tax-free rollover of patents or technology rights to related foreign purchasers. Accordingly, Canadian corporations tend to license their foreign subsidiaries to use Canadian-developed technology for annual royalties, rather than attempting to transfer the rights to a foreign country.

Canada has shown some activity in areas involving possible tax avoidance activities, such as attempts to transfer patent rights and know-how to tax haven affiliates. The general rule is that any transfer of rights to use technology to related foreign buyers is deemed to occur at fair market value:²⁶ whether the Canadian transferor would therefore recognize a capital gain or ordinary income depends on the nature of the property transferred under general Canadian tax rules.

Transfer Pricing—Non-Arm's Length Transactions

The issue of the fairness of royalty and other charges from U.S. and other foreign parent companies to Canadian subsidiaries is of growing importance to the Canadian taxation authorities. For quite a few years Canada has been laboring over drafting an Information Circular on international transfer pricing and other international transactions, in order to clarify and codify its practices in this area. In March, 1986, the Revenue Department issued a "preview draft" of a bulletin that it hopes to publish in the summer of 1986.

In the context of the transfer of intangibles or the right to use intangibles, the Department focuses on two points in connection with the deductibility of royalty payments made to foreign parents and affiliates. First, it must be determined whether the taxpayer is acquiring the intangible, in which case the payment would represent a non-deductible capital outlay, possibly subject to amortization. The second and more difficult issue is whether the amount of the payment represents fair market value for the benefit received. Since in most cases of intra-group

²⁶ *Id.* at ¶ 60(2).

transfers there is no comparable arm's length transaction, the Revenue Department suggests an examination of the following factors:

- prevailing royalty rates in the industry;
- terms of the license, including geographic limitations and exclusivity rights;
- singularity of the invention and the period for which it is likely to remain unique;
- technical assistance, trademarks and "know-how" provided along with the access to the patent;
- profits anticipated by the licensee; and
- benefits to the licensor arising from sharing information on the experience of the licensee.²⁷

In connection with the anticipated profits, an earlier draft suggested that a margin analysis could demonstrate the value of the license; the gross margin after royalties with respect to the related products should ordinarily be at least as high as the gross margin in respect to other unrelated products. This concept of margin analysis has been deleted from the latest draft.

Generally the Department considers that fair market value must be gauged by reference to the market to which the transfer is made, and not to the home market of the supplier. Furthermore, Canada still insists, rather unreasonably, that the test should be applied on a transaction-by-transaction basis, rather than through an evaluation of the overall reasonableness of the total arrangement. In circumstances where this approach is impractical or proves unrealistic in terms of the manner in which the particular industry conducts business, an alternative approach may be available. A functional analysis of the activities and contributions of each corporate group member may provide a satisfactory basis for the establishment of fair royalties and transfer prices worldwide. The analysis should quantify and clarify the various factors considered in establishing the transfer prices; for example, technical assistance, access to technology, reward for economic risk, financing assistance, and so forth. The amount of income thus allocated to Canada should be consistent with the real profit contribution of the Canadian taxpayers based upon economic functions performed and risks assumed.²⁸

Exporting Technology from Canada to the U.S.

In spite of Canada's generous tax treatment of R&D, R&D expenditure in Canada is about half of that in other industrialized countries as a percentage of GNP. This relatively low expenditure may be explained by the relatively small size of the Canadian market, and thus the relatively small domestic benefits that can be expected. Nevertheless, while Can-

²⁷ Information Circular, ¶¶ 39 and 43.

²⁸ *Id.* at ¶¶ 8-10.

ada is still a net importer of technology, its presence in this field is strengthening.

Payments received under an arrangement licensing intangibles would be treated as income for tax purposes; any foreign withholding tax would be used as a credit against Canadian tax. The granting of exclusive licenses for the remaining term of, for example, a patent, would probably be treated as a sale for tax purposes. Capital assets sold would receive capital gains treatment: only one-half would be taxable. If the taxpayer is in the business of selling this type of property, the gain would be treated as income, as in most cases where know-how is imparted to another person. Under the Treaty, the sale proceeds to a U.S. resident might be subject to U.S. withholding tax where the gains are contingent upon the productivity, use or subsequent disposition of the property or rights. The Technical Explanation states that a guaranteed minimum payment is therefore not a royalty in this context.²⁹

Research and development incentives under the the Income Tax Act have been discussed above. Where the R&D is carried out in Canada by a resident for a non-resident who is not carrying on business in Canada, the investment tax credit with respect to the R&D enures to the benefit of the resident.³⁰

The withholding tax on royalties may militate against organizing members of an international corporate group so that a single member has a world mandate to manufacture a line of goods, most of which are then re-exported. The Canadian plant may be required to pay royalties on the total production run subject to Canadian withholding. If the U.S. corporation cannot fully use the foreign tax credit generated by the Canadian withholding tax, the cost of the withholding tax will be passed on in the price of the goods exported from Canada.

Competent Authority Provisions Under the Canada-U.S. Income Tax Treaty.

While it is possible to be critical about the lack of precision and other problems with the Tax Treaty, it is nevertheless important to recognize the very important benefits that the Tax Treaty delivers to those engaged in investment and trade between the two countries. Given the conflicting interests of the two countries, and the complexity of the tax issues involved in attempting to harmonize their tax rules, it is not surprising that the negotiation of the Tax Treaty was a lengthy and difficult task. Twelve years of negotiation, three amending protocols and four years for ratification preceed the Tax Treaty.

I have already referred to a number of sections of the Treaty that improved rules for the taxation of transborder transactions and increased

²⁹ Commentary on U.S.-Canada Tax Treaty, art. XII § 4.

³⁰ See Income Tax Act, R.S.C., cl. 63 § 127(9) for a definition of "qualified expenditure" and § 2902(e)(ii) for a definition of "prescribed expenditure."

certainty as to the application of the tax rules of the two jurisdictions. However, even a treaty as lengthy as the Tax Treaty with its Technical Explanation, does not solve all of the problems of interpretation, and more importantly, does not guarantee a common interpretation. There are many instances where actions taken by the revenue authorities of the two countries can lead to double taxation of income, particularly in the case of transfer of goods and services among related parties.

The current Tax Treaty does contain important rules including Article XXIV for the avoidance of double taxation — which goes a long way toward ensuring that residents of one country who are subject to the taxes of the other can obtain an appropriate foreign tax credit, and Article XXVI, which deals with the mutual agreement or competent authority rules. Under Article XXVI, taxpayers in each country have the right to apply to the “competent authority” of their own state to direct attention to actions that have resulted in double taxation. The provisions of the Article are comprehensive, and allow, but do not compel, the tax authorities of the two countries to resolve all such cases of double taxation by mutual agreement. In most cases, subject to special rules concerning related persons under Article IX, any such agreement may be fully implemented notwithstanding any general time limits under the tax laws of each of the countries, although a state that is asked to waive its domestic time or procedural limits to effect such an agreement must have received notification of the issue within six years of the end of the relevant taxation year. Under Article IX, a special degree of protection is provided in a number of situations concerning transactions between related parties: without getting into the intricacies, the rules provide that in the case of possible adjustments of transfer prices of goods and services among related parties in a transborder transaction, unless one of the countries has given notice that it intends to adjust such prices under its fair market rules within five and one-half years from the end of the taxation year in question, it is barred in general terms from subsequently making such an adjustment.

The competent authority provisions of the Tax Treaty have worked reasonably well, given the fact that bureaucracies move slowly and ponderously. Virtually all of the cases that have been brought to the attention of the competent authorities have been resolved in such a way as to avoid double taxation, although the process of resolution has in some cases been extraordinarily lengthy, and taxpayers have complained that they are not necessarily involved in the reconciliation process.

It might also be noted that the taxation authorities in Canada and the United States are cooperating in other ways: there is an agreement for so-called “joint audits” under which the IRS and Revenue Canada may coordinate their investigation of the tax affairs of related taxpayers involving international transactions. A number of investigations under these provisions have centered on the use of tax havens by multinational corporations.

Customs Duties and Sales Tax Implications

Goods imported into Canada are subject to customs duties on their transaction value. The transaction value is essentially the sales price with adjustments, on the assumption that that price represents fair market value in the case of related party transactions. The value of royalties and license fees on which the sale was conditioned, including payments for patents, trademarks, and copyrights, must be included in the value for duty. Charges for the right to reproduce the goods in Canada are excluded.³¹

Federal sales tax may also be imposed at the time of importation on the value, plus the duty itself. The federal government is considering the introduction of a business transfer tax, which like a value-added tax, would impose a tax at every stage of distribution on the value added by the vendor. The business transfer tax would also extend to all types of services. The current sales tax is imposed only on specified goods, and only on the manufacturer or importer. Provincial sales tax may also be an issue, although imposed only on the final consumer.³²

Computer software is accorded special treatment. For federal sales tax and customs duty purposes, only the value of the medium is subject to tax and duty. This rule does not apply to sound or image recordings, integrated circuits, semi-conductors and similar devices.³³ Each province has different rules concerning the taxation of software, although the general trend is to tax canned software but not custom software.

Possible "Free Trade" Issues in Cross Border Technology Transfers

Of course, there are a number of non-tax issues that relate to the exchange of information and know-how between Canada and the United States. As these are not tax issues, they are not properly the subject of this paper, but they are important issues to be taken into account with respect to the transfer of technology; they will undoubtedly be on the agenda in any future free trade discussions between Canada and the United States. The matters at issue include the following:

- Canadian manufacturers have the right to obtain a license to manufacture pharmaceuticals covered by patents in exchange for an almost nominal license fee of 4%. The measure was introduced to keep low Canadian drug prices, but has been a source of irritation to international pharmaceutical compa-

³¹ The Customs Act, R.S.C., cl. 40, §§ 36-42, (as amended) (1970).

³² Federal sales tax is currently imposed under the Excise Tax Act R.S.C., cl. 100, § 1, (as amended). The business transfer tax proposal was referred to in the federal budget of Feb. 26, 1986 and it is expected that a discussion paper will be released in the near future. Each province other than Alberta has its own retail sales tax: *see, e.g.* Ontario Retail Sales Tax Act, R.S.O., cl. 454, (as amended) (1980).

³³ The Computer Carrier Media Remission Order, P.C. 1985-277, Can. Gaz. (Jan. 1, 1985).

nies for years; Canada has been promising revisions since 1983, although action is still pending.

- Canada does not protect the owners of the copyright in television programming against simultaneous transmission by Canadian cable systems of broadcast signals originating in the U.S. This nonprotection has caused some loss of advertising revenues. Further, there is concern over some of the implications of a recent Canadian white paper on copyright law revision. The paper proposed a two-tier system of copyright protection for computer software, with machine readable software having a protection period of only five years, far shorter than in the United States.
- Continuing U.S. irritation over the Canadian border broadcasting rules and their equivalent in magazines, which bar Canadian tax deductions for advertising placed on U.S. stations or in magazines containing predominantly foreign-originated material.
- Both Canada and the United States have important tax incentives available for domestic research and development. (In the case of Canada, the fairly generous research incentives serve the policy objective of working to increase total research spending in Canada, now rather weak by international standards.) Free trade in goods will, however, remain only partially effective without some resolution of the effective protectionism provided by these incentives.
- While the new, cute and friendly Investment Canada is a considerable improvement over the previous Foreign Investment Review Agency in Canada, some commentators in the U.S. are still not entirely satisfied that U.S. investors have sufficient freedom to make investments in Canada to fully exploit the results of research and know-how developed abroad.

Tax Reform and Other Aberrations

Of course, taxation is never a static subject. At the moment, in both Canada and the United States, the next year could see the most fundamental reshaping of the tax systems in both countries in the last 20 years.

In Canada, the trend seems to be toward some general reduction in investment tax incentives, such as the phasing out of the investment tax credit and the repeal of the inventory allowance indicated in the February 1986 federal budget, accompanied by the adoption of very modestly lower corporate tax rates. Other important corporate tax changes in Canada, involving a cutback in tax depreciation rates and other corporate benefits in exchange for lower corporate tax rates, could be under review by the end of the year. In the United States, there are very current and very major proposals for revisions of the U.S. tax system: a controversial tax reform bill emerged from the House of Representatives last December, and the Senate is busily trying to shape its own version of

tax reform. In general terms, the trend seems to be toward lower personal and corporate tax rates, but at the expense of doing away with a large number of industry's most cherished tax incentives.

Of course, tax "reform"—or whatever else one could call the current mess of complex tax changes being brought forward in both the United States and Canada—is very much conditioned by the huge deficits afflicting the respective federal governments. This means that in both countries, tax changes must be designed to be at least "revenue neutral." The new proposals must be designed to raise at least as much money as raised under the previous system. Accordingly, lower tax rates for individuals, together with other reductions, must be paid for by higher taxes elsewhere in the system, with the increased taxation of corporations and income from capital being obvious and unfortunate targets.

My colleague, Mr. Goodrich, will be dealing with some of the U.S. proposals that may impact the transfer of technology from the United States. I will therefore confine myself to just a few observations on the current tax reform process, and how it might affect the development of technology in both countries over the next few years:

- While the tax reform process in both countries proposes to eliminate many incentives, at the moment, it would appear that in each country important provisions to encourage spending on scientific research will remain. I believe that this indicates the importance given by both governments to the development of new technology, and the strategic importance of ensuring that North American technology remains up-to-date in an increasingly competitive world.
- Notwithstanding some of the aspects of the tax changes, each country will tend to increase the tax from capital in general and corporate income in particular. This will come in large part from the proposed elimination of investment tax credits in both Canada and the United States and the possible slow-down in depreciation allowances, as well as from other changes in the structure. These changes will have a particularly adverse effect on the manufacturing sector which is generally capital intensive. Increasing the taxation of manufacturing profits from capital will tend to reduce the competitiveness of North American industry, and could lead to a decline in its ability to support privately-funded research and development activities. (The House of Representatives Bill alone would impose over \$140 billion of increased taxes on U.S. corporations over the next five years, with corresponding tax reductions to individuals.)
- The attack on various tax shelter investments contained in the tax changes under consideration in both Canada and the United States, while certainly laudable and understandable, could spill over and impact on private funding for some re-

search and development activities, and therefore have a negative effect on research capabilities.

- The fundamental uncertainty of having massive tax changes hanging over industry and commerce is likely to prove to be a negative aspect for business. In the United States, for example, the current confusion about the effective dates of many of the tax reform proposals is distressing to both domestic and international investors. No one knows, whether the U.S. investment tax credit is currently in effect or not. In Canada, substantial tax changes, while somewhat more predictable in terms of timing, nevertheless have a possible destabilizing effect on investments.

Some of the ideas behind the tax changes are potentially favorable to improved economic performance in both countries. There is substantial support for the “level playing field theory”—the feeling that private development and investment decisions should be made on an assessment of the economics, rather than on the basis of government incentives, subsidies and other interventions. If we could manage to simplify our tax rules, remove investment-distorting special incentives, and achieve lower average and marginal tax rates, we would have a more efficient North American economy. However, when one gazes at the inevitable complexities and compromises in the tax reform process, a degree of skepticism emerges as to whether the current process will fully achieve its very worthwhile objectives.

Broader Implications

A dry recital of the various complex and rather contradictory tax rules relating to the exchange of intellectual property and other information, while interesting to the tax practitioner, only opens up the broader questions as to the influence of tax issues on the transfer of technology and information.

Looking back over the various tax rules that impact the transfer of technology between Canada and the United States, it is possible to conclude that in a number of situations, the rules hamper the exchange of technology and can prove detrimental to the long-term interests of both jurisdictions. This conclusion is reached because the taxation of the transborder exchange of information appears to be both more complex and more onerous than the taxation of goods and materials.

With respect to the trade in goods among the two countries, international tax rules as confirmed, codified, and extended in the Tax Treaty, mean that an exporter of goods in one of the two countries is not liable for tax in the other, if all that he does is export goods. Indeed, an exporter located in one jurisdiction can go far beyond this. He can engage independent agents or even hire salesmen to travel in the other jurisdiction; he can maintain a stock of sample goods in the other jurisdiction; he can distribute advertising literature and engage in substantial marketing

activities; he can undertake research and development in the other country; and he can even open a purchasing office for materials. Despite all of these activities, if the proper care is taken, the exporter of goods is liable for taxation only in his own country.

While in theory similar rules apply to an exporter of "technology," in practice such an exporter is liable to expose himself to taxation in the importing country—taxation that is frequently detrimental to his position. In large part, this comes about because the price that is charged for intellectual property—technology, know-how, and so forth—is frequently not a lump sum payment but rather an annual charge for a combined package of rights and services.

Why is intellectual property so frequently "rented," while merchandise is sold? Part of the answer lies in the fact that information by itself is not a static commodity. What the purchaser frequently wants is a package of information and services, updated on a continuing basis, rather than a one-shot revelation. Further, it can be more difficult for both the buyer and the seller to arrive at a fair and appropriate price for technology and information without considering the value of the continuing use and development of that information. Accordingly both tend to prefer a bargain whereby the payments will be made periodically, possibly adjusted to reflect the use made of the information and the services rendered in keeping the information current and useful.

But if the payments for information and technology are structured on a continuing basis, as in royalty arrangements, know-how agreements, software rentals and so forth, in most cases the payments will be subject to a withholding tax when the information and technology pass the border, by the country in which the payment originates.

Under the general rules in both countries, where a resident of the United States receives a payment from Canada with Canadian tax withheld, he is eligible to claim a foreign tax credit for this foreign tax against his domestic tax liabilities. But for the exporter of information to become involved in the tax systems of both countries in this way can result in a number of very practical disadvantages.

In the first place, any withholding tax that is levied on gross revenue can result in a very high effective tax rate in terms of net income. For example, if a royalty or know-how payment of \$100 with which there are costs associated of \$70 is subject to a 20% withholding tax, this is equivalent to imposing a tax of 67% on the net income resulting from the contract—a tax quite possibly in excess of what the information exporter can obtain credit for on his domestic return. Further, because tax rules differ in both Canada and the United States, because there are substantial complexities in the foreign tax credit calculations in both countries, and because of other issues, there are many instances in which the recipient of royalties or other similar cross-border charges will not be able to obtain a full and immediate credit in his own country for the foreign taxes withheld on the income. This is particularly true in those circumstances

where the recipient of the royalty or other payment is a new high-tech company that has substantial immediate write-offs in respect of research and development, and is eligible for domestic tax credits and deductions that severely limit its ability to claim foreign tax credits.

The actual tax rules are, of course, more complex than I have outlined. For one thing, the tax rules of the two countries do recognize and provide some moderation of the tax rules in a number of situations. Perhaps the most obvious is the fact that under long-standing provisions in the Tax Treaty, copyright royalties generally flow free of withholding tax between the two jurisdictions, presumably as a means of encouraging the free flow of information. But this exemption is essentially restricted to copyrights for literary works, and excludes not only television and video royalties, but also many types of charges for software from its application.

It is also possible for companies that may be injuriously affected by withholding taxes on payments for intellectual property to restructure their operations — as for example a U.S. exporter of information establishing a Canadian subsidiary or branch — so that the payments from Canadian customers will be made to a Canadian establishment where the direct Canadian tax on a net income basis may be less than the Canadian withholding tax. All such arrangements however, are fraught with considerable present and long term complexity and costs.

Time does not permit a full examination of the complexities and difficulties involved. Nevertheless still possible to offer the generalization that the transfer of technology between the two countries runs into a range of tax problems that can be more complex and detrimental, than with respect to an exchange of merchandise.

International Trade in Services

Within both individual countries and international trade, it is a trite generalization that the growth in recent years has been more rapid in the service area than with respect to goods. In each of the two countries, the service sector in general, and the information area in particular, has been expanding more rapidly than primary industries or manufacturing. In terms of international trade between Canada and the United States, and world trade generally, the available information indicates that the trade in services of all sorts, including the transfer of information and technology, continues to show very substantial growth.

In these circumstances, each country should undertake a policy review of the tax aspects of international trade in services and information, and include such topics in any “free trade” discussions. If trade negotiations between Canada and the United States are to prove successful, they will have to extend to the growing services sector, and to the many tax and non-tax barriers and obstacles to a free transfer of information and technology between the two countries.