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TECHNOLOGY TRANSFER AND THE CANADIAN BUSINESS ENTERPRISE

Notes for a Speech by D. Stewart McInnes, Parliamentary Secretary for International Trade, at the Law Society of Upper Canada, Toronto, December 1, 1984.

...The production and sale of goods, as well as the provision of services, is increasingly enmeshed with technology. Technology is a very broad field. It encompasses what one writer has described as "the ability to put things together, to make them work, to develop and satisfy customers, and to do all of these efficiently".

Thus, technology may be represented by material items such as factories, machines, products and infrastructures. But it may also be represented by non-material items such as patents, technological information, or know-how. Sometimes, technology is even considered to include the wherewithal to use effectively the results of creative thinking, such as capital, manufacturing and purchasing information, assemblies, subassemblies, components, tools, test sets and the like.

Unless a turn-key project, or a consulting engineering contract, includes a transfer of technology, it may be difficult, if not impossible, to exchange goods and services. Technology may encompass virtually all industrial activity. It is vital, quite obviously, to Canada's economic growth.

For Canada, economic growth depends on trade. Nearly 50 per cent of all Canadian manufactured goods are exported. To the extent that an international sale of goods involves a transfer of technology, Canadian firms, to remain internationally competitive, must be assured of timely access to the best foreign technology. In fact, the vast majority of technology used in Canada is imported. Conversely, Canadian business has been, and will continue to be successful in developing technology. Canadian enterprise and initiative in exporting technology, whether to accompany the export of goods and services or alone, must be rewarded with an appropriate return on investment.

A wide range of national and international laws and policies has an impact on access to technology and return on investment. I would like to list some of the more important fora, before returning to each in slightly more detail.

First, members of the international community are engaged in dialogue in a number of multilateral fora. At the General Agreement on Tariffs and Trade (the GATT), increased attention is being given to whether the existing rules on trade in goods can respond to disruptive practices that could distort or impede technology and service exports and imports.

At the United Nations, dialogue between developed and developing countries, the "North-South dialogue", has been focused on achieving an appropriate balance between ensuring the South has access to technology so necessary to development, while ensuring the interests of technology suppliers

and innovators are adequately protected. Discussions continue on the development of codes of conduct on transfer of technology, and on transnational corporations.

At the UN Conference on Trade and Development (UNCTAD) and at the Organization for Economic Co-operation and Development (the OECD) attention has also been focused on encouraging transfers of technology in a manner that avoids the imposition of unnecessary, anti-competitive conditions on such transfers.

At the World Intellectual Property Organization (WIPO), developing countries have shown increasing concern that the international patent system may not be serving an optimum role in assisting them in acquiring new technology.

And at the Co-ordinating Committee, COCOM, Western countries maintain multilateral controls on the shipment of military and strategic goods and technologies to proscribed destinations.

The second category of fora is contained in Canada's specific bilateral relations with the United States. Few industries in Canada are not in some way reliant upon the US market. Almost three-quarters of Canadian exports go to the USA. Any further development of special trade arrangements with the States could affect technology transfers between our two countries. Bilateral exchanges of militarily critical or dual use technology are also affected by defence development and defence production sharing arrangements, and by bilateral arrangements for the administration and enforcement of export controls.

Thirdly, national laws and policies clearly have an impact on the transfer of technology. Canadian and foreign laws on competition policy, export controls, trade practices and incoming investment may affect, if not determine, the terms and conditions of an international transfer. The extent to which one country's laws purport to reach persons or conduct in the territory of another country must also be considered.

Let me return to each of these elements comprising the international environment in turn, to flag some of the more difficult trade policy issues facing us.

The GATT

The General Agreement on Tariffs and Trade, of which Canada is of course a member, sets out rules which govern the international exchange of goods. The GATT does not contain any specific rules for trade in technology. Nor does it apply, at present, to the area of trade in services. Accordingly, GATT rules do not apply to a range of business transactions that include the transfer of technology, such as contracts for consulting services, licensing of process technology, or the provision of other services.

Even without a precise definition of what may be encompassed by trade in "technology", it is evident that certain disruptive practices could distort or impede such trade. For example, national rules restricting foreign access to high technology may be justified for reasons of national security, for instance, but may also be imposed for commercial reasons. Conversely, barriers that inhibit exporters of foreign

technology from having access to domestic markets may be erected through public procurement policies. A government's support for research and development, through subsidies and related policies, may place foreign firms at a competitive disadvantage.

The increasing incidence of such practices, reflecting the reality of new protectionist sentiments amongst our trading partners, may be very damaging to Canadian interests. Consistent with our over-all trade policy, including our support for an open world trade regime, it would be desirable to improve multilateral trade instruments to take account of the special characteristics of technology. A broader consensus is needed, however, on the susceptibility of these technology trade issues to negotiation of an improved framework. If such a consensus is achieved — and I think it might be — technology and services trade will be part of a new round of multilateral trade negotiations in the GATT. There is growing international agreement to launch a new round in the not too distant future.

The UN code of conduct on transfer of technology

The United Nations' Draft International Code of Conduct on the Transfer of Technology has been the subject of discussion and negotiation for over nine years. At the request of the developing countries, discussions began in 1975 under the auspices of UNCTAD to devise such a code. For the proponents of such a code, and particularly the newly industrializing countries of Latin America and Asia, major objectives have included the following:

— first, to provide developing countries with increased control over the activities of multinational enterprises operating within their territories;

— secondly, to intervene in the international trade in technology by regulating restrictive business practices sometimes involved in that trade; and,

— thirdly, to increase developing country access to advanced technology that has been proprietary to enterprises, by increasing the flow of that technology and by reducing its price.

In the course of five sessions of the United Nations Conference on the Code, spanning a period of six years, agreement has been reached on the vast majority of the provisions of the Draft Code. For Canada, along with other Western countries, the development of an agreed upon set of non-binding guidelines would provide a general framework for internationally acceptable conduct by the enterprise involved and for regulation by involved governments.

A number of major issues remain outstanding. The question of the nature of the final instrument that will embody an agreed upon code has prevailed throughout the negotiations. Virtually all governments recognize that the code can only be viewed as a general framework for action at the national and international levels. However, there is not yet full agreement on the extent to which follow-up, monitoring machinery is required.

The precise scope of transfer of technology transactions to be covered by the code also remains unresolved. It is clear that the code would apply to technology that is transferred across national boundaries.

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Some regional groups have proposed, however, that the code should also apply to transactions within one country. Under these proposals, the code would apply to domestic transactions between parties that do not reside or are not established in the same country, and between parties that are resident in the same country if at least one is owned or controlled by a foreign entity and the technology transferred has not been developed in the recipient country. For Canada and other developed countries, such an approach would alter the principle of national treatment. Different rules would apply to transactions according to the origin of the party involved.

While substantive agreement exists on the content of the restrictive business practices to be listed in the code, differences remain regarding criteria that should guide the application of the provisions.

Finally, no text has been agreed on in respect of applicable law and settlement of disputes. At the heart of remaining differences are questions related to choice of law. Developing countries would like to stress the importance of the public policies of the countries involved in the transaction, particularly those of the acquiring country which may eventually nullify the choice of law itself. The industrialized market economy countries have stressed the freedom of the parties to choose the law applicable to their contractual relationships, but have also recognized that a contractual choice of law does not affect the application of mandatory provisions of legal systems having a substantial connection with the transaction.

The next session of the Conference on the Draft Code of Conduct on the Transfer of Technology is scheduled for 1985. For Canada, the moment is at hand when the negotiations must be concluded. Failure at the next round could lead some countries to begin to reconsider their positions on parts of the Code already agreed upon. There is therefore a risk that progress to date may come undone, with the consequence of making agreement of such a code in the future unlikely, at best.

The UN Code of Conduct on Transnational Corporations

Paralleling the development of a Draft Code of Conduct on the Transfer of Technology has been work on a Code of Conduct on Transnational Corporations. Begun in 1977, the Code is designed to improve the international investment climate, and particularly the contribution of multinational enterprises to developing countries. Although again the vast majority of the Code is agreed on, there remain difficult issues relating to nationalization and compensation, coverage of state-owned corporations, and the relevance of current customary international law. The failure of the June 1984 negotiating session suggests that agreement on such a code is unlikely in the foreseeable future.

Restrictive business practices

I have already mentioned the fact that, particularly for the developing countries, restrictive business practices are seen to have an adverse impact on the international transfer of technology. Consider some of the terms and conditions which may attach to transfer of technology, such as:

– price (which may take the form of royalties and ownership dividends as well as lump sum fees);
– the structure of ownership and management control;
– rules and requirements related to exports;

— restrictions on fields of use;
— volume limitations;
— sources and prices of purchased inputs;
— restrictions on distribution channels;
— quality control;
— acquisition of competing technologies;
— rights to related new technologies;
— provisions for training local personnel;
— duration of the arrangements;
— rights of use after termination of the agreement.

In the view of many developing countries, the unequal bargaining power of the transferor of technology suggests that terms and conditions actually arrived at have often been discriminatory and restrictive. Some conditions are seen as anti-competitive extensions of the scope of intellectual property rights exercised by private companies, especially multinational enterprises. Others, such as restricted export market terms, are viewed as extensions of protectionist policies. In either case, in multilateral debate, the label of "restrictive business practices" has taken on expanded meaning for developing countries, to include the perceived effect that such practices may have on their economic development and trade.

On the other hand, the Set of Multilaterally Agreed Equitable Principles and Rules for the Control of Restrictive Business Practices, adopted by the UN General Assembly in December 1980 and administered by UNCTAD's Group of Intergovernmental Experts on Restrictive Business Practices, is generally couched in the framework of familiar competition policy concepts. These non-binding principles reflect concern over limitations on access to markets and over undue restraint of competition. UNCTAD is now engaged in taking these principles one step further, through the preparation of a model law on restrictive business practices. It is intended that this model law be based on broadly agreed on principles of competition. Thereby, it would provide a general framework available to countries in devising appropriate legislation to combat improper, anti-competitive behaviour. To the extent that principles in the model law would be consistent with the general lines of competition policy already reflected in the legistlation of Canada and other Western market economies, the rudimentary beginnings of a reasonably uniform framework for the conduct of international business could be envisaged.

A conference to consider revisions to these Equitable Principles and Rules has been called for 1985, at the insistence of developing countries. Canada will seek to participate constructively in that exercise, but we have a number of concerns. Attempts to broaden the notion of restrictive business practices to include practices consistent with intellectual property rights but not having serious adverse effects on competition, would not, in our view, assist economic development. On the contrary, restrictions necessary to protect the legitimate intellectual property rights of suppliers must be maintained, for unless the innovator is assured of protection for his invention, he will have little encouragement either to go on inventing or to transfer it. Host countries, rather than home countries or an international body, should remain responsible for monitoring restrictive practices within their respective territories. Thus, whereas the development of a model law may be considered a type of "technical assistance" to developing countries in assisting them to control restrictive business practices, attempts to make the set of

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Equitable Principles a binding legal instrument run counter to fundamental notions of sovereign authority through territorial jurisdiction.

WIPO

The role played by intellectual property in the transfer of technology should not be underestimated. In the World Intellectual Property Organization (WIPO), developing countries are voicing increasing concern that the international patent system inhibits development. They point out that about five-sixths of the patents registered in developing countries are in foreign hands, and that over 90 per cent of those are never used or "worked" in their countries. In their view, intellectual property rights may serve to block domestic production while increasing the market power of foreign corporations. Developing countries therefore call for recognition within WIPO that countries with more limited technology intrastructures should not be subject to equal restraints under the Paris Convention for the Protection of Industrial Property. Exceptions and qualifications within the international patent system have been suggested.

For Canada, as I have suggested, it is clear that transfer of technology will not be enhanced unless it is in the interest of the supplier as well as the recipient to do so. Technology transfer must take fully into account the interests of technology suppliers and innovators. The transfer and licensing of technology is facilitated by the existence of industrial property rights — patents, trademarks, know-how, trade secrets — which protect the interests of the transferor of technology and ensure a financial return on the technology supplied. For this reason we have supported the positions generally taken by other Western, industrialized countries at the Conference to revise the Paris Convention.

Export controls and COCOM

Important restrictions on the transfer of technology may also be imposed by export controls. Under Canada's export control legislation, export permits are required for a wide range of strategic goods and technologies. There are over 160 main items controlled as well as hundreds of sub-items as defined in the Export Control List (ECL). In addition, most goods of US origin are controlled under the ECL. A person requires a permit to export goods identified on the ECL to all destinations, except the majority of exports to the United States. The Export and Import Permits Act creates a criminal offence for improper exports, and provides for fines up to $25 000 and/or imprisonment for up to five years. The Department of External Affairs regularly distributes a notice to exporters, setting out in more detail requirements for obtaining an export licence.

The controls that apply to exports of strategic goods are based on national security considerations and are co-ordinated on an international basis. Canada, along with its NATO partners (except Ireland and Spain), as well as Japan, participates in an international arrangement known as the Co-ordinating Committee, or COCOM. The purpose of COCOM is to maintain multilaterally agreed on controls on the shipment of military and strategic goods and technologies to the Warsaw Pact countries and China.

Within the COCOM forum, International Control Lists are established that define goods and technologies considered to be strategic, including Industrial, Munitions and Atomic Energy Lists. These lists are used as the basis for the domestic national security controls maintained by each member country.

Since the time of our joining COCOM in the early 1950s, Canada has followed a mutually agreed on policy of embargoing the export of all military goods to destinations proscribed by COCOM in the interests of collective Western security. However, other sensitive goods, broadly defined as commercial goods with possible military applications, may be exported to a civilian consignee in those countries if it is determined that there is no strategic risk involved. This decision is taken either by the entire COCOM Committee or by the COCOM member government concerned. In those cases submitted to COCOM for review, the unanimous approval of all COCOM members must be given before the export may be approved by the government of Canada.

Canadian legislation similarly provides for strict control over the export of technical data in material form if such data relate to goods controlled under the Export Control List. Specifically, all technical data which can be used in the design, production, operation or testing of equipment and materials controlled under the ECL require export permits. The only exceptions are if the technical information is available to the public in published books or periodicals. These controls, however, do not normally extend to patent applications. Usually, the information contained in a patent application is not of a kind which the Governor in Council would deem it necessary to control for the purposes of the Export and Import Permits Act. Any security requirements that may arise in respect of such applications are specifically addressed by Section 20 of the Patents Act.

Canada-United States trade

I would now like to return to the bilateral environment. As I suggested, our international competitiveness and economic well-being is in large part dependent on our maintaining and improving our access to US markets. Canada is the only major industrialized nation in the world that does not have tariff-free access to a market of at least 100 million people. The critical importance of our major trading partner is therefore likely to continue for the foreseeable future. In recent months, there has been considerable interest in the terms of Canada-USA trade relations and the options available to enhance this trade.

Particularly in the business community, the question being posed with increasing frequency is whether Canada should be seeking to secure and enhance our access to US markets through special bilateral arrangements of one kind or another.

One possibility is a sectoral approach. Indeed, a sectoral initiative was launched, last year, with four sectors coming under review: steel, urban transit equipment, agricultural input and equipment, and computer services, or "informatics". Most of the discussions on these sectors have focused on actual and potential barriers to trade in goods, although many of the goods have a high technology component. However, "pure" technology questions, not governed by existing trade rules addressing trade in goods, are more clearly presented in the field of informatics. Both Canada and the USA recognized that the field of informatics is accordingly more complex. Both are currently exploring the subject of trade in this sector with their respective private sectors, and in the case of Canada, with the provincial governments.

Another approach to enhancing trade relations with the USA is that of a broader free trade agreement. A treaty based on this approach would be consistent with the GATT, so long as it would encompass

the bulk of bilateral trade and would provide for the elimination of tariffs and significant non-tariff barriers. Just how technology would be addressed in such a treaty is difficult to foresee. Technology aspects of informatics, for example, might be dealt with in provisions relating to services. Provisions relating to intellectual property would also have to be considered.

In sum, we are committed to considering ways to secure and expand our markets in the USA. This means continuing to look at the sectoral approach to see what it can offer. It means also examining calls from certain parts of the business community for a broader trade agreement with the USA. As my colleague, the Minister for International Trade, pointed out in his speech at Dalhousie University on November 1, 1984, there are some very large questions here. They include: the strength of our export industries; the problems of those industries which already face strong competition; the special measures of adjustment which might be needed; the constraints on certain Canadian policies, such as regional development, which might be involved; the effect on Canadian identity in any proposal for a closer relationship with the USA. Questions of transfer of technology in bilateral relations must be placed in the context of these broader considerations.

Defence development and defence production sharing arrangements

There is one area in which Canada and the United States have long been committed to encouraging bilateral technology exchange. Canada-USA Defence Development and Defence Production Sharing Arrangements, dating back almost half a century, have enabled Canada and the United States to keep to a minimum restrictions between them on the flow of high technology, including that which is militarily critical or that has a dual use. As a partner in North American defence, Canada enjoys a unique position in US export control regulations. A US manufacturer planning to export critical products or parts to a Canadian firm or to a subsidiary in Canada does not need to fulfil the general licensing requirements of the US International Traffic in Arms Regulations or the Export Administration Regulations. A new US Department of Defense Directive on the withholding of unclassified but sensitive data specifically confirms an exemption for Canada, and permits Canadian firms to be treated on the same basis as US firms in related transfers of technology. Conversely, as I mentioned, Canadian regulations contain an exemption for almost all goods and technology destined for end-use in the USA. This generally unrestricted flow of technology has served to ensure that Canada has been in a position to make a more effective contribution to the North American defence industrial base. It has also ensured the inflow of technology to Canadian companies so important to their being able to compete in international markets.

To implement fully our bilateral arrangements, the re-export from Canada of US-origin goods is controlled under Canadian legislation. Canadian officials co-operate closely with their US counterparts to ensure that Canada is not used as a conduit for the re-export of US goods to destinations to which the US would not export these goods. We are committed to ensuring that the resources we devote to the administration and enforcement of our export controls are adequate to protecting fully North American security interests.

National measures – antitrust

Finally, let me touch briefly on a series of national measures that also form part of the international environment for transfers of technology.

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First, to return to the subject of restrictive business practices for a moment, a government's interest in providing limited monopoly or exclusive rights to intellectual property may come up against its interest in promoting competition. Intellectual property rights may be used in furtherance of market position. Many countries have responded, through the use of competition legislation, to restrain possible abuses of market power evidenced by terms or conditions in the transfer of intellectual property rights that unreasonably allocate markets, control re-exports or foreclose competition.

The conflict between intellectual property laws and competition laws may be more apparent than real, however. Both sets of laws have similar aims — to spur enterprise and innovation. Patent laws, for instance, achieve this goal by rewarding inventors with a limited exclusive use of inventions. Competition laws achieve the same end by preventing artificial restrictions of competition. In Canada and the United States, the notion of "patent misuse" denies relief against infringement where the patentee has sought to expand his monopoly right beyond the scope of the patent in a manner that unduly restrains competition.

Further, in the field of technology, certain antitrust measures themselves are considered by some as being anti-competitive. The best-known example of relaxed application of antitrust laws to research and development is the joining together of US firms in a major effort to produce the fifth generation "thinking" computer in competition with the Japanese. Firms increasingly see the need to form joint ventures to share technology, to engage jointly in research and development, manufacturing, resource exploration and sales and distribution. I note with particular interest that during the last days of its last session, the US congress passed the National Co-operative Research Act of 1984, changing the antitrust rules applicable to certain research and development ventures.

Export control legislation

I have devoted considerable time already to the impact of Canadian export control laws on the transfer of technology. Our luncheon speaker, Congressman Bonker, will speak in some detail on prospects for renewal of the US Export Administration Act. While I do not wish to dwell on the subject, I would like nonetheless to spend a few moments to outline long-standing Canadian concerns over provisions in the proposed legislation that would authorize the application of US foreign policy and national security controls in an extraterritorial manner.

Proposals that were before the House and Senate would have reasserted US authority to control the export activities of foreign subsidiaries of US multinational enterprises and nationals residing abroad, as "persons" subject to US jurisdiction. These proposals also reasserted the authority to control the export or re-export of US origin goods and technology, potentially including foreign-produced goods derived from US technology, even if in the possession of foreign licencees or others who are not subject to US jurisdiction.

In our view, under generally accepted principles of international law, corporations which are nationals of Canada and which produce goods and services in Canada are subject only to the laws of Canada in respect of their exports to third countries. Assertions of authority which displace Canadian jurisdiction

over multinational enterprises incorporated in Canada in respect of their activities in Canada are an unacceptable intrusion into the foreign commerce and other sovereign interests of Canada.

Particularly in the light of a number of factors that I have already mentioned, there would seem to be little need for preserving authority to assert such extraterritorial jurisdiction. Canada shares with the United States a common interest in effective controls for national security reasons; we co-operate closely on COCOM in developing more effective multilateral controls of strategic goods. Our bilateral arrangements ensure that exports of strategic goods and technology, including those of US origin, are controlled under Canadian law. We are continuing and seeking to enhance our co-operation in the administration and enforcement of our respective export control laws. I would hope that Congress takes fully into account Canadian and other foreign governments' interests when it once again considers proposals for renewal of the Export Administration Act. Such consideration is not merely good neighbourliness; it is a policy commitment endorsed by the USA and all other OECD countries as a means of avoiding or minimizing problems that may be caused by the imposition of "conflicting requirements" on multinational enterprises. In such situations, moderation, restraint and co-operation as an alternative to unilateral action are called for.

Incoming investment

Before concluding, I would like to touch upon one other type of national measure that affects transfer of technology — review of foreign investment. Foreign ownership in Canada presents both challenges and opportunities to encouraging a higher degree of technological innovation and research and development (R&D) among Canadian enterprises. While some multinational enterprises suggest that there are advantages in concentrating the R&D function largely in one place on the basis of factors relating to external economies and economies of scale, foreign-controlled enterprises in Canada have spent considerable sums in purchasing technological innovation from their parents. Canada has clearly benefited from these intra-corporate transfers of technology. We must still encourage domestic innovation, however, to maintain our international competitiveness and export performance.

What can be done? We must maintain a healthy over-all investment climate. As you know, the government has announced its intention to revise the foreign investment review process, both to attract more investment and to reduce the scope of review.

Beyond this, we must maintain a healthy economic and fiscal climate for the pursuit of R&D in Canada. Studies maintain that the Canadian environment, particularly including our incentive program, is very competitive. All firms in Canada, foreign and domestic, can respond to the opportunities. In respect of foreign firms, both the OECD Guidelines for Multinational Enterprises provided in your materials and the guidelines promulgated by the federal government in the mid-1970s encourage corporations to develop, as an integral part of their Canadian operations, an autonomous capability for technological innovation, including research development, engineering, industrial design and pre-production activities.

Conclusion

In conclusion, this detailed review of the multilateral, bilateral and national environment within which technology transfers occur suggest some basic questions that we might all keep in mind throughout today's discussions.

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First, how might we best ensure the liberalization of trade, and expand the coverage of trade rules, so as to promote the international transfer of technology?

Second, how might we best secure and expand our access to US markets?

Third, what national measures best promote the international competitiveness of Canadian firms engaged in the development and transfer of technology?

Fourth, and most challenging for lawyers perhaps, given the proliferation of declarations, non-binding codes, multilaterally upon agreed policy commitments, and the like, what is the legal status and effect of such pronouncements? Is the line between law and policy a clear one?

Answers can only come through expanded collaboration between business and government on the one hand, and between federal and provincial trade ministers on the other. Today's program is an important opportunity to extend communication between the private sector and government. I invite you to join in this dialogue, and to stay involved, as we choose new directions in the development of our trade policy in this most challenging international environment.

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