

INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES:

CONCEPT AND SCOPE, DOMESTIC CONTEXT, AND

INTERNATIONAL ENVIRONMENT

A REPORT TO THE DEPARTMENT OF COMMUNICATIONS

R. Brian Woodrow
Associate Professor,
Department of Political Studies
University of Guelph

Submitted: March, 1983

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TABLE OF CONTENTS

	<u>Page</u>
I. INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES: SPECIFYING EXAMPLES, DEFINING TERMS, CLARIFYING CONCEPTS	1
1.0 Introduction	1
1.1 Hypothetical Canadian Manifestations of Trade in Telecommunications Services.	1
1.2 Telecommunications Services as a Trade-in-Services Issue . .	7
1.3 Distinguishing Trade-in-Services from Trade-in-Goods	12
1.4 What Constitutes "Trade" in Internationally-Traded Telecommunications Services.	16
1.5 On the Implications of Trade-in-Services Negotiations for Domestic and International Telecommunications.	20
1.6 Internationally-Traded Telecommunications Services: A Framework for Analysis	24
II. INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES: MEASURES OF THEIR SCOPE AND MAGNITUDE IN CANADA	26
2.1 Introduction	26
2.2 Problems in Developing an Adequate Data Base	27
2.3 Services in the International Economy.	29
2.4 Canada's International Trade in Telecommunications and Computer Services.	33
2.5 Additional Information on Canada's Internationally-Traded Telecommunications and Computer Services	34
2.6 Summary.	36
III. DOMESTIC POLICY AND REGULATORY CONTEXT IN CANADA FOR INTER- NATIONALLY-TRADED TELECOMMUNICATIONS SERVICES	37
3.1 Introduction	37
3.2 The Prevailing Domestic Policy and Regulatory Framework in Canada and Its Implications	37
3.3 Recent Developments Affecting the Domestic Policy and Regulatory Framework	40
The July 22, 1987 DOC Policy Statement.	40
Changes in the Role of Telesat Canada	42
The Privatization of Teleglobe Canada	44
The Impact of Recent CRTC Decisions	45
The Evolving Federal-Provincial Accords in Telecommunica- tions.	47
The Services Chapter of the Free Trade Agreement.	48
3.4 Positions Taken By Major Providers, Users and Other Interested Parties	49
Bell Canada as One Member of Telecom Canada	49
CNCPTelecommunications	51
Telesat Canada.	52
Teleglobe Canada.	53

	<u>Page</u>
3.4 (cont'd)	
The Ontario Government.	54
The Royal Bank of Canada.	54
The Canadian Business Telecommunications Alliance	55
International Business Machines	55
The Canadian Independent Computer Services Association.	56
3.5 The Evolving Canadian Government Position on Inter- nationally-Traded Telecommunications Services.	56
IV. THE INTERNATIONAL POLICY AND BUSINESS ENVIRONMENT FOR INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES	60
4.1 Introduction	60
4.2 The U.S. Government and Business Initiative on Trade-in- Services	60
4.3 International Organizations and Their Involvement with Internationally-Traded Telecommunications Services	64
UNCTAD and UNCTC.	65
The Organization for Economic Cooperation and Develop- ment	66
The GATT Services Negotiations.	70
The ITU and the WATTC-88 Conference	74
4.4 The Evolving Position of Major Countries on Internationally- Traded Telecommunications Services	75
The U.S. Negotiating Position	76
The European Community and Its Member States.	77
Japan	79
The Developing Nations.	79
4.5 Trends Affecting the International Policy and Business Environment.	80
4.6 Implications for Canadian Involvement on the International Scene.	83
V. CONCLUSIONS AND RECOMMENDATIONS	85
APPENDIX I: TELECOMMUNICATIONS AND COMPUTER SERVICES IN THE CANADA-UNITED STATES FREE TRADE AGREEMENT: AFFIRMATION OF THE STATUS QUO OR SIGNPOST TO THE FUTURE?	
BIBLIOGRAPHY	
PART I: TELECOMMUNICATIONS SERVICES AS A TRADE-IN-SERVICES ISSUE	
PART II: DOMESTIC AND INTERNATIONAL ASPECTS OF INTER- NATIONALLY-TRADED TELECOMMUNICATIONS SERVICES	

I. INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES: SPECIFYING EXAMPLES, DEFINING TERMS, CLARIFYING CONCEPTS

1.0 Introduction

"Telecommunications services" - whatever precise scope and content that term is eventually given - has recently emerged as a distinct issue in ongoing debate and negotiations on "trade-in-services", and one which is widely regarded as crucial to the achievement of any real progress in this emerging area. The underlying dynamics of trade-in-services are quite simple: the United States in particular has taken the lead in pressing other industrialized countries and the developing nations as well to create and institutionalize a more liberalized regime for dealing with a wide range of services trade issues, complementary to that already in place for goods trade through GATT and other multilateral and bilateral arrangements. With regard to telecommunications services as on other issues, the often quite divergent interests and approaches of different national governments and affected groups, operating both domestically and on the international scene, come obviously and immediately to the forefront. However, at least some of the difficulty with regard to telecommunications services as a trade-in-services issue is definitional and conceptual and stems very much from the considerable differences between a trade policy perspective and a telecommunications policy perspective on this issue. This first section of the report attempts to provide real world examples, explore definitions, clarify concepts and, generally, to bridge the gap between trade policy and telecommunications policy perspectives before proposing a framework for treatment of "internationally-traded telecommunications services".

1.1 Hypothetical Canadian Manifestations of Trade in Telecommunications Services.

Consider the following hypothetical examples of how the provision and/or consumption of certain telecommunications and related services - what Canadians increasingly expect of the advanced communications networks which bind them together and link them to the rest of the world - might be construed in terms of trade-in-services:

CASE #1: A little old lady in Orillia places a normal long distance call to her nephew in San Francisco. Instantaneously, Bell Canada transfers that call westward along the Telecom Canada network via microwave or satellite to the West Coast where BC Tel interconnects with AT & T Longlines which uses its fibre optic facilities to pass the call on to Pacific Telesis ROC where her nephew picks up his phone. The call is billed by Bell Canada at published Canada/US rates, with Telecom Canada settling revenues among its member companies and AT & T between itself and Pacific Telesis. The international transaction between Telecom Canada and AT & T Longlines would be handled between the companies on a net basis depending upon the number, distance and duration of all Canada/US calls and in accord with recognized ITU accounting procedures.

Questions: 1) Does this transaction across international borders but based upon cooperative technical arrangements and mutually agreed upon settlement procedures constitute an example of an

- internationally-traded telecommunications services?
- 2) If Telecom Canada could choose - as it presently can - to interconnect with either MCI or Sprint rather than AT & T Longlines, would this competition enhance the "trade in services" component of the transaction? At the same time, it should be remembered that interconnection with MCI or Sprint would be bound by similar cross-border agreements.
 - 3) What would be the implications in terms of "trade in services" if the connection were to be made in any of the following modified circumstances?:
 - a) cross-border interconnection was made by Bell Canada through AT & T or one of its competitors directly through Buffalo rather than at the more distant border crossing point;
 - b) an Ontario reseller with a private line to Buffalo were to purchase lower-cost long-distance transmission capacity from any U.S. supplier;
 - c) CNCP Telecommunications or any other domestic facilities were to provide long-distance service across Canada and into the U.S. in direct domestic competition with Telecom Canada;
 - d) an established U.S. long distance carrier were to physically extend its network into Canada and/or take over an existing Canadian carrier.

Commentary: Under prevailing definitions and concepts of trade as exchange between producers of a service in one country and consumers in another country, this normal long-distance telephone call - as well as any of the variations suggested under 3) - would indeed be considered as internationally-traded telecommunications services. Even though the interconnection arrangements and accounting procedures are cooperative in nature as prescribed by international convention and have not traditionally been regarded as trade by telecommunications people, this would not detract from the traded nature of the service, although it does define its particular character. Domestic competition among providers is neither a prerequisite for trade nor is it an analog to trade itself. All of the possible variations suggested in 3), however, would contravene existing Canadian telecommunications policy and regulatory practice.

CASE #2: A large U.S. multinational corporation like General Motors or IBM wishes to patch together a private leased line network to link itself with its Canadian subsidiary as well as other subsidiaries throughout the world, each of which must be linked to several plants and an extensive subsidiary and dealer network. Alternatively, major financial institutions or airlines throughout the world, as is the case in SWIFT and SITA, agree to participate in a specialized leased line arrangement for continuous and large-scale data transmission. In the first instance, there would be little difficulty - given present oversupply and deregulation - of obtaining the volume-insensitive leased line capacity within the U.S. and arrangements could be made to interconnect with similar leased line capacity purchased in Canada either from Telecom Canada or CNCP Telecommunications. However, it may be considerably more difficult to obtain volume-insensitive leased lines from monopoly suppliers such as the French or West German PTTs anxious to safeguard their public-switched network and it might be quite impossible to arrange any kind of leased lines in several developing nations where telecommunications facilities are

rudimentary. And finally, there is still the matter of linking these leased lines together using INTELSAT or overseas cable facilities as well as ITU Series D recommendations which attempt to limit international private leased networks.

- Questions:**
- 1) Irrespective of how use of the public-switched network is treated, does not the purchase of leased lines by large users for the purpose of establishing international private networks - as outlined in the more general and specialized instances above - constitute clear examples of internationally-traded telecommunications services?
 - 2) Could actions taken by monopoly PTT nations to restrict the availability of leased lines or even ITU provisions governing certain private leased line arrangements be construed as deliberate or implicit impediments to trade in telecommunications services, although obviously not actionable under presently non-existent services trade rules?
 - 3) If national "telecommunications administrations" were to introduce volume-sensitive pricing or to impose taxes on transborder telecommunications traffic, could these actions be construed on the international level as impediments to trade in telecommunications services, however much they might be viewed as legitimate exercises of national telecommunications policy and regulation?
 - 4) Might not the development of ISDN, as it is being planned and put into place by governments and the world's telephone companies, be considered as a bold attempt to upgrade the capability of the international public-switched network and to obviate the need for private leased lines?

Commentary: Private leased lines configured to operate across national boundaries would indeed be considered as internationally-traded telecommunications services. The specialized leased line arrangement is a special case allowed under existing ITU regulation while the private leased line network example is a maverick arrangement which is sanctioned but not encouraged under the present international convention. International private networks are viewed by many telecommunications policy officials as a bypass threat to the international public-switched network and ISDN is viewed as one way of countering that threat. From a trade perspective, both the emergence of global private networks and ISDN would be viewed positively in terms of their contribution to the effective conduct of international business. However, restrictions on access to volume-insensitive leased lines and resale and sharing arrangements would indeed be construed as barriers to international trade-in-services.

CASE #3: Telesat Canada - at present the sole supplier of domestic satellite services but currently seeking to position itself in more competitively vis-a-vis potential customers - and Teleglobe Canada - now in private hands and subject to regulation but with its monopoly over overseas telecommunications traffic intact for at least five years - could each move more aggressively into internationally-traded telecommunications services. In the case of Telesat Canada, CRTC regulatory restrictions and internal corporate policy no longer constrain it from dealing directly with customers and the 1982 exchange of letters between Canada and the United States, as seemingly confirmed in the proposed bilateral free trade agreement, could be interpreted to allow the company at least partial market access to sell satellite services in the United States while

accepting reciprocal access for competitive satellite services into the Canadian market. In the case of Teleglobe Canada, the privatized corporation - now for the first time under CRTC regulation - will continue to encourage growth and efficiency in Canada-overseas telecommunications and, through available INTELSAT and new transoceanic facilities, might move more aggressively to attract greater transit business for Canada in linking Atlantic and Pacific regions or perhaps even to become directly involved in servicing the U.S. market taking business away from Telecom Canada and Telesat Canada.

- Questions:**
- 1) Would a normal overseas call from Lyon, France to Vancouver, B.C. - handled as it would be by the French PTT, then by Teleglobe Canada, then by Telesat Canada, then by B.C. Tel - all of which operate as monopolies within their jurisdictions and within a cooperative international arrangement - constitute an internationally-traded telecommunications service just like Canada-U.S. traffic?
 - 2) If Telesat Canada were to sell satellite services in the United States on a regular basis or if Teleglobe Canada were to act aggressively as a third-party in serving non-Canadian markets, would this constitute internationally-trade telecommunications service and with what implications for established national and international telecommunications policy and regulation?
 - 3) How would the United States - which maintains a substantially competitive domestic telecommunications system and espouses the same goal for international telecommunications - likely respond to the kind of activities sketched out in 2)?
 - 4) Given the likely reaction, could such activities as sketched out in 2) not lead to reciprocal demands for market access which might undermine the Canadian domestic telecommunications system?

Commentary: Just as normal Canada-U.S. cross-border or Canada-overseas long distance traffic would be construed as internationally-traded telecommunications service, so too would the sale of excess satellite capacity into the United States or attraction of transit business be considered in the same light. However, the sale of excess satellite capacity or activity as a third party in channelling international traffic would be essentially competitive in nature rather than in accord with the prevailing cooperative arrangements prescribed under international convention. Competitive trade-in-services, as opposed to trade-in-services under existing cooperative arrangements, represents a purer form of trade activity where notions of comparative advantage can be clearly seen. Telesat Canada and Teleglobe can emerge either as winners or losers vis-a-vis their potential competitors - i.e. the various domestic satellite providers in the U.S., AT & T, MCI or Sprint, or even each other. Up to now, Canadian telecommunications policy and practice has been to discourage competitive activity between Canada and the United States in the telecommunications field in order to safeguard the domestic telecommunications system against foreign bypass as well as to serve national and social objectives in Canadian telecommunications.

CASE #4: Telecommunications network-based services including customer-dialed-account recording (CDAR), selective-call-forwarding (SCF) and some "electronic mail" capability are offered by two similarly-organized companies - one Canadian-owned and controlled and the other U.S.-owned and

controlled - each of which wish to market their services throughout North America. Likewise, two other companies - again one Canadian-owned and controlled and the other U.S.-owned and controlled - offer identical information services such as on-line retrieval and certain data-processing applications to customers throughout North America. Under present U.S. policy and regulatory practice, both the U.S. and Canadian information services and telecommunications network-based service providers would be treated as offering "enhanced" rather than "basic" services and allowed to operate competitively and to engage in trade in both kinds of services across the border. Under existing Canadian policy and regulatory practice, the U.S. and Canadian information providers would also be treated as "enhanced" rather than "basic" services open to cross-border trade; however, the Canadian telecommunications network-based services provider would not be allowed to offer the CDAR and SCF service at all - because the CRTC has recently classified this as constituting essentially a "basic" service - although it would be allowed to offer electronic mail as an "enhanced service" which would presumably also be open to cross-border trade.

- Questions:**
- 1) Given international and domestic policy and regulatory restrictions, are network-based services internationally-traded telecommunications services in the same way that on-line information services have already come to be marketed across national borders?
 - 2) Should it make any difference in terms of regulatory approval or tradeability if the Canadian provider of telecommunications network-based services were Bell Canada rather than a non-carrier company like Call-Net Telecommunications? Alternatively, should I.P. Sharp Associates, which has long offered a information retrieval service into the United States, Europe and the Pacific, be treated as an "enhanced service" and presumably tradeable while Call-Net Telecommunications which makes roughly similar use of network is classified as providing a "basic" service and denied the right to operate as presently constituted?
 - 3) As a general rule, can or should domestic regulatory distinctions and practices - which vary widely around the world and are constantly changing - be absorbed into projected agreements on internationally-traded telecommunications services?
 - 4) Moreover, if either telecommunications network-based service or information services could be rendered in terms of software, as is the case with certain ROLM software presently available for each of these purposes, could not what is effectively a trade-in-services transaction take place through a routine trade-in-goods transaction?

Commentary: The distinction between "basic" and "enhanced" services is purely a regulatory device - and an increasingly imprecise one at that - and is largely (but not completely) the same in Canada and the United States. Other countries - notably Japan and the United Kingdom - have not adopted this kind of distinction but rather have set their telecommunications policy in relation to "facilities" rather than regulatory distinctions. Recent Canadian telecommunications policy has also moved in that direction following the general notion of distinguishing between Type I carriers which own facilities and provide basic services and Type II carriers which rent capacity and provide enhanced services. While

perhaps useful in terms of domestic regulatory practice and broad national policy, these distinctions probably have little meaning or application in treating internationally-traded telecommunications services. Domestic regulatory distinctions are generally viewed as too transitory and varied upon which to establish either international trade or telecommunications regulatory regimes as the packaging of a service as a good underscores in 4).

CASE #5: Bell Canada International, as the separate subsidiary of Bell Canada Enterprises which specializes in professional and consulting services, wins a long-term contract with a wealthy developing nation to rebuild and upgrade its telecommunications system. In terms of providing consulting and professional services to the project, BCI naturally draws upon the experience and expertise invested over the years in Canada's domestic telecommunications system and also upon Northern Telecom for the supply of network equipment. As well, once the project has been completed, BCI continues to advise on the operation of the new telecommunications system after it has been installed. As an accounting matter, payment for the contract turns up as a receipt on consulting and professional services within Canada's balance of payments while this revenue is not considered by the CRTC for purposes of rate of return regulation. In addition, several Canadian telecommunications and satellite manufacturing companies like Northern Telecom or Spar are becoming involved in the design, manufacture, installation and servicing of very-highly-integrated-goods which have a heavy services component within them. Revenues from this activity would likely turn up in the merchandise balance of payments and not even be registered as services transactions.

Questions: 1) Just as it is recognized that telecommunications services can be embedded in goods such as sophisticated digital switches, is it not also possible for telecommunications services as well as many other services to be embedded in the experience and expertise of people?

2) Should professional and consulting services supplied on telecommunications network projects in other countries be subsumed within the concept of internationally-traded telecommunications services or under its own sector?

3) Should very-highly-integrated-goods like space stations or sophisticated satellites be treated as goods or services?

4) If the above information on expertise as a tradeable service is accepted, what does this imply about labour mobility as a constraint on trade in telecommunications services in addition to the more normal constraints usually seen in foreign investment and domestic regulation?

Commentary: It should be clear that any proper definition and conceptualization of internationally-traded telecommunications services will have to be expansive so as to take into account the different ways in which such services can be delivered and the varied forms which such trade can take. Under present conditions, neither of these activities per se would be registered as trade in telecommunications services in prevailing definitional and statistical terms and both would largely escape the notice of Canadian services policy and regulation.

This not-all-that-hypothetical catalogue of examples of how "trade in telecommunications services" might occur - situated specifically in the Canadian context - is meant to provoke thought and underline the complexity

of the phenomenon. The available literature on "telecommunications services" specifically and "trade-in-services" in general is extensive and provides some indications about how a conception of "internationally-traded telecommunications services", suitable both for trade policy and telecommunications policy purposes, might be constructed. It is to a review and analysis of this literature that we now turn.

1.2 A Trade Policy Perspective vs. A Telecommunications Policy Perspective

The fundamental difficulty with telecommunications services as a trade in services issue is that the issue is both a telecommunications policy issue and a trade policy issue simultaneously and interactively. As a trade policy issue, telecommunications services has arisen as one sector among several trade in services sectors including financial services, computer services, travel and tourism services and many other possible sectors where liberalized trade rules might be negotiated at the international level. From a telecommunications policy perspective, however, trade in telecommunications services is but one policy feature - and until recently quite an unimportant one - among such matters as regulatory practices, facilities planning, ownership and control, social and national objectives which together compose an overall telecommunications policy responsive to user needs and provider capabilities. This clash of different perspectives is crucial to the evolution of telecommunications services as a trade in service issue both in Canada and on the international scene.

In terms of trade policy, trade-in-services issues have become increasingly significant during the 1970's and 1980's as the world's industrialized nations became predominantly "services economies" domestically. As the country with the largest and most dynamic services component and under consistent pressure from its own various services sectors, the United States took the lead in pressing for inclusion of services within multilateral and bilateral trade agreements [Dizard, 1983; Aronson and Cowhey, 1984]. International trade agreements after World War II, and specifically GATT, moved progressively to lower tariffs and remove some non-tariff barriers to trade in goods but certain other key areas such as investment, agricultural trade and, of course, services were not covered except indirectly. As well, other international organizations including OECD, the World Bank and the various UN agencies paid little attention specifically to services until the 1980's. Following the conclusion of the Tokyo Round negotiations in 1979 where services received virtually no attention, U.S. service industries particularly in the financial area found common cause with the newly-elected Reagan administration to press the issue in GATT, OECD, UNCTAD, and elsewhere as well as through bilateral negotiations most notably with Israel and Canada [Spero, 1982; Brock, 1982; Feketekuty, 1984].

Over the past five years, slow but steady progress has been made, at least on the process level, in advancing the trade-in-services issue:

- * in 1979, the OECD Trade Committee took up the services issue and, in 1982, the OECD also established a Committee on Information, Computers and Communications Policy which devoted considerable resources to examination of the economic and other issues raised by

transborder data flows, one aspect of which is trade in telecommunications and computer services;

- * in 1984, after being turned down two years previously, GATT empowered its Secretariat to provide support for preliminary meetings on trade-in-services and encouraged interested member states to submit national studies pending a decision whether or not to proceed with formal negotiations [GATT, 1985-86];
- * in 1984, as well, the U.S. signed a bilateral free trade agreement with Israel which included a section on trade in services (telecommunications being one of those services) but the text of that agreement was largely declaratory and remains to be translated into contractually binding rights and obligations;
- * in 1985, the OECD established a precedent for dealing with trade-related communications and information issues in adopting a Declaration on Transborder Data Flows which committed members not to take measures in future to hinder information flows [OECD, 1985] while, in 1986, its Trade Committee prepared a "conceptual framework for trade in services", which was subsequently approved for public distribution and now is being subjected to "sectoral testing" within the organization [OECD Trade Committee, 1987];
- * in 1986, as well, the GATT Council of Ministers agreed to launch the Uruguay Round including the establishment of a Group of Negotiations on Services - to run parallel and in tandem with the mainstream goods negotiations - and this GNS is now attempting to achieve agreement on a multilateral framework agreement by 1988 [GATT, 1986 and 1987];
- * and most recently, in 1987, Canada and the United States have of course signed a free trade agreement which includes a section on trade-in-services including "telecommunications network-based enhanced services" and which goes one large step further than previously in specifying how "national treatment", "transparency" and certain other elements apply in an area like telecommunications.

Thus, slow but steady progress has been made over the past five years towards liberalization of trade-in-services and the prospect of more substantive action is clearly at hand.

It is important at this stage to understand what a trade policy perspective on telecommunications services entails. As set out clearly by one of the key U.S. trade officials in this area, Geza Feketekuty, a trade policy perspective has an inherent bias towards trade liberalization:

...trade policy negotiations and discussions whether multilaterally or bilaterally, focus on commercial opportunity: the right to sell, the terms of competition, the effect on information flows and trade in information-based services....Trade negotiations have typically focused on the reduction of barriers to trade and negotiation of internationally accepted rules and procedures to establish a stable and predictable basis

for international commerce....The GATT rules and procedures serve to guide governments in administering policies affecting trade ... [and] ... place internationally agreed limits on barriers to trade and provide procedures for resolving agreements arising out of their application....

The major way governments intervene in the marketplace to restrict trade is through regulations. Often regulations are put into place to achieve certain social, cultural or national security goals, yet have the unintended effect of distorting trade or information flows and curtailing commercial opportunities....

The main reason trade policy officials are involved in telecommunications trade matters is because it has become so important and businesses are encountering difficulties in foreign markets....For many businesses involved in international trade in services, it is difficult to understand why so much effort should be put into expanding market opportunities for goods trade while questions of market access for services trade are ignored....Because of the sheer volume of service transactions, changes in the ways communications networks operate can significantly affect the international competitive position of many service industries...

Our initial objectives with respect to upcoming negotiations on trade-in-services is to reach agreement on a general framework of contractually binding rules and principles in the GATT. Such a framework would help to assure that domestic regulation of services is not used as a hidden device to protect domestic industry by discriminatory treatment of foreign suppliers of services. It would allow a country to protect domestic industry as long as such barriers were explicit, but would subject such barriers to future negotiations. The major value of such a framework agreement would be in slowing down the introduction of new barriers and in providing a framework for further negotiations in specific sectors....[Feketekuty, 1985].

From the trade policy perspective, then, telecommunications services are but one among many services sectors, although a particularly crucial one, which provides the infrastructure over which many other services are traded. The negotiation of common international rules and procedures can contribute greatly to the satisfaction of domestic and international business concerns and be used to break down unwarranted barriers to trade around the world.

The telecommunications policy perspective on trade in services is a sharply different one. National policy-makers and regulators in the telecommunications field are primarily concerned with the efficient and effective operation of telecommunications network(s) and with the broader

economic, social and national objectives which those networks are expected to serve. As well, depending upon a country's particular history and tradition as well as its continuing political preferences, the telecommunications system can be monopolistic or competitive, owned and controlled either publicly or privately, and subject to widely varying degrees of regulation [Bruce, 1986 and 1987]. Telecommunications policy-makers and regulators on the domestic scene typically become involved in a long list of activities growing out of their basic responsibilities: spectrum management, facilities planning, standard-setting, tariffication, introduction of new services, coordination and liaison, etc. As well, at the international level, telecommunications policy-makers must work with their counterparts in other countries, both bilaterally and through international organizations like the International Telecommunications Union, to develop and maintain the complex technical and administrative arrangements necessary to allow for the conduct of modern international telecommunications [Coddling, 1982]. Coordination and regulation have become the prime instruments whereby nations have agreed to organize and manage international telecommunications. Finally, telecommunications policy-makers today find their world in some turmoil and disarray as the result of rapid technological advance, both in communications and computer technology, which brings about persistent pressures for greater competition and new services and which is challenging long-established institutional structures and practices in the telecommunications field.

Trade in telecommunications services, then, is but one of those issues which challenges the telecommunications policy-maker. From the telecommunications policy perspective, international telecommunications has traditionally been viewed not in terms of trade between nations but rather as a cooperative technical and administrative arrangement. Moreover, the new services constantly coming on stream often seem to have more to do with computing and the content which telecommunications systems carry than with the carriage function and the telecommunications network itself [Hertzstein, 1985]. Nevertheless, telecommunications policy-makers in various countries have moved somewhat reluctantly in recent years to recognize, if not yet to respond to, increasing interest in the trade in telecommunications services issue:

- * in 1982, at its last Plenipotentiary Conference, the ITU scheduled a World Administrative Telegraph and Telephone Conference for the late 1980's to deal with new telecommunications services and this conference is now to be held in Melbourne late in 1988 [ITU, 1987];
- * in 1984, a WATTC-88 Preparatory Committee was established to begin drafting the International Telecommunications Regulations which would deal with the new telecommunications services environment and, after four sets of meetings, a highly contentious set of draft regulations was reported out in 1987;
- * planning is proceeding apace both on the national and international level for the introduction of Integrated Services Digital Networks which will allow the world's telecommunications networks to handle new telecommunications services more efficiently and effectively [Rutkowski, 1985];
- * within OECD, work is proceeding on telecommunications network-based

services and the way in which member countries are handling these services and also on the application of conceptual frameworks for trade in services to the telecommunications and informatics field [OECD Committee on ICCP, 1987; OECD Working Party on Transborder Data Flows, 1987];

* for its part, ITU is currently holding a "watching brief" on the GATT services negotiations, contributing to that process when requested but clearly concerned about the possible implications for the technical and administrative aspects of international telecommunications regulation.

Thus, the stance taken by telecommunications policy-makers towards the trade-in-services issue is considerably more cautious and much more incremental than is the trade policy perspective.

The telecommunications policy perspective, as evident specifically on the international level, is well captured by George Coddling Jr. in his rather sanitized version of how the International Telecommunications Union operates:

[It] ... has been heavily involved in telecommunications since the development of the electromagnetic telegraph a little over a century ago. This involvement has consisted primarily of establishing binding rules and regulations necessary for the functioning of the international telecommunications system, doing research and setting standards to permit the integration of new technologies necessary for the smooth functioning of the system, and more recently providing assistance to the developing countries to create workable domestic telecommunications systems. All of these functions have met and are meeting a genuine need of the international community.

The machinery is fairly simple: delegates from member countries meet to revise the rules and regulations as the need has arisen and study committees composed of experts from member countries carry out the necessary research and set standards. The Secretariat provides the necessary infrastructure for holding conferences and meetings and for the dissemination of information; the IFRB helps administrations to select and use radio frequencies without causing harmful interference with the stations of other countries. And the cost is relatively small for the services rendered. All in all, despite some imperfections, the International Telecommunications Union has performed a vital task for the nations of the world and gives all indications of continuing to the changing needs of nations well into the future.

The trade-in-services issue - as opposed to essentially technical matters - however, poses the kind of challenge to telecommunications policy which it is perhaps least equipped and able to deal with.

1.3 Distinguishing Trade in Services From Trade in Goods

There is a vibrant ongoing debate on how to distinguish trade in services from trade in goods and this has considerable importance for the treatment of internationally-traded telecommunications services. The longstanding tradition in the economics literature is to treat services primarily as an "intermediate" stage in the production/consumption process and even, following Adam Smith, to dismiss services as essentially "unproductive" or, at best, a "tertiary" sector of modern economies [Hill, 1977; Bhagwati, 1984 and 1987]. Services supposedly differ from goods in that they must be used in close proximity to where they were produced, they had relatively low intrinsic value vis-a-vis the final product in which they were embodied, and they were not easily measurable and tradeable across jurisdictional boundaries. This limited and static view of services simply does not conform to the realities of modern "services economies" in industrialized nations where services - almost however that concept is operationalized - contribute the largest share vis-a-vis goods to gross domestic product, employment and wages, although not yet to trade. In recent years, economists and others have been scurrying to revise their conceptualization of services in the modern economy.

Harald Malmgren presents a concise summary of the reasons why services have become so significant within the world economy and at the same time are so difficult to measure:

First, in their monitoring of international transactions in services, governments have not been able to keep pace with developments in the sector, particularly because technological advances in telecommunications are revolutionising the means of delivering services.

Second, many services are provided by multinational enterprises with a number of offices in different geographical locations working simultaneously and collectively. The value added is diffused geographically, but the final fee may be booked at a particular location for tax or regulatory reasons.

Third, manufacturing enterprises are increasingly providing services in conjunction with trade in goods and foreign investment.

Fourth, the configuration of service industries is being transformed by mergers, acquisitions and other forms of agglomeration which transcend the traditional boundaries that separate particular types of services.

Fifth, many new kinds of services are being made available, as in the provision of software for the management and delivery of engineering services, medical and health-maintenance services, remote retailing and so on.

Sixth, many services are transacted in a non-market or 'black' market environment.

The work of T.J. Hill, now at the OECD in Paris, is often cited as a major contribution to this process of redefinition. Hill interprets the traditional characteristics of services in more dynamic terms: first of all, he argues that "a service may be defined as a change in the condition of a person, or a good belonging to some economic unit, which is brought about as a result of the activity of some other unit"; second, services may not be storable but they can be "embodied" either in people or in goods, they are transactional and tradeable between economic units and even across borders, and the "change of condition" which takes place can be expressed in terms of value-added [Hill, 1977].

Building upon this more dynamic notion of services, other economists [Bhagwati, 1984:136-38; Sampson and Snape, 1984:172-75] have constructed typologies of different categories of services according to the proximity of producers and consumers of services and the extent to which services can be "disembodied" from the supplier and provided without a physical presence being necessary.

- a) "splintered", "separated" or "long-distance" services where physical proximity is unimportant and the service may at some point be "disembodied" into goods or people. Examples would include financial, insurance, or information services and, in the latter instance, discs full of data might be construed more as a service than a good;
- b) mobile-provider, immobile-user services such as is the case with consulting projects, guest worker programs and many other service activities where the provider moves to the user;
- c) mobile-user, immobile-provider services such as is the case with regard to tourism services where the user moves to the provider;
- d) services where proximity is important either in the form of immobile providers serving immobile users as is the case with many local services in the domestic economy or in the form of mobile providers serving equally mobile users who make contact "on the go".

Whereas the above categorization emphasizes the proximity criterion, other writers have focused more on the "embodiment" criterion and some go so far as to argue that services can be conceptualized as having no independent status of their own but that all services can be treated as being "embodied" either in goods or in people [Grubel, 1987].

One recent contribution to the debate typifies the underlying weakness of services typologies in treating telecommunications services as a trade in services issue. Grubel [1987:326] argues that telecommunications services in general are "splintered services" and specifically against treating electronic signals as a "special case". The essential service involved in the transmission of information is embodied in "material substances", i.e. the signals themselves, which have the same characteristics as goods. Thus, he concludes that "all international trade

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involving electronics results in the crossing of borders by material signals that in principle are recordable and measurable, much like books, letters and floppy discs" and further that "in principle, registering of the trade should not give rise to special difficulties, for it can be monitored whenever the substances cross borders". To anyone who is familiar with transborder data flow issues as they have developed over the past decade and also with the laws and regulations which prescribe how domestic and international telecommunications take place, let alone the difficulties encountered in measurement, this assertion arising out of a trade policy perspective can only be amusing. Thus, the task of conceptualizing services - let alone trying to measure them adequately - is a daunting one.

Rather than a typology of services themselves, Krommenacker [1987:14] has recently proposed one particularly promising typology of services transactions in terms of the character of the trade taking place. Four main categories are identified according to the mobility of consumers and of factors of production as set out in Figure I:

Conceptual Framework for Categorizing Services Trade

		<u>FACTORS OF PRODUCTION</u>	
		<u>Don't Move</u>	<u>Move</u>
<u>CONSUMERS OF SERVICE</u>	<u>Don't Move</u>	Across-the border trade	Foreign-earnings trade
		<u>Move</u>	<u>Move</u>
		Domestic-establishment trade	Third-country trade

In terms of the specific cases set out at the beginning of this chapter, CASE #1, 2, 3, and 4 would fit primarily within the cross-border trade category, similar to normal merchandise trade, where the transaction takes place involving a producer in one country and a consumer in another country. Several features of the above cases and how they fit within this category should be noted:

- i) in CASE #3 and 4, the transaction is a form of direct competitive trade where the consumer of the services chooses among various alternative providers, domestic as well as foreign, and deals directly with the chosen provider while CASE #1 and 2 represent transactions handled indirectly among the consumers and producers on a cooperative basis;
- ii) payments and receipts for CASE #1 and 2 transactions would turn up as net items in balance-of-payments terms while the full value of CASE #3 and 4 transactions would be recorded;
- iii) monitoring, measurement and valuation of cross-border telecommunications services is difficult, especially in CASE #2, where many of these transactions take the form of intra-corporate

data flows;

- iv) many of the variations suggested in each of these cases, which would enhance opportunities for cross-border trade, would be presently precluded by government policy and regulation.

In addition, some of the alternative formulations suggested for each of the cases described could shift the transaction into the foreign-earnings or domestic-establishment categories of trade. For example, telecommunications service providers may extend their operations into other countries through establishment or commercial presence or customers may seek special arrangements from providers, while CASE #5 would seem to represent third-party trade transactions which take place directly in the foreign country where the service is delivered. Krommenacker's systematization and refinement of earlier typologies - while still somewhat imprecise in its application to telecommunications services - is promising and deserves further elaboration.

At least three important points about telecommunications services as a trade in services issue grow out of this discussion:

First of all, telecommunications services per se are very seldom treated explicitly or distinctly within these typologies although, given the diversity of examples cited earlier, some cases might fit into the different categories (e.g. telecommunications consulting services are clearly "producer-mobile, user immobile services", some satellite transmission services are "producer-immobile, user mobile services", and certain telecommunications network services may have the characteristics of "splintered services").

Secondly, a major weakness of these typologies, which is reflected in the absence of attention given to telecommunications services, is the failure to take into account the "transportability" or "carriage" of services - i.e. the infrastructure provided by the public-switched network and leased lines or alternatively the postal system or various transportation modes - as a category of services in and of themselves and quite distinct from the "content" services normally referred to.

Thirdly, the precise categorization of services is done primarily for analytical purposes and, except to the extent that it demonstrates the variety of forms which services can take and their transactional and value-added characteristics, it has as yet contributed relatively little to either a trade policy or a telecommunications policy understanding of the trade-in-services issue.

1.4 What Constitutes "Trade" in Internationally-Traded Telecommunications Services?

The concept of "trade" underlying internationally-traded telecommunications services is also a matter of some controversy. As was noted in the examples given earlier, the forms which trade in telecommunications services might take are quite varied and there is much resistance within the telecommunications policy community to treating normal international telecommunications activity in trade terms. As well, it is not clear whether conventional trade theory can adequately be applied to services transactions and how the concept of trade relates to other concepts like foreign investment and features of industry structure such as monopoly, competition or regulation. The divergence of views and confusion on these matters is readily apparent both in the literature on trade in telecommunications services and in ongoing discussions and negotiations at the international level. And once again, the trade policy perspective differs considerably from the telecommunications policy perspective on what actually constitutes "trade" in the area of telecommunications services.

Conventional trade theory explains trade between nations overwhelmingly in terms of the theory of "comparative advantage". Let's create an example. Country A - or rather certain enterprises with that country - typically can sell and export a finished product at a price lower than Country B - or rather buyers in that country - can either produce that product itself or import it from elsewhere. In addition, Country C, because of its particular natural resource endowment, might be able to supply Country A with a certain natural resource which would be unavailable in Country A and available at a price lower than other possible suppliers while Country B might be able to supply Country A with a finished product at a lower price or of higher quality than that commodity can be produced internally within Country A. Each of these transactions crossing national borders can be monitored, measured and valued through customs other procedures; exporters of these goods can operate more efficiently by exploiting their natural advantages and relevant economies of scale within their own country; and importers of these goods in each case benefit by obtaining these goods at a lower cost than from alternative suppliers. Such is the basic theory of "comparative advantage" as it relates to trade in goods and, according to virtually all economists and trade policy officials, only in very special circumstances and for a limited time period, can governments justify domestic protection from international competition according to rationales such as the "infant industry" argument [Corden 1974].

But does the theory of comparative advantage hold with equal rigour and relevance for services as for goods? Does the export and import of services pose special problems which compromise the applicability of that theory? Again, most economists conclude that the theory of "comparative advantage" does indeed apply to trade-in-services [Jussawalla, 1982; Hindley and Smith, 1984; Deardorff, 1984; Grossman and Shapiro, 1984; Bhagwati, 1987]. However, some also recognize that trade-in-services do pose special problems for trade theory. First of all, almost everyone recognizes that services trade cannot be monitored and measured when it crosses national boundaries in the same way that goods trade can and therefore it is much more difficult to determine if "trade" is actually taking place [Stern and Deardorf, 1987]. Secondly, foreign direct

investment in service industries, where this is allowed, is often a substitute for trade in services between countries and the intrafirm transfer of technology and transborder data flows which also occurs so extensively represents little more than a hidden form of "trade" [Grossman and Shapiro, 1985]. Thirdly, it is recognized by many that developing nations face particularly severe "terms of trade" in dealing with developed nations in the services areas because their own services sectors are usually so poorly developed that they must be large net importers of services at the same time that such services are increasingly essential for them in terms of modernization and growth [Jussawalla, 1982; Bhagwati, 1984]. And finally, despite the inherent mobility of factors in many service sectors, at least some would argue that "comparative advantage" can be artificially engineered in certain sectors such as financial services in ways that are not possible with regard to many goods. Thus, there would seem to be general agreement among economists and trade policy people that the theory of comparative advantage does generally apply to services, although possibly with some reservations and qualifications.

Even the task of coming up with an adequate definition of trade-in-services has been difficult and epitomizes the problems of conceptualization in this area. The recent OECD draft on "a conceptual framework for trade in services" suggested three possible definitions, only slightly different from each other but carrying quite different implications. One simple and straight-forward definition - "services exported from a supplier country and imported into another country" - may be too simple and straight-forward would not capture the variety of ways certain services like tourism or telecommunications can be exchanged. Another definition - "services produced by residents of one country and used/received/paid for by residents of another country" - captures the basic element of exchange but hinges too much on the idea of residency and location. A third definition - "services essentially produced in one country and used/received/paid for by residents of another country" - subtly introduces the notion of "value-added" as part of the exchange process and perhaps comes closer to the mark [OECD Trade Committee, 1987:4]. As of now, however, neither OECD nor GATT has come up with what can be regarded as adequate definitions of the phenomenon.

With regard to telecommunications services specifically, there is also some debate over whether "trade" is the appropriate concept to apply to the provision of international telecommunications services. Prior to the emergence of the trade in services issue in the late 1970's and early 1980's, no one in the telecommunications policy field viewed international telecommunications activity as in any real sense a trade issue. Since that time, however, trade policy proponents have been successful in establishing the notion of trade in telecommunications services as being broadly applicable to virtually all international telecommunications activity. In one recent study prepared for OECD and generally available though never officially released, Reid [1985] challenges that trade policy view in terms of its specific applicability to international public-switched network and leased line activities while at the same time demonstrating why trade in services does in fact occur - and will occur increasingly in the future - with respect to other types of telecommunications services. The crux of her argument hinges on the elaborate set of international arrangements, developed and implemented primarily through the ITU, whereby "worldwide service is provided on a cooperative basis by national administrations".

She demonstrates how these arrangements set out the basic categories of telecommunications services which can be provided (e.g. public-switched network service, leased lines but not when used by third parties, and no data processing services), how tariffication principles have been agreed to so as to cover costs and to deter "harmful competition", and the various ways in which revenues are settled between national administrations according to agreed procedures. These arrangements, she concludes, do not constitute "trade":

If the purpose of trade can be said to be allowing a country to exchange products and services in which it has a comparative advantage for those in which it has a comparative disadvantage, it is difficult to see how the telecommunications structure described above fulfills this purpose. Far from encouraging countries to exchange different services, it instead has ensured that all countries produce the same services. The capability of producing these services has then been shared among countries, not traded. An international flow of funds results, but it does not so much represent the purchase by one country of a service from another as the balancing of accounts between different sections of the same organization [Reid, 1985:18].

Reid does not dispute the fact that genuine trade can and indeed does take place presently with regard to some telecommunications services. Technological innovation, the availability of alternative facilities, and product differentiation among service providers are altering the boundary lines between what constitutes basic services provided primarily using cooperative arrangements and other value-added services provided competitively and suited more explicitly to trade. Major changes in current international institutional arrangements towards acceptance of greater competition in the provision of value-added services among service providers and users and even within national telecommunications administrations are required. Nevertheless, irrespective of appropriate policy changes at the international level, she sees real trade in telecommunications services emerging at the present time as countries like the United States, Japan, Britain, and presumably Canada (although it was not mentioned at the time the study was done in 1985) move to introduce regulatory boundaries between services which demonstrate natural monopoly characteristics and require continuing regulation and those which can function on a competitive basis. As well, she notes that there is no lack of service providers willing and able to market for international telecommunications services if prevailing "obstacles" to trade are removed. And, according to Reid, the most obvious aspects of current international arrangements which hinder trade are the following: "it is not permitted to construct private transmission facilities; it is not permitted to resell capacity on a leased line; and often, it is difficult to obtain permission to attach private terminal equipment to the network" [Reid, 1985:32].

From a telecommunications policy perspective, such a skeptical view of what constitutes internationally-traded telecommunications services would probably find considerable sympathy because it accords with widely-held views within that community. At the same time, however, viewed from a trade policy perspective, her eventual conclusion would also be welcomed

but not necessarily her exemption of cooperative international telecommunications activity from the trade in services concept. Even within the OECD Secretariat and among several member governments, although often for different reasons, her views are regarded as "not sufficiently nuanced, in that it ignores that some scope for limited competition exists" [OECD ICCP Committee, 1986:5]. They point out, in rebuttal to Reid, that limited competition does already exist within the existing international arrangements in terms of "diverging telecommunications charges among countries", "limited inter-service competition" or "competition between telecommunication administrations for traffic to a third country" and also that "the possibility exists for firms to lease lines or transmit traffic from one country to another and then use the public-switched network of the second country for distribution of the traffic to final destinations" [OECD ICCP Committee, 1986:5]. Thus, in their view, trade in telecommunications services is possible and can and does take place within existing or modified international arrangements. The trade policy community - supported by many service providers and users - would of course press for more extensive and unrestricted forms of competition and trade in the telecommunications field.

By way of summary, we can make at least three points about what constitutes "trade" in internationally-traded telecommunications services:

First, telecommunications services - more so than other services sectors - fits rather uncomfortably into conventional trade theory and it is likely that a proper conceptualization of "trade" in this area will have to take into account the specific features of how international telecommunications presently operates.

Second, the argument that most international telecommunications activity presently takes place within cooperative arrangements which do not really constitute trade according to normal notions of "comparative advantage" should be taken seriously. One obvious way of doing so would be to define the category of internationally-traded telecommunications services broadly to include all activities using telecommunications transport infrastructure and then to differentiate between transactions accomplished through cooperative arrangements and competitive trade in telecommunications services.

Third, the international telecommunications scene is changing rapidly as many industrialized nations modify their domestic regulatory practices and major industrialized countries and transnational business interests press for market access in all countries and it is a certainty that the "competitive mode" will in future become more prominent vis-a-vis the "cooperative" mode.

1.5 On the Implications of Trade-in-Services Negotiations for Domestic and International Telecommunications

From its inception, international telecommunications services have been provided according to what is essentially a monopoly model in accord with similar practices followed domestically in countries all over the world. Monopoly provision of local and long distance as well as telegraph service was the norm in terms of domestic telecommunications systems and, only with the advent in recent years of new services and alternative facilities for their provision, has even a modicum of competition been allowed. In addition, foreign investment in domestic telecommunications systems was usually restricted or prohibited and, where public ownership through PTTs or their equivalent was not adopted, regulation of private monopoly providers has been predominant. That pattern of public policy for domestic telecommunications is now breaking down in a number of industrialized countries as competition in services and, to a lesser extent, in facilities is supplanting longstanding monopoly practices. The United States has, of course, led the way in terms of the deliberate deregulation and divestiture and the introduction of greater competition within its domestic telecommunication system and several other countries are moving in the same general direction although in their own way and at their own pace. Privatization of publicly-owned telecommunications providers and liberalization or re-regulation of telecommunications services are also allied in many countries to this move towards increased competition [Bruce, 1985]. In terms of international telecommunications activity and with particular attention directed at West European PTT nations and key developing nations, U.S. government and business interests in particular are pressing for the curbing of restrictive practices and the acceptance of increased competition in other countries and on the international level [Eward, 1985; Aronson and Cowhey, 1988].

Trade in telecommunications services, specifically as it takes a competitive mode, is serving as a wedge to open up and gain access for foreign service providers to domestic telecommunications systems previously protected by restrictions on direct foreign investment and often hidden regulatory barriers. Ownership and control restrictions and regulatory practices have been traditional instruments of telecommunications policy in all countries, including the United States, to maintain the integrity of domestic networks and keep out foreign competitors. It's a fact of life that all countries require that foreign ownership and control of telecommunications network providers providing basic services be completely excluded or limited to a low percentage while similar restrictions may also apply to telecommunications service providers using the basic network, although the United States claims to maintain no overt foreign ownership and control restrictions on enhanced service providers since the early 1980's. By way of comparison, the 1987 telecommunications policy statement issued by the Canadian federal government set that limit for carriers owning and operating their own facilities at 20% of voting shares - with a grandfather clause exempting existing carriers which are already extensively foreign-owned, namely B.C. Tel and Quebec Tel - while adopting fundamentally the same policy as the United States in requiring no foreign ownership and control restrictions for enhanced telecommunications services providers [Canada Department of Communications, 1987].

The other major policy instrument has been various regulatory

practices - in addition to normal price and rate of return practices - which have effectively drawn the lines between monopoly and competitive provision of services. In this case, there is more variation among countries in drawing the line between monopoly and competition:

- * The United States, in the wake of the FCC's Computer Inquiry I and especially Computer Inquiry II, continues to pursue the distinction between basic services where the message is merely being transported without being processed or changed and enhanced services where some value is added to the basic services but now after Computer Inquiry III with greater ambiguity and the recent addition of market dominance criteria [Bruce, 1987];
- * In Japan, the demarcation is made on the basis of facilities and services with the distinction being made between Type I carriers, up to 5 in total, offering services on their own facilities and subject to regulation and Type II carriers offering unregulated services on Type I carrier facilities [Bruce, 1987];
- * In the United Kingdom, both facilities and services are used to draw the line with facilities providers, two at the moment, providing basic conveyance on a regulated basis while value-added services can be provided only on resold telecommunications capacity but competitively by any willing entrant [Bruce, 1987];
- * The recent Canadian federal government policy statement establishes Type I carriers which own interprovincial and international transmission facilities and provide basic services to the public and Type II carriers which rent capacity from Type I carriers and provide value-added services in a fully competitive environment [Canada Department of Communications, 1987].

Both ownership and control restrictions and regulatory practices, in domestic telecommunications systems, then, are crucial to the prospects for competitive trade in telecommunications services.

One obvious way in which the trade-in-services issue - beyond mere analysis or exhortation - can influence domestic and international telecommunications is through the negotiation and implementation of multilateral or bilateral agreements containing services provisions in this regard. Such agreements can affect or alter existing domestic and/or international practices and allow foreign service providers greater access to domestic markets. Typically, a multilateral or bilateral trade in services agreement would establish a mutually agreeable set of principles which would create a "framework" for how all services sectors should be treated and further provision might also be made for specific treatment of individual sectors requiring additional detail or exemption from the application of certain principles. This is the general format being considered in the GATT negotiations on services and in the OECD Trade Committee's efforts at developing a "conceptual framework" [GATT, 1987; OECD, 1987]; it is also the way in which the proposed Canada-U.S. free trade pact treats the trade-in-services issue. In effect, multilateral or bilateral trade-in-services agreements could change telecommunications policy as a consequence of a trade policy initiative, either deliberately or inadvertently.

Several of the broad principles being advanced for consideration - one or a combination of which must emerge as the central core of any agreement - have significant implications for domestic and international telecommunications. These broad principles are easily identified in the abstract but several authors [Feketekuty, 1985; Hertzstein, 1985; Grey, 1985 and 1987; Aronson and Cowhey, 1988] point out that their application to telecommunications is problematic:

- * market access - whereby providers could assert their right to gain access to domestic markets in order to service their customers;
- * national treatment - whereby governments would undertake to treat imported foreign services in a manner no less favourable than their domestic service sectors;
- * transparency - whereby governments would ensure that all laws and regulations are made available publicly and for advance comment especially with regard to special restrictions proposed for foreign service providers;
- * a right of establishment or local presence - whereby governments would allow foreign companies to invest or make local arrangements so as to be able to provide their service within domestic markets;
- * monopolies - whereby governments would ensure that public and private monopolies adopt an arm's-length relationship between their monopoly services and competitive services offered either domestically or internationally;
- * appropriate regulation - whereby governments would have to justify the reasons for undertaking certain types of regulation and perhaps to subject their regulatory actions to international scrutiny;
- * consultation and dispute settlement - whereby governments would commit to consult bilaterally or multilaterally concerning trade in services problems and submit to dispute settlement mechanisms such as those provided in GATT if bilateral consultations fail.

While any trade in services arrangement negotiated either multilaterally or bilaterally might contain only some of these principles and might also contain some specific exceptions, it should be evident that virtually any set of these principles has serious implications for existing telecommunications policy in Canada and elsewhere.

The evolving debate on trade-in-services suggests that at least three of the above principles could become the central core principle around which an eventual multilateral agreement could be built. Market access clearly would represent the most invasive and far-reaching principle upon which to build a multilateral agreement. Its adoption would represent a dramatic internationalization of the world's services economies and would severely impact on national telecommunications policy and regulation whether in Canada, West European PTT countries, or developing nations [Brock, 1982; Feketekuty, 1985; Aronson, 1987]. National treatment perhaps combined with transparency would provide a less threatening and more

limited basis upon which to construct an agreement. Such central core principles would better respect national sovereignty but would not likely be as effective in breaking down stubborn barriers to services trade, especially where countries have very different regulatory regimes [Grey, 1986]. Finally, the concept of appropriate regulation has been suggested as the possible core of an agreement which would provide for a continuing international appeal committee to examine applications of national regulatory authority [Richardson, 1987]. At this point, it seems highly likely that one or other of these principles will emerge as the central core principle if a multilateral agreement is negotiated. Because each of these possible central principles are so different from one another and the range of factors which might make for consensus on their adoption is so varied, it is necessary that more detailed treatment of these three models be undertaken, especially as they relate to telecommunications services.

One final matter which must be broached is the scope of trade in services as that issue relates to telecommunications services. Establishing the scope and limits of trade negotiations is important for successful trade policy just as drawing lines and setting boundaries for services and markets is for successful telecommunications policy. There are several possible options in this regard for negotiating trade in telecommunications services, each with its own strengths and weaknesses:

- * A "narrow-gauge" sectoral approach would focus on telecommunications network-based services, the essential transport infrastructure for the growth and internationalization of other trade in services sectors like computer services or financial services. This approach would attempt to separate carriage from content and would parallel most closely the ongoing work of the ITU as well as what seems to have been done with regard to the proposed Canada-U.S. free trade pact. One major benefit of this approach is that it focuses due attention specifically on the telecommunications transport function [ITU, 1987; Canada-U.S. Free Trade Agreement, 1987];
- * A "broad-gauge" sectoral approach would focus on telematics and combine telecommunications with the various computer-based uses to which the network can be put. This approach would mix both carriage and content functions and respond to the concerns of many observers that computer communications should be confronted head on while also recognizing the fact that clear dividing lines between the two functions cannot easily be made. This seems to be the approach followed for many years within OECD and its Committee on Information and Computer Communications Policy [Robinson, 1985; OECD Committee on Information, Computer and Communications Policy, 1987];
- * While both of the above approaches treat their respective subject matter as essentially sectors within a multi-sectored trade in services negotiation, yet another approach might be to aim for a separate "information technology" agreement which would treat not only services but also high-technology goods together. This approach would recognize the growing variety of forms which trade in services takes in this area and could establish the essential transformative role which information technology is coming to play in modern economies [Grey, 1987; Rada, 1987].

Likewise, each of these different approaches to negotiation clearly has different implications for how trade in telecommunications services would be handled within negotiations. Moreover, it is clear that whatever approach is taken and whatever set of principles is eventually adopted, the concept of internationally-traded telecommunications services has - with a few exceptions - come to be generally accepted.

1.6 Internationally-Traded Telecommunications Services: A Framework for Analysis

INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES IS THE CONCEPT WHICH THIS REPORT SEEKS TO INVESTIGATE. AFTER SETTING THE ISSUE IN SOME PERSPECTIVE AND EXAMINING KEY CONTROVERSIES WHICH BEAR UPON THE MATTER, IT IS NOW POSSIBLE TO SET OUT HOW THAT CONCEPT WILL BE TREATED:

A. INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES SHOULD BE DEFINED BROADLY TO ENCOMPASS NOT ONLY THE TRADITIONAL FORMS WHICH TRADE IN SERVICES TAKES BUT ALSO NEWER UNDERSTANDING OF SERVICES TRADE AS SOMETIMES EMBODIED IN GOODS AND PEOPLE. THIS CONCEPTUALIZATION, WHILE MORE DIFFICULT TO SPECIFY AND MEASURE, PROVIDES A MORE ADEQUATE UNDERSTANDING OF A RAPIDLY EVOLVING AREA.

B. INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES TAKE THE FORM PRIMARILY OF "CROSS-BORDER TRADE" BUT THIS SHOULD BE SUBDIVIDED INTO TWO CATEGORIES ACCORDING TO THE CHARACTER OF THE TRADE INVOLVED:

CATEGORY I TRADE: "COOPERATIVE" TRADE IN TELECOMMUNICATIONS SERVICES USING MUTUALLY ACCEPTED INTERNATIONAL, TECHNICAL AND ADMINISTRATIVE ARRANGEMENTS.

CATEGORY II TRADE: "COMPETITIVE" TRADE IN TELECOMMUNICATIONS SERVICES BASED UPON MORE TRADITIONAL NOTIONS OF COMPARATIVE ADVANTAGE.

THE RELATIONSHIP BETWEEN CANADA'S RECENT STATEMENT ON TELECOMMUNICATIONS POLICY AND THIS CONCEPTUALIZATION CAN IN PARTICULAR BE EXPLORED.

C. INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES SHOULD BE EXAMINED IN THE FIRST INSTANCE, IN ACCORD WITH THE "NARROW-GAUGE" SECTORAL APPROACH TO THE SCOPE OF THE ISSUE WHICH SEEMS MOST CLOSELY IN ACCORD WITH ONGOING MULTILATERAL AND BILATERAL NEGOTIATIONS. ON THIS BASIS, THE NARROW-GAUGE APPROACH CAN THEN BE COMPARED WITH OTHER POSSIBLE APPROACHES AS DEVELOPMENTS AND CIRCUMSTANCES WARRANT.

D. INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES SHOULD BE EXAMINED IN TERMS OF HOW VARIOUS PRINCIPLES OR SETS OF PRINCIPLES RELATING TO TRADE IN SERVICES GENERALLY WOULD HAVE IMPLICATIONS SPECIFICALLY ON PROVISION OF TELECOMMUNICATIONS SERVICES AND ON DOMESTIC AND INTERNATIONAL TELECOMMUNICATIONS SYSTEMS. IN THIS REGARD, THE RECENT CANADA-U.S. TRADE AGREEMENT, THE OECD "CONCEPTUAL" FRAMEWORK AND CERTAIN RECENT GATT PROPOSALS CAN BE USED TO POINT TOWARDS FUTURE MULTINATIONAL NEGOTIATIONS.

II. INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES: MEASURES OF THEIR SCOPE AND MAGNITUDE IN CANADA

2.1 Introduction

The unavailability and/or inadequacy of reliable and precise data on trade in services generally and on telecommunications services in particular is well known and widely deplored. No comprehensive accounting of overall international service transactions is presently available other than International Monetary Fund data derived from national balance-of-payments data. For example, this data series has until now been the common source for virtually all of the commentary and analysis of the role of services within the world economy and the essential cross reference for national studies of trade-in-services submitted during 1984 and 1985 as part of the preparatory meetings under the General Agreement on Tariffs and Trade [GATT, 1984-86]. There is widespread agreement that existing trade-in-services data based upon balance-of-payments methodologies are not nearly as detailed, accurate or disaggregable as merchandise trade statistics, are often difficult to classify within and between services sectors, and suffer from inadequate reporting and sampling procedures. Efforts are presently underway as part of the ongoing GATT services negotiations, within the Trade Committee of OECD, and through UNCTAD to improve the international comparability of trade-in-services data [Ascher and Whichard, 1987].

At the national level and specifically in Canada, there are the same problems of unavailability and inadequacy of trade-in-services data both on a comprehensive basis and specifically with regard to telecommunications services. In general, there are two broad types of data available from Statistics Canada on internationally-traded telecommunications services. First, national balance-of-payments data relating to business services has recently been reconfigured to produce a document entitled Canada's International Trade-In-Services, 1969-1984 and further work to update and extend this project is presently underway [Statistics Canada, 1986]. Data is disaggregated down to sector levels such as "communications" (including telephone, telegraph, telex, data transmission, courier and postal transactions) as well as "computer services", "consulting and professional services", etc. and this source provides at least a general overview of Canada's trade-in-services performance and that of individual sectors or components. The second important source of data is service industry statistics organized on an industry-by-industry basis to provide estimates of revenues, sources of receipts, employment, regional breakdowns, etc. and designed to supplement and extend bulletins issued for many years in areas such as "telephone statistics" or "telecommunications statistics" [Statistics Canada, 1984]. Finally, some additional data on specific examples of internationally-traded telecommunications services in Canada can be derived from relevant company annual reports, submissions to regulatory proceedings, and unofficial industry estimates.

The problems encountered in creating a proper data base for internationally-traded telecommunications services - one which would take into account the conceptual problems identified in Chapter I as well as provide for the collection of adequate data - are monumental and beyond the

purview of this report. What can be done, however, is to point out how the evolving understanding of trade-in-services relates to existing and proposed data sources and what data sources are available specifically with regard to internationally-traded telecommunications services.

2.2 Problems in Developing an Appropriate Data Base

There are several recent assessments of the statistical problems associated with trade-in-services but one, in particular, is useful in identifying the basic problems and relating them to the evolving conceptual framework [Kravis, 1985; Rada, 1987; Ascher and Whichard, 1987; Stern and Hoekman, 1987]. Stern and Hoekman, in their assessment of the adequacy of available data on different types of services, note that "separated services" such as transport or insurance or financial services are probably captured pretty well in balance-of-payments data although their value may be quite inaccurate. For example, a 1986 study by the U.S. Office of Technology Assessment concluded that the balance-of-payments for a wide range of service sectors substantially under-reported the significance of trade in "separated services" by anywhere from 45 to 100 percent [U.S. Office of Technology Assessment, 1986]. More important with regard to telecommunications, data on demander-located services - i.e. those which are often delivered physically as well as "telematically" - are much less adequate. Even where physical movement is involved in the provision of demander-located services, the transaction takes place more often in terms of foreign direct investment rather than trade and turns up in the balance-of-payments variously as income accruing to domestic factors (royalties, fees, investment income, etc.). And where the transaction takes the form of transborder data flows, it is well known that these are not easily monitored nor are they readily subject to valuation. In general, provider-located services such as tourism may be captured fairly well in the balance-of-payments but provision of health or educational services to non-residents is not captured nearly as easily [Stern and Hoekman, 1987:52-54]. These summary comments only give a flavour of the difficulty and complexity of creating a proper data base for trade-in-services, especially when it is remembered that internationally-traded telecommunications services take a variety of forms which can fit appropriately into different categories.

To specify the difficulties and complexities more clearly, Stern and Hoekman go on to outline eight problems and issues involved in creating adequate services data, and as we shall point out, several of these are applicable specifically with regard to internationally-traded telecommunications services:

1. "The available data on international transactions in services is minute compared with the multitude of categories of goods identified in existing trade and industry classifications...Data on many services are typically derived from periodic surveys and censuses of service industries and, therefore, it may be very burdensome and costly to achieve more detailed coverage" -- Indeed, this is the case with regard to Statistics Canada data collection on computer services and, to a lesser extent, on telecommunications.
2. "Trade in services between domestic and foreign unaffiliated firms

may not be adequately represented in balance-of-payments data" -- Not particularly relevant for telecommunications but more so for computer services.

3. "Some portion of trade in goods reported in balance-of-payments data may actually be trade in services, but it is often not possible to separate the two because of accounting conventions within firms" -- A generic problem not specifically related to telecommunications and computer services but one which arises particularly with regard to software as well as maintenance and other operating services.
4. "Some services may be reported as net rather than gross flows which will then understate the trade involved" -- This is exactly the case with regard to Canada-United States cross-border traffic and Canada-overseas telecommunications revenues settled on a bilateral basis with other countries.
5. "Consistency of data on services is a problem due to differences in the types of data reported by various industries. Although, in general, revenues, sales or value added are what may be needed for purposes of comparability, these measures are often not reported" -- No official statistics are publicly available either in Canada or the United States on the size of the cross-border market and the companies involved - Telecom Canada, CNCP Telecommunications, AT & T, MCI, Sprint - refuse to release this information publicly on the grounds that it could aid potential competitors.
6. "Some services may be supplied by public as well as private enterprises...services provided by public enterprises and government may not be measured commensurately with most private services and there may be important inter-temporal or inter-country differences depending on the public-private composition. Furthermore, governments may pursue different regulatory policies vis-a-vis services and the resulting promotion or restriction could result in national differences in the valuation and significance of particular services" -- One need only point to the impact of cross-subsidization practices on Canadian telecommunications pricing or to the difficulties of gaining access to the PTT-monopoly telecommunications systems of Western Europe to demonstrate the relevance of this point.
7. "It may be the case that some services are provided outside of existing market arrangements and therefore not recorded at all" -- This is probably a minor consideration with regard to internationally-traded telecommunications services.
8. "There is inconsistencies between bilateral export and import data reported by individual countries" -- The recent reconciliation of U.S. and Canadian balance-of-payments figures is a case in point, although telecommunications and computer services was not a major item.

Given the manifest weaknesses and inadequacies of existing data on services generally [Stern and Hoekman, 1987:54-55], then, it should not be

surprising that only partial and imprecise data can be reported on internationally-traded telecommunications services and the scope and magnitude of Canada's involvement in this area.

2.3 Services in the International Economy

It is widely acknowledged that Canada and other advanced industrial nations have become "services economies" over the past 20 to 30 years and fit, with some variation, a pattern which distinguishes them clearly from other countries. Table I provides data on services as a percentage of Gross Domestic Product (GDP) as well as on the percentage of labour force employed in services both for selected countries and for broad groupings of countries.

TABLE I: Services as a Percentage of GDP and Employment, Selected Countries and Groups of Countries

	Services as % of GDP		Services as % of Employment	
	1965	1984	1975	1984
Industrial Market Economies				
United States	59	66	72	76
Japan	48	56	61	66
U.K.	56	62	65	72
Sweden	53	66	65	72
Canada	61	72	72	75
Upper Income Developing Economies				
Argentina	42	50	-	-
Brazil	48	52	47	54
India	31	38	-	-
High Income Oil Exporting Economies^a				
	n/a	25	25	35
Low Income Economies^a				
	25	31	14	15

^a - figures for 1960 and 1982 respectively

Source: James R. Basche, Eliminating Barriers to International Trade and Investment Services (N.Y.: Conference Board Research Bulletin, 1986) and Juan Rada, "Information Technology and Services" in O. Giardini (ed.), The Emerging Service Economy (N.Y.: Pergamon, 1987).

In domestic and structural terms, then, advanced industrial nations like

Canada represent highly developed "services economies" while many other countries throughout the world are clearly moving in that direction.

The extent to which services are traded worldwide among nations and the importance of this trade vis-a-vis other indicators, however, is more problematic. According to available balance-of-payments data, total world exports of services were reported in 1984 to be \$357 billion, although other estimates which take into account the systematic underestimation of services trade would put the figure for the same year as high as \$700 billion [Shelp, 1987:70]. Table II places the official figure in perspective vis-a-vis merchandise exports, foreign investment income, and world GDP.

TABLE II: Total World Export of Services and Merchandise, Investment Income, and GDP Selected Years and Annual Growth Rates

	Value in 1984 (\$ billion)	Average Annual Growth Rate 1970-80
Service Exports	357	18.7
Merchandise Exports	1,545	20.4
Investment Income	244	22.4
GDP	11,891	14.2

Source: Robert Stern and Bernard M. Hoekman, "Issues and Data Needs for GATT Negotiations on Services", World Economy (March, 1987).

Internationally-traded services continue to represent about 20% of total world trade, rates of growth through the 1970's and into the 1980's were comparable to that for merchandise trade and foreign investment income, in overall terms they make only a minor contribution to total world GDP.

The relationship between domestic "services economies", international trade in services and foreign direct investment requires more careful attention. Table III presents summary data on this relationship for advanced industrial economies including Canada. As developed and analysed by Karl Sauvant, this data - with the serious reservations noted earlier and recognition that it applies primarily to the early 1980's - can be used to demonstrate several points:

- * "the internationalization of services through trade has increased but at a slower pace and at a consistently lower level than for industrial production" -- only 11% of services production in 1980 (up from 7% in 1970) were traded internationally compared with 45% of agricultural production and 55% of industrial production;

**TABLE III: Estimated world trade and foreign direct investment in services
(\$ billion)**

Country	Foreign direct investment					Sales of foreign service affiliates, 1982
	Exports of services, 1980	Stock Total, 1981	Services, 1981	Outflows, 1981-83 (yearly averages) Total Services		
USA	35	226	63	9	5	178
UK	34	66	13	6	3	32
FR Germany	32	46	11	4	1	27
Japan	19	45	18	8	5	44
Canada	7	26	6	-	-	14
Total above	127	409	111	27	14	295
Other developed market economies	165	128	35	9	5	86
Develop- ing countries	66	18	5	-	-	12
World total	358	555	151	36	19	392

Source: Karl P. Sauvart, International Transactions in Services: The Politics of Transborder Data Flows, Westview Press, Boulder, CO 1987.

- * "while the proportion of what is traded varies from country to country, the overall pattern is consistent: the proportion of services trade is considerably lower than that of goods" -- the U.K. exported 11% of services and 60% of goods in 1980 compared to Japan at 4% and 35% respectively, the United States at 3% and 19% respectively, and Canada at 8% and 28% respectively;
- * "the top 10 exporters of services in 1980 were all advanced industrial nations as were 16 of the top 20 - the U.S. led with \$35 billion followed closely by the U.K., France and West Germany and Canada at \$7 billion while the largest importers of services were these same advanced industrial nations plus oil-rich nations like Saudi Arabia, Iran, Mexico (although this probably does not hold for this latter group in recent years);
- * "foreign direct investment - rather than services trade - has been the principal vehicle for the major developed countries through which services have been delivered to foreign markets" -- the accumulated foreign direct investment stock in services had

reached a quarter of the world's total foreign direct investment stock of \$555 billion in 1980 while the annual FDI outflows for services of the major nations listed in Table III accounted for \$14 billion of the \$27 billion in total FDI outlays that year;

- * "services transactions effected through transnational corporations are considerably more important than trade in services both overall and particularly for the principal capital-exporting countries" -- for example, the services exports of the countries listed in Table III amounted to \$127 million in 1980 while the total sales of foreign service affiliates were more than twice as high at \$295 million in 1982;
- * "not surprisingly, most of the world's largest service TNC's are headquartered in the principal capital exporting countries" -- the United States and Japan accounted for 44 of the 75 largest services TNC's and dominate a wide range of international service sectors;
- * finally, with regard to the composition of services trade and FDI on services, services trade for the countries listed in Table III is quite diversified with the largest items being financial services and "other private services" as well as transportation and travel while FDI on services tends to be more concentrated in banking, insurance and certain distributive services.

Thus, the picture which Sauvart paints is one where, in spite of the basically domestic orientation of the services sector, services have undergone a dynamic process of internationalization through foreign direct investment and, to a lesser extent, through trade while the two instruments are often closely linked with each other both generally and in individual service sectors [Sauvant, 1987:24-35].

Trade in telecommunications services is but one of the service sectors which balance-of-payments and other data should reflect and - along with data processing, information services and some aspects of computer software - constitutes what more broadly would be regarded as trade in international data services. Useful information can be presented for the United States as derived from a 1986 study of trade in services conducted by the Office of Technology Assessment. Internationally-traded telecommunications services, comprising "payments to U.S. carriers by American customers on outgoing calls as well as access payments by foreign carriers on incoming calls", totalled \$2.3 billion in 1983 out of \$103.2 billion in total U.S. telecommunications revenues. However, in balance-of-payments terms, these telecommunications services would actually turn up as a negative sum since \$1.7 billion of that figure was passed on in access payments to foreign carriers while foreign carriers remitted \$0.9 billion to U.S. carriers for access on incoming calls [U.S. Office of Technology Assessment, 1986:91-94]. Telecommunications services then represent only a small component of total U.S. services exports and actually turn up as a net negative item in the balance of payments, despite the fact that international service revenues as part of total U.S. telecommunications industry revenues are considerably larger and have been growing roughly twice as rapidly as domestic service revenues. Moreover, it should be remembered that international service revenues relate only to basic voice and data and more

accurate picture of internationally-traded telecommunications services would include as well value-added network service which is embedded as a portion of foreign revenues of "information services" (total: \$2.9 billion in 1983) as well as leased-line revenues which likewise is embedded as a portion of foreign revenues in data processing (total: \$2.6 billion in 1983) [U.S. Office of Technology Assessment, 1986:72-73 and 61-63]. Finally, any comprehensive accounting would also take into account foreign direct investment in telecommunications services but this is likely at this point in time to be minimal given the fact that most countries maintain strict control over provision of basic telecommunications service, although FDI in value-added services is opening up in some countries. What should be crystal clear from the U.S. experience, however, is that internationally-traded telecommunications services are extremely difficult to identify and quantify.

2.4 Canada's International Trade in Telecommunications and Computer Services

Recent work by Statistics Canada goes some way towards providing a profile, based upon balance of payments data, of the development of Canada's international trade in services as well as the possibility of breaking out telecommunications and computer services as one specific component. Historically, Canada has recorded sizable deficits each year on non-merchandise transactions, the largest portion of which has been attributable to investment income payments (i.e. the consequence of foreign direct investment) and, secondarily, from services transactions such as travel and business services. Canada's international trade in services has now been broken out from investment income flows and the figures show that Canada's over deficit in trade in services went from \$0.8 billion in 1969 to \$4.4 billion in 1984. Travel and, to a lesser extent business services, account about equally for this deficit at about \$2 billion each [Statistics Canada, 1986]. Moreover, the category "business services" can itself be broken down into specific types of services which show certain interesting features. As of 1984, despite sizable deficits of receipts over payments for such categories as management and administrative services, royalties, patents and trademarks, and research and development, Canada ran a sizable surplus on such items as consulting and professional services and more modest surpluses for communications services and computer services. By breaking down these latter two categories and combining this with other background information on the two industries, one can build something of a profile of Canada's international trade in telecommunications and computer services.

Table IV provides a quick summary of the telecommunications and computer industries in Canada, including both services and equipment. Among other things, this profile demonstrates that the telecommunications and computer industries in Canada are markedly different from each other and that goods trade both in telecommunications equipment where Canada runs a sizable surplus and in computer equipment where it runs a deficit dwarfs whatever services trade that takes place.

Turning now to the balance-of-payments data, one can nevertheless get at least a broad picture of Canada's trade-in-services in these areas. "Communications" as a category includes telephone, telegraph, telex, data

TABLE IV: THE TELECOMMUNICATIONS AND INFORMATICS SECTORS IN CANADA**

CHARACTERISTICS	Telecommunications Common Carriers	Telecommunications Equipment Manufacturers	Computer and Office Equipment Manufacturers	Computer Services Industry
INDUSTRY STRUCTURE				
*Basic Structure	- regulated monopoly	- vertically integrated	- unregulated, several hundred firms	- unregulated, 170 firms
*Revenues/Shipments	- \$8.3 billion	- \$3 billion	- \$5.8 billion	- \$1.35 billion
*Ownership	- 15% foreign control	- largest firms are Canadian-owned	- largest firms are foreign-owned	- predominantly Canadian
*Company Size (Sales)	- Bell Canada, 60% of revenues, B.C.Tel, 12% of revenues AGT, 10% of revenues	- Northern Telecom, \$3.3 billion Microtel, \$240 million Mitel, \$200 million	- IBM Canada, \$1.9 billion OEC Canada, \$295 million Control Data, \$231 million	- 94% earned less than \$2 million with Canada Systems Group earning \$127 million
EMPLOYMENT				
*Total Employment	- 110,440 workers	- 45,829 workers	- 16,930 workers	- 22,137 workers
*Growth Rate	- approx. 3% per annum	- 4.5% per annum	- 14.4% per annum	- approx. 12.13% per annum
*Wages	- 37.6% of operating revenues	- approx. 33% of revenues	- N.A.	- 39% of operating revenues
*Productivity Growth	- approx. 12% per annum	- approx. 11% per annum	- N.A.	- approx. 9% per annum
INVESTMENT				
*R & D Expenditures	- N.A.	- \$614 million	- \$80 million (1983)	- N.A.
*% of Shipments	- N.A.	- 20.8%	- 7% of shipments	- N.A.
*Capital Expenditures	- \$2.9 billion	- \$210 million	- \$103 million (1983)	- N.A.
*% of Shipments	- approx. 10%	- approx. 7%	- 9% of shipments	- N.A.
EXPORTS/IMPORTS				
*Exports	- N.A.	- \$936 million	- \$1.19 million	- 5% of industry revenues
*Imports	- N.A.	- \$585 million	- \$3.1 million	- N.A.
*Major Trading Partner	- N.A.	- U.S. with 58% of exports & 76% of imports	- U.S. with 90% of exports & 85% of imports	- U.S. -but specifics unavailable
*Trade Balance	- N.A.	- \$351 million	- \$1.9 million	- N.A.
WORLD STANDING				
*Domestic Production	- \$8.3 billion	- \$2.2 billion	- \$1 billion	- \$1.35 billion
*World Production	- N.A.	- \$45 billion	- \$64 billion	- N.A.
*Largest Canadian Company	- Bell Canada	- Northern Telecom	- No world-class company	- No world-class company
*World Ranking	- N.A.	- 7th largest in telecom- munications manufacturing but 46th in "information business"	- N.A.	- N.A.

** Based on 1982 statistics

transmission, courier and postal transactions while "computer services" includes transmission and the use of computer facilities and related activities. Table V sketches out (a) the development of these services categories over time and breaks down the 1984 figures according to (b) country or area of origin for receipts and payments, (c) whether derived from enterprises controlled in Canada or elsewhere, and (d) whether these enterprises are affiliates of Canadian enterprise or not. While complicated by the inclusion of postal services along with the more normal telecommunications services and subject to the consideration that only net transfers are recorded for communications services, several points become evident. Canada has become a consistent net exporter of communications services in recent years but the reported net figures bear no clear relationship to the actual size of the cross-border or overseas markets. Likewise, with regard to computer services where gross figures are reported, Canada has begun to build up a small computer services trade with the United States and other countries. As well, communications services receipts and payments are accounted for overwhelmingly by Canadian-controlled companies while payments for computer services are divided between Canadian-controlled and affiliates of companies in the United States. The point to be stressed here, however, is that the data is mixed between net and gross figures and does not provide any clear overall measure of the size of the internationally-traded telecommunications and computer services markets.

2.5 Additional Information on Canada's Internationally-Traded Telecommunications and Computer Services

In addition to the systematic data available on internationally-traded telecommunications and computer services discussed above, there is also other information of a more idiosyncratic and partial nature which bears upon this topic. Various telecommunications service providers in Canada hold information on market characteristics/revenues and service offerings which are not readily made public for competitive or other reasons, although estimates of this information can be made and are available. Likewise, information on particular aspects of trade in telecommunications and computer services can be gleaned from industry analysts, submissions to regulatory proceedings and diverse Statistics Canada reports. Information will be presented on several important aspects of Canada's internationally-traded telecommunications and computer services and the confidential nature of some information will be noted where appropriate.

(1) Canada/United States Cross-Border Telecommunications Volumes and Revenues. Information is publicly available on volumes of cross-border traffic but not on revenues generated by this traffic. In 1984, such traffic amounted to 116.7 million completed calls billed in Canada, representing about 75% of all international calls made from Canada to other countries whereas the corresponding figures for 1980 were 86.5 million calls but down from 88% of all international calls in that year. Telecom Canada, which interconnects with U.S. long distance carriers to provide the service, refuses to release information publicly on its net settlements with these carriers or on the overall size of the cross-border market. Likewise no figure seems to be readily available from U.S. data on telecommunications services. Part of the difficulty lies in the fact that cross-border revenues are settled on a net 50-50 basis irrespective of

TABLE V: "Communications" and "Computer Services" as Categories in Canada's Trade-In-Services

(a) Selected Years 1969 to 1984 (millions of dollars)

	1969			1977			1984		
	<u>Receipts</u>	<u>Payments</u>	(+/-)	<u>Receipts</u>	<u>Payments</u>	(+/-)	<u>Receipts</u>	<u>Payments</u>	(+/-)
Communications	6	14	(-8)	86	79	(+7)	304	262	(+42)
Computer Services	-	-	-	-	-	-	110	57	(+53)

(b) By Area of Origin, 1984 (millions of dollars)

	<u>United States</u>			<u>EEC</u>			<u>Other Countries</u>		
	<u>Receipts</u>	<u>Payments</u>	(+/-)	<u>Receipts</u>	<u>Payments</u>	(+/-)	<u>Receipts</u>	<u>Payments</u>	(+/-)
Communications	109	43	(+66)	68	88	(-20)	127	131	(-4)
Computer Services	91	55	(+36)	0	1	(-1)	19	0	(+19)

(c) By Country of Control, 1984 (millions of dollars)

Enterprises Controlled in:

	<u>Canada</u>			<u>U.S.</u>			<u>Other Countries</u>		
	<u>Receipts</u>	<u>Payments</u>	(+/-)	<u>Receipts</u>	<u>Payments</u>	(+/-)	<u>Receipts</u>	<u>Payments</u>	(+/-)
Communications	286	258	(+28)	18	5	(+13)	-	-	-
Computer Services	93	24	(+69)	16	3	(-16)	1	1	(0)

(d) By Country of Control and Affiliation, 1984 (millions of dollars)

Enterprises Controlled in:

	<u>Canada</u>				<u>U.S.</u>				<u>Other Countries</u>			
	<u>Affiliates</u>		<u>Others</u>		<u>Affiliates</u>		<u>Others</u>		<u>Affiliates</u>		<u>Others</u>	
	<u>R</u>	<u>P</u>	<u>R</u>	<u>P</u>	<u>R</u>	<u>P</u>	<u>R</u>	<u>P</u>	<u>R</u>	<u>P</u>	<u>R</u>	<u>P</u>
Communications	-	5	286	256	10	5	8	1	-	-	-	-
Computer Services	-	6	93	18	-	30	-	2	1	1	-	-

Source: Statistics Canada, Canada's International Trade-In-Services (Ottawa, 1986).

distance from the border and price differences; as well, there are the proprietary interests of the major carriers who do not want cross-border revenue figures to become available to potential competitors. Nevertheless, two broadly-similar estimates of cross-border revenues are available. One recent study reports a figure - based upon interviews with the major carriers - of \$730 million in 1985, 20% of which seems to be accounted for by private leased-lines [Aronson and Cowhey, 1988:114]. Another estimate based upon an extrapolation of increases in traffic volumes and annual net settlement figures provided confidentially to DOC arrives at a figure of \$738.7 million in 1984. No precise information was obtained on the Canada-United States cross-border revenues of CNCP Telecommunications but estimates were that these would be a small part - perhaps 5 percent or so - of the companies overall 1985 revenues of \$320 million.

(2) Canada/Overseas Telecommunications Volumes and Revenues. Information is publicly available on volumes of Canada-overseas traffic but not on revenues generated by this traffic. In 1984, such traffic amounted to almost 20 million completed calls billed in Canada, roughly 35% of which went to various European countries, 20% of the United Kingdom, 10% to Australia and New Zealand and smaller amounts to everywhere else in the world. The annual rate of increase in Canada/overseas traffic since 1980 has been rapid, roughly 20% per year. Teleglobe Canada - the monopoly supplier of overseas telecommunications services - settles revenues for these outgoing calls as well as for incoming and transit traffic with other international carriers on a bilateral basis. Operating revenues from all sources for 1985 was reported at \$240.5 million [Teleglobe Canada Annual Report, 1986]. Information provided by the company to the Department of Communications breaks down total service revenues for 1985 as follows:

Public Switched Services	-	\$202.7 million
Transit Services	-	16.5 million
Leased Telecommunications	-	6.7 million
Leased Broadcast	-	1.4 million
Other Services	-	1.5 million
Total Service Revenues	-	228.5 million

This information subsequently became publicly available during the course of the Teleglobe Canada privatization and, of course, represents only the Canadian portion of the two-way Canada/overseas relationship.

(3) Revenues From Sale of Domestic Satellite Capacity to U.S. Carriers/Users. Telesat Canada - the monopoly supplier of domestic satellite communications services and a member of Telecom Canada - normally serves only domestic Canadian customers. Under a 1972 exchange of letters between Canada and the United States, domestic satellite carriers in each country can provide excess satellite capacity into the other country's territory in exceptional circumstances and this agreement was broadened in 1982 to allow for wider access but always with the permission of the receiving country. Telesat Canada's total operating revenue, for broadcast as well as telecommunications services, in 1985 were 120.6 million and company officials have estimated that the cross-border sale of excess satellite capacity represented between 5% and 10% of total revenues for that year [Information Provided in Interview, 1987]. Additional information from the Department of Communications confirmed the validity of

this estimate, taking both the space and earth station segments into account, at least in terms of the lower range.

(4) Revenues from Exports of Canadian Computer Services to Other Countries. Statistics Canada data on the domestic computer services industry in 1984 provides a basis for determining the size of Canadian computer services exports to the United States and other countries as well as the size of the telecommunications services component of those exports. On the basis of a survey of 2100 companies, the overall Canadian market for computer services was estimated to be \$1.8 billion, of which \$127 million or 7% was generated outside of Canada. In addition, the data transmission component of the computer services industry was estimated to be between 1% and 5% of total operating revenues [Statistics Canada, Computer Services Industry Statistics, 1985].

(5) Telecommunications Services Fee Income Earned by Canadian Firms from Foreign Projects. One recently expanding component of the telecommunications services industry relates to consulting and other fee income earned by Canadian telecommunications service providers from projects undertaken in foreign countries. Companies like Bell Canada International and another select few engage in this activity, mainly in newly-industrialized and underdeveloped nations. In 1978, telecommunications services fee income (as distinct from sale of equipment) was about \$5 million dollars; by 1982, that figure had grown to \$14 million [Statistics Canada, International Payments and Receipts from Technology, 1984; and Statistics Canada, Architectural, Engineering and Scientific Services, 1982].

(6) Estimated Losses to Canadian Telecommunications Providers From Foreign Bypass. Foreign bypass - the extent to which Canada/Canada traffic is diverted by Canadian resellers through lower-cost U.S. long haul transmission - has been a subject of much controversy in recent years. This represents a revenue loss to Canadian telecommunications providers - Telecom Canada and its member companies and CNCP Telecommunications primarily - from traffic which would normally go over their facilities. The most authoritative study on the subject comes to the conclusion that such "international competition" is minimal in extent and does not lead to substantial revenue loss, although the impact on CNCP Telecommunications is actually greater than on Telecom Canada members. It reports figures of \$1.5 million for cross-border resellers of long-distance service and \$3.1 million for losses to telex providers [D.A. Ford and Associates, 1986:31].

2.6 Summary

Despite the serious difficulties in obtaining and evaluating information on internationally-traded telecommunications services, some sense of the scope and magnitude of this phenomenon can be gained. The broad international situation is one where telecommunications services, defined narrowly, is not presently a major services sector vis-a-vis other services sectors in generating revenues from trade or investment but that judgment must be revised substantially if the broader definition of data and information services - of which telecommunications services is one component - is used. More specifically, in Canada, internationally-traded telecommunications services, calculated in gross terms rather than in net

terms using balance-of-payments methodology, was as of 1985 probably something over \$1 billion dollars annually. This is composed of roughly \$730 million in cross-border Canada/U.S. long distance traffic, just over \$200 million in Canada/Overseas revenues through Teleglobe Canada, an undetermined but probably smaller figure for CNCP Telecommunications cross-border telex and private line business into the United States, and perhaps \$5 to \$10 million in Telesat Canada revenues from the sale of satellite transmission capacity to the United States. It should be pointed out, however, that only a small proportion of that total amount is presently composed of "competitive trade" while the overwhelming proposition fits within the "cooperative trade" category.

III. DOMESTIC POLICY AND REGULATORY CONTEXT IN CANADA FOR INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES

3.1 Introduction

The domestic policy and regulatory context in Canada for internationally-traded telecommunications services is changing considerably as a result of a number of recent developments. Traditionally, internationally-traded telecommunications services, primarily according to the cooperative mode, have been provided within a monopoly framework and subject, where appropriate, to explicit regulatory control. Canada's telecommunications providers - both domestically and internationally - are being forced to respond to pressures for increased competition while telecommunications users - especially the large business users and increasingly those requiring more sophisticated international services - are reinforcing this basic tendency. This chapter examines the domestic policy and regulatory context for internationally-traded telecommunications services, assesses the impact and implications of the recent developments referred to above, summarizes the positions of major Canadian providers and users of internationally-traded telecommunications services, and treats the evolving Canadian government position on the issue.

3.2 The Prevailing Domestic Policy and Regulatory Framework in Canada and Its Implications for International Telecommunications

Robert Bruce et. al., in their 1985 report prepared through the International Institute of Communications, provides a good treatment of the domestic policy and regulatory framework not only in Canada but in other major countries [Bruce et. al., 1985]. This prevailing policy and regulatory framework would seem to have a number of implications for internationally-traded telecommunications services. Domestic telecommunications - local and long distance as well as public-record services - are of course provided predominantly on a monopoly basis by some 300 companies across the country. The largest of these companies - Bell Canada, B.C. Tel, Alberta Government Telephones, etc. - are grouped together in Telecom Canada to provide monopoly domestic and Canada/U.S. long-distance service as well as certain competitive services while CNCP Telecommunications provides monopoly public-record services domestically and internationally as well as competing with Telecom Canada in certain competitive services.

Canada/U.S. cross-border telecommunications, then, is handled predominantly by Telecom Canada and CNCP Telecommunications through bilateral agreements with U.S. common and specialized carriers interconnecting their own terrestrial facilities or making use of Telesat Canada - the monopoly supplier of domestic satellite facilities and itself a member of Telecom Canada - which maintains similar bilateral interconnection agreements with competitive U.S. domestic satellite carriers. On the other hand, Canada/overseas telecommunications is handled on a monopoly basis by Teleglobe Canada which utilizes INTELSAT, INMARSAT and transoceanic cable facilities to provide international services to all

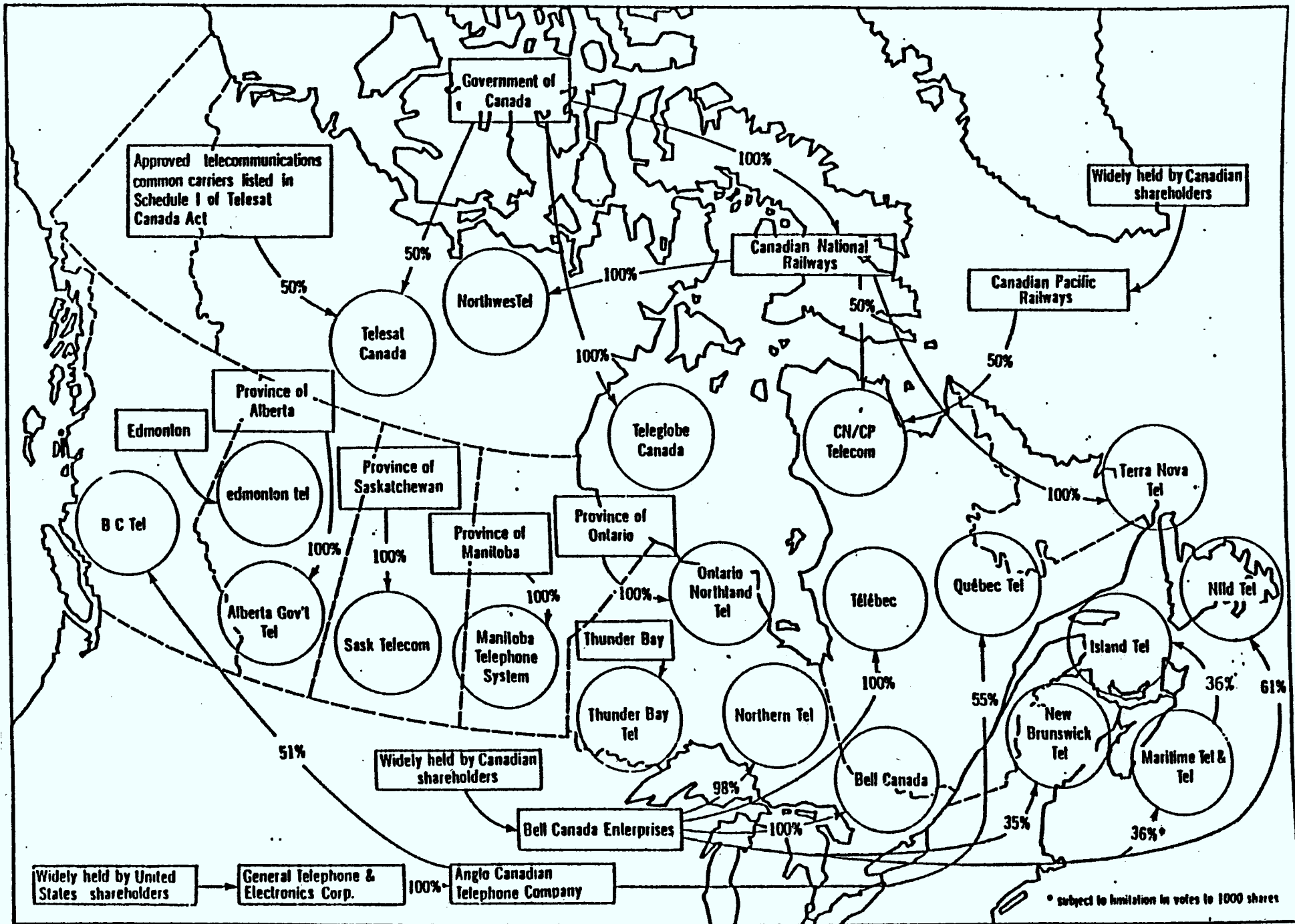
parts of the world and which interconnects within Canada through the member companies of Telecom Canada (including Telesat Canada) and through CNCP Telecommunications.

Ownership of Canada's domestic telecommunications system is diverse and varied. Figure II shows this clearly. The great majority of telephone companies are investor-owned Canadian companies (with the exception of B.C. Tel and Quebec Telephone which are majority U.S.-owned and controlled), the three prairie telephone companies - AGT, Sasktel and Manitoba Tel - are owned by the respective provincial governments, Telesat Canada is a mixed public-private corporation, CNCP Telecommunications is a partnership between public and private enterprises and Telecom Canada is, of course, an unincorporated association of major telephone companies which link their networks together mainly for the purpose of providing long-distance services. Internationally, the situation is considerably more simple with Teleglobe Canada, until 1987 a government enterprise, now privatized but Bell Canada owning 1/3 of the voting shares.

Jurisdiction over Canada's domestic and international telecommunications is shared between the federal government and 7 of the 10 provincial governments, each of which sets policy and exercises regulatory authority over the companies operating within its jurisdiction. Federal jurisdiction has been established over Bell Canada and B.C. Tel as federally-chartered companies operating interprovincially as well as over CNCP Telecommunications, Northwestel and Terra Nova Tel operating in the North West Territories and parts of Newfoundland, over Telesat Canada in both its domestic and Canada-U.S. activities and over Teleglobe Canada. Provincial jurisdiction over provincially-incorporated companies is comprehensive and operative to some extent in all provinces, except for the fact that federally-incorporated companies dominate in Ontario, Quebec and British Columbia. Lastly, the interprovincial activities of Telecom Canada, though not its Canada/U.S. activities, as well as the Canada/overseas activities of Teleglobe Canada have until recently gone unregulated either at the federal or provincial level [Woodrow and Woodside, 1986].

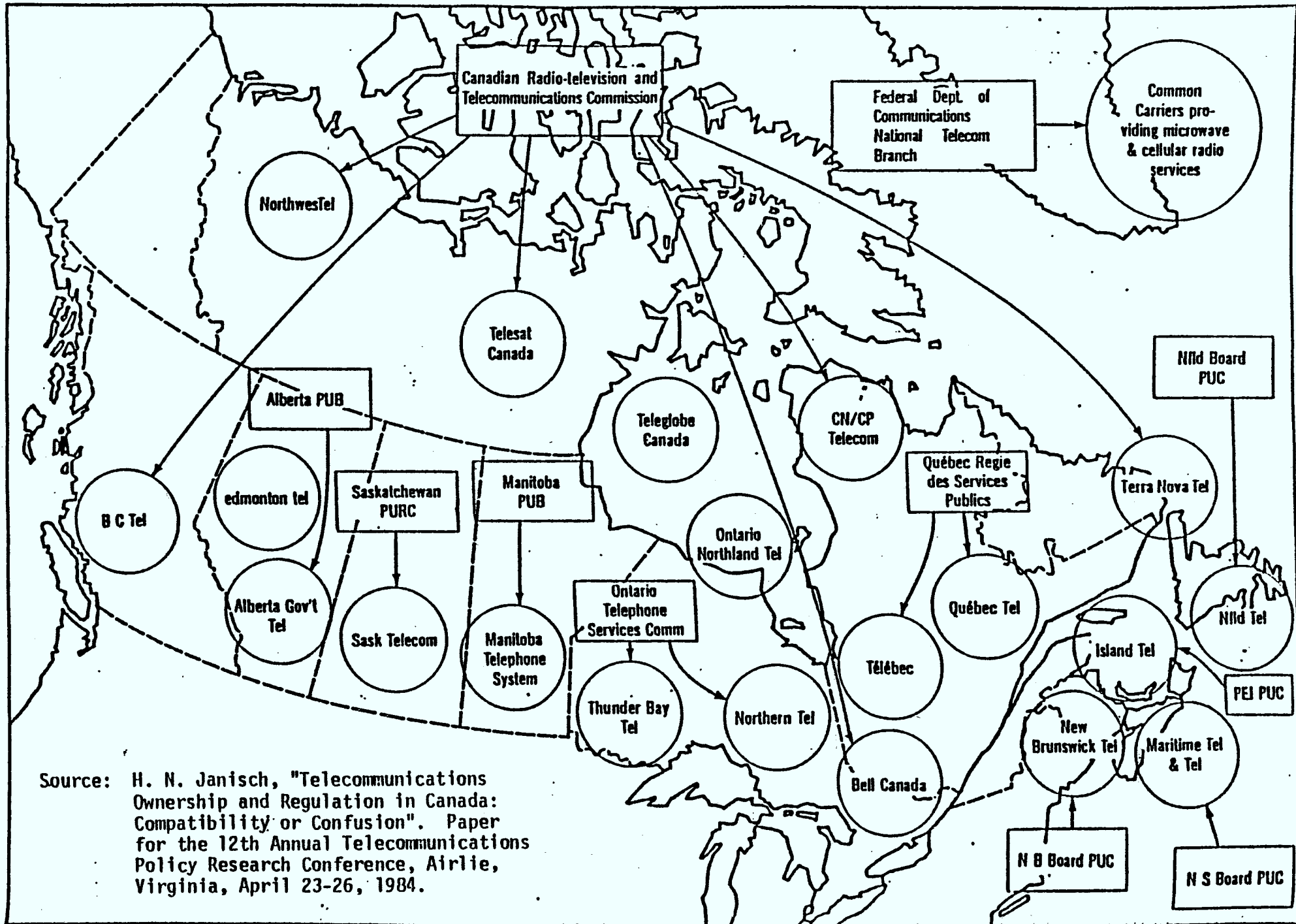
Authority for policy-making and regulation rests at the federal and provincial level with the cabinets and respective departments of communications which typically delegate certain regulatory authority to quasi-independent regulatory bodies. Figure III demonstrates this pattern well. At the federal level, the Department of Communications is responsible for national telecommunications policies, including spectrum management and licensing powers, and specifically for the conduct of international telecommunications activities while the CRTC exercises delegated regulatory authority over companies operating within federal jurisdiction. At the provincial level, the pattern is generally similar with provincial departments of communications or their equivalent setting provincial policy for telecommunications and, in the 7 provinces which hold jurisdiction, quasi-independent regulatory bodies exercising regulatory powers. International telecommunications policy is set by the federal government but domestic regulatory activity with regard to international telecommunications is exercised either by the CRTC or provincial regulatory bodies.

Policy and regulation has traditionally focused on two main



OWNERSHIP OF CANADIAN TELECOMMUNICATIONS COMMON CARRIERS

Source: H. N. Janjisch, "Telecommunications Ownership and Regulation in Canada: Compatibility or Confusion". Paper for the 12th Annual Telecommunications Policy Research Conference, Airlie, Virginia, April 23-26, 1984.



Source: H. N. Janisch, "Telecommunications Ownership and Regulation in Canada: Compatibility or Confusion". Paper for the 12th Annual Telecommunications Policy Research Conference, Airlie, Virginia, April 23-26, 1984.

activities: spectrum management and facilities planning as undertaken by the DOC in overseeing the efficient operation of the telecommunications system and entry, price and rate of return regulation as conducted by the CRTC and provincial regulatory bodies. Spectrum management and facilities planning relates to the assessment and oversight of the various private and public sector organizations operating networks and, where appropriate, the harnessing of these operational entities to the achievement of national and social objectives. The promotion and maintenance of "duopoly" facilities for the promotion of private line and certain business services and more recently for cellular mobile radio as well as the mandating of Telesat Canada and Teleglobe Canada as "carriers' carriers" would be examples of spectrum management and facilities planning activities as opposed to direct involvement in the determination or delivery of services. To the extent that a national telecommunications policy has been pursued in Canada, it has been at that level rather than through operation of PTTs or other more intrusive measures of government involvement. With regard to the kind of entry, price and rate of return regulation associated with regulated monopoly conditions, the CRTC has moved fairly consistently at the federal level since the late 1970's to accept increased competition directly within various areas of telecommunications - business, private lines, terminal equipment, value-added services, etc. - as well as through resale and sharing and to establish the regulatory distinction between "basic services" which most likely must be provided on a monopoly basis and "enhanced services" where competition among providers is desirable. In effect, Canadian domestic telecommunications conforms by and large to a model of "regulated competition", however contradictory and untidy that concept may be in a theoretical sense [Woodrow and Woodside, 1986].

Finally, with regard to international services as distinct from domestic telecommunications, Canadian policy and regulation has continued to adhere essentially to the regulated monopoly model and to limit or control access to and use of the Canadian telecommunications system by foreign companies. Licensing and other regulatory actions relating to microwave and earth stations, review of foreign takeovers or new ventures in telecommunications, provisions in the Bank Act requiring computer processing of certain bank records within Canada, and procurement policies giving advantage to Canadian telecommunications and computer services providers are usually pointed to as examples of this restrictive policy. While Canada has been supportive of liberalization of trade-in-services generally, its thinking on telecommunications services was set out in its 1984 submission to the preliminary round of GATT discussions:

It is difficult to define clearly what is meant by "trade" in telecommunications transmission services. Some limited form of "organized trade" might be said to exist, but most countries would be opposed to competitive trade in what is usually a monopoly service, considered essential to the well-being of the state. On the other hand, consulting on the construction and implementation of telecommunications systems is very much a tradeable commodity.

In considering trade in computing services most of the functions are conducted by private enterprises at least in Canada, and exist in an environment much more shaped by technological advances than by government regulation.

A clear distinction does need to be made between competitive trade in the commercial sense and the provision of services by multinational enterprises (MNE's) to foreign affiliates (intra-corporate "non-market" activities). This is an area complicated by the close linkage between trade and foreign investment...

In general, then, provision of telecommunications services is not treated as trade in the traditional sense. This is particularly true for terrestrial systems where revenue sharing arrangements have a long tradition. The use of satellite systems opens up new possibilities, but the Task Force was informed that Canadian policies are likely to continue to be based on the precedents set for terrestrial systems [GATT Submission, 1984:36,38].

3.3 Recent Developments Affecting the Domestic Policy and Regulatory Framework

At the present time, there are at least SIX important developments affecting the domestic policy and regulatory framework in Canada which have implications for internationally-traded telecommunications services:

- * the July 22, 1987 statement by the federal Minister of Communications on "a policy framework for telecommunications in Canada";
- * ongoing changes in the role of Telesat Canada;
- * the privatization of Teleglobe Canada in 1987;
- * recent CRTC decisions on interexchange competition, foreign bypass, enhanced services and resale and sharing;
- * the evolving federal-provincial accord on "roles and responsibilities" and "interconnection".
- * the services chapter of the Canada-United States free trade agreement and its provisions for "telecommunications network-based enhanced services";

Each of these will now now be briefly treated.

The July 22, 1987 DOC Policy Statement. This ministerial policy statement - the outcome a policy review begun in May 1984 and elaborated through consultation with industry and provincial governments in subsequent years - should be viewed essentially as a clarification and confirmation of existing policy and practice rather than a commitment to any bold new directions [Canada Department of Communications, 1987a]. Most importantly, the policy statement makes a distinction between "facilities" and "services" and relates this distinction to ownership and the appropriate degree of competition for each of two types of carriers. As well, it applies both to international and domestic telecommunications in Canada.

Coming after a decade of relative inaction on the part of the federal government, the ministerial statement takes one important step towards a national telecommunications policy framework for the future at the same time that it establishes a benchmark against which to characterize and measure existing policy and practice. This last point is most important in light of the subsequent negotiation of the Canada-United States free trade agreement and ongoing federal-provincial negotiations.

The "national telecommunications policy framework" - a term distinctive in itself since recent federal governments had shied away from using the term "national" in deference to the jurisdictional sensitivities of provincial governments - rests upon three main propositions:

- i) Consonant with Japanese and British policy but out of step with U.S. practice, two classes of telecommunications carriers are distinguished: Type I carriers which "may own and operate interprovincial and international telecommunications network facilities for the purpose of providing basic telecommunications services to the general public; and Type II carriers that "will be authorized to provide services to the public utilizing in whole or in part the network facilities of Type I carriers", i.e. services which are presumably value-added or enhanced services of various types;
- ii) The member companies of Telecom Canada, CNCP Telecommunications, Telesat Canada and Teleglobe Canada are designated as Type I carriers and the federal government states its intention to "control entry into this classification to prevent unnecessary duplication of costly facilities and to promote the effective competition that will best realize the advantages of scope and scale in a country the size of Canada". On the other hand, Type II carriers - which are not specifically designated - are to be guaranteed access to the network facilities of Type I carriers, presumably on a fully competitive basis and "on just and reasonable terms and conditions and in a manner which promotes fair and equitable competition in the provision of new telecommunications services";
- iii) In order to bring Canadian ownership guidelines directly within the "policy framework" and to harmonize them with other countries including Japan, Britain and the United States, foreign nationals are prohibited from holding more than 20 per cent of the voting shares in any Type I carrier (with an exemption for B.C. Tel and Quebec Tel where divestiture will not be required). Otherwise, no ownership guidelines are set out for Type II carriers which presumably can be owned and controlled either by Canadians or foreign interests.

While not dealing with such issues as appropriate regulatory measures or jurisdictional issues and leaving certain features ambiguous, the ministerial statement - subject to the passage of necessary legislation - does serve to confirm the basic direction in which national telecommunications policy is going and to clarify the rules within which domestic and international telecommunications in Canada must operate.

One other point that should be made relates to the foreign investment and competition policy aspects of the ministerial policy statement. In each of these areas which are policy fields in and of themselves, recent developments have taken place which conform generally to the basic thrust of the ministerial policy statement. The shift from the Foreign Investment Review Act to the Investment Canada Act in 1985 typifies a more open policy on foreign investment, although provision still remains to screen and restrict takeovers or new ventures in culturally-sensitive areas. Telecommunications has traditionally not been treated as a cultural matter, although some have viewed it in that light. The ministerial policy statement, however, now establishes an explicit foreign ownership criterion for Type I carriers and this 20% level is similar to the minimum level maintained by other major countries which explicitly treat telecommunications as a "key sector" [Investment Canada Act, 1986; Wex, 1984]. As well, with regard to competition policy the Competition Act passed in 1986, which replaces the Combines Investigation Act, opens up the possibility that regulated industries like telecommunications could come directly under its provisions. In particular, the opportunity is there for less regulation and a more meaningful role for competition in telecommunications markets [Competition Act, 1986; Romaniuk and Janisch, 1986].

Ongoing Changes in the Role of Telesat Canada. Three related developments are changing the role of Telesat Canada within the Canadian telecommunications system and opening up the possibility of its greater involvement in the provision of internationally-traded telecommunications service. In terms of the way it was originally conceived and has operated until recently, Telesat Canada was to serve as a "carriers' carrier" and offered neither international services nor was it to deal directly with customers. Under a 1972 exchange of letters between Canada and the United States, it was agreed that, in special circumstances such as catastrophic failure of a satellite system, temporary shortage or peripheral and incidental extension of a domestic service, only then could one nation's satellite system provide service in the other country [Canada-United States Exchange of Correspondence, 1972]. As well, Telesat Canada has until recently been prevented by Cabinet and the CRTC from offering partial channels for sale and from marketing its services directly to customers rather than through telephone companies or broadcasters. These constraints have now begun to change and Telesat Canada is moving into a position to market satellite services, at least those which qualify as "enhanced" services, into the United States and perhaps internationally.

First, in 1982, Canada and the United States exchanged an additional series of letters which opened up the possibility of greater use of domestic satellites for transborder services. At Canadian initiative, it was agreed that "the joint use of the facilities of Canadian and United States domestic satellite systems should be permitted in the provision of transborder fixed satellite services" in accordance with "mutually agreed principles" including acceptance of each other's governmental and regulatory approval procedures, negotiation of appropriate agreements between recognized operating entities in both countries and an undertaking to continue to support and be mindful of the two countries' obligations under INTELSAT [Canada-United States Exchange of Correspondence, 1982; Rein et. al., 1985]. Thus, transborder satellite services must be provided "jointly" between Telesat and authorized entities in the United States and

agreements between Telecom Canada and the various U.S. long-distance carriers including AT & T, MCI and, most recently, Sprint, have now been concluded [Dizard and Turner, 1987].

Second, the federal Department of Communications has moved gradually to modify the original role of Telesat Canada as a "carriers' carrier". In 1979, broadcasters and common carriers became eligible to hold licenses for receive-only earth stations and common carriers were also allowed to hold licenses for certain transmit stations for 14/12 GHz services. More importantly, however, in 1984, the DOC went further in providing that restrictions on ownership of other transmit earth stations should be lifted in two stages with experimental licenses especially for private line services being available as of April 1, 1985 and full liberalization of earth station ownership to follow on April 1, 1986 [DOC, 1984; CRTC Telecom Decision 86-6]. The lifting of earth station ownership and licensing requirements is designed to stimulate increased use of satellite services and provide greater flexibility to carriers and users domestically but also potentially in terms of international services.

Third, in 1985, the "connecting agreement" between Telesat Canada and Telecom Canada - first entered into in 1976 - was renegotiated. The 1976 "connecting agreement" allowed Telesat Canada to better promote the integration of its satellite communications facilities with existing terrestrial telecommunication facilities and to tap into much-needed financial resources. Although the proposed agreement was initially rejected by the CRTC as potentially anti-competitive, the federal Cabinet "varied" that decision and approved the "connecting agreement". Subsequently, in another decision in 1981, the CRTC decided that Telesat should not provide satellite services only to established carriers but should also serve end users as well and that provision of full channel services only conferred an undue advantage on established carriers; the federal Cabinet essentially endorsed this decision although with certain reservations about partial channel use. The revised "connecting agreement" between Telesat Canada and Telecom Canada which came into effect on January 1, 1985, allows the former to offer satellite services directly to customers in competition with members of Telecom Canada and thus potentially to become a participant in the cross-border satellite services market [Telesat Canada, 1985; CRTC Telecom Decision 86-9].

Thus, the domestic policy and regulatory context of transborder satellite services - as distinct from the normal cross-border telecommunications handled by Telecom Canada and its U.S. counterparts - is complicated. Both the Canadian and U.S. governments have agreed to "joint" provision of transborder satellite services under appropriate mutual supervision which goes beyond the original 1972 commitment in times of catastrophic failure or temporary shortage. However, DOC licensing policy and CRTC regulatory decisions continue to treat Telesat Canada in part as a "carriers' carrier" at the same time that Telesat Canada is attempting to operate in a competitive environment and to position itself profitably to serve the demands of domestic and cross-border customers. As well, while predominantly a domestic satellite facilities provider, Telesat Canada is being drawn more and more directly into the provision of international telecommunications services, not only cross-border between Canada and the United States, but it could potentially provide services overseas.

The Privatization of Teleglobe Canada and its Implications. The privatization of Teleglobe Canada, which came into effect on April 1, 1987, also has significant implications for the provision of internationally-traded telecommunications services. Originally established in 1949 as the Canadian Overseas Telecommunications Corporation and operating since 1975 as Teleglobe Canada, it was designed to operate as a "carriers' carrier" for all Canada/overseas telecommunications traffic as well as Canadian signatory to INTELSAT's Operating Agreement and holder of an approximately 3 per cent interest in that organization's global communications satellite system. In 1985, the federal government initiated what turned out to be a two-stage process of privatization whereby the publicly-owned Teleglobe Canada was offered for sale to prospective buyers at the same time that the conditions under which the privatization could occur were simultaneously evolving [Thomas, 1986]. The first round of tendering elicited a number of bidders but no bidder was prepared to make a firm bid without knowing more clearly the conditions - whether the monopoly would be continued, the nature of regulation, ownership limits, etc. - under which a privatized Teleglobe Canada would in future operate. Prior to the beginning of a second round of bidding in November 1986, the federal government laid down certain specific ground rules for privatization of Teleglobe Canada: the company would retain its status as sole authorized Canadian provider of overseas telecommunications; it would for the first time be regulated by the CRTC on the basis of rate of return regulation; tariffs for telephone and telex services were to be reduced by 13.5% and 10% respectively as of January 1, 1988; foreign ownership was to be limited to 20% and no telecommunications common carrier was to be allowed to own more than 33 1/3% of the voting shares; and a privatized Teleglobe was to continue to exercise its same international responsibilities in INTELSAT, INMARSAT and on the Commonwealth Telecommunications Council. In competition with five other bids, Memotec Data Inc. - a Montreal-based international data communications and data processing company - submitted the highest bid and was most compliant with all the conditions set out above. Subsequently and again in compliance with the limitation on telecommunications carrier ownership, Bell Canada Enterprises purchased a 1/3 share of Memotec Data which did not confer effective voting control. As well, legislation to divest and reorganize Teleglobe Canada was introduced and passed by Parliament prior to the April 1, 1987 divestiture date [Delorme, 1988].

At the time of the privatization announcement in February 1987, the federal government made public a policy statement on Teleglobe Canada which had been prepared late in 1986 [Department of Communications, 1986]. It emphasized that "Teleglobe Canada occupies a position of strategic importance within the Canadian telecommunications industry, providing our principal communications links with the world outside North America". With regard to "Canada's national interest that telecommunications services between locations in Canada and from Canada to other locations shall, to the greatest extent feasible, be provided over Canadian-owned and controlled facilities", the policy statement makes clear that:

...the government will exercise its existing powers under the Radio Act and Telegraphs Act to ensure that Teleglobe remains, for a period of at least five years, the sole authorized Canadian operator of facilities to provide Canada/overseas services. Given the rapidly changing economic and technological environment in

telecommunications, the continuation of this policy will depend upon Teleglobe's performance in providing efficient, high-quality telecommunications services to Canadians.

Additionally, the policy statement also notes that:

...The government will rely on conventional regulatory mechanisms, specifically the CRTC's authority to approve carrier connecting agreements, to ensure that, consistent with the government's longstanding policy favouring the carriage of Canadian domestic and international traffic on Canadian facilities, overseas services originating or terminating in Canada are routed via Teleglobe facilities and that established international service arrangements and practices are maintained following the divestiture.

Interestingly, however, the policy statement makes no mention of any limitation on Teleglobe Canada's ability to move towards competition with Telecom Canada for the provision of Canada/United States traffic, although the practice followed by previous governments had been to work collaboratively rather than competitively with Telesat Canada.

The Impact of Recent CRTC Decisions. Recent CRTC decisions on five issues - interexchange competition, foreign bypass, enhanced services, resale and sharing, and the recent Call-Net case - have important implications for internationally-traded telecommunications services. Although each of these decisions relate specifically to the domestic policy and regulatory context in Canada, their implications - in certain respects at least - extend into the international realm.

- i) In its 1985 decision on interexchange competition and related matters, the CRTC rejected the application by CNCP Telecommunications to offer long-distance telephone service in competition with Telecom Canada. It was careful not to reject competition in long-distance service outright but rather to find that the specific application before it was deficient in certain respects and that the introduction of competition prior to rate rebalancing would be premature [CRTC Telecom Decision 85-19]. The result of this key CRTC decision is that, unlike the situation in the United States, the provision of long-distance telephone service remains monopolistic and is virtually certain to stay that way until at least into the 1990's. Thus, the particular impetus to internationally-traded telecommunications services which domestic competition seems to provide is missing within the Canadian policy and regulatory context.
- ii) In responding to requests for relief from foreign bypass, the Commission - after previously denying it the authority to block the offering of such services directly - granted B.C. Tel's request to raise short-haul toll rates so as to discourage the ability of resellers such as Longnet and Cam-Net to link up with U.S. discount long-distance providers for the provision of Canada/U.S. or even Canada/Canada services. Thus, through tariff restructuring which was also subsequently applied for by Bell Canada, this particular form of foreign bypass was effectively restricted [CRTC Telecom Decision 85-7 and CRTC Public Notice

1985-50]. It is also interesting to note that certain provincial regulatory bodies have followed the same course [Manitoba Public Utilities Commission Decision 138/85].

- iii) With regard to enhanced services, the CRTC has followed the FCC in the United States in adopting a definition of "basic service" as "one that is limited to the offering of transmission capacity for the movement of information" while an "enhanced service ... is any offering over the telecommunications network which is more than a basic service". By way of example, internal protocol conversion would be part of a "basic service" offering while store-and-forward or other network-based services as well as data processing applications would be treated as "enhanced services". The CRTC further concluded that it was not necessary to regulate enhanced services offered by non-common carriers but that common carriers wishing to offer certain enhanced services (exclusive of electronic publishing which was specifically prohibited) should be subject to regulatory supervision [CRTC Telecom Decision 84-18]. Subsequently, the CRTC has gone on to set out the regulatory framework for enhanced services in more detail. It is interesting to note, however, that the great majority of telecommunications services provided internationally by Telecom Canada, CNCP Telecommunications, Telesat Canada and Teleglobe would probably be treated as "basic services" and would not be open to competition.
- iv) Dating back to its interexchange competition decision in 1985, the CRTC indicated its intention to liberalize resale and sharing conditions for the provision of telecommunications services. Early in 1987, it proceeded to outline how resale and sharing should be treated, including the provision of primary exchange of voice services, and set conditions for orderly introduction of these services [CRTC Telecom Decision 87-1 and 87-2]. Subsequently, several small-scale resellers have arisen domestically and Canadian Satellite Communications Corporation has also moved to resell broadcasting and data communications capacity into the United States on channels leased from Telesat Canada.
- v) More recently, the Commission came face to face with the task of applying the distinction between basic and enhanced services as set out earlier to the resale of services. Since 1986, Call-Net Communications Ltd. has offered what it claimed to be "enhanced" services - specifically customer-dialled account recording and selective call forwarding - by reselling public-switched and private line circuits purchased from Bell Canada and CNCP to business customers in Ontario and Quebec. The Commission decided that both activities involved the reselling of what was essentially a "basic" service - long-distance telephone service - and was not acceptable in its present format but that the electronic mail component of selective call forwarding was indeed an "enhanced" service and could be offered properly. It is interesting to note that, if these two services were offered in the United States - or from Canada into the United States, both would qualify under U.S. regulatory provisions as "enhanced"

services offered by legitimate resellers [CRTC Telecom Decision 87-5].

Thus, each of these five recent CRTC regulatory decisions point out different aspects of the potential domestic Canadian treatment of internationally-traded telecommunications services.

The Evolving Federal-Provincial Accords on Telecommunications. For the decade from 1975 to 1985, relations between the federal government and provincial governments over telecommunications jurisdiction were stalemated. What broke that stalemate and is moving the federal and provincial governments gradually towards agreement on two important accords on jurisdiction and regulation of Canadian telecommunications was the Federal Court decision in Re: Alberta Government Telephones and Canadian Radio-Television and Telecommunications Commission (1984). Dating back to 1982, CNCP had applied to the CRTC to order interconnection between its facilities and those of AGT. In the Federal Court decision, Justice Reed concluded that AGT, through its relations within Telecom Canada, was engaged in "continuous and regular interprovincial activity" and was subject to CRTC jurisdiction but that, on a secondary point, AGT was exempt in this instance because it was a provincial crown agency. On appeal both from CNCP and AGT, the Federal Court of Appeal in CNCP Telecommunications v. AGT and CRTC (1985) unanimously upheld the decision that AGT was subject to CRTC jurisdiction and ruled further that it was not immune from federal jurisdiction as a provincial crown agency because it had stepped outside of its statutory mandate by participating in an interprovincial undertaking. What these two court decisions did was to make virtually the whole of the Canadian telecommunications system potentially subject to federal jurisdiction through the CRTC and this issue has now been appealed to the Supreme Court of Canada.

Faced by the prospect of increased competitive entry and overriding CRTC jurisdiction, the federal and provincial governments agreed to restart negotiations in 1985 towards evolving a mutually-acceptable compromise. At a federal-provincial ministerial conference in February 1986, they agreed to accept four basic principles for telecommunications policy and regulation previously advanced by the federal Minister of Communications and added two additional principles, that regional economic development must be taken into account and that responsibility for policy development must rest with governments and not with regulators or the courts [Schultz, 1986; Woodrow and Woodside, 1986]. A Committee of Ministers was established to explore possible areas of agreement among the two levels of governments and to undertake studies of key issues. This committee worked through 1986 and into 1987 to develop two agreements, one on "roles and responsibilities" - a euphemism for jurisdiction - which would facilitate coordination of governmental policies and regulation and the other on "interconnection" which would establish uniform levels of competition and treatment of service provision and equipment both in federally-regulated and provincially-regulated territory. At their meeting in April 1987, federal and provincial ministers of communication agreed to submit these agreements to their respective Cabinets for ratification before final approval [Federal-Provincial Minister of Communications, 1987]. In particular, the proposed agreement on "interconnection" has important implications for internationally-traded telecommunications services while the agreement on "roles and responsibilities" may be used to head off some

of the disruption and pick up the pieces after the forthcoming Supreme Court of Canada decision.

The Services Chapter of the Canada-United States Free Trade Agreement and Its Sectoral Annex. The recent Canada-United States Free Trade Agreement has significant implications for the future of internationally-traded telecommunications services, at least to the extent that such services might be exchanged between the two countries. The services chapter of the free trade agreement establishes the framework for a more extensive trade arrangement in this area grounded upon the principle of "national treatment" and certain other subsidiary principles such as "transparency", "commercial presence", and "establishment". At the same time, it also acknowledges the right of each country to regulate as each sees fit, subject to certain restrictions on discriminatory application of "licensing and certification" procedures and restrictive practices by "monopolies". Most importantly, the services chapter also contains a sectoral annex which deals with "telecommunications-network-based enhanced services and computer services" and sets out a number of rights and obligations relating specifically to the provision of these services relating primarily to "access and use", "investment" and "commercial presence", and various types of anti-competitive behavior.

Appendix A to this report provides a more detailed assessment of the services component of the free trade agreement and its telecommunications and computer services provisions. However, it is useful to stress three important points about the free trade agreement and its sectoral annex:

- i) "Basic telecommunications services" relating to the "telecommunications transport system" and its "facilities" are not covered by the agreement but only "enhanced services" which require access to or make use of those facilities and networks and are treated in the same way as computer services or other content services.
- ii) A number of specific rights and obligations - including "access to and use of basic telecommunications transport services", "resale and shared use", attachment of terminal equipment, acceptance of each others regulatory definitions and technical standards procedures, and a guarantee of free movement and access to information across borders - are accepted both by Canada and the United States as well as "commercial presence" and "investment" activities required for the provision and use of enhanced services.
- iii) What is not mandated by the Canada-United States free trade agreement is also crucial and this includes no right or obligation to authorize the operation of basic telecommunications transport facilities or services by persons of the other country, no requirement against the utilization of private or public monopolies to operate those facilities or services, and no limitation on the authority of either party to mandate the use of their own basic networks for internal traffic or for traffic originating or terminating in their country.
- iv) Satellite services (as well as cable services), except to the extent that they might be viewed as "enhanced services", are not

treated in the agreement but, if mutually agreed to, could be made the subject of further sectoral annexes.

What becomes readily apparent is that Canada and the United States, for their own very different reasons, have each retained substantial control over its own basic telecommunications transport facilities and basic services while allowing and encouraging the possibility of expanded trade in "telecommunications-network-based enhanced services" as well as "computer services" and other related content services. As pointed out in Appendix A, then, the services component of the free trade agreement and its telecommunications and computer services provisions should be interpreted more as a cautious affirmation of the status quo between two nations which have relatively liberalized domestic arrangements rather than any clear and unmistakable signpost towards future multilateral agreement on trade-in-services.

3.4 Positions Taken by Major Providers, Users and Other Interested Parties

Issues related to internationally-traded telecommunications services have drawn a moderate degree of attention from a variety of Canadian providers, users and other interested parties over the past few years. These issues include such matters as whether "trade" actually takes place and to what extent, types of services open to trade, appropriate mechanisms and principles for developing bilateral and multilateral trade-in-services agreements and Canada's "national interest" in this area. The views of the major providers, users and other interested parties have been expressed in several ways: direct representation to government, public statements and reports, participation in the relevant Sectoral Advisory Group on International Trade established for the Canada-United States bilateral negotiations and presumably to be continued with somewhat altered composition for the upcoming multilateral negotiations and, of course, more informal contacts with telecommunications and trade officials. While attention to internationally-traded telecommunications services can be described as moderate, the views and interests of several key domestic actors cover a wide spectrum and can be identified reasonably well.

Bell Canada As One Member of Telecom Canada. Bell Canada - the country's largest telecommunications carrier operating in Ontario and Quebec - has supported efforts, especially in the bilateral Canada-United States context, to move towards more secure and enhanced trade and to evolve a trade-in-services regime. Its support, however, is not unequivocal and, in a submission to the federal government in 1986, the company has raised a number of issues where it argues that Canada should exercise caution. First of all, in order to enhance the ability of Canadian business to compete effectively and to attract investment under any negotiated free trade agreement, Bell Canada has emphasized the need for rapid progress towards rate rebalancing so as to lower the significantly higher long distance rates facing Canadian businesses vis-a-vis their U.S. counterparts (estimated to be 22% and 34% respectively for MTS and WATS service). Secondly, it has pointed to the liberalized regulatory framework for entry into telecommunications services provision, especially through resale of certain interexchange private line and business data services, but warns that Canada must be prepared to resist demands from U.S. negotiators for further changes in Canadian policies

regarding direct entry into telecommunications services provision. Thirdly, it has stressed that possible elimination of existing restrictions on carriage of Canada/Canada traffic on U.S. facilities and vice versa - an open cross-border arrangement for basic services - could arise during the trade negotiations but that "the fullest possible analysis and evaluation of such a scenario, in a public process in Canada, should be undertaken before any irrevocable decisions to move towards such a scenario are made". Fourthly, it has counselled the need to harmonize Canadian and U.S. rules governing foreign ownership of common carriers, especially "if Canadian telecommunications policy were to sanction the entry of additional facilities-based common carriers in Canada" [Bell Canada, 1986]. On each of these points as on other points about elimination of tariffs on telecommunications equipment and opposition to the imposition of a competitive bidding process for equipment procurement, it would appear that the Canada-U.S. free trade agreement amply satisfies Bell Canada's previous concerns since none of the above possibilities have been included in the final agreement.

One other consideration which has been raised - not by Bell Canada itself but by U.S. government and business officials - has been that Bell Canada has been positioning itself in recent years to move into the U.S. long distance and/or value-added markets. According to this scenario, Bell Canada Enterprises owns Trans-Canada Pipelines Ltd. which holds valuable rights of way both in Canada and the United States which might be used to establish long-distance transmission facilities extending into the United States. As well, Bell Canada reached a tentative agreement with Ameritech - one of the 7 regional BOC's - and Telenet Communications to jointly offer packet-switched information services. Moreover, it is also noted that, subsequent to the privatization of Teleglobe Canada in 1987, Bell Canada Enterprises acquired from that company's new owners the maximum 33 1/3% of its voting shares prescribed under government policy, thus allowing the company to have at least a minority interest in Canada's monopoly international telecommunications provider [Aronson and Cowhey, 1988: Chapter 6]. Obviously, Bell Canada would deny any formal plan to move into the U.S. market but U.S. government and business officials may well have had this possibly in mind when basic telecommunications services were excluded from the Canada-United States free trade agreement and its monopolies section was strengthened.

Lastly, there are the views and interests of Telecom Canada - comprising all the major telecommunications carriers and not just Bell Canada - with regard to internationally-traded telecommunications services. Telecom Canada, as the unincorporated and unregulated consortium of the major telephone companies which provides monopoly long distance service across the country and to the United States as well as private line and business services on a competitive basis, finds itself in a difficult position with regard to internationally-traded telecommunications services. It does not view its existing Canada-United States cross-border services as trade in any real sense, is highly critical of the competitive environment into which it interconnects south of the border, and would strongly oppose the export of U.S. practices and services into Canada [Degenstein, 1987]. At the same time, Telecom Canada rates are significantly higher than comparable long distance rates in the United States, justifiable on social if not on efficiency grounds in terms of the cross-subsidization of local by long-distance rates, but leaving the company open to potential entry by

domestic competitors and vulnerable to foreign bypass of its network facilities. And finally, Telecom Canada is increasingly divided within itself with some companies like Bell Canada aggressively pursuing competitive and foreign options while others like Sasktel or Manitoba Tel are more concerned about protecting their provincial monopoly position. In the final analysis, then, it is reasonable to assume that Telecom Canada supported the Canada-United States free trade agreement as it relates to telecommunications services more for what the agreement left intact than for what it touched. With regard to the underlying issue of tradeability and Canada's role in multilateral as opposed to bilateral negotiations, it is also interesting to note that neither Bell Canada nor Telecom Canada has taken a firm stand as to whether and what telecommunications services should be treated as competitively tradeable rather than cooperatively provided or what Canada's position should be in the multilateral negotiations.

CNCP Telecommunications. The position taken by CNCP Telecommunications on internationally-traded telecommunications services is markedly different from that of Bell Canada or Telecom Canada. In a 1986 submission to the federal government, the company expressed strong and unequivocal support for a bilateral Canada/U.S. free trade arrangement and especially as it relates to the telecommunications industry. It viewed "the relaxation of barriers to trade ... [as] ... the international equivalent to removing barriers to entry on a domestic scale". It praised the role of competition within the U.S. telecommunications industry and sees similar benefits if introduced in Canada in terms of significantly lower rates and more diversified service offerings. It also saw an increasing role for Canadian telecommunications services providers in the U.S. market, especially if the 20% foreign ownership limitation were to be relaxed. CNCP Telecommunications rejects the "misconception" that carriage of Canada/Canada traffic over U.S. facilities can be prevented and, noting that its own telex revenues have been lost to U.S. discount service providers, accepts foreign bypass as inevitable under present conditions and arrangements. It also rejects the "misconception" that rate rebalancing must precede liberalization of trade in telecommunications services and sees competition, both domestic and international, as the most effective way of moving prices towards costs. Lastly, it further rejects the notion that provincial concerns are too important to allow liberalization and sees "the advent of more liberalized trade in telecommunications ... [as] ... the necessary impetus for national coordination on regulatory issues" [CNCP Telecommunications, 1986]. At least in terms of public presentation, CNCP Telecommunications sees telecommunications services as competitively tradeable in almost every respect and supports virtually an unrestricted North American market for such services.

CNCP Telecommunications, as things presently stand, is likely to remain interested primarily in domestic Canadian telecommunications but, as its position on free trade suggests, it sees no hard and fast distinction between domestic and international competition. The partnership upon which CNCP Telecommunications is based is under review with the distinct possibility that the Canadian National involvement may be sold off either to the other partner or another party and no one would be surprised to see whatever entity ensues make another CRTC bid for a competitive long distance telephone service early in the 1990's, either on its own or in

alliance with other parties. In the interim, the company awaits the Supreme Court judgment on its application for interconnection of its private line services in those provinces like Alberta which presently deny it. With regard to internationally-traded telecommunications services, some more extensive arrangement with a U.S. common carrier like MCI or Sprint to establish a North American network has long been viewed as possible, especially now that common foreign ownership limitations have been adopted in both Canada and the United States. Likewise, it should be remembered that CNCP Telecommunications was a prime bidder for Teleglobe Canada and it might well be interested in Telesat Canada, if the federal government decided to privatize its 50% ownership position, and then use that vehicle to enhance the company's domestic and international presence.

Telesat Canada. Telesat Canada, as a member of Telecom Canada but increasingly pursuing its own independent course of action, became particularly concerned about the possibility that domestic satellite services might be included in the Canada-United States free trade agreement. In a position paper prepared for the federal government in 1986 and in subsequent representations, Telesat Canada stated that it was not opposed to bilateral initiatives on free trade with the United States but pointed to the "serious impact" that an open market would have both for the company and for the broadcasting and telecommunications industries in Canada. It stressed "the myriad of Canadian telecommunications and broadcasting regulations" in contrast to "the distinct lack of regulation in the U.S." and argued that an open market would lead to "patently unfair competition". More specifically with regard to its own corporate situation, it pointed to the special role given by the federal government to Telesat to serve Canada's North and the difficulty of changing satellite planning to move more aggressively into the U.S. market. With regard to the present and potential scope and magnitude for internationally-traded telecommunications services, Telesat Canada argued that bilateral cooperative arrangements for Canada/U.S. long distance traffic as well as for transborder satellite services inhibited any substantial trade and that "free trade in satellite services would have a disastrous effect on Telesat". Not only would its customer base for broadcast transmission be thrown open to American satellite service providers but American common carriers and resellers would also be well positioned to enter the Canadian market and disrupt the domestic telecommunications industry. To dramatize the seriousness of the impact, Telesat Canada projected that "free trade in satellite services would result in the loss of 40% of its space services business", loss of \$700 million worth of business by the year 2000, and threaten the continued existence of Telesat. By way of conclusion, it recommended that the federal government exclude telecommunications and broadcasting from the free trade negotiations or, at the very least, delay the impact of any arrangement until the year 2000 [Telesat Canada, 1986].

Telesat Canada greeted the final Canada-United States free trade agreement with a general sigh of relief but also with some continuing concerns. The company was certainly pleased that the satellite services were not specifically treated in the agreement and that the exclusion of "basic services" exempted virtually all of its service offerings presently regulated by the CRTC. U.S. domestic satellite providers would continue to be constrained from moving up to serve Canadian markets and Telesat would have time to consider whether it wished at some point in the future to initiate a move into the U.S. market. Nevertheless, there are continuing

concerns. CANCOM - which purchases satellite capacity from Telesat - is moving more aggressively to resell broadcasting and data transmission services into the United States. Teleglobe Canada, now privatized and not subject to the same policy direction from DOC as before, has shown signs of wanting to expand into Canada/U.S. cross-border services beyond the triangular service already provided as part of its overseas mandate, to which Telesat responds that it too might be interested in providing overseas service after Teleglobe's 5 year monopoly expires. Telesat Canada has also never been all that comfortable within Telecom Canada, as reflected in the control which members of the latter can exert on its management board and the fact that certain member companies like Sasktel and Manitoba Tel continue to deny interconnection for its satellite services to their provincial networks. And finally, it has already become clear that the United States is exploring the possibility of negotiating an additional "sectoral annex" to the free trade agreement with regard to satellite services, a matter of obvious unease for the company. Thus, despite being the monopoly domestic satellite provider in Canada, Telesat Canada remains vitally interested in internationally-traded telecommunications services and is just beginning to follow the multinational negotiations in this regard.

Teleglobe Canada. Like Telecom Canada, Teleglobe Canada does not regard its Canada/overseas telecommunications traffic as internationally-traded telecommunications services but rather as a series of International Telecommunications Union-sanctioned cooperative arrangements settled bilaterally among national telecommunications administrations on a net revenue basis. These activities are international transactions but the great majority of them do not constitute competitive trade, with the possible exception of some implicit competition which goes on among administrations for transit business and potentially for certain enhanced services. With regard to the Canada-United States free trade agreement, Teleglobe Canada tracked the negotiations but made no formal submission to the federal government. When the final text was released, they found that it poses no apparent problems for them. Confirmation of the regulatory authority of the CRTC is welcome to Teleglobe Canada, given the fact that it is now for the first time subject to CRTC regulatory authority. Also, where Teleglobe does provide transit traffic into the United States, these services are basic services and exempt from the services provisions of the free trade agreement. Likewise, with regard to possible enhanced services covered by the agreement, there is no provision for "pure resale" which would jeopardize existing telecommunications arrangements but only for resale for purposes of providing enhanced services. Thus, Teleglobe Canada feels quite satisfied and secure to the extent that the Canada-U.S. free trade agreement has particular relevance for them [Delorme, 1988].

Teleglobe Canada, however, is considerably more interested and concerned about developments on the international telecommunications and trade fronts, the implications of which could rebound back onto the Canadian domestic policy and regulatory arena. Consistent with long-established ITU practice and similar to the position taken by virtually all the world's telecommunications administrations, Teleglobe Canada does not regard the provision of international telecommunications services as trade-in-services. It understands the apprehension of many PTT administrations and developing countries which see the idea of internationally-traded telecommunications services as a threat to the solid technical

functionalism upon which the ITU has been based. At the same time, Teleglobe Canada recognizes that the momentum behind the trade-in-services movement - not only coming from the United States government and business but also from user groups worldwide and increasingly even from certain key telecommunications administrations among the European PTT nations - will have to be met. In this regard, the now privatized Teleglobe Canada sees itself as engaging in useful bridge-building between the telecommunications and trade communities and relating them back into the domestic Canadian situation.

The Ontario Government. Among the provincial governments, Ontario has probably devoted most attention to examining the services sector, both domestically and in terms of trade, than any of the other provinces and has formulated the clearest position on internationally-traded telecommunications services. In its 1986 study of the service sector, it agreed with the notion that existing international telecommunications services do not constitute trade but pointed to satellite services and telecommunications consulting activities as examples of where trade may become more of a factor in the future. The Ontario analysis of telecommunications services under a free trade deal is more pointed. It doesn't see "any great potential for Canadian firms to penetrate the U.S. market" while telecommunications services in Canada "would be subject to great competitive pressures and potential jeopardy". In particular, it pointed to the higher domestic and international long distance and satellite rates and the impact on local service rates if these were to be subjected to "intense price competition". As well, if price competition was "too severe to meet", Canada/Canada traffic could be "routed increasingly via U.S. carriers, threatening the financial viability of our system and perhaps leading to the takeover of our firms by U.S. interests" [Ontario Ministry of Treasury and Economics, 1986a]. While the Ontario government does not presently hold jurisdiction over Bell Canada as the major telecommunications service provider within the province nor does it look favourably upon the Canada-United States free trade agreement, there is little in its telecommunications services provisions which would enflame the concerns which it has registered and much evidence to suggest that the existing domestic telecommunications system can be maintained more or less intact.

The Royal Bank of Canada. The Royal Bank of Canada was an early proponent of liberalization and internationally-traded telecommunications services. In 1983 and 1984, it made a proposal on traded computer services, drew considerable attention to the issue within Canada, and contributed to the inclusion of this item in the abortive "sectoral free trade negotiations" begun at that time with the United States. Its proposal focussed on computer services and spoke more to the transborder data flow issues than to telecommunications services per se. It proposed an "open-ended" rather than a "preferential" agreement between Canada and the United States based upon some element of "reciprocity" or conditional Most-Favoured-Nation treatment and which would highlight the interests of computer services users throughout the economy rather than those of providers of computer services or hardware manufacturers. According to the Royal Bank proposal, the main objective would be for computer service firms and computer service users in Canada to gain unrestricted access to the U.S. market on a reciprocal basis and the Canadian Bank Act requirement that foreign banks operating in Canada hold certain data in Canadian

computer facilities was identified as one restrictive practice which could be negotiated [Frazee, 1983; Grey, 1984]. In addition the broad form and elements of an agreement were sketched out but the importance of the Royal Bank proposal lies not so much in its precise details but in its early attempt to "organize a consensus" within the business community in favour of "trade and technology" and against unrealistic protectionist and nationalist sentiment. More recently, in 1987, the Royal Bank also made a submission to federal and provincial ministers of communications urging them to come to agreement on a solution to the jurisdictional stalemate and to press for liberalization of domestic regulation and services trade in the telecommunications field. This remains the Royal Bank position to the present day, although it does command the same leadership position on the issue today as it did earlier in the 1980's.

The Canadian Business Telecommunications Alliance. In many respects, it is the Canadian Business Telecommunications Alliance which has taken us this leadership role on this issue. The CBTA claims to comprise "more than 230 major Canadian organizations representing all sectors of industry, commerce and government whose collective expenditures on telecommunications exceed two billion dollars annually". In a statement on free trade issued in 1987, it focussed both on equipment and services concerns, drawing attention to the protectionist pressures within U.S. government and business circles and the need to bring about a more open and competitive market for Canadian telecommunications users. With regard to services, it strongly supports services competition immediately, much as in the present U.S. situation and is critical of the current CRTC approach which involves rate rebalancing prior to any introduction of long distance competition combined with more open resale and sharing provisions. In particular, it stresses the need for liberalized access to private-line facilities both for voice and data and the creation of private networks and points specifically to Bell Canada. Tariff Rule 3000 which "effectively prevents a Canadian firm leasing a private line from Bell where this private line connects a point in Canada with American facilities that are configured so as to allow communication with another point in Canada" [CBTA, 1987]. In conclusion, the CBTA sees the free trade negotiations as an opportunity to expand competition within Canada and to increase Canadian competitiveness within the North American market but it is not clear that the final Canada-United States free trade agreement really meets their specific concerns about long distance competition and private lines.

International Business Machines. IBM is, of course, a major player in the global trade-in-services context but it is also an important actor within the domestic policy and regulatory context in Canada. Its perspective is at once global but also specific to Canadian provider and user concerns. Simultaneously, it is a provider of services (25% of its worldwide revenues are accounted for by services), a user of services itself (especially telecommunications services), and deals with services users as its prime customers. On the global level, IBM is promoting a view of services issues, not only telecommunications services but a wide range of other services which focuses on the "internationalization of services". It views the ongoing debate on trade in services as too narrow in conception and is attempting to draw the broader implications of these issues to the attention of trade negotiators and service interests in all countries. In a paper submitted by its Canadian subsidiary, it proposes not a single category of international services transactions but three

different categories - trade-in-services, traffic in services and provision of services. The first category - trade-in-services - conforms to the normal OECD definition of the term where "trade can occur across borders or within borders as long as the transaction takes place between residents and non-residents" and these transactions - whatever the particular form they may take - can be subjected to trade rules. The second category - traffic in services - relates to ancillary services in support of trade in goods - this would include basic telecommunications, transportation and banking services which contribute to goods trade either among affiliates or between suppliers and customers - and this type of transaction - whether organized through international cooperative arrangements or intracorporate means - does not constitute trade in and of itself but does require an open environment recognized through international agreement. Finally, the third category - provision of services - goes beyond trade per se and trenches on matters of investment, commercial presence and market access. IBM Canada sees the multilateral negotiations on services within GATT as the proper forum for negotiations which treat all of the above categories of services transactions and it continues to press its position to the Canadian government as well as elsewhere.

The Canadian Independent Computer Services Association. This association, which claims to represent about 60 smaller Canadian data processing companies, presents the nationalist position on the issue. In a recent presentation to the House of Commons Standing Committee on External Affairs and International Trade, it argued strenuously against the services provisions of the Canada-United States free trade agreement as detrimental to the continued existence of a Canadian computer services industry and destructive of a total of 360,000 information processing jobs in Canada. Its basic argument is that, given the disposition of multinational corporations to perform disproportionately higher levels of data processing at head offices outside Canada and the reduction of protectionist restrictions under the free trade agreement, it is estimated that 200,000 data processing jobs are already done outside of Canada and another 150,000 more will be lost by 1993, 60% of which would likely be filled by women and young people. As a consequence of its analysis, the CICA recommends that the services provisions of the free trade agreement be renegotiated and that the federal government follow the Clyne Commission report recommendation of 1979 that "data processing related to Canadian business organizations be performed in Canada except when otherwise authorized" [CICA, 1987]. Such a nationalist and protectionist view differs markedly from the views expressed above and, however much it may be based upon a questionable view of the operation of multinational corporations and faulty logic about its application to Canada, implies virtually no scope for internationally-traded telecommunications services.

3.5 The Evolving Canadian Government Position on Internationally-Traded Telecommunicatins Services

It is now five years since the Interdepartmental Task Force on Trade In Services reported to the federal government in 1982 on this emerging area of interest. At that time, there was no clear-cut Canadian government position on trade-in-services or on more specific sectoral issues like internationally-traded telecommunications services. In many respects, that situation has not changed fundamentally but a Canadian government position

has been evolving gradually and somewhat fitfully at the present time. A complex of trade-in-services actors within and among governments as well as outside in the private sector emerged. Basic objectives and broad strategies are being articulated whereby trade policy can be harnessed to domestic policy and regulation within various services sectors. Institutions and mechanisms are in place to support bilateral and multilateral efforts at negotiating trade-in-services issues. Still, however, Canada's fundamental goals and interests with regard to internationally-traded telecommunications services have not yet been established unequivocally nor have the ways and means been identified whereby Canada can best meet these goals and serve its interests on a multilateral level as well as in terms of the Canadian-American relationship.

Within the Canadian federal government, there are normally at least "3 1/2 actors" - as one participant put it - on any particular trade-in-services issue. First of all, the Trade Negotiations Office, formed in 1985 primarily to conduct the Canada-United States bilateral negotiations but also to support the multilateral GATT negotiations begun in 1987, has taken the lead role. Its services officials sit at the table and actually do the negotiating. A second key actor is External Affairs whose trade and diplomatic officials who specialize in services at headquarters in Ottawa and at the missions in Washington and Geneva monitor ongoing developments in the negotiations and in other countries and international organizations. Thirdly, officials from the Department of Finance and the Department of Regional Industrial Expansion provide much of the conceptual and analytical work required for identifying Canada's services interests. The "1/2" actor, according to the above description, is the particular department responsible for the service in question, whether it be transportation, tourism, telecommunications or whatever. This rather unflattering characterization is also quite untrue because sectoral officials in these areas have provided essential expertise and guidance in shaping negotiating objectives and strategies and in evaluating the impact and implications of possible actions. It does, however, testify to the continuing gap between trade policy officials and telecommunications policy officials operating within the same governmental structure.

As early as the report of the Interdepartmental Task Force on Trade In Services, the basic objectives and broad strategies which Canada would follow in negotiating trade-in-services, and specifically telecommunications and computer services, could begin to be identified. Canadian officials could see that trade-in-services were a rapidly increasing feature of the world economy and one for which clear definitions and conceptualization and agreed international disciplines and arrangements were largely missing. It recognized that Canada consistently ran deficits in its balance-of-payments account in terms of services trade but did not see this in itself as "necessarily undesirable or symptomatic of an underlying structural weakness". As well, it noted that the trade orientation of the Canadian services sector was not all that high vis-a-vis goods and was actually declining over the past two decades but again this was not regarded as particularly worrying [Canada Task Force on Trade-in-Services, 1982:18-22]. With regard to telecommunications and computer services specifically,

In general, then, provision of telecommunications

services is not treated as trade in the traditional sense. This is certainly true for terrestrial systems where revenue sharing agreements have a long tradition. The use of satellite systems opens up new possibilities but the Task Force was informed that Canadian policies are likely to continue to be based on the precedents set for terrestrial systems....[p.34].

Telecommunications value-added services can either be offered by the regulated carrier or by unregulated firms; international discussions could explore the possible opening of this area to commercial practice, although Canadian policy has not been resolved on this issue....[p. 35].

Computer services are provided on a competitive basis in Canada, and there are few restrictions on the vendors of such services....The computing services sector requires government attention to establish a sound policy for both domestic development and trade purposes [pp. 37-8].

By way of conclusion, the Task Force identified the basic elements of an evolving Canadian position: work on data and conceptual problems; readiness to explore a framework for services; a focus on traded services rather than establishment transactions with particular attention to access to markets; and, most importantly, exploration of "national treatment" in services trade which "should not become an absolute principle but could be envisaged ultimately as the terrain for negotiations, issue by issue, sector by sector" [p. 98].

With regard to the involvement of private sector interests and provincial governments, more formal structures were created for the bilateral negotiations with the United States and these are being continued with some modifications for the multilateral trade negotiations. According to Canada's Chief Negotiator for the Canada-United States free trade agreement, the International Trade Advisory Committee (ITAC) met regularly and provided advice on broad national issues and was made up of prominent individuals from the business, labour, consumer, academic, research and cultural communities who serve in their individual capacities rather than as representatives of particular entities or groups. In addition, a total of 15 Sectoral Advisory Groups on International Trade (SAGITS) were established to ensure that the views and interests of particular sectors were taken fully into account and these individuals were specifically expected to provide advice as representatives of their sector and interests [Reisman, 1987]. The composition of the Communications, Computer and Services SAGIT, as set out separately in Figure IV is revealing in that virtually all of the major parties interested in internationally-traded telecommunications services - with the notable exceptions of Teleglobe Canada and the Canadian Independent Computer Association - are represented on this body. Finally, a Continuing Committee on Trade Negotiations was established with the provincial governments to keep their trade officials apprised of developments. This was the structure established for consultation with private sector interests and the provincial governments during the bilateral negotiations and something quite similar is continuing in place for the ongoing multilateral negotiations in Geneva.

Figure IV: Membership on the Communications, Computer Equipment and Services SAGIT

Chairman: Mr. Alexander Curran, President and CEO
Telecommunications Research Institute of Ontario

Members: Mr. Dale Ashton, Business Manager
International Brotherhood of Electrical Workers, Local 348

Mr. Desmond Cunningham, Chairman and CEO
Gandolf Technologies Inc.

Mr. F.A. Degenstein, President
Telecom Canada

Mr. Robert Ferchat, President
Northern Telecom Canada Ltd.

Ms. Ellen Godfrey, President
Softwords

Mr. George Harvey, President and CEO
CNCP Telecommunications

Mr. David Heuston
Cumberland Micro-Soft Systems

Mr. George Hopkins, Executive V.P.
Bank of Montreal

Mrs. Barbara Hyland, General Manager
Infoglobe

Mr. Pierre Morrissette, President
Canadian Satellite Communications Inc.

Mr. Grant Murray, V.P.
IBM Canada Ltd.

Mr. Laurent Nadeau, Chairman and CEO
XICOM Technologies Corporation

Mr. Dan Potter, President
Novation

Mr. Ian Sharp, Chairman
I.P. Sharp Associates Ltd.

Mr. Eldon Thompson, President
Telesat Canada

Mrs. Manon Vennat, V.P.
Spencer Stuart

It can be observed that the basic objectives and broad strategies outlined five years ago have, in general terms, guided Canada's position on trade-in-services in the successful bilateral negotiations with the United States and underly its participation in the ongoing multilateral negotiations under the aegis of GATT. The services provisions of the Canada-United States free trade agreement do accept one particular formulation of "national treatment" as its core principle while matters of "establishment" and "commercial presence" are treated but only to a limited extent. Basic telecommunications services - including local and long-distance telephone service provided either terrestrially or be satellite - are exempted and "national treatment" extends only to "telecommunications network-based enhanced services and computer services" based upon non-discriminatory access to and use of the basic telecommunications transport network as well as deference to the regulatory authority of each country. As pointed out earlier and expanded upon in Appendix I, the services provisions of the free trade agreement should be interpreted more as a cautious affirmation of the status quo between countries with increasingly similar regulatory arrangements rather than as a bold signpost to future multilateral agreement. With regard to the multilateral negotiations in Geneva, however, Canada must deal with rather different problems in achieving any broad agreement and may have to entertain the acceptance of a rather different mix of principles and the use of different negotiating strategies.

IV. THE INTERNATIONAL POLICY AND BUSINESS ENVIRONMENT FOR INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES

4.1 Introduction

Developments in the international policy and business environment over the next few years will be crucial to the future of internationally-traded telecommunications services. United States government and business is pressing strongly for a multilateral trade-in-services agreement - beyond what has been agreed to in the Canada-United States bilateral agreement - one prominent feature of which would be telecommunications services. Discussion and analysis is presently taking place within several international organizations on internationally-traded telecommunications services - OECD, UNCTAD, UNCTC and, most importantly, GATT - while the ITU, which has coordinated the international telecommunications services for more than a century, is rather reluctantly being drawn into the trade-in-services issue. A wide range of countries in addition to the United States - the European Community, EFTA nations, Japan, Australia and New Zealand, Brazil, India, Singapore and others - are showing increasing interest and playing an increasing role on the trade-in-services issue. As well, the views and interests of major providers and users of telecommunications services are also being expressed not only at the national level but also internationally. This section examines the policy and business environment at the international level and attempts to sketch the evolution of this issue and situate Canada's evolving position on the international scene.

4.2 The U.S. Government and Business Initiative on Trade-in-Services

Dating back to the late 1960's and early 1970's, domestic service providers and users in the United States were already beginning to identify the increasing role of services in the domestic economy and making the first representations that the issue should be treated internationally on the trade front. Regulation of service areas like telecommunications, airlines, maritime shipping, among others, was already well developed - and often quite restrictive in terms of possible providers and of users as well - and the treatment of services in a trade context was viewed as one prime way not only of promoting more widespread usage but also of liberalizing domestic and international regulation of key service areas. The Trade Act of 1974 did not treat services specifically but a few service companies like American Express, Citibank, Merrill-Lynch, as well as related manufacturing companies like IBM and Control Data - but noticeably absent of telecommunications service providers - soon began to press Congress and the Executive Branch for the inclusion of services within the U.S. trading mandate. Despite the fact that the subject had played virtually no role in the Tokyo Round of GATT negotiations, the Trade Agreements Act of 1979 gave equal billing to services as to goods in any future negotiations. With the advent of the Reagan administration, a new group of trade officials in Washington - strongly committed to expanded and liberalized trade-in-services as a complement to domestic deregulation and productive of global economic advance - allied themselves to like-minded U.S. service providers and users. In simple terms, these trade officials set as their two main objectives the tasks of promoting the U.S. deregulatory experience as

exemplary for other advanced nations then committed to rigid monopoly policies and practices and of opening up the global services marketplace to greater competition for the benefit of both providers and users. Thus, the U.S. Trade and Tariff Act of 1984 authorized the president to give high priority to the negotiations of multilateral and bilateral services trade agreements and the U.S. has made internationally-traded telecommunications services probably the premier sectoral issue on its evolving agenda [Feketekuty and Aronson, 1984; Dizard, 1982; Aronson and Cowhey, 1988: Chapter 1].

Dealings With Other Nations on Obstacles to U.S. Service Industries. Early in the 1980's, the U.S. government began to identify a number of countries as pursuing restrictive policies and practices with regard to access and use of domestic telecommunications networks which inhibited the ability of U.S. service industries operating in foreign markets. For example, in 1981, the West German PTT introduced restrictions on the resale and sharing of leased lines as well as a form of usage-sensitive pricing and U.S. government and business viewed these measures as protecting domestic service industries and inhibiting international trade opportunities. Likewise, Japan was accused of following similar restrictive policies and practice with regard to value-added services offered on its basic network but these were subsequently relaxed with the passage of 1984 Japanese telecommunications legislation [Feketekuty and Aronson, 1984]. With regard to "local content" rules, the U.S. also objected to provisions in the 1980 Canadian Bank Act which requires the processing and storage of bank records in Canada, thereby discriminating against remote access to foreign data processors [Dizard and Turner, 1987]. These and several other alleged "obstacles" to trade-in-services were chronicled and raised in the GATT negotiations and have become the subject of ongoing discussions between the U.S. and affected countries [U.S. Trade Representative, 1987].

Federal Communications Commission Actions to Restructure International Telecommunications. Also beginning in the early 1980's, the FCC moved separately from the trade-in-services initiative mentioned above to restructure international telecommunications by attempting to extend U.S. domestic deregulatory actions into international telecommunications policy and regulation. Through a series of more minor decisions as well as the Competitive Carrier and Computer II rulings, it sought to replace traditional regulation with greater reliance on market forces and to use competition in the provision of international telecommunications services as leverage to gain easier and more extensive access to monopoly foreign telecommunications networks [Frank and Long, 1982]. Over the course of the transition to greater competition in international telecommunications, it recognized that U.S. international carriers faced the danger of "whip-sawing" as foreign telecommunications administrations might be tempted to play off one U.S. carrier against another [Kwerel, 1984]. Despite some reservations about the likely impact on international telecommunications regulation, the FCC moved ahead deliberately and more recent actions have included licensing of separate satellite systems and private fibre optic networks in competition with INTELSAT and the granting of RPOA status to U.S. enhanced service providers to ease their entry into foreign telecommunications service markets. More recently, the FCC has attempted to evolve an "international model" for the provision of telecommunications goods and services which would include the fourfold objectives of open

entry, non-discriminatory treatment, stimulus to technological innovation and international comity [FCC Notice of Inquiry and Proposed Rulemaking on Regulatory Policies and International Telecommunications, 1987].

Judge Harold H. Greene - the author of the AT & T divestiture and a key figure in the continuing evolution of the U.S. telecommunications regulation - recently set out how other countries could draw upon the U.S. domestic experience:

'The answer to the challenges of law in telecommunications' he said, 'as that industry moves increasingly to center stage, is operational competition by a number of private entities, coupled with vigilant regulation by government. Such regulation will prevent the private organisms from dominating that which they should serve, and it will provide leadership with respect to fairness, standards, compatibility and universal service that only governmental bodies can supply. At the same time, the various manufacturers, operators and suppliers will, in free competition with each other, produce ever more useful equipment and ever more sophisticated services at reasonable prices. And the very dispersal of these participants will safeguard the citizenry from the abuses that control of information by government or by a powerful private company could bring about' [Transborder Data Report, November 1987].

INTELSAT and the Separate Systems Licensing Decision. Specific attention should be directed at the U.S. government's decision on licensing of separate satellite systems and private fibre optic submarine cables in competition with INTELSAT. For two decades since its establishment in 1964, INTELSAT operated as the single supplier of international satellite services - particularly transatlantic - with the United States holding the largest share among the 11 governments participating in the consortium. INTELSAT capacity grew steadily through the early 1980's roughly in tandem with transatlantic submarine cable capacity and at the same time that regional satellite systems outside North America also arose as a bypass challenge. In 1983, Orion Satellite Corporation - followed shortly by four other companies - applied to the FCC for permission to launch a transatlantic satellite service and, over INTELSAT's strenuous objections, President Reagan intervened with a presidential order that "separate international communications systems are required in the national interest" and that the U.S. "would consult with INTELSAT regarding such separate systems as are authorized by the FCC". The FCC subsequently licenced several satellite entrants to provide "customized" rather than public switched service and loosening the resale and sharing arrangements for their use [Rein, 1984; Colino, 1987]. Moreover, not only does INTELSAT face new satellite competitors on its most lucrative routes but the FCC has also authorized the TAT-8 cable - the world's first long-distance fibre optic submarine cable - which is to provide transatlantic service in 1988 as well as three private fibre optic cables for the early 1990's [Kwerel and McNally, 1986]. Thus, excess capacity is likely to make competition fierce in the transmission segment of international telecommunications service [Johnson, 1987].

Using the OECD to Advance the Cause. During the 1970's, the Organization for Economic Cooperation and Development - the consensus body which groups together all of the world's advanced market economies - became involved with the transborder data flow issue. By the early 1980's, the United States grew weary of that issue and its privacy and sovereignty dimensions and sought to reorient the organization more towards support for expanded and liberalized trade-in-services. First of all, the U.S. has continuously pressed the OECD to explore the extension or elaboration of its existing codes on invisibles, capital movements and standards more directly into the services realm. Secondly, beginning in 1981, it also pressed strongly for what in 1985 became the OECD Declaration on Transborder Data Flows, an agreement achieved only after tough negotiation and compromise which commits these governments which agree to relatively unrestricted flow of information across national borders consistent with legitimate economic and social concerns. Finally, the U.S. also pressed the Trade Committee of OECD to take up the services issue and, more recently, to explore the possible framework for a trade-in-services agreement which would be consistent with the sectoral interests of advanced nations in a variety of areas including telecommunications and computer services [Aronson and Cowhey, 1988: Chapter 1; Dougan, 1987]. In each of these areas, the OECD was used by the United States very much as a testing ground for possible multilateral action.

Initiating the GATT Negotiations on Services. At the GATT ministerial meeting in 1982, the U.S. was rebuffed in its first attempt to establish multilateral negotiations on trade-in-services, running into strong opposition from developing nations like Brazil and India as well as from some Western European nations while gaining general support from countries like the United Kingdom, Japan, Sweden and Canada. A compromise was worked out at the time whereby countries which so desired would develop national studies on services which would be submitted to the GATT secretariat. Early in 1984, these studies began to trickle in and provided the basis for preparatory discussions among nations on the trade-in-services issue during 1985 and 1986. The U.S. National Study on Services - presented early in 1984 - was an extensive treatment of the issue domestically and internationally as viewed from the U.S. government perspective and this was followed up in 1985 with a catalogue of selected problems encountered by U.S. service industries across the whole range of trade-in-services sectors [U.S. National Study on Services, 1984; U.S. Report on Foreign Barriers, 1985]. In 1985, the U.S. turned up the pressure for a comprehensive new round of trade negotiations. After gaining the support of the European Community and attempts to allay the fears of some developing nations like Singapore and Hong Kong and later certain Latin American and African nations, another compromise was reached in September 1986 whereby services negotiations would proceed parallel to the mainstream negotiations on goods, following normal GATT rules and procedures and supported by the GATT secretariat, and these would be charged with seeking "progressive liberalization" of trade-in-services "as a means of promoting economic growth of all trading partners and the development of the developing countries" [Aronson and Cowhey, 1988: Chapter 1; Dougan, 1987]. In such a fashion, then, the U.S. finally succeeded in getting trade-in-services negotiations onto the GATT agenda.

Relationship with the ITU and WATTC-88. U.S. government and business

has become increasingly frustrated in recent years with ITU as an institution and international telecommunications regulatory activities more generally. The ITU is viewed by some within the Reagan administration as too traditional and hide-bound in its emphasis on functionalism as its essential operating mode and the international regulatory activities which its members have agreed to undertake have not kept pace with changing technological realities, new services and network possibilities, and changing user preferences [Bruce, 1987]. The WATTC-88 meeting in Melbourne in December 1988 has become the focus of much of this concern in that draft revisions of International Telecommunications Regulations, which have been proposed by a preparatory committee working over the past two years, are viewed by U.S. government and business as too broad in scope and too expansive in their approach to regulation. Specifically, the U.S. fears that the draft regulations may allow international telecommunications regulatory practices to extend into value-added services and impose regulatory obligations on national administrations where they have interdrawn or would not intend to regulate. U.S. services providers and users, likewise, have been highly critical of the revised draft regulations as protective of PTT-monopoly interests and potentially inhibiting to greater international competition and trade-in-services [Bruce, 1987]. In this last regard, the ITU tends to be viewed as unsupportive of - and even hostile to - the GATT services negotiations on which the United States now places high priority.

The State Department report on WATTC-88 preparations captures many of the threads underlying the U.S. position:

The four preparatory sessions have provided the U.S. (carrier and user industry and government representatives) with a picture of the difficulties we are encountering in selling our philosophical deregulatory approach to international telecommunications regulation. It appears that many countries have moved away from the PTT monopoly-only provider, but most countries appear to desire some form of international regulation over what they view as telecommunications services providers (many of which we would consider enhanced or value-added services not being subject to regulation). The U.S. must develop economic arguments to convince countries that fewer restrictions concerning entities utilizing telecoms to provide enhanced services is in their best interest. Such entities can bring new business to these countries and provide benefits to the countries' industries and user community. Such arguments and discussions should be undertaken with ministry officials (not necessarily the PTT staff officials, who have a major stake in their countries' economic well-being [Transnational Data Report, September 1987]).

4.3 International Organizations and Their Involvement with Internationally-Traded Telecommunications Services

Various international organizations - the United Nations Conference on

Trade and Development (UNCTAD) and the United Nations Centre on Transnational Corporations (UNCTC) as specialized U.N. bodies, the OECD, GATT and the ITU - are all involved to varying degrees and in different ways with regard to the trade-in-services issue as it relates to telecommunications and computer services. It is important to note that internationally-traded telecommunications are a relatively recent concern within these organizations and has generally evolved out of earlier work typically focusing on transborder data flows, foreign direct investment and trade issues, the extension of trade-in-goods to trade-in-services, or international telecommunications regulation. In other words, internationally-traded telecommunications services is not the primary orientation of any of these international organizations. Moreover, each of these organizations has different mandates, memberships, and modes of operation and thinking in dealing with this matter and their contribution to the evolution and ongoing treatment of the issue has been and will continue to be diverse both in substance and extent. One of the key features of the international policy and business environment, then, is the varied and somewhat undisciplined involvement of these international organizations and the need to manage that involvement.

The U.N. Bodies Other Than ITU. Two specialized agencies within the U.N. system - other than ITU which will be treated separately - are participating to a limited extent in the evolution of the trade-in-services issue as it relates to telecommunications and computer services. Both UNCTAD in Geneva, which has provided a forum for the discussion and sometimes the negotiation of broad trade and development issues since its establishment in 1964, and the UNCTC in New York - founded 10 years later and focusing specifically on the critical role of transnational corporations in the development process and the global economy - have staked out their own position and role. Each organization, but especially UNCTAD, has a broad membership with substantial representation from developing nations and each has an active secretariat which has taken up the services issue in terms of assisting in the coalescence and articulating the views of their members. However, neither organization is likely to play a lead role specifically on internationally-traded telecommunications services, partly because of the hostile and suspicious view of each organization held by many advanced countries and even more because of their lack of specialization in dealing with sectoral considerations [Sauvant, 1987: Chapter 5]. Nevertheless, UNCTAD and the UNCTC will continue to contribute to the elaboration of the issue but not in a mainstream way.

During 1983 and 1984, UNCTAD was promoted by the developing nations as a possible forum for trade-in-services negotiations alternative to GATT, but similar to the role which UNCTAD played in developing the Liner Code for Maritime Shipping Conferences during the early 1970's. This initiative, however, quickly fell by the wayside as it became apparent that advanced countries would not accept such a proposal. Nevertheless, UNCTAD did at the time authorize its secretariat to undertake work on the role of the services sector in the development process. Two general studies of services and the development process were prepared which makes a rather pessimistic assessment of the ability of developing nations to participate effectively in the international services economy and is skeptical about some of the principles proposed for a multilateral trade-in-services framework [UNCTAD, 1985 and 1986]. More recently, the UNCTAD Secretariat

is assisting a number of developing nations - some 12 in number - to formulate and conduct national studies on services as the information base upon which national policies and positions can be set. Until now, the Secretariat and many developing countries have not even been able to consider sectoral issues such as telecommunications and computer services, although there is considerable interest and apprehension about the impact and implications of information technology on developing countries. In particular, there is a concern that the "transnationalization" of what UNCTAD describes as "producer services" will freeze developing nations out of major decisions about how services will develop both internationally and domestically [Rada, 1986; Riddle, 1986]. To the extent that UNCTAD and its secretariat can influence the formulation of the policies and positions of developing nations on general trade-in-services issues, the organization will have an indirect influence and play a useful role on the international policy and business environment.

The UNCTC has moved towards the issue of internationally-traded telecommunications services in a different way but suffers from many of the same difficulties as its U.N. counterpart. It focuses on transnational corporations and their diverse role within the global economy and conducts an extensive research programme, assists host countries - especially among the developing nations - in dealing with transnational corporations and, for the past 10 years, has attempted to formulate and gain consensus for a Code of Conduct on Transnational Corporations. Its specific involvement with the trade-in-services issue as it relates to telecommunications and computer services grows out of work it has done on transborder data flows, both generally and in relation to specific countries [UNCTC, 1984 and 1983]. In this regard, it has documented how a relatively small number of transnational corporations dominate transborder data flows and affect the ability of countries - developed as well as developing - to exercise control over their national economies. In particular, the UNCTC has identified foreign direct investment rather than trade as the primary vehicle whereby transnational corporations have until now operated although its more recent research suggests that trade is becoming an increasingly significant factor [UNCTC, 1987]. The UNCTC is presently highlighting the importance of services issues but, until now, has played no determined role - similar to that played by OECD - in organizing a consensus on the trade-in-services issue or, for that matter, on transborder data flows. If its Code of Conduct on Transnational Corporations were to be agreed to - but this seems unlikely - then certain of its probable provisions would have significant implications for trade and investment in services [Sauvant, 1987:313-16].

The Organization for Economic Cooperation and Development. Over the past decade, the OECD has probably done more analytical work and conducted more discussions within its various meetings and committees dealing in one way or another on internationally-traded telecommunications services than any other international organization. Ironically, however, very little of these activities bear directly on this topic but many of them are relevant indirectly. Such is the nature of the OECD as an international organization which operates by consensus and mutual adjustment. First established as a Europe-limited organization to confront the problems of reconstruction after World War II and expanded after 1961 to include the United States, Canada and all the other major industrialized nations, the OECD has become a major force for coordinating the management of the world

economy and promoting liberalized trade, investment and access to information. With regard to internationally-traded telecommunications services, however, its complex committee structure and the diverse national and domestic interests which it attempts to reconcile have meant that the OECD, as evidenced in a small way by the treatment of the Reid paper referred to in Chapter I, have sometimes inhibited its contribution to the evolution of the issue.

Sauvant clearly identifies the various reasons why the OECD has been "an attractive forum for the supporters of an open international service system":

First, it assembles (in an organization in which the U.S. wields considerable influence) all developed market economies, which include all major exporters of services and service capital. In the framework of this relatively like-minded group, positions can be harmonized and a consensus formed which covers most of the world's service trade and FDI. Secondly, any consensus reached is elevated to and endorsed at a high political level, the OECD Council of Ministers. Such an endorsement transforms the attention and interests focusing on a given issue into an important political commitment which provides direction for future action, embeds specific agreements into other economic policies and cooperative efforts, and links issues and agreements to the economic summit process of the principal industrial countries. Thirdly, once an agreement has been reached within OECD, it strengthens the bargaining position of the group as a whole in any international negotiations. Fourthly, since the OECD deals with both trade and FDI issues, the interrelationships between the two can be kept in mind by dealing with the relevant issues simultaneously in the OECD committees responsible for these matters. Fifthly, the basic philosophy of the OECD is to favour an open economic system, an approach which, in the case of services, is of particular interest to the proponents of services discussion. And finally, this philosophy is reflected in the past work undertaken by the organization on services and in the principal OECD instruments applicable to international services transactions: the Code of Liberalization of Current Invisible Operations, the Code of Liberalization of Capital Movements (both adopted in 1961), and the Declaration and Decisions on International Investment and Multinational Enterprises (which include a Decision on National Treatment). Together, these instruments represent the most comprehensive framework currently applicable to trade and FDI in services, including data services [Sauvant, 1987:235-6].

Only on two points is this assessment of the strengths of the OECD deficient: first, it does not acknowledge the importance of involving the developing nations in trade-in-services discussions; and secondly, at least as far as internationally-traded telecommunications services are concerned,

the supposed strengths of the organization have not worked in quite the textbook fashion as they have been described.

First, there is the applicability of OECD Codes in the services area. With regard to services trade, the Invisibles Code, which deals with such principles as liberalization, non-discrimination and transparency with regard to specific services transactions, does not cover telecommunications and computer services, contains a large number of reservations and derogations and, of course, does not apply to developing nations. While work has been going on to expand the Invisibles Code to apply more broadly and with specific relevance to telecommunications and computer services, it does not yet apply in this area. It should be noted that Annex D to the Invisibles Code contains an acknowledgment that the Canadian government does not hold exclusive jurisdiction over all matters covered by the Code because of the nature of its constitutional system [OECD, 1976; Sauvant, 1987]. In addition, with regard more to FDI in the services area, the Capital Movements Code limits restrictions on the movement of capital among member countries and, since 1984, the Investment Declaration has called for similar treatment of the right of the establishment in member countries while the National Treatment Decision has provided for similar treatment for foreign affiliates operating in host countries [OECD, 1973; Sauvant, 1987]. However, a number of countries - including Canada - have registered exceptions to the National Treatment Decision specifically as it relates to telecommunications services. Thus, internationally-traded telecommunications services have substantially escaped from treatment under the main OECD codes.

Second, in 1985, the OECD adopted a Declaration on Transborder Data Flows which has been described as "an important accomplishment by the OECD in the area of trade-in-services" [Savant, 1987:237-46]. The Declaration was a product of the Working Party on Transborder Data Flows established under the OECD's Committee on Information, Computer and Communications Policy. In 1982, the United States tabled a draft text of a Declaration as an interim measure to commit member governments to the principle of "free flow of information" and restraint on any restrictive actions which might be contemplated until a broader and more binding multilateral agreement could be arranged. The proposal met with a mixture of lukewarm support and considerable resistance. France, for example, objected to the wide scope of the U.S. proposal and the impact it might have on its own national telecommunications and computer services policies and practices. As is well known, Canada played a major role in arranging a compromise between the U.S. and French positions premised upon the notion of "access" rather than "free flow" and recognition of the right of governments to adopt different policies and means to achieve their social and economic goals. While focusing specifically on transborder data flows, the Declaration has paved the way for dealing with the trade-in-services dimensions of the issue and serves as an example of possible sectoral agreement on information trade/transfer which could be adopted either within or outside of a future multilateral trade-in-services agreement [Robinson, 1985; Grey, 1987].

Third, the OECD Trade Committee has been exploring the trade-in-services from both a general and a sectoral perspective since the late 1970's. In 1985, the Trade Committee proposed the "elements of a conceptual framework for trade-in-services" which was subsequently

subjected to "sectoral testing" by relevant OECD committees in six different service areas and later released publicly as a contribution to the evolving international debate on trade-in-services. The OECD "conceptual framework" is premised upon the concept of "market access" - a related but alternative core principle to "national treatment" upon which the services provisions of Canada-United States free trade agreement has been based and quite a different concept altogether from the notion of "access" absorbed into the OECD Declaration on Transborder Data Flows. "Market access" is presented in terms of "the right of foreign firms to sell services under conditions of fair competition" including among other things, "effective access to an adequate distribution network", "direct access to users", "to foresee giving users access to services provided by foreign suppliers", "right of establishment", "commercial presence" and whatever. Other principles such as transparency, national treatment, the inclusion of a non-discrimination clause, treatment of regulation and monopolies, and other matters would be adopted to complement "market access" [OECD Trade Committee, 1987]. The emphasis on "market access" as a guaranteed right to be invoked by firms rather than as an obligation on governments is, of course, strongly supported by service industries groups and the OECD draft met with general agreement from these groups [U.S. Council on International Business, 1987]. Likewise, the "conceptual framework" has received a generally positive assessment when subjected to "sectoral testing" by five of the six OECD committees asked to conduct the exercise. Only the Working Party on Transborder Data Flows which examined the conceptual framework in terms of its implications for information, computer and communications services came to a "mixed result". In its assessment, the Working Party found that "ICC services" differed from some other service areas in that they constituted "services in their own right" as well as "a vital support for supplying a range of other services in the economy" and, while computer services and information services are generally susceptible to trade, telecommunications services are more complex and the cooperative nature and essential regulation of the provision of network-based telecommunications services make it more difficult although by no means impossible to apply trade-in-services concepts to this area. "Market access" was found, in general, to be an acceptable central principle but the issue was raised as to whether "access applies not only to markets but also to certain types of data and data-related services" and thus ties into the Declaration on Transborder Data Flows. Likewise, the "national treatment" concept, the issue of "appropriate regulation", and the compatibility of a trade-in-services framework with the ITU Convention and CCITT resolutions were identified as matters of possible concern [OECD Working Party on Transborder Data Flows, 1987]. In short, the Trade Committee proposal was favourably received but with several important reservations concerning internationally-traded telecommunications services.

Finally, mention should also be made of the ongoing work of the OECD Committee on Information, Computer and Communications Policy. Its Working Party on Transborder Data Flows has now been disbanded and the present intention is to create separate working groups to deal with telecommunications and information technology issues [ICCP, 1987]. Clearly, the emphasis on telecommunications within the ICCP is increasing as is the recognition that technological changes are shifting the major concerns away from competition versus monopoly issues towards a greater emphasis on services provision and use. Typical of this reorientation

towards more explicit treatment of telecommunications services is the ICCP's Telecommunications Network-Based Services study which examines in detail the mechanisms and obstacles to liberalized offering of these services [ICCP, 1987]. It is this kind of work which also provides a potential bridge between ongoing GATT negotiations on services and the WATTC-88 discussions of whether and how the new telecommunications services can be absorbed into existing international telecommunications regulation.

The GATT Services Negotiations. During the 1980's, GATT is "rediscovering" the trade-in-services issue after a 40 year hiatus and is now exploring the possibilities of moving towards a framework agreement in services trade likely in combination with a small number of sectoral agreements including one involving internationally-traded telecommunications services. The word "rediscovering" is appropriate because GATT has been over this territory once before. Article 53 of the Havana Charter of 1948 dealt explicitly with "telecommunications, insurance and the commercial services of banks" and provided for mechanisms whereby a future World Trade Organization would deal with member complaints about "any restrictive business practices by enterprises engaged in these activities in international trade" but, of course, the Havana Charter was never ratified [Krommenacker, 1984: Appendix E]. The result has been that GATT - as the voluntary but legally binding contractual agreement entered into by some 95 of the world's nations - has for the most part focused narrowly on goods trade and has excluded treatment of services, investment and several other aspects of international trade. As well, even in those areas where the Agreement does apply (and may in fact touch up services), the constitutional machinery whereby GATT could act deliberately to break down barriers to trade and promote liberalization has sometimes been sorely lacking [Jackson, 1983]. Thus, it is with something of a sense of irony and a certain level of concern that some observers have seen the GATT negotiations on services emerge as the main forum for the elaboration of a multilateral trade-in-services regime and for treatment of internationally-traded telecommunications.

At first glance, the GATT may not appear to be the most attractive or appropriate international organization for the conduct of trade-in-services negotiations or the inclusion of a future multilateral agreement. First of all, GATT has operated over the past forty years and through seven rounds of negotiations on an interim basis until some more elaborate structure and machinery could be put in place. In fact, it has little structure at all and serves primarily as a venue where member states can voluntarily enter into discussions and negotiations with each other on trade matters. Second, GATT contains a number of rights and obligations bearing upon member governments which focus specifically on trade-in-goods concerns and include provisions for the exchange of tariff concessions, the reduction and/or elimination of non-tariff barriers, "national treatment" once goods-suppliers have already crossed borders, transparency in terms of regulatory actions imposed upon goods-suppliers, the establishment of regional trade arrangements, etc. Most of these provisions, however, apply only to goods trade and the appropriateness of their extension to services trade has been a subject of considerable debate. Third, while the Agreement itself is a legally binding instrument among the contracting parties, implementation and enforcement of the Agreement is weak and left essentially to the goodwill and voluntary action of the parties themselves. There are provisions in GATT for dispute settlement mechanisms and countervailing

actions by one government against another government alleged or judged to have broken the rules but neither of these mechanisms are very strong and each can be disregarded if so desired. Fourth, GATT negotiations typically proceed in a rather slow and exploratory fashion with member governments choosing whether or not to involve themselves in specific subject discussions, releasing information and taking positions on aspects of the discussions as best fits their negotiating strategy, and eventually culminating in the exchange of concessions and tradeoffs among the parties in the interests of producing a mutually acceptable final agreement. Again, some observers feel that the trade negotiation format is not appropriate for dealing with certain services issues like telecommunications which not everyone agrees is tradeable in the first place and where national and international policy and regulatory powers could be bargained away by trade negotiators concerned primarily about largely commercial interests and unfamiliar with the technical and policy considerations of individual service sectors. Fifth, GATT possesses little in the way of support and research capability in dealing with services trade issues and presumes that negotiations work best when the parties to the negotiation are left essentially to their own devices. With regard to the negotiation of trade-in-services, the GATT secretariat presently employs only three full-time officials to service the GNS negotiations, supplemented by a few consultants on particular issues, and concern has been expressed that this will not be enough especially if and when services negotiations move into sectoral negotiations. In the final analysis, however, perhaps the major factor which GATT has in its favour is its strong and pervasive philosophy of trade expansion and liberalization - in spite of the protectionist actions sometimes taken by individual members [Krommenacker, 1984; Sauvants, 1987].

Prior to the September, 1986 launch of the Uruguay Round of multilateral trade negotiations, an extensive set of preliminary meetings on services - some 15 in number - were held between January 1985 and August 1986. These preliminary meetings focused primarily on two tasks: the submission of national studies on services and their examination by other participants as well as the exploration of modalities whereby formal services negotiations could be initiated as part of overall GATT negotiations. A total of 17 national studies were eventually presented, all of which came from developed countries. These national studies did not represent formal governmental positions, although in some cases clear positions were apparent, but rather indicated general and specific information about services viewed domestically and internationally [GATT Preliminary Negotiations on Services, 1984-86]. It is noteworthy that no developing countries presented national studies but they did participate actively in the examination of those studies presented. With regard to the modalities for proceeding towards formal negotiations, it became quite clear that all the advanced nations - with varying degrees of enthusiasm - supported the initiation of services negotiations within the GATT context. Developing nations - what began as the Group of 77 which had coalesced already in other international negotiations - was generally opposed to services negotiations within the GATT context. In addition to the substantive concerns of individual countries, their procedural concerns included GATT's alleged lack of legal competence to deal with services trade, the tendency to adapt goods trade principles to services, the preference for a different forum such as UNCTAD, and possible eventual tradeoffs between goods and services concessions [Sauvants, 1987:270-86].

The U.S. pressed strongly for the start of negotiations and threatened not so subtly to negotiate services and other issues separately with like-minded governments and thus to exclude those countries opposed to negotiations within the GATT framework.

In the final analysis, a compromise was reached during the spring and summer of 1986 whereby services negotiations would proceed separately from the mainstream goods negotiations but in parallel, according to the same rules and procedures, and supported by the GATT secretariat. When the Ministerial Declaration launching the Uruguay Round was released, the objectives and procedures for the services negotiations were described as follows:

Ministers also decided, as part of the Multilateral Trade Negotiations, to launch negotiations on trade-in-services.

Negotiations in this area shall aim to establish a multilateral framework of principles and rules for trade-in-services, including elaboration of possible disciplines for individual sectors, with a view to expansion of such trade under conditions of transparency and progressive liberalization and as a means of promoting economic growth of all trading partners and the development of developing countries. Such framework shall respect the policy objectives of national laws and regulations applying to services and shall take into account the work of relevant international organizations.

GATT procedures and practices shall apply to these negotiations. A Group on Negotiations on Services is established to deal with these matters. Participation in the negotiations under this Part of the Declaration will be open to the same countries as under Part I. GATT secretariat support will be provided, with technical support from other organizations as decided by the Group of Negotiations on Services.

The Group of Negotiations on Services shall report to the Trade Negotiations Committee [GATT Group of Negotiations on Services, 1986].

On this basis, then, services negotiations were to proceed separately but in parallel to goods negotiations and the eventual linkage between the two sets of negotiations would be worked out later.

Formal negotiations of the Group of Negotiations on Services (GNS) began in October 1986 and, as of January 1988, a total of ten meetings had been held and another six are expected before the crucial "stock-taking" meeting to be held in Montreal in late 1988. Under the chairmanship of Ambassador F. Jaramillo of Columbia - who had also chaired the preliminary meetings during 1985 and 1986 - the GNS established a programme for the initial phase of negotiations during 1987 which included five elements:

- Definitional and statistical issues;
- Broad concepts on which principles and rules for trade-in-services, including possible disciplines for individual sectors, might be based;
- Coverage of the multilateral framework for trade-in-services;
- Existing international disciplines and arrangements;
- Measures and practices contributing to or limiting the expansion of trade-in-services, including specifically any barriers perceived by individual participants, to which the conditions of transparency and progressive liberalization might be applicable.

Negotiations began slowly but became more substantial during the summer and fall of 1987. As of the end of 1987, participants had submitted a total of 30 communications for exchange among parties to the negotiations and several of these - including a Canadian inventory of barriers to services exports, a secretariat paper on existing international disciplines and arrangements on trade-in-services, a U.S. draft proposal for the framework agreement, a European community for a conceptual structure on which to base a services agreement, and a Japanese view on "national treatment" [GATT Group of Negotiations on Services, 1987]. Already by the summer of 1987, there was talk of what was called an "early harvest" - the essential features of a framework agreement - which could be achieved during 1988 and on which basis sectoral negotiations could proceed during 1989. It is clear that the "stock-taking" meeting to take place in Montreal late this year will be a crucial point at which to assess progress and determine the implications for particular sectors such as telecommunications and computer services.

While the GNS discussions are going on in secret and they are still at essentially a preliminary stage, some informed speculation can be reported. The widely-known U.S. position is still driving the negotiations but it is most unlikely that that position would be acceptable to a large and broad enough range of members to allow for agreement. Compromise positions such as the European Commission's "conceptual structure" and Japan's initiative on national treatment are coming forward but it is not yet clear how strong opposition will be from the developing countries and what opportunities for compromise might arise. The key stumbling block at the present time is to develop the acceptable central principle - "market access", "national treatment" or, at the other extreme, some form of reciprocity - upon which a framework can be constructed and to which other ancillary principles can be related. The possibility of a framework agreement on principles - at a very general and tentative level - is there for the end of 1988 and some nations are showing a desire to move on to more substantive sectoral issues. Telecommunications services (to include computer services as well) are clearly one of the two or three priority service sectors which most nations regard as crucial to any successful outcome. In this regard, there is some disposition to involve the ITU more directly in the process of negotiations but a concern on the part of trade policy officials that sectoral discussions in this area not turn into a "regulators negotiation". Specifically, Krommenacker has pointed out in his early work on world-traded services that there is already precedent in the case of customs valuation for GATT to involve another international organization directly in its negotiations and to write another international organization into the operation of any trade agreement eventually worked out [Krommenacker, 1984:177-79]. In summary, slow progress is being made in the GNS

negotiations but the eventual shape and size of an agreement is as yet unclear.

The ITU and the WATTC-88 Conference. The role of one other international organization and one upcoming conference requires attention in any assessment of internationally-traded telecommunications services. The International Telecommunications Union - as the longest established and largest U.N. agency responsible for regulating international broadcasting and telecommunications - is of course vitally affected by any movement to treat telecommunications services as a trade issue. As an international organization, the ITU has been characterized by the essentially technical and administrative nature of its work and the well-developed practice of functionalism underlying its operation [Coddington and Rutkowski, 1982]. Concern has been expressed, however, that the ITU faces major challenges arising from technological change and increased competition which multiplies the range of services available and places heavy emphasis on the need for the organization to adopt a more sophisticated policy role on just such issues as trade-in-services. The WATTC-88 Conference to be held in Melbourne in late 1988 - symbolically at precisely the same time as the GATT "stock-taking" - was originally planned as early as 1982 to focus on new telecommunications services and to update the existing international telecommunications regulations last revised in 1973 [ITU, 1983]. Rightly or wrongly, there is a tendency to view WATTC-88 and its activities as being related in an increasingly direct way to the GATT negotiations as these bear upon internationally-traded telecommunications services.

The ITU's attitude towards the trade-in-services issue has been a cautious one. It clearly does not view international telecommunications activities, especially as these relate to the provision of basic telephone and telex, as tradeable commodities but rather as services provided cooperatively and on a revenue-shared basis between what are normally single designated international telecommunications providers for each nation. The obvious exceptions to the rule of single designated providers are the United States, and more recently Great Britain and Japan, which now recognize multiple providers of international telecommunications service but which still adhere to the same cooperative, revenue-sharing arrangements. The ITU - meaning not only the administration in Geneva but also more importantly many member governments and providers of international telecommunications services - has viewed the growing interest in internationally-traded telecommunications services and the increasing involvement of trade policy officials in what has traditionally been regarded as an area of international telecommunications regulation with some concern and alarm. The ITU has not been officially involved in either the preliminary or formal GATT services negotiations although informal contacts and exchanges of information have taken place. The present official position of ITU is not yet to take an official position on the trade-in-services issue and its implications for international telecommunications regulation but to maintain a "watching brief" on developments within the GATT services negotiations and elsewhere with a view toward possible intervention or involvement at some future time [ITU Administrative Council, 1987]. In recent months, however, ITU officials have become aware of the need to bridge the gap between the very different perspectives of trade policy and telecommunications policy and informal contacts between the "two solitudes" are evolving.

Where the WATTC-88 Conference intersects with the evolving trade-in-services issue is that the new telecommunications services which the Conference will examine and perhaps attempt to absorb within revised international telecommunications regulations are precisely those services which are most likely to be covered under any multilateral services agreement [Butler, 1984; Negro, 1985]. There is considerable divergence of views within the ITU on the desirability and feasibility of subjecting new telecommunications services - generally value-added or enhanced services depending upon how they are characterized by various national administrations - to some form of overarching international regulation. The U.S., the U.K. and certain other nations argue that value-added services should not be included within the draft regulations because this would submit providers and users of these services implicitly or explicitly to regulation when relatively unrestricted competition is more appropriate. Some Western European PTT nations, many developing countries and the non-market nations take the view that these services should come within the purview of international telecommunications regulation even if national administrations may wish to offer them competitively and open them to trade. While the U.S. and its supporters view the GATT services negotiations as a legitimate forum for treatment of these new telecommunications services and an inherently liberalizing one, those on the other side are suspicious of the GATT negotiations and want to keep the treatment of these new services firmly within the hands of ITU [Bruce, 1987]. The draft international telecommunications regulations, emanating out of the WATTC-88 preparatory committee and representing the views of the majority of nations within the ITU, clearly tilt in favour of the traditional regulators rather than the traders [ITU Preparatory Committee, 1987]. Efforts are now underway in the lead-up to the WATTC-88 Conference to attempt to narrow some of the differences between the two positions and to come up with compromise treatment and wording so that revised international regulations can be adopted. Just as trade policy officials fear that the GATT services negotiations could be turned into a "regulators' negotiation", so the telecommunications policy officials are afraid that international telecommunications regulation could become a shambles if the integrity of the network is not preserved within a framework of rules which allow for orderly technological change and some scope - but not unlimited scope - for competition in the provision of new telecommunications services.

4.4 The Evolving Position of Major Countries on Internationally-Traded Telecommunications Services

While it is too early in the GATT services negotiations and too tangential and inappropriate for them to emerge in WATTC, the major countries have moved part of the way towards articulation of national positions on internationally-traded telecommunications services. The U.S. position has been clearly stated, the European community is moving quickly to superimpose a common position on the rather varied and changing national viewpoints of member states, Japan is quietly staking out its national position, and many of the developing nations continue to oppose the basic concept of more liberalized trade-in-services while others are perhaps beginning to make peace with the concept. Canada - fresh from its bilateral negotiations with the United States on services trade - has limited room for manoeuvre in multilateral trade negotiations but perhaps

the best understanding of what its neighbour wants and what other members of the world community can expect from the multinational negotiations. With the proviso that the analysis must necessarily be limited and somewhat premature, it is possible to identify at least the outlines of different national positions and the conflicts among them.

The U.S. Position. Late in October, 1987, the U.S. presented what was claimed to be a comprehensive proposal on trade-in-services to the GNS [MTN.GNS/W/24]. As an essential first step, it proposed the early negotiation and acceptance of "a multilateral framework agreement on services trade" which would establish the basic approach and principles to be adopted for application to all services sectors and, if drafting of this framework can be largely accomplished during 1988, then sectoral working groups could begin to operate in 1989. The general thrust of the proposal is to achieve "market access" in a wide range of service sectors - some 22 are identified - and the framework agreement:

...(1) should be designed to achieve progressive liberalization of a wide range of service sectors in as many countries as possible; (2) should recognize the sovereign rights of each country to regulate its service industries, but at the same time ensure against the adoption or application of measures whose purpose or effect is restrictive or distortive of trade; (3) should urge countries to avoid adopting new restrictive measures and to the greatest possible extent limit existing measures; (4) should result in a progressive and time phased liberalization of world services which will contribute to development in a positive way; and (5) should apply to cross-border movement of services as well as the establishment of foreign branches and subsidiaries for purposes of producing and delivering the service within the host country.

Other trade principles would also be incorporated into the framework agreement and, for example, national treatment and transparency would be interpreted in terms of "market access". For example, not only would foreign services have to receive treatment no less favourable than that accorded to domestic service providers but the former must also be granted "access to local distribution networks, access to local firms and personnel, access to customers, licenses and right to use brand names". Moreover, telecommunications networks along with physical transportation networks are to be accessible on an "equal and non-discriminatory basis".

The U.S. proposal is striking for its emphasis on the "market access" principle - especially as compared with the "national treatment" emphasis agreed to in the services provisions of the Canada-United States free trade agreement. In negotiating with the world at large, the U.S. clearly regards "national treatment" more as a subsidiary principle to "market access" which is a more invasive principle upon which to base its dealings with PTT and developing nations. Other than the reference to telecommunications as being an essential infrastructure for trade-in-services and as one of the 22 sectors to be considered, the U.S. proposal does not go into detail on how it would seek to negotiate internationally-traded telecommunications services. Interestingly, as well, it makes no

reference to the need to guarantee intracorporate communications flows although these are perhaps implicit in the "market access" principle. According to the most current - but unofficial - thinking on how telecommunications services might be negotiated, the U.S. would emphasize "value-added and information services" as its top priority rather than basic services, in part to allay some of the fears of PTT nations about threats to their monopoly providers but also because this is where U.S. services industries see their major gains. As well, the U.S. would attempt to establish "fairness" standards relating to ability to interconnect to foreign networks, the use of leased circuits and resale and sharing: the greater the degree of competition allowed in the provision of basic telecommunications services, the less imperative the need to assert the "market access" principle. And lastly, it should be noted that investment and commercial presence are to be treated as closely related and integral to trade-in-services in this area [Aronson and Cowhey, 1988: Chapter 9]. Thus, the U.S. has chosen to take up a more sturdy stick - "market access" rather than "national treatment" - in its continuing efforts to promote competition and make the world safe for American business [Sykes, 1987 and 1988].

The European Economic Community and its Member States. The European community and its member states have now taken up trade-in-services with considerable vigour but propose a rather different approach and process for the GNS negotiations than that proposed by the United States. Within the community and among member states, there is some disarray in its position on internationally-traded telecommunications services. As part of its objective of achieving an integrated market by 1992, the European Commission - through the release of its 1987 Green Paper - has taken the lead in promoting a competitive Europe-wide market for telecommunications equipment and services. Likewise, the EC has also asserted its right to speak for all member states in the GATT services negotiations as part of its responsibility for managing trade relations and is putting pressure on member states at least to coordinate their national positions in other international organizations like the ITU. Nevertheless, there remains considerable diversity among member states in their policies and practices on telecommunications services. Britain, of course, has adopted privatization and liberalization of its telecommunications system and now even provides for modest competition between British Telecom and Mercury in the offering of international telecommunications services to those countries which signed interconnection agreements with Mercury [Bruce et. al., 1985; Norman, 1984]. West Germany, on the other hand, continues generally to maintain the domestic and international telecommunications services monopoly exercised by the Deutsche Bundespost and have recently moved to extend that monopoly to the introduction of ISDN [Grewlich, 1987; Schlegel, 1987]. France is currently in the process of passing new national telecommunications legislation which would change the ownership and operating status of the Direction Generale des Telecommunications and introduce more domestic competition in the offering of value-added services and even certain basic services, while maintaining monopoly control over international telecommunications [Bruce, 1985; Chamoux, 1987]. At the same time, however, many of the poorer EC nations continue to hold onto their monopoly PTT structure and perhaps to view the trade-in-services issue more through the eyes of developing countries. Added to this diversity is the further complicating factor that EC trade officials may be leading the GNS negotiations but it is the national PTT officials which dominate Western

Europe's participation in the ITU and wield considerable influence within individual nations.

In order to understand the EC position in the GATT services negotiations, it is necessary to briefly examine the Green Paper and its implications for internationally-traded telecommunications services. What the Green Paper foresees is a major development and standardization of European telecommunications so that it will be able to support future technological and economic growth. In order to move in this direction, it is necessary to create "a more liberal and flexible competitive environment for telecommunications equipment and services". Specific proposals would include "continued exclusive provision or special rights" for national telecommunications administrations - whether PTTs or privatized entities - in the provision of network infrastructure and basic services, "free (unrestricted) provision for all other services" within and between member states, separation of regulatory from operational activities within national telecommunications administrations, and the development of "a consistent community position" for GATT negotiations and in dealings with other countries [EC Green Paper, 1987:16-18]. In this last regard, the Green Paper also sets out the European community's evolving thinking on internationally-traded telecommunications services. International telecommunications provided jointly under ITU guidelines as well as the special case of satellite communications are not viewed as tradeable but value-added services provided across borders do constitute trade and are presently "often regulated differently from infrastructural telecommunications services". For this reason, the Commission suggested that the concept of "appropriate regulation" should be treated as the core of its negotiating position and, with regard to other trade concepts, these "will largely be determined by the position on the last point" [EC Green Paper, 1987:151-3].

In December 1988, the EC submitted a "possible conceptual structure for a services agreement" to the GNS negotiations [MTN.GNS/W/29]. It set out quite a different approach and method for negotiation as well as the centrality of "appropriate regulation" as the key principle underlying an agreement. Its "conceptual structure" started from the assumption that there is wide support for PROGRESSIVE LIBERALIZATION OF MARKET ACCESS but that this must be balanced off by a concept of APPROPRIATE REGULATION whereby government's desire to regulate some service sectors for legitimate policy reasons could be made subject to scrutiny by a permanent Regulations Committee. This Regulations Committee would apply specific criteria wherever a regulation was challenged (e.g. national treatment, non-discrimination) and this examination process would be supplemented by periodic efforts to move toward comparable market access in all countries. The PRESERVATION OF INTERNATIONAL COMPETITION would be dealt with by developing a set of behavioral principles constituting fair trade, TRANSPARENCY would be ensured in various specific ways and, finally, the notion of DEVELOPMENT COMPATIBILITY is introduced to take account of and link openness to services trade to levels of development in different countries. This proposal was suggested as applicable to ALL INTERNATIONALLY TRADEABLE SERVICES but it would be applied differentially in accord with SECTORAL APPROPRIATENESS in order to achieve EFFECTIVE MARKET ACCESS. The European Commission proposal hinges upon the concept of "appropriate regulation" as a balance to more normal notions of market access. Its complexity and innovative quality will require further

attention but certainly presents an alternative to the U.S. proposal and may well be more in accord with the varied conditions for services trade in different sectors and around the world.

Japan. The Japanese position on trade-in-services has not yet become clear. To be sure, Japan has undergone a considerable deregulation of its domestic telecommunications structure since 1984, privatizing NTT and subjecting it to limited competition with other Type I facilities owners like the "Number Two Telephone Company" and allowing more open competition among Type II businesses which lease facilities to provide their services [Bruce, 1985]. Moreover, it has also recently encouraged greater competition in the provision of international telecommunications services through joint ventures with foreign firms in satellite facilities and certain value-added services areas. According to a 1987 analysis, there are now 3 Type I businesses providing long distance services, 10 or so involved in providing specialized services like paging, two satellite companies using imported communications satellites are soon to begin operating, and some 348 Type II businesses using leased facilities have been registered [Transnational Data Report, December 1987:8-9]. In terms of the GATT services negotiations, Japan has submitted on paper on "national treatment" - a concept which would seem to fit well with their particular approach to domestic and international telecommunications - but their overall position is not yet clear [MTN.GNS/W/18].

The Developing Nations. Although an important actor in the services negotiations if more as an affected party than as a willing participant, the developing nations - neither collectively nor individually - have yet articulated any clear position on trade-in-services, let alone with regard to internationally-traded telecommunications services [Mathew, 1987]. As noted earlier, their main reaction prior to the start of the GATT negotiations in September 1986 was one of hostility and suspicion. That hostility and suspicion has not yet subsided and this is one area where enlightened persuasion and bridge-building will be required. Both Brazil and India made submissions [MTN.GNS/W/3 and 4 respectively] early in 1987 which established remarkably similar starting positions for their participation in GATT services negotiations and which claimed to speak for the developing nations generally:

- * they emphasize the reluctance of developing nations to agree to participate in the GNS negotiations and take the view that the two-track formula meant that services negotiations are in no way to be linked to goods negotiations;
- * they object to the widespread assumption that liberalization of services is necessarily good and assert the sovereign authority of all nations to take actions to regulate their national markets;
- * they dispute the essential tradeability of many of the services to be treated in the negotiations, particularly in such areas as telecommunications;
- * they underscore the absence of an adequate factual basis on which to undertake discussions and the need for statistical and conceptual work;

- * they are concerned about any attempt to move beyond trade issues to investment or commercial presence and reject the notion that transnational corporations have any right to access or establishment;
- * they favour approaches to negotiation which would emphasize sectoral discussions as the basis upon which a framework of principles could be created rather than vice versa.

It is interesting to note that on every one of the points above, Brazil and India agree in the separate submissions and each individual point is raised in one form or another in each submission. Until now, there has been little evidence of movement on the part of those countries or of other developing nations away from this position of skepticism and non-engagement in the GNS negotiations.

The Canadian Positions. Thus far, Canada has made three submissions to the GATT services negotiations and has been following them closely and participating actively. One submission dealt with Canadian data on services and informed the GNS of efforts to improve statistical monitoring in the services area [MTN.GNS/W/10]. The second submission dealt with the concept of transparency and outlined a methodology for applying that concept to regulatory actions [MTN.GNS/W/13]. And the third submission was an inventory of barriers to Canadian services exports - similar to those released earlier by the USTR and the European Commission - and this submission served to initiate a serious and useful discussion as to what exactly constitutes a barrier to services trade [MTN.GNS/W/14]. Now that the Canada-United States free trade agreement has been negotiated and substantive U.S. and EC proposals are on the table, it is likely that Canada can begin to play a more useful role in exploring possible avenues for clarification and compromise.

4.5 Trends Affecting the International Policy and Business Environment

It would be improper to focus solely on developments within international organizations and on the part of national governments in tracing and analysing internationally-traded telecommunications services. Rapid technological advance and increasing worldwide competition are quickening the pace of development and fostering the introduction of new telecommunications services. The task of establishing policy and regulation is greatly complicated as services offerings proliferate, boundaries between domestic and international telecommunications blur, new companies arise while established firms expand, and governments reorganize their involvement in the telecommunications field. The problems faced by traditional facilities and services providers, the demands of user groups, the emergence of global private networks, and the prospective introduction of ISDN and its impact are all features of the current international policy and business environment. By way of concluding this section, each of these factors will be briefly treated in terms of its evolving impact on internationally-traded telecommunications services.

Facilities and Services Providers and Their Problems. The provision of telecommunications services, both domestically and internationally, used to be relatively simple. Domestically, public or private monopolies

subject to government regulation provided basic voice and message services using a single, integrated, public-switched network and cooperated together with their counterparts in other countries to offer similar international telecommunications services. Virtually every feature of that simple model has now changed. Monopoly provision has given way in many countries, directly or indirectly, to various forms of competition and even the staunchest PTT no longer can claim to be immune from its impact. Government regulation has proliferated and become increasingly complicated in spite of attempts in some countries to deregulate or significantly curb its use. New value-added or enhanced telecommunications services are emerging and the concept of basic telecommunications service is itself being redefined so that clear boundary lines can no longer easily be drawn for market or regulatory purposes. The integrated network(s) remains in existence and continues to be the prized resource of the traditional common carriers but the term is more accurately used in the plural rather than in the singular and these networks are also often in private rather than public hands. Domestic telecommunications used to be kept neatly separate from international telecommunications but, while the distinction may remain in policy terms, the technological and business reality is different. Similarities among service providers in different countries used to be legion and differences in the way they offered services and were regulated by government were few so that interconnection between service providers on the technical and administrative level across national boundaries could be handled relatively easily. Such is no longer the case and the increased tensions and difficulties involved in international telecommunications policy and regulation are testimony to this change [Bruce, 1987]. The phenomenon of internationally-traded telecommunications services - however the concept of trade is eventually defined and its scope and magnitude measured - is not the cause but the symptom of the fundamental changes which are taking place in the service provision system for domestic and international telecommunications. Whether it be Bell Canada or Teleglobe Canada, AT & T in the United States, the West German Bundespost, KDD in Japan or INTELSAT, telecommunications facilities and services providers face an increasing competitive policy and business environment.

Telecommunications Users and Their Demands. One of the major features of the policy and business environment, at least in the major developed countries, has been the emergence of user groups which are placing their demands on the telecommunications system. Large business users are increasingly well organized and skilled in registering their demands with government and the telecommunications providers. Their dissatisfaction with monopoly and their preference for competition as the better guarantee of choice and low cost is widely evident. The availability of private lines and access to resale and sharing options, and specifically low-cost long-distance service, is virtually universally desired. More and more, these large users are also tempted to bypass the public-switched network, to become their own service providers and sometimes to extend these services to other users. Residential users are not nearly so well organized in most countries but represent a potentially significant force if drastic change is introduced too quickly in terms of domestic telecommunications. Internationally, user groups are also increasingly active although it is perhaps more difficult to exercise influence in concrete ways on institutions like the ITU or GATT where governments and industry have more effective access [Business Round Table, 1985; McKendrick, 1987; U.S.-Japan Business Council, 1987]. Certainly in North

America and Western Europe, if not in developing countries, telecommunications users - especially in the large users - have become a major feature of the policy and business environment.

Global Private Networks. With the breakup of monopoly models of organization in countries like the United States, Japan and the United Kingdom as well as their continuing erosion in other countries like Canada, new forms of organization are emerging in domestic and international telecommunications which have significant implications for internationally-traded telecommunications services. Open and unrestricted competition and free trade-in-services may be the rhetoric of countries like the United States but one must look beyond the rhetoric to the essential unreality of this scenario. Extended, multipurpose transnational corporations like IBM or General Motors have already created their own international private networks; SWIFT and SITA are of course well known specialized private networks operating with ITU sanction to serve financial institutions and airlines and Reuters operates its own world news-gathering network; AT & T is increasingly drawn towards pursuing its world Intelligent Network through cooperative links with existing domestic monopolies in other countries; Cable and Wireless - the oldest international telecommunications carrier - is using its participation in the new transatlantic and north pacific fibre optic cables to bridge together a global private network joining Japan to the United States and Western Europe [Sharp, 1987]. This development of global private networks does not conform to monopoly or for that matter to free competition and trade models of corporate organization but more to the development of international corporate alliances. Foreign investment rather than trade is the means whereby telecommunications services are organized with emphasis on partnerships and joint ventures to build the local links and the establishment of gateways to limit direct foreign access to domestic, public or private networks. These global private networks represent the emergence of a "second force" with serious implications for existing domestic and international telecommunications systems in every major country and for transborder data flow in general [Yokokura, 1987].

ISDN and Its Implications. ISDN represents potentially a quantum leap in the capacity and capability of the public-switched telecommunications network to meet increasing and increasingly sophisticated service demands. The shift to digital switching technology and transmission, rapid growth in demand for data transmission, demand for increasingly diverse and specialized telecommunications services and standardized interconnection are leading to the prospective introduction of a world-wide Integrated Service Digital Network - or more likely several interconnected ISDNs in different parts of the world [Stallings, 1985; Rutkowski, 1985; Reid, 1987]. ISDN represents an opportunity for the public-switched telecommunications networks operating within the framework to the ITU to upgrade and modernize their infrastructure and to maintain or, in some cases, win back large users tempted to bypass traditional domestic and international telecommunications providers. The introduction and implementation of ISDN(s) around the world rests with the major countries individually and collectively through the ITU. In this sense, ISDN represents an opportunity for public-switched telecommunications networks to counter the threat posed by global private networks and to preserve and extend contemporary notions of universal service. What is becoming clear is that different countries with different policy and business

considerations are disposed to introduce ISDN in their own fashion and this will have to be accommodated if the potential of ISDN development is to be realized [Transnational Data Report, April, 1987].

4.6 Implications for Canadian Involvement on the International Scene

Canada has a traditional and well-deserved reputation for informed and creative participation in international telecommunications policy and regulation and also as a skilled and sensitive player in multilateral trade negotiations. Its record of involvement in the ITU is extensive and this country has made important contributions to the manifest successes which can be achieved through administrative and technical cooperation. The WATTC-88 Conference and the efforts underway to rescue the draft international telecommunications regulations is only the latest example of this contribution. However, the policy and business environment within which domestic and international telecommunications takes shape is changing dramatically. Distinctions between international and domestic telecommunications as well as what constitutes trade in telecommunications services or what distinguishes basic from value-added offerings are being challenged. New forces are emerging within the international policy and business environment and established patterns of corporate organization and service provision are altering. The negotiation of a multilateral trade-in-services agreement which takes internationally-traded telecommunications services centrally into account presents a major challenge. In this regard, perhaps the key task at the present time is to build bridges, both on the national and international level, between the telecommunications policy perspective and the trade policy perspective.

The Canadian position on trade-in-services and internationally-traded telecommunications services at Geneva is still evolving. If the services provisions of the Canada-United States free trade agreement are an indication, then the Canadian position must hinge upon "national treatment" - just as may well be the case with a country like Japan. However, such a core principle is limited in utility largely to those countries which already have broadly similar policy and regulatory arrangements. While generally supportive of the U.S. initiative to gain a multilateral agreement on trade-in-services, Canada however can hardly accept the more extreme elements of the "market access" position, having just succeeded in weaning the U.S. away from that position in the bilateral negotiations. The developing nations position, while understandable and sometimes valid, leads Canada away from rather than towards negotiation and would not be credible. Thus far, only the European Community position - which likewise has some problems with it - offers much opportunity for Canada to seriously influence the negotiations.

As to the shape of a final trade-in-services agreement and the precise specification of internationally-traded telecommunications services is concerned, only the broad outlines can as of now be discerned. If agreement can be reached both on a services regime and on its relationship to the broader GATT process, however, it is likely to include certain features. The format of a broad framework agreement on key principles applying to a wide range of service areas and supplemented by sectoral annotations where necessary which would tailor the framework to the specific circumstance of that sector is widely accepted by all but the

developing nations. There is some feeling, however, that while a services agreement may be negotiated within GATT, the subsequent agreement need not be lodged within it, although this remains an open question [Jackson, 1987]. The precise specifications of how internationally-traded telecommunications would be treated as a sectoral issue are less clear, with some countries favouring a narrow telecommunications focus while others would like to see the sector defined more broadly in terms of information technology. What is clear, however, is that sectoral working groups will require the participation of telecommunications policy officials as well as trade policy officials, both within national negotiating teams and perhaps through the inclusion of the ITU in some fashion within the sectoral negotiations and even within the final agreement. This possibility should probably be encouraged because, as the adage goes, "if you are not part of the solution, you're likely to be part of the problem".

CONCLUSIONS AND RECOMMENDATIONS

THIS REPORT HAS EXAMINED INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES AND THEIR IMPLICATIONS FOR CANADA. THE CONCEPT ITSELF HAS BEEN TREATED IN SOME DETAIL AS WELL AS AVAILABLE EVIDENCE ON ITS SCOPE AND MAGNITUDE IN CANADA. IN ADDITION, BOTH THE DOMESTIC POLICY AND REGULATORY CONTEXT AND THE INTERNATIONAL POLICY AND BUSINESS ENVIRONMENT HAVE BEEN TREATED IN ORDER TO IDENTIFY PARTICULAR IMPLICATIONS FOR CANADA. THE CONCLUSIONS WHICH CAN BE DRAWN ARE NECESSARILY TENTATIVE GIVEN THE STAGE OF EVOLUTION OF INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES BILATERALLY AND MULTILATERALLY AND THE RECOMMENDATIONS WHICH CAN BE MADE ARE MODEST RATHER THAN RADICAL OR FAR-REACHING. NEVERTHELESS, CERTAIN POINTS SHOULD BE MADE:

POINT #1: THE GAP BETWEEN THE TRADE POLICY PERSPECTIVE AND THE TELECOMMUNICATIONS POLICY PERSPECTIVE WHICH IS HIGHLIGHTED IN CHAPTER I IS A SERIOUS ONE AND EFFORTS TO BRIDGE THIS GAP SHOULD BE MADE BOTH DOMESTICALLY AND ON THE INTERNATIONAL LEVEL. THE PROBLEM IS LARGELY ONE OF TWO DIFFERENT MINDSETS, MODES OF OPERATION AND AGENDAS FOR ACTION. EACH PERSPECTIVE MUST BE RECOGNIZED AS LEGITIMATE AND ACCOMMODATION PURSUED SENSITIVELY.

POINT #2: THE CONCEPT OF TRADE UNDERLYING INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES IS AMBIGUOUS. TRANSACTIONS THROUGH COOPERATIVE ARRANGEMENTS SETTLED ON A NET REVENUE BASIS ARE FORMS OF MANAGED TRADE WHICH DIFFER MARKEDLY FROM COMPETITIVE TRADE AMONG PROVIDERS AND USERS IN DIFFERENT COUNTRIES. THIS FUNDAMENTAL DISTINCTION MUST BE ACKNOWLEDGED AND ABSORBED INTO EVOLVING TYPOLOGIES OF SERVICES TRADE AND WITHIN THE NEGOTIATING STRATEGIES OF COUNTRIES PRESENTLY SEEKING A MULTILATERAL AGREEMENT IN GENEVA.

POINT #3: STATISTICAL AND OTHER PROBLEMS IN MONITORING AND MEASURING TRADE-IN-SERVICES ACTIVITIES ARE WIDESPREAD AND INEVITABLE. INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICE PRESENT PARTICULAR DIFFICULTIES AS POINTED OUT IN CHAPTER II. THIS DOES NOT MEAN - NOR SHOULD IT MEAN - THAT NEGOTIATIONS ON THE SUBJECT CANNOT PROCEED BUT IT DOES SUGGEST THAT CANADA AS WELL AS OTHER NATIONS SHOULD DEVOTE REASONABLE ENERGIES TO THE TASK OF COMPILING MORE ADEQUATE STATISTICS AND DEVELOPING COMMON METHODOLOGIES.

POINT #4: THE RECENTLY-NEGOTIATED CANADA-UNITED STATES FREE TRADE AGREEMENT, AS IT RELATES TO INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES, DEALS REALISTICALLY AND POSITIVELY WITH THE ISSUE. NATIONAL TREATMENT COMBINED WITH OTHER ANCILLARY PRINCIPLES PROVIDES A SOLID FOUNDATION FOR EXPANDED AND LIBERALIZED TRADE-IN-SERVICES BETWEEN COUNTRIES WITH RELATIVELY SIMILAR APPROACHES AND ARRANGEMENTS FOR A SERVICES SECTOR LIKE TELECOMMUNICATIONS. MOREOVER, THE EXCLUSION OF BASIC TELECOMMUNICATIONS TRANSPORT SERVICES AND THE CONCENTRATION ON TELECOMMUNICATIONS NETWORK-BASED ENHANCED SERVICES AND COMPUTER SERVICES IS WISE FOR BOTH COUNTRIES. ANY NEGOTIATION OF FURTHER SECTORAL ANNEXES ON SATELLITE SERVICES, CABLE SERVICES OR

WHATEVER SHOULD PROCEED ALONG THE LINES AND BUILD UPON THE APPROACH ALREADY TAKEN IN THE EXISTING PROPOSED AGREEMENT.

POINT #5: CANADA'S POSITION ON INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES IN THE GATT SERVICES NEGOTIATIONS MAY HAVE TO BE CONSIDERABLY DIFFERENT FROM THAT TAKEN IN THE CANADA-UNITED STATES BILATERAL NEGOTIATIONS. THE RANGE OF DIFFERENCES AMONG THE U.S. POSITION, WEST EUROPEAN PTT-NATIONS, JAPAN AND OTHER NATIONS PURSUING LIBERALIZATION, AND VARIOUS GROUPINGS AMONG THE DEVELOPING NATIONS IS MUCH WIDER. DIFFERENT PRINCIPLES UPON WHICH A MUTUALLY ACCEPTABLE AGREEMENT CAN BE BASED MAY BE NECESSARY AND THE MAJOR APPROACHES - "MARKET ACCESS", "NATIONAL TREATMENT PLUS TRANSPARENCY", AND ESPECIALLY THE EUROPEAN COMMUNITY POSITION ORGANIZED AROUND THE PRINCIPLE OF "APPROPRIATE REGULATION" - NEED TO BE EXAMINED FURTHER IN TERMS OF THEIR IMPLICATIONS FOR INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES. CANADA'S ROOM FOR MANOEUVRE, HOWEVER, MAY BE SOMEWHAT MORE CIRCUMSCRIBED THAN PREVIOUSLY BECAUSE OF THE PENDING CANADA-UNITED STATES FREE TRADE AGREEMENT.

POINT #6: THE INTERNATIONAL TELECOMMUNICATIONS UNION MUST BE BROUGHT INTO THE TRADE-IN-SERVICES ISSUE IN SOME FASHION. THE PRESENT WATTC-88 PREPARATIONS CLEARLY DEMONSTRATE THAT NEW TELECOMMUNICATIONS SERVICES EXTEND BEYOND THE NORMAL BOUNDS OF THE ITU'S MODE OF THINKING AND OPERATING. AT THE SAME TIME, THERE IS NO POSSIBILITY OF AN EFFECTIVE TRADE AGREEMENT WHICH EITHER EXCLUDES OR OVERRIDES ITU ACTIVITIES. AS SUGGESTED AT THE END OF THE REPORT, A DIRECT BUT LIMITED ROLE FOR THE ITU IN SECTORAL NEGOTIATIONS AND PERHAPS UNDER ANY AGREEMENT WHICH RESULTS SHOULD BE EXPLORED SERIOUSLY.

POINT #7: IT GOES WITHOUT SAYING THAT THERE IS AN OBVIOUS NEED TO CONTINUE MONITORING AND ASSESSING ONGOING DEVELOPMENTS WITH REGARD TO INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES. NOT ONLY IS IT NECESSARY TO FOCUS ON CONCEPTUAL AND STATISTICAL ISSUES BUT ALSO TO EXPLORE DIFFERENT CORE PRINCIPLES AND THEIR IMPLICATIONS AND ALSO TO DEAL MORE EXPLICITLY WITH SUCH DEVELOPMENTS AT THE EMERGENCE OF GLOBAL PRIVATE NETWORKS AND THE INTRODUCTION OF ISDN.

POINT #8: CANADA'S OPTIONS IN DEALING WITH INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES ARE STILL OPEN AT LEAST TO SOME EXTENT. HOWEVER, THAT WINDOW OF OPPORTUNITY IS CLOSING FAST AND THE SHAPE AND DIMENSIONS OF AN EVENTUAL TRADE-IN-SERVICES AGREEMENT ARE BEING SET. ESPECIALLY WITH REGARD TO A COMPLEX SERVICE SECTOR SUCH AS TELECOMMUNICATIONS, CLOSE CONTACT AND COOPERATION AMONG CANADIAN TRADE POLICY AND TELECOMMUNICATIONS POLICY OFFICIALS IS ESSENTIAL AS WELL AS APPROPRIATE CONSULTATION WITH INDUSTRY, PROVINCIAL GOVERNMENTS AND OTHER INTERESTED PARTIES. THE MACHINERY IS THERE; THE TASK IS TO MAKE IT WORK.

APPENDIX A: TELECOMMUNICATIONS AND COMPUTER SERVICES IN THE
CANADA - UNITED STATES FREE TRADE AGREEMENT:
AFFIRMATION OF THE STATUS QUO OR SIGNPOST TO THE
FUTURE?

On January 2, 1988, Prime Minister Brian Mulroney and President Ronald Reagan, in separate ceremonies, signed a wide-ranging agreement designed to liberalize trade and other commercial relations between Canada and the United States. This important step represented the culmination of a complex process of internal analyses and goal-setting, domestic political manoeuvring, and bilateral negotiation extending back to 1985 when the two countries agreed to move towards a comprehensive free trade agreement. The significance of the deliberately low-key separate signing ceremonies is that the process is not yet complete, requiring ratification by the U.S. Congress and the Canadian Parliament -- without substantial amendment -- before this executive agreement between the two countries can begin to come into effect in 1989.

One prominent component of the free trade agreement negotiated and now signed by Canada and the United States is Part Four dealing with "services, investment and temporary entry." As characterized jointly by both parties in their commentary on the agreement, Chapter Fourteen -- the "services" chapter-- "provides, for the first time, a set of disciplines covering a large number of service sectors" and concludes that "the new, general rules adopted for trade in services are a trail-blazing effort and could lay the foundation for further work multilaterally."¹ In their description of the various principles adopted and their application, however, the parties articulate a services regime based upon national treatment and non-discrimination among Canadian and U.S. providers and users. However, they emphasize as well that "the obligations are prospective, i.e. they do not require either government to change existing laws and practices."² "Telecommunications network-based enhanced services" -- one cannot help but notice how carefully the term is specified -- along with "computer services" are among the wide variety of service sectors covered by the agreement but are treated as a special case covered by a sectoral annex which details how the more general principles of the agreement are to apply in this area.

The broader context within which this Canada - United States free trade agreement and its services component has taken shape is also crucial. Canada and the United States are currently each others' largest trading partner in terms of goods trade and closely integrated in other economic and commercial terms, not to mention their social, military and cultural affinities. The agreement itself is presented as a regional free-trade agreement negotiated under Article XXIV of the General Agreement on Tariffs and Trade and the first of such agreements to apply comprehensively to all sectors of the economy, to include binding commitments on trade in services, investment and temporary presence, and to provide the basis for developing rules for dealing with subsidies, dumping and countervailing measures.³ For the United States, the achievement of a substantive services agreement has been viewed widely as a crucial test of the Reagan administration's ability to match the easy rhetoric of trade liberalization to the difficult realities of domestic sectoral interests and bilateral compromise. For others among the advanced and developing nations, the agreement and its services component has been regarded with some veiled apprehension as yet another manifestation of a growing "Fortress North America" mentality or as an evolving power play to consolidate U.S. services dominance within the world economy. And finally, there are some who see the services component of the Canada - United States free trade agreement, even though a bilateral rather than a multilateral negotiation, as virtually a dress rehearsal for when the GATT

negotiations on services eventually get down to real business and thus a touchstone for evaluating negotiating aims and strategies.

What then can be said about the importance and significance of the telecommunications and computer services provisions of the Canada - United States free trade agreement? Should it be interpreted as an unmistakable signpost along the route towards a binding international agreement on trade in services broadly acceptable to nations at markedly different stages of development and currently committed both domestically and internationally to often quite restrictive services arrangements? Or should it be seen primarily as a cautious affirmation of the status quo and a rather limited attempt to encourage and regularize selected aspects of trade in services between two countries with already relatively liberalized attitudes and arrangements? To be sure, neither conclusion is totally exclusive of the other nor even directly contradictory but initial judgment must fall more heavily on the latter interpretation. Moreover, the Canada - United States free trade agreement as it relates specifically to telecommunications and computer services is instructive as much for what it doesn't say as for what has actually been agreed. Thus, this brief note argues that the services provisions of the free trade agreement should be viewed more as an affirmation of the status quo than as a signpost toward future multilateral agreement, except insofar as it highlights key difficulties likely to be encountered along the way and certain possible but not always likely avenues for resolving them.

The Basic Framework for Bilateral Services Trade

The basic framework for bilateral services trade outlined in the Canada-United States free trade agreement requires examination in three areas: the scope and coverage of its provisions, the interrelated set of principles agreed to, and the treatment given to domestic regulatory and public policy considerations in the two countries. If ratified by both countries, the services component would apply from the outset to a wide range of service sectors including agricultural, forestry and mining services, construction services, distributive trade services, insurance and real estate services, many kinds of commercial services from advertising or equipment leasing to professional management and consulting services, and finally "other services" under which "telecommunications-network-based enhanced services" and "computer services" are treated.⁴ These services sectors are specified precisely and reconciled according to the separate Standard Industrial Classification code currently used in each country. However, not all possible service sectors have been made subject to the agreement and, for example, health services and many educational services are not included while architectural services and tourism services as well as enhanced telecommunications and computer services are subject to special treatment.⁵ Most importantly, however, basic telecommunications services (including local and long distance voice and data transmission services) are not treated as a "covered service" even though these services were apparently on the table at certain points in the negotiations while transportation services (including marine, air, trucking, rail and bus modes) were deliberately withdrawn from the final agreement as the result of intense lobbying by U.S. maritime interests as well as Canadian trucking interests.⁶ What is particularly significant about these omissions is that the final agreement excluded those services sectors still subject most directly and heavily to regulatory activity both in Canada and the United States and the only other heavily regulated service sector -- financial services -- was finally treated separately as a section in its own right.⁷ One must then conclude that the services component of the free trade agreement applies overwhelmingly to those sectors which are already domestically competitive and does not directly tackle prominent sectors where regulatory activity is extensive.

The specification of a "covered service" within the Canada - United States

free trade agreement is also important to note. Provision of a "covered service" is defined in cross-border terms as "any measure of a Party related to the provision of a covered service by or on behalf of a person of the other Party within or into the territory of the Party." This is further specified to include "production, distribution, sale, marketing and delivery of a covered service and the purchase or use thereof" as well as "access to, and use of, domestic distribution systems" and extending in addition to "the establishment of a commercial presence" when necessary for the provision of a service and to "investment" in the provision of covered services subject to certain review and other limitations.⁸ The provision for "commercial presence" and the recognition of "investment" as a vehicle for delivering services is noteworthy and goes beyond the existing GATT agreement as well as other free trade arrangements such as the U.S. - Israel Agreement. Obviously, both Canada and the United States feel that they can each benefit in terms of competitive services trade between each other as well as from the stimulus which their example might provide for broader multilateral agreement. In those areas treated as a "covered service" then, the Canada - United States free trade agreement envisages open and unfettered access across the border to a wide range of commercial services.

With regard to the set of principles adopted as a framework for dealing with bilateral services trade, the keystone principle adopted by the two governments is "national treatment," i.e. the obligation that "each Party shall accord to persons of the other Party treatment no less favourable than that accorded in like circumstances to its persons with respect to the measures covered by [the services] Chapter."⁹ In itself, the acceptance of "national treatment" as the keystone principle of a services regime represents a step down from the stronger "market access" principle promoted widely by the U.S. government and business as crucial to future multilateral agreement. However, it is ably suited to allowing both Canada and the United States to continue to assert that sovereignty -- as it relates to national security, the promotion of social or cultural objectives, or other matters of national purpose -- are not affected by the agreement. And finally, the acceptance of "national treatment" as the keystone principle speaks eloquently to the fact that Canada in particular has already moved on several fronts -- in financial services, enhanced telecommunications services, some aspects of transportation -- to liberalize its domestic regulatory arrangements and to set the stage for opening them deliberately to foreign competition.¹⁰

Allied to "national treatment" are several other subsidiary principles adopted in the free trade agreement which either elaborate or temper that keystone principle. One such subsidiary principle is the notion that a country can choose to treat a "covered service" differently than the other country but it cannot discriminate in such a way as to penalize foreign providers as against domestic providers of that service.¹¹ Likewise, the agreement does not mandate "harmonization" of existing policy and practice in the two countries but it does recognize an obligation to consider future movement towards harmonization as part of the implementation and review process.¹² As well, it specifies a form of "transparency" in that where services trade is to be treated differently, there is an obligation to provide prior notification of such treatment.¹³ And finally, the agreement recognizes and legitimizes exceptions to the services framework -- what is referred to as "non-conforming provisions" -- where the obligation of "national treatment" need not apply.¹⁴

The other main underlying feature of the services component of the Canada-United States free trade agreement is its very cautious treatment of regulation and the other policy instruments -- public enterprise, taxation, subsidies and incentives -- by which government might choose to intervene. In lieu of a more specific rendering of the concept of "appropriate regulation," both Canada and the United States agree to recognize the legitimate right of each other to regulate with regard to a "covered service" where necessary or desirable but not in such a

way as to impair or restrain access by the other party in a discriminatory fashion.¹⁵ What constitutes appropriate regulation is specified narrowly in terms of "licensing and certification" procedures but no more elaborate treatment of the concept is provided.¹⁶ Moreover, the same criterion of non-discriminatory practice is also prescribed as applying to the activities of "monopolies," whether operating as public or private sector entities and, in the area of taxation, to any new measures which might be used in a discriminatory or restrictive manner.¹⁷ In other words, the intent of the agreement as it applies to services sectors is to render regulation and other policy instruments available to government essentially neutral in regard to services trade.

Finally, three problematic features of the application of the services component of the agreement should be noted. First of all, the "national treatment" and subsidiary obligations are stated explicitly as being binding upon provincial and state governments within the two countries, a provision which opens the services component to the delicate question of whether provincial governments in Canada can legally be bound through executive agreements negotiated by the federal government.¹⁸ Secondly, the agreement tackles the problem of third parties as providers of covered services -- a narrow but implicit formulation of the principle of "most favoured nation" treatment -- by allowing for the denial of benefits where third party provision of such a service can be established and this procedure is also utilized as a way of getting around the tricky question of rules of origin for traded services.¹⁹ Thirdly, the agreement makes no specific reference to the possible extraterritorial application of the other country's laws relating to services trade but implies a self-restraint in this area as a consequence of mutual acceptance of the legitimate regulatory authority of the other country in the provision of a "covered service."²⁰ In each of these areas, it was possible for Canada and the United States as relatively compatible governments to achieve bilateral agreement on issues which could not likely be treated in the same relatively simple way in a multilateral agreement.

Its Application to Telecommunications and Computer Services

As noted earlier, the application of the general framework outlined above to the area of "computer services and telecommunications-network-based enhanced services" takes the form of a "sectoral annex" which, in effect, treats these services as a special case. Once it became clear that neither Canada nor the United States --for their own quite different reasons -- wanted to include "basic telecommunications services" in the agreement, it became necessary to separate enhanced from basic telecommunications services and to establish how access and use of basic telecommunications services could be guaranteed for the provision of enhanced telecommunications and computer services within or into the territory of the other party. The awkward title and formulation is interesting because "enhanced telecommunications services" were negotiated separately and only redefined and combined with "computer services" towards the end of the drafting process.²¹

The U.S. government policy of permitting competition in the provision not only of enhanced telecommunications and unregulated computer services, but also of encouraging competition in certain basic telecommunication services such as domestic long-distance and even international telecommunications, is well known and differentiates it from the traditionally more restrictive Canadian approach. However, Canadian federal government policy has itself been evolving through decisions of the Canadian Radio-Television and Telecommunications Commission among other means and, as articulated in the July 1987 federal government policy statement, accepts open competition among Type II providers of telecommunications services -- i.e. those who would provide enhanced telecommunications and computer services -- while continuing to regulate Type I providers of telecommunications services who own and operate facilities and

primarily offer basic services.²² Despite differences in approach, pace and extent, then, this clarification of Canadian policy, which predates and underpins the free trade agreement, helps to establish the common ground upon which the "sectoral annex" has been based.

The "sectoral annex" relates to the provision of "telecommunications-network-based enhanced services and computer services" and, once again, the specification and definition of terms is important. Telecommunications-network-based enhanced services are defined as "any service offering over the basic telecommunications transport network that is more than a basic telecommunications service as defined and classified by measures of the regulator having jurisdiction" while a basic telecommunications transport service is defined in terms of "the offering of transmission capacity for the movement of information."²³ This specification raises certain interesting possibilities. For example, what constitutes an enhanced service in the United States as determined by the Federal Communications Commission differs slightly from how the Canadian Radio-Television and Telecommunications Commission interprets the term but any possible incompatibility was presumably viewed by Canadian and United States officials as likely minor and insignificant. Another interesting implication of the definition, moreover, concerns the possibility of enhanced telecommunications services not provided in a network-based fashion but perhaps as bulk capacity into the territory of the other party and one can envisage certain types of domestic satellite services falling into this category and left uncovered by this agreement.²⁴ And finally, "computer services" is treated as a more normal content service defined as "generating, acquiring, storing, transforming, processing, retrieving, utilizing or making available information in a computerized form" and applies "whether or not conveyed over the basic telecommunications transport network."²⁵ What is most important about the specification and definition of "telecommunications-network-based enhanced services and computer services," however, is the acceptance of the basic telecommunications transport network as in effect a "core" service which serves as the essential infrastructure for the provision of a wide range of content services.

Under the "sectoral annex," Canada and the United States recognize a number of rights and obligations relating specifically to the provision of "telecommunications-network-based enhanced services and computer services." These rights and obligations are, in effect, exchanged between the two parties to the agreement, each of which accepts the authority of the other to establish its own policy and regulatory practice but assumes essential compatibility between the two countries. Among the rights and obligations agreed to are such items as permission of "access to and use of basic telecommunications transport services" of varying specified types including intracorporate communications, their resale and shared use, "the purchase, lease and attachment of terminal equipment to the network," acceptance of each other's regulatory definitions and technical standards procedures, and "the movement of information across the borders and access to data bases and related information stored, processed or otherwise held within the territory of a Party."²⁶ Moreover, these mutual rights and obligations also extend to "the establishment of a commercial presence" and various "investment" activities, where necessary for the provision of an enhanced or computer service.²⁷ Thus, a range of specific rights and obligations are recognized by both Canada and the United States as necessary for the promotion and encouragement of telecommunications and computers services trade.

It is also important to note what is not mandated by the "sectoral annex" and this takes the form a number of "exceptions." First of all, there is no right or obligation on the part of either Canada or the United States to authorize the operation of basic telecommunications transport facilities or the offering of basic telecommunications transport services by persons of the other country, i.e. the sovereign control of each country over its basic network is ensured.²⁸ Secondly,

nothing in the agreement precludes either country -- or their responsible provincial or state governments -- from utilizing public or private monopolies for the operation of basic telecommunications transport facilities or services although, where those same monopolies also provide enhanced services, they are enjoined from engaging in anticompetitive conduct in that market.²⁹ Thirdly, each country is allowed to mandate the use of their own basic telecommunications networks for wholly internal traffic as well as any traffic originating or terminating in that country, thereby confirming its sovereignty and regulating authority within its territory and allowing it to prevent unacceptable bypass activities.³⁰ Fourthly, in a rather obscure reference to "intracorporate communications" for which access to and use of the basic telecommunications transport system is earlier acknowledged, it is further noted its inclusion "shall not be construed to indicate whether or not such communications are traded internationally."³¹ What the first three of these "exceptions" add up to is the continuing control to be exercised by Canada and the United States over its own basic telecommunications infrastructure while the last "exception" testifies to the somewhat different positions which might be taken on an issue in multilateral as opposed to bilateral negotiations.

Concluding Comments

This commentary has reviewed and assessed the services component of the Canada - United States free trade agreement. Attention has been given not only to its major features but also to the bilateral and multilateral context in which it should be evaluated. In this regard, the judgment which should be made, I would argue, is that the services provisions represent more a cautious affirmation of the status quo between countries with relatively liberalized domestic arrangements rather than any clear and unmistakable signpost towards future multilateral agreement on trade in services.

ENDNOTES

1. Canada - U.S. Free Trade Agreement, Chapter 14, p. 194, 196. All page references are to the Canadian version of the agreement.

2. Ibid., p. 195.

3. Ibid., Chapter 1, p. 7. The other free trade agreements most relevant by way of comparison are the 1960 European Free-Trade Area, the 1965 UK - Ireland Free Trade Area, the 1983 Australia - New Zealand Closer Economic Relations Agreement, and the 1985 United States - Israel Agreement.

4. Ibid., Annex 1408, pp. 201-203.

5. No reason is given for the exclusion of health and educational services but one of the obvious considerations is that, in Canada particularly, these are areas of provincial government jurisdiction.

6. "Basic Telecommunications" is excluded from the agreement by definitional means; while transportation services were to be part of the "elements of agreement" initialled by negotiators in October, 1987, a statement was added to the preface of Chapter 14 stating that these would "not be covered by the agreement" once it became clear that they were to be withdrawn (p. 196).

7. Ibid., Chapter 17.

8. Ibid., Article 1401.

9. Ibid., Article 1402 (1).

10. In this regard, one can point to the financial services deregulation legislation presently before the Canadian Parliament as well as Ontario's 1986 deregulation of the securities market, the July, 1987 statement of national telecommunications policy, and the airline and trucking deregulation which came into effect on January 1, 1988.

11. Ibid., Article 1402 (2), (3).

12. Ibid., Article 1405. It is interesting to note that the preamble to the agreement makes this point very clearly but Article 1405 does mandate a process for "the modification or elimination of existing measures" inconsistent with "national treatment" and regulatory obligations.

13. Ibid., Article 1402 (3c).

14. Ibid., Article 1402 (5).

15. Ibid., Article 1402 (8). The recognition of a right to regulate is implied in this section and stated explicitly in the preamble where it is stated that "each government also remains free to choose whether or not to regulate and how to regulate" (p. 195).

16. Ibid., Article 1403. This is one area where a multilateral agreement on services would have to be more specific at least with regard to scope if not to actual content of regulatory activity.

17. Ibid., Article 1402 (7) and Article 1407.

18. Ibid., Article 1402 (2). This is a debatable point and one which might well be litigated by certain provincial governments, particularly Ontario. By way of contrast, the situation in the United States seems quite straightforward.

19. Ibid., Article 1406. Again, the issue of "most favoured nation" treatment could not be handled so easily in a multilateral agreement.

20. This issue has been a long standing concern of several Canadian governments.

21. It is interesting to note, for example, that the Elements of a Free Trade Agreement initialled in October 1987 refer only to "enhanced telecommunications services" and the later formulation evolved at the U.S. negotiators' request during the drafting period.

22. Department of Communications, Telecommunications Policy Statement, July 22, 1987.

23. Canada - United States Free Trade Agreement, Chapter 14, Annex C, Article 7.

24. The absence of any reference to the technological aspects of telecommunications is one weakness of the agreement.

25. Ibid., Annex C, Article 7.

26. Ibid., Annex C, Article 3 (1).

27. Ibid., Annex C, Article 3 (2).

28. Ibid., Annex C, Article 6 (1a).

29. Ibid., Annex C, Articles 5 and 6 (1b).

30. Ibid., Annex C, Article 6 (1c).

31. Ibid., Annex C, Article 6 (2). The reference to "intracorporate communications" was apparently included at the request of Canadian negotiators while the inclusion of the last statement came from U.S. negotiators.

BIBLIOGRAPHY

**PART A: TELECOMMUNICATIONS SERVICES AS A TRADE-IN-SERVICES
ISSUE**

**PART B: DOMESTIC AND INTERNATIONAL ASPECTS OF INTERNATIONALLY-
TRADED TELECOMMUNICATIONS SERVICES**

A: TELECOMMUNICATIONS SERVICES AS A TRADE-IN-SERVICES ISSUE

- Aho, Michael and Jonathan Aronson [1985], Trade Talks: America Better Listen, (New York: Council on Foreign Relations, 1985).
- Antonelli, C. [1984], "Multinational Firms, International Trade and International Telecommunications," in Information Economics and Policy, No. 1 (1984), pp. 333-44.
- Aronson, Jonathan and Peter Cowhey [1986], Trade In Telecommunications Services: The Prospects For Negotiations, (Washington: American Enterprise Institute, forthcoming).
- Ascher, Bernard and Obie G. Whichard [1987], "Improving Services Trade Data," in O. Giarini (ed.), The Emerging Services Economy, (Oxford: Pergamon Press, 1987), pp. 255-81.
- Basche, James R. [1986], Eliminating Barriers to International Trade and Investment in Services, (New York: Conference Board, Report # 200, 1986).
- [1984], Regulating International Data Transmission, (New York: Conference Board Report # 852, 1984).
- Benz, S. [1985], "Trade Liberalization and the Global Service Economy," in Journal of World Trade Law, No. 19 (March-April, 1985), pp. 95-120.
- Bhagwati, J.N. [1987], "International Trade In Services And Its Relevance For Economic Development," in O. Giarini- (ed.), The Emerging Service Economy, (Oxford: Pergamon Press), pp. 3-34.
- [1984], "Splintering and Disembodiment of Services and Developing Countries," in World Economy, No. 7 (June, 1984), pp. 133-44.
- [1984], "Why Are Services Cheaper In The Poor Countries?" in The Economic Journal, No. 94 (1984), pp. 279-86.
- Branscomb, Anne W. (ed.) [1985], Towards A Law Of Global Communications Networks, (New York: Longmans, 1985).
- Bressand, Albert [1983], "Mastering the World Economy," in Foreign Affairs, Spring, 1983.
- Brock, W.E. [1982], "A Simple Plan For Negotiation Of Trade In Services," in World Economy, No. 5 (September, 1982), pp. 229-40.
- Bruce, Robert R. [1987], "Definition of Services: Line Drawing, Industry Structure and Institutional Arrangements," in OECD, Trends Of Change In Telecommunications Policy, (Paris, 1987), pp. 67-98.
- Bruce, Robert R., Jeffrey P. Cunard and Mark D. Director [1985], From Telecommunications To Electronic Services, (Toronto: Butterworths, 1985).

Canada, Department of Communications [1987], "A Policy Framework For Telecommunications In Canada," July 22, 1987.

[1987] International Symposium On Communications, Vancouver, B.C., June 9-11, 1986.

Cline, William R. [1983], "Reciprocity: A New Approach to World Trade Policy?" in W.R. Cline (ed.), Trade Policy in the 1980s, (Washington: Institute for International Economics, 1983), pp. 121-57.

Cordon, Max [1974], Trade Policy And Economic Welfare, (Oxford: Clarendon Press, 1974).

Cowhey, Peter F. and Jonathan D. Aronson [1985], "Trade In Communications And Data Processing," in R.M. Stern (ed.), Trade And Investment In Services: Canada/U.S. Perspectives, (Toronto: Ontario Economic Council, 1985), pp. 256-89.

Deardorff, Alan V. [1985], "Comparative Advantage And International Trade And Investment In Services," in R.M. Stern (ed.), Trade And Investment In Services: Canada/U.S. Perspectives, (Toronto: Ontario Economic Council, 1985), pp. 39-70.

Diebold, John [1983], "The Information Technology Industries: A Case Study Of High Technology Trade," in W.R. Cline (ed.), Trade Policy In The 1980s, (Washington: Institute For International Economics, 1983), pp. 639-72.

Diebold, William Jr. and H. Stalson [1983], "Negotiating Issues In International Services Transactions," in W.R. Cline (ed.), Trade Policy In The 1980s, (Washington: Institute For International Economics, 1983), pp. 581-610.

Dizard, Wilson P. [1984], "U.S. Competitiveness In International Information Trade," in The Information Society, No. 2 (1984), pp. 179-216.

Ergas, Henry [1984], "Monopoly And Competition In The Provision Of Telecommunication Services," and "International Aspects Of Telecommunication Regulation," in Changing Market Structures In Telecommunications, (Amsterdam: North-Holland, 1984), pp. 3-16 and 17-29.

[1987], "Regulation, Monopoly And Competition In The Telecommunications Infrastructure," in OECD, Trends of Change in Telecommunications Policy, (Paris, 1987), pp. 45-66.

Ergas, Henry and Jan Okayama (eds.), [1984], Changing Market Structures In Telecommunications, (Amsterdam: North-Holland, 1984).

Eward, Ronald [1985], The Deregulation Of International Telecommunications, (Dedham, Mass., Artech House, 1985).

Ewing, A.F. [1985], "Why Freer Trade In Services Is In The Interest Of Developing Countries," in Journal Of World Trade Law, No. 19 (March-April, 1985), pp. 147-69.

Feketekuty, Geza and J.D. Aronson [1984], "Meeting The Challenges Of The World Information Economy," in World Economy, No. 7 (March, 1984), pp.

- [1984], "Restrictions On Trade In Communications And Information Services," in The Information Society, No. 2 (1984), pp. 217-48.
- Feketekuty, Geza and Kathryn Hauser [1984], "A Trade Perspective On International Telecommunication Issues," in Telematics And Informatics, 1 (1984), pp. 359-369.
- [1985], "The Impact Of Information Technology On Trade In Services," in Transnational Data Report, No. 8(4), pp. 220-224.
- Feketekuty, Geza [1985], "Negotiating Strategies For Liberalizing Trade And Investment In Services," in R.M. Stern (ed.), Trade And Investment In Services: Canada/U.S. Perspectives, (Toronto: Ontario Economic Council, 1985), pp. 203-214.
- Ganley, Oswald H. [1985], "Information Exchange As Communications Trade," in Anne W. Branscomb (ed.), Towards A Law Of Global Communications Networks, (New York: Longmans, 1985), pp. 55-62.
- GATT[1986], "Launching Of Uruguay Round," in GATT Newsletter, (October, 1986).
- [1987], "Group Of Negotiations On Services," in GATT Newsletter, (January-February, 1987).
- Giarini, Orio [1987], The Emerging Service Economy, (Oxford: Pergamon Press, 1987).
- Gibbs, Murray [1985], "Continuing The International Debate On Services," in Journal Of World Trade Law, No. 19 (May-June, 1985), pp. 199-218.
- Gray, P. [1983], "A Negotiating Strategy For Trade In Services," in Journal of World Trade Law, No. 17 (September-October, 1983), pp. 377-88.
- Grey, Rodney De C. [1987], "Elements Of A General Agreement On Information Trade," in Intermedia, No. 15 (March, 1987), pp. 18-23.
- [1986], A Not-So-Simple Plan For Negotiating On Trade In Services, (London, 1986).
- [1985], "Negotiating About Trade And Investment In Services," in R.M. Stern (ed.), Trade And Investment In Services: Canada/U.S. Perspective, (Toronto: Ontario Economic Council, 1985), pp. 181-193.
- [1983], Trade Computer Services: An Analysis Of A Proposal For A Canada/U.S. Agreement, (Montreal: Royal Bank Of Canada, 1983).
- Grossman, Gene M. and Carl Shapiro [1985], "Normative Issues Raised By International Trade In Technology Services," in R.M. Stern (ed.), Trade And Investment In Services: Canada/U.S. Perspectives, (Toronto: Ontario Economic Council, 1985), pp. 83-113.
- Grubel, Herbert G. [1987], "All Traded Services Are Embodied In Materials Or People," in World Economy, No. 10 (September, 1987), pp. 319-330.

- Herzstein, Robert E. [1985], "Applying Traditional Trade Principles To The International Flow Of Information," in Anne W. Branscomb (ed.), Towards A Law Of Global Communications Networks, (New York: Longmans, 1985), pp. 313-30.
- Hill, T.P. [1977], "On Goods And Services," in Review of Income And Wealth, (December, 1977), pp. 315-318.
- Hindley, Brian and A. Smith [1984], "Comparative Advantage And Trade In Services," in World Economy, No. 7, (December, 1984), pp. 369-89.
- Inman, R. [1986], Managing The Service Economy: Prospects And Problems, (Cambridge: Cambridge University Press, 1986).
- International Chamber Of Commerce [1984], "The Liberalization Of Telecommunications Services: Needs And Limits," in Telematics And Informatics, 1 (1984), pp. 27-35.
- International Telecommunications Union. Administrative Council. [1987a], Resolution No. 966 - World Administrative Telegraph And Telephone Conference, June 25, 1987.
- [1987b], Circular Letter No. 188 - ITU Relations With GATT, July 28, 1987.
- International Telecommunications Union, The Washington Round, (Washington, 1985).
- Jussawalla, Meheroo [1982], "International Trade Theory And Communications," in M. Jussawalla and D.M. Lamberton (eds.), Communications Economics And Development, (Oxford: Pergamon Press, 1982), pp. 82-98.
- [1985], "Constraints On The Economic Analyses Of Transborder Data Flows," in Media, Culture And Society, No. 7 (1985), pp. 297-312.
- Kakabadse, Mario A. [1987], International Trade in Services: Prospects for Liberalization in the 1990s, (New York: Atlantic Institute for International Affairs, 1987).
- Knoppers, Jake V. [1984], "A Perspective From Canada," in J. Rada and G.R. Pipe (eds.), Communications Regulation And International Business, (Amsterdam: North-Holland, 1984), pp. 93-133.
- Kravis, L.B. [1985], "Services In World Transactions," in R.P. Inman (ed.), Managing The Service Economy, (Cambridge: Cambridge University Press, 1985), pp. 131-61.
- Krommenacker, Raymond J. [1987], "Services Negotiations: From Interest-Lateralism To Multilateralism In The Context Of The Servicization Of The Economy;" a paper prepared for a Symposium on the GATT Round of Multilateral Trade Negotiations, University of Bielefeld, West Germany, June 12, 1987.
- [1986], "The Impact Of Information Technology On Trade Interdependence," in Journal Of World Trade Law, No. 20 (July-August,

1986), pp. 381-400.

[1984], World Traded Services: The Challenge For The 1980s, (Dedham, Mass., Artech House, 1984).

[1979], "Trade Related Services And The GATT," in Journal of World Trade Law, No. 13 (November, 1979), pp. 510-22.

Lancaster, Kathleen Landis [1982], International Telecommunications. User Requirements And Supplier Strategies, (Lexington: Lexington Books, 1982).

Lanvin, Bruno [1987], "Information Technology and Competitiveness in the Service Industry," Institut De Recherches Economiques, Paper # 119, Louvain, Belgium, October 1987.

Leeson, Kenneth [1984], International Communications: Blueprint For Policy, (Amsterdam: North-Holland, 1984).

Malmgren, Herbert B. [1985], "Negotiating International Rules For Trade In Services," in World Economy, No. 8 (March, 1985), pp. 11-26.

Mansell, Robin E. [1987a], "The Regulation Of New Telecommunications Services: A Framework For Analyses And An Illustration Of Practice," a paper presented to the Communications Policy Research Conference, Berkeshire, U.K., July 19, 1987.

Nussbaumer, Jacques [1986], Services: The New Deal, (Boston: Kluwer-Nijhoff, forthcoming).

[1983], "Some Implications Of Becoming A Services Economy," in J. Rada and Russell Pipe (eds.), Communication Regulation And International Business, (Amsterdam: North-Holland, 1983), pp. 23-37.

OECD, Committee On Information Computer Communications Policy

[1987], Value-Added Network For Services: Implications For Telecommunications Policy. (Note by the Secretariat), DSTI/ICCP (87) 5.

[1986], Note by the Committee on Information, Computer and Communications Policy to the Trade Committee on Trade In Telecommunications Services, ICCP (86) 23, December 5, 1986.

[1987], Trends Of Change In Telecommunications Policy, (Paris, 1987).

[1985], Software: An Emerging Industry, (Paris, 1985).

[1981], Information Activities. Electronics And Telecommunications Technology: The Impact On Employment, Growth And Trade, (Paris, 1981).

[1980], Handbook Of Information: Computer And Communications Activities Of Major International Organizations, (Paris, 1980).

OECD Trade Committee

[1987], Elements Of A Conceptual Framework For Trade In Services.

- Porter, M.E. and V.E. Millar [1985], "How Information Gives You Competitive Advantage," in Harvard Business Review, (July-August, 1985), pp. 149-60.
- Rada, Juan [1987], "Information Technology And Services," in O. Giarini (ed.), The Emerging Service Economy, (Oxford: Pergamon Press, 1987), pp. 127-171.
- [1984], "Advanced Technologies And Development: Are Conventional Ideas About Comparative Advantage Obsolete?" in Trade And Development, (Geneva, mimeo).
- 1984], "Trade And Effects Of Information Technology," in J. Rada and R. Pipe (eds.), Communications Regulation And International Business, (Amsterdam: North-Holland, 1984).
- Reid, A. Hutcheson [1987], "The Integrated Services Digital Network: A Presentation Of Related Policy Issues," in OECD, Trends Of Change In Telecommunications Policy, (Paris, 1987), pp. 99-114.
- [1985], "Trade In Telecommunications Services: The Current Institutional Framework And The Potential For Change," a paper prepared for the OECD, September, 1985.
- Richardson, John B. [1987a], "A Sub-Sectoral Approach To Services Trade Theory," in O. Giarini (ed.), The Emerging Services Economy, (Oxford: Pergamon Press, 1987), pp. 59-83.
- [1987b], "International Trade Aspects Of Telecommunications Services," in Common Market Law Review, (1987).
- Riddle, Dorothy I. [1987], "The Role Of The Service Sector In Economic Development: Similarities And Differences By Development Category," in O. Giarini (ed.), The Emerging Services Economy, (Oxford: Pergamon Press, 1987), pp. 83-104.
- [1986], Services-Led Growth: The Role Of The Service Sector In World Development, (New York: Praeger, 1986).
- [1985], "Services: Parasitic Or Dynamic?" in Policy Studies Review, No. 4(3), pp. 467-74.
- Robinson, Peter [1987], "From TDF to International Data Services," Telecommunications Policy, (December, 1987), pp. 369-76.
- [1986], "Legal Issues Raised By Transborder Data Flow," Canada - United States Law Journal, 11 (1986), pp. 295-316.
- [1985], "Telecommunications, Trade And TDF," in Telecommunications Policy, (December, 1985), pp. 310-318.
- Roseman, Daniel [1986], "Freer Trade In Services," in Policy Options, (November-December, 1986), pp. 20-22.
- Safarian, A.E. [1983], "Trade-Related Investment Issues," in W.R. Cline (ed.), Trade Policy In The 1980s, (Washington: Institute For International Economics, 1983), pp. 611-38.

- [1983], Governments and Multinationals: Policies in the Developed Countries, Washington: British North America Committee, 1983.
- Sampson, Gary P. and R.H. Snape [1985], "Identifying The Issues In Trade In Services," in World Economy, No. 8 (June, 1985), pp. 171-82.
- Sapir, Andre [1982], "Trade In Services: Policy Issues For The 1980s," in Columbia Journal Of World Business, (Fall, 1982), pp. 77-83.
- [1985], "North-South Issues in Trade in Services," World Economy, 8(1985), pp. 27-42.
- Sapir, A. and E. Lutz [1981], Trade In Services: Economic Determinants And Development-Related Issues, World Bank Staff Working Paper No. 480.
- [1980], Trade In Non-Factor Services: Past Trends And Current Issues, World Bank Staff Working Paper No. 410.
- Sauvant, Karl P. [1987], "Trade In Data Services: The International Context," in Telecommunications Policy, No. 10 (December, 1986), pp. 282-98.
- [1986], "Data Services -- National Policy Choices," Transborder Data Report, (December, 1986), pp. 21-24.
- [1986], International Transactions In Services: The Politics Of Transborder Data Flows, (Boulder, Colo., Westview, 1986).
- Saxonhorse, Gary [1985], "Services in the Japanese Economy," in Robert P. Inman (ed.), Managing the Service Economy, (Cambridge: Cambridge University Press, 1985).
- Schott, J.J. [1983], "Protectionist Threat To Trade And Investment In Services," in World Economy, No. 6 (June 1983), pp. 195-214.
- Shelp, Ronald [1987], "Trade In Services," in Foreign Policy, No. 65 (Winter, 1987), pp. 64-84.
- [1981], Beyond Industrialization: Ascendancy Of The Global Service Economy, (New York: Praeger, 1981).
- Spero, Jane [1985], International Trade And The Information Revolution, (Cambridge: Harvard University Center For Information Policy Research, 1985).
- [1982], "Information And Telecommunications Is A Trade Issue," in Intermedia, No. 10 (March, 1982), pp. 9-11.
- Stalton, H. [1985], "U.S. Trade Policy And International Service Transactions," in R.P. Inman (ed.), Managing The Service Economy, (Cambridge: Cambridge University Press, 1985), pp. 161-78.
- Statistics Canada
- [1986], Canada's International Trade In Services: 1969 to 1984, Catalogue 65-510, (Ottawa, 1986).

- [1985], Telephone Statistics, Catalogue 56-203, (Ottawa, 1985).
- [1985], Telecommunications Statistics, Catalogue 56-201, (Ottawa, 1985).
- [1984], Computer Services Industry Statistics, Catalogue 63-222, (Ottawa: 1984).
- [1984], International Payments And Receipts For Technology, Occasional Paper 88-502E, (Ottawa, 1984).
- Sterling, Christopher H. [1984], International Telecommunications And Information Policy, (Washington: Communications Press, 1984).
- Stern, Robert M. (ed.), [1985a], Trade And Investment In Services: Canada/U.S. Perspectives, (Toronto: Ontario Economic Council, 1985).
- [1985b], "Global Dimensions And Determinants Of International Trade And Investment In Services," in R.M. Stern (ed.), Trade And Investment In Services: Canada/U.S. Perspectives, (Toronto: Ontario Economic Council, 1985), pp. 126-167.
- Stern, Robert M. and Bernard M. Hochman [1987], "Issues And Data Needs For GATT Negotiations On Services," in World Economy, No. 10 (March, 1987), pp. 39-60.
- Strauss, Richard (ed.), [1982], Communications And International Trade: A Symposium, (Washington: U.S. National Committee Of The International Institute Of Communications, 1982).
- Summers, R. [1985], "Services In The International Economy," in R.P. Inman (ed.), Managing The Service Economy, (Cambridge: Cambridge University Press, 1985), pp. 27-48.
- United States Congress, Office Of Technology Assessment [1986], Trade In Services: Exports And Foreign Revenues - Special Report, (Washington: GPO, 1986).
- United States. House of Representatives Committee on Banking, Service Industries: The Changing Shape of the American Economy, (Washington, 1985).
- United States. Senate Committee on Foreign Relations, [1983]. International Telecommunications and Information Policy: Selected Issues for the 1980s, (Washington: GPO, 1983).
- Winham, Gilbert G. [1986], International Trade and the Tokyo Round Negotiation, (Princeton: Princeton University Press, 1986).
- [1983], "GATT And The New Trade World," in International Perspectives, (March-April, 1983), pp. 3-5.

B: DOMESTIC AND INTERNATIONAL ASPECTS OF INTERNATIONALLY-TRADED TELECOMMUNICATIONS SERVICES

Aronson, Jonathan T. [1987], "Telecommunications Negotiations in GATT," Transborder Data Report, (February, 1987), pp. 11-13.

Aronson, Jonathan T. and Peter F. Cowley [1988], When Countries Talk: International Trade in Telecommunications Services, (Cambridge: Ballinger, pre-publication).

[1987], Bilateral Telecommunications Negotiations, Paper Presented to the International Institute of Communications Telecommunications Forum, New York, November 1987.

Balassa, Carol [1988], "Negotiation of Services in the U.S. - Israel Free Trade Area," Journal of World Trade Law, (forthcoming, 1988).

Bell Canada [1986], Bell Canada Positions on Canada - U.S. Free Trade Negotiations and Related Issues (July 1986).

British Invisible Exports Council [1986], International Information Flows: A Report by the LOTIS Committee (London, 1986).

Bruce, Robert R., Jeffery P. Cunard and Mark D. Director [1987], "WATTC-88 and the Future of the ITU: Realism About the Limits of Regulation," Paper Presented at International Institute of Communications Telecommunications Forum, New York, November 1987.

[1987], "Boundary Lines: A Further Exploration of Enhanced and Value-Added," Final Draft Report of Part II of the Study of Telecommunications Structures for the International Institute of Communications, London, July 1987.

Business Roundtable [1985], International Information Flow: A Plan for Action, (New York, 1985).

Butler, Richard [1984], "Telematics and the ITU," in Telematics and Informatics, 1(1984), pp. 69-74.

Canada. Department of Communications [1987], A Policy Framework for Telecommunications in Canada; July 22, 1987.

[1986], Telecommunications Policy Statement Respecting Teleglobe Canada, November 1986.

Canada. Department of External Affairs [1986a], Minister of International Trade Announces the Formation of the Sectoral Advisory Groups On International Trade (SAGIT), February 3, 1986.

[1986b], Announcement of SAGIT Appointments and Composition of the Communications, Computer Equipment and Services SAGIT, April 25, 1986.

[1985], Canada Submits Initial Views to the GATT on the Upcoming Multilateral Trade Negotiations, July 19, 1985.

Canada. House of Commons, Standing Committee on External Affairs and

International Trade [1987], Report on the Canada - United States Free Trade Agreement (December, 1987).

Canada. Ministry of State for Privatization and Regulatory Affairs.[1987], Teleglobe Canada to be Sold to Memotec Data Inc., February 11, 1987.

[1986], Information Provided to Prospective Bidders for Teleglobe Canada.

Canada. Task Force on Trade In Services [1982], Background Report, Ottawa, 1982.

Canada - United States [1987], The Canada - United States Free Trade Agreement, Released December 10, 1987 and signed January 2, 1988.

[1982, 1972], Exchange of Correspondence Between Canada and the United States Concerning Transborder Satellite Services, August 24, 1982 and November 6, 7, 8, 1972.

Canadian Business Telecommunications Alliance [1987a], Statement on Free Trade, (May, 1987).

[1987b], Business User Perspectives on a National Telecommunications Policy, (January, 1987).

Canadian Council on International Law [1985], International Regulation and Deregulation: Emerging Trends in the Role of International Institutions: Proceedings of the 14th Annual Conference, (Ottawa, 1985).

Chant, John F. [1985], "The Canadian Treatment of Foreign Banks: A Case Study in the Workings of the National Treatment Approach," in R.M. Stern (ed.), Trade and Investment in Services: Canada - U.S. Perspectives, (Toronto: Ontario Economic Council, 1985), pp. 215-44.

Clarkson, Tetrault [1985], Review of the Federal Legal Instruments Re: Telecommunications, A Report Prepared for the Department of Communications, April, 1985.

CNCP Telecommunications [1986], International Competition in Telecommunications: A Perspective on the Bilateral Trade Negotiations (September, 1986).

Cohen, D. [1985], "The Intersection of Consumer Protection Law and International Trade: Implications for Canadian Regulators" in Canada and International Trade, (Montreal: Institute for Research on Public Policy, 1985), pp. 235-310.

Cohen, Michael and Thomas Morante [1981], "Elimination of Non-Tariff Barriers to Trade in Services: Recommendations for Future Negotiations," Law and Policy in International Business, 13(1981), pp. 495-519.

Cole, Jack E. and Richard J. O'Rourke Jr. [1983], Telecommunications Policies in Seventeen Countries: Prospects for Future Competitive Access (Washington: Department of Commerce NTIA, 1983).

Colino, Richard R. [1986], "Challenges Facing INTELSAT," Transborder Data Report, (June, 1986), pp. 13-15.

- Cowhey, Peter H. [1986/7], "Trade Talks and the Informatics Sector," International Journal, 42 (Winter, 1986/7), pp. 107-37.
- Degenstein, Frank [1987], Network Deregulation: U.S. Experience and Canadian Requirements, Speech to the Telecom Futures Conference, Toronto, April 1, 1987.
- Delorme, Jean-Claude [1988], "Privatization and Liberalization in the Telecommunications Industry: A Canadian Perspective," Paper Presented at Pacific Telecommunications Conference, Honolulu, February, 1988.
- Dizard, Wilson P. and Lesley D. Turner [1987], "Telecoms and Canada - U.S. Free Trade Talks," Transnational Data Report, July, 1987), pp. 15-18.
- Dougen, Diana Lady [1987], "U.S. International Communications and Information Policy," Transborder Data Report, (May, 1987), pp. 21-22.
- European Economic Community [1988], Towards a Competitive Community-Wide Telecommunications Market in 1992; Implementing the Green Paper on the Development of the Common Market for Telecommunications Services and Equipment, Brussels, February, 1988.
- [1987], Green Paper on the Development of the Common Market for Telecommunications Services and Equipment, Brussels, June 30, 1987.
- [1987], A Report on U.S. Trade Barriers, Brussels, April, 1987.
- Falle, Donald B. [1984], "Globosat: Canadian Developments in Private International Satellite Business Services," The Canadian Satellite User Conference, 1984, (Ottawa: Telesat Canada, 1984, pp. 217-22.
- Federal and Provincial Ministers of Communications [1987], Communique, Edmonton, April 2, 1987.
- Feketekuty, Geza [1988], International Trade in Services: An Overview and Blueprint for Trade Negotiations, (Cambridge: Ballinger, pre-publication).
- Fisher, Robert C. [1985], "Telecommunications in Transition: Private Transatlantic Cable Facilities," George Washington Journal of International Law and Economics, 19(1985), pp. 493-540.
- Ford, D.A. and Associates [1986], The Impact of International Competition on the Canadian Telecommunications Industry and Its Users, A Report Prepared for the Federal and Provincial Governments, August, 1986.
- Fowler, Mark S. [1985], "Free Markets for Telecommunications: U.S. View," Transnational Data Report, (March, 1985), p. 137.
- Frank, Carl R. and David F. Long [1982], International Effects of the Competitive Carrier and Computer II Rulings (Washington: U.S. Commerce Department NTIA, 1982).
- Frazer, Rowland C. [1985], "Negotiating An Acceptable TDF Framework," Transnational Data Report, (March, 1985), pp. 153-4.

- [1983], Trade and Technology: It's Canada's Move, Speech to the Canadian Club of Toronto, November 7, 1983.
- Globerman, S. [1986], Regulation of Canada's Satellite Communications Sector, A Report Prepared for the Department of Communications, 1986.
- GATT, [1980], Basic Instruments and Selected Documents, (Geneva, 1980).
- [1985], Trade Policies for a Better Future: Proposals for Action, (Geneva, 1985).
- GATT. Preliminary Negotiations on Services
 [1985-86], Minutes of Preliminary Meetings Held on Services, January, 1985-May, 1986.
- [1984-86], National Studies on Services, 17 in Total Submitted Between January 1984 and November 1986.
- GATT. Group of Negotiations on Services [1987], GNS Communications from Member States, 30 in Total to End of 1987, Confidential Unless Released Publicly.
- [1987], Group of Negotiations on Services: Program for the Initial Policy Phase of Negotiations, GATT Newsletter, January-February, 1987, pp. 7-8.
- [1986], Ministerial Declaration on the Uruguay Round, GATT Newsletter, October, 1986, p. 5.
- Goodman, Gary A. and Robert M. Saunders [1985], "U.S. Federal Regulation of Foreign Involvement in Aviation, Government Procurement and National Security," Journal of World Trade Law, 19(January/February, 1985), pp. 54-61.
- Grandy, Thomas B. and Richard Bondy [1987], "Sharing and Resale of Telecommunications Services in Canada," The Canadian Satellite User Conference 1987, (Ottawa: Telesat Canada, 1987), pp. 95-99.
- Grewlich, Klaus W. [1987], "Information Economics and the Uruguay Round," Transnational Data Report, (July, 1987), pp. 13-14.
- Huber, Peter W [1987], "The Geodesic Network," in Intermedia, No. 15 (May, 1987), pp. 10-21.
- IBM Canada Ltd. [1987], The Internationalization of Services: Implications for the Trade Negotiations (April, 1987).
- International Telecommunications Union [1983], International Telecommunications Convention: Final Protocol, Additional Protocols, Optional Protocols, Resolutions, Recommendations and Opinions, Nairobi 1982 (Geneva, 1983).
- [1984], The Missing Link, (Geneva, 1984).
- International Telecommunications Union. Preparatory Committee for WATTC-88 [1987a], Report of the Meeting Held From 27 April to 1 May 1987 (Geneva, 1987).

Jackson, John H. [1987a], "The Constitutional Structure for International Cooperation in Trade In Services and the Uruguay Round of GATT," unpublished paper, December, 1987.

[1987b], "Multilateral and Bilateral Negotiating Approaches for the Conduct of United States Free Trade Policies," in Robert M. Stern (ed.), U.S. Trade Policies in a Changing World Economy, (Boston: MIT Press, 1987).

[1980], "The Birth of the GATT-MTN System: A Constitutional Appraisal," Law and Policy in International Business, 12(1980).

Jacobsen, Robert E. [1979], "Satellite Business Systems and the Concept of Dispersed Enterprise: An End to National Sovereignty?" Media, Culture and Society, 1(July, 1979), pp. 235-53.

Janisch, Hudson N. [1984], "Telecommunications Regulation and Ownership: Compatibility or Confusion?" Canadian Regulatory Reporter, 5(1984), pp. 5-23 to 5-33.

[1986], "Federal-Provincial Relations in Telecommunications," Paper Presented to the Telecommunications Policy Research Conference, Airlie, Virginia, April 1986.

Japan. Research Institute of Telecommunications and Economics [1982], A Vision of Telecommunications Policy in the 1980s, (Tokyo, 1982).

Japan. Ministry of Post and Telecommunications [1984], State of Competition in Japan, (Tokyo, 1984).

Johnson, Leland L. [1987], "Excess Capacity in International Telecommunications," Telecommunications Policy, 11(September, 1987), pp. 281-95.

Katzenback, Nicholas de B. [1985], "Framing Telecommunications Policy - An IBM View," Transnational Data Report, March, 1985, pp. 167-68.

Kwerel, Evan [1984], Promoting Competition Piecemeal in International Telecommunications (Washington: FCC Working Paper # 13, 1984).

Kwerel, Evan R. and James E. McNally Jr. [1986], Promoting Competition Between International Telecommunications Cables and Satellites (Washington: FCC Working Paper # 19, 1986).

Krommenacher, Raymond J. [1987], "Uruguay Round Services Negotiations," Transnational Data Report, (September, 1987), pp. 11-17.

[1986], "Discussions on Services in GATT," Transnational Data Report, (February, 1986), pp. 15-16.

[1987], "Services and Space Technology: The Emergence of Space Generated, Highly Integrated Goods and Services (IGS)," in O. Giarini (ed.), The Emerging Services Economy, (Oxford: Pergamon, 1987), pp. 173-92.

- [1986], "Services, Their Regulatory and Policy Frameworks in the Light of the Emerging Integrated Services Digital Networks (ISDN)," in Proceedings of the Pacific Telecommunications Conference, Honolulu, January, 1986).
- Lapointe, Andre [1985], "The Evolution of International Telecommunications and INTELSAT: A Case in the Dynamics of International Law," in Canadian Council on International Regulation and Deregulation, (Ottawa, 1985), pp. 72-81.
- Lauffer, Sandra and Thomas A. Robertson [1986], A Study of the Impact of U.S. Separate Satellite Systems Policy on Developing Countries, A Report Prepared for the U.S. Department of State, April 1987.
- Lipsey, Richard and Murray G. Smith [1986], "An Overview of Harmonization Issues," in C.D. Howe Institute, Policy Harmonization: The Effects of a Canadian/American Free Trade Area, (Montreal, 1986), pp. 1-42.
- Loewen, William [1987], Presentation on Behalf of the Canadian Independent Computer Services Association to the House of Commons Standing Committee on External Affairs and Defence, November 27, 1987.
- Lundberg, Olof [1986], "Competition and the Threat to INMARSAT," Intermedia, 14(1986), pp. 32-34.
- Macdonald, Stuart [1987], "U.S. Export Controls and High-Tech Information," Transnational Data Report, (September, 1987), pp. 18-23.
- Mansell, Robin E. [1986], "The Telecommunications Bypass Threat: Real or Imagined?" Journal of Economic Issues, 20(March 1986), pp. 145-164.
- Mathew, Raju M. [1987], "Services - The Third World Factor," Transnational Data Report, (January 1987), pp. 15-16.
- McKendrick, George [1987], "The INTUG View on the EEC Green Paper, Telecommunications Policy, (December, 1987), pp. 325-29.
- Melody, William [1985], "Implications of U.S. Competition," in T.L. McPhail and B.M. McPhail (eds.), Telecom 2000: Canada's Telecom Future, (Calgary: University of Calgary, 1985), pp. 57-76.
- Narjes, Karl-Heinz [1988], "Telecom Policy Reform and International Trade," Transborder Data Report, XI(January, 1988), pp. 21-25.
- Negro, Francisco Molina [1985], "Broad International Regulatory Framework for Telecommunications in the 1990s," ITU World Telecommunications Forum, April 18-19, 1985.
- Norman, Aidan [1984], "The U.K. Approach to International Trade Issues in Telecommunications, Data Processing and Information Services," in P. Zorkoczy (ed.), Oxford Surveys in Information Technology, No. 1 (1984), pp. 129-51.
- Ontario, Ministry of Treasury and Economics
[1986a], Ontario Study of the Services Sector, (Toronto, 1986).
[1986b], Ontario Study of the Service Sector: Background Papers,

(Toronto, 1986).

OECD Working Party on Transborder Flows [1987], Trade in Information, Computer and Communications Services: An Examination of the Relevance of the Conceptual Framework for Trade in Services. (Note by the Secretariat), DSTI/ICCP, 86-21.

OECD [1973], Code of Liberalisation of Capital Movements, (Paris, 1973).

[1976], Code of Liberalisation of Current Invisible Operations, (Paris, 1976).

[1985], Declaration On Transborder Data Flows, (Paris, 1985).

Pipe, G. Russell [1987a], "Towards New Telecommunications Regulatory Regimes," Trade Facilitation, 1(1987), pp. 81-84.

[1987b], "The Ultimate Bypass," Datamation, August 1, 1987.

Podmore, Christopher and Denise Faguy [1986], "The Challenge of Optical Fibres," Telecommunications Policy, 10(December 1986), pp. 341-57.

Ranga Chand, U.K. [1983], "The Growth of the Service Sector in the Canadian Economy," Social Indicators Research, (1983), pp. 339-379.

Rein, Bert W. et. al. [1985], "Implementation of a U.S. 'Free Entry' Initiative for Transatlantic Satellite Facilities: Problems, Pitfalls and Possibilities," George Washington Journal of International Law and Economics, 18(1985), pp. 459-536.

Reisman, Simon [1987], Testimony of Canada's Chief Trade Negotiator Before the House of Commons Standing Committee on External Affairs and International Trade, November 29, 1987.

Richardson, John B. [1987], "Services Negotiations: The Central Issues," Transnational Data Report (May, 1987), pp. 13-16.

Romaniuk, Bohdan S. and Hudson N. Janisch [1986], "Competition in Telecommunications: Who Polices the Transition?," Ottawa Law Review, 18(3), 1986, pp. 561-661.

Roundtable of European Industrialists [1987], Clearing the Lines, (Paris, 1987).

Rutkowski, Anthony M. [1986], "Regulations for Integrated Services Networks: WATTC-88," in Intermedia, No. 14 (May, 1986), pp. 10-19.

[1985], Integrated Services Digital Networks, (Dedham, Mass., Artech House, 1985).

[1985], "The New Telecommunications Environment: Integrated Information Systems," in Transnational Data Report, (July, 1985), pp. 319-20.

Salzman, Lorne P. [1984], "Acquiring Satellite Services - Legal and Regulatory Issues," in The Canadian Satellite User Conference 1984, (Ottawa: Telesat Canada, 1984), pp. 275-80.

- Schlegel, Jochen K.H. [1987], "Competition in International Communications," Transnational Data Report, (May, 1987), pp. 19-20.
- Schultz, Richard [1986], "All Talk No Action: The Telecommunications Dossier" in Peter M. Leslie (ed.), Canada: The State of the Federation 1986, (Kingston: Queen's University Institute of Intergovernmental Relations, 1986), pp. 129-50.
- [1985], Economic Regulation and the Federal System, (Toronto: University of Toronto Press, 1985).
- Services Policy Advisory Committee Report to USTR [1987], Telecommunications and Information Services in the Trade in Services Negotiations: An Industry View, March 20, 1987.
- Sharp, Sir Eric [1987], "Global Networks - Problems and Prospects," Paper Presented to Financial Times World Telecommunications Conference, London, December, 1987.
- Shelp, Ronald K. [1986], "Redirecting U.S. - Canada Trade and Industrial Policy," Transnational Data Report, (August 1986), pp. 15-17.
- Solomon, J.H. [1987], "The EEC Green Paper: A Faltering Step in the Right Direction," Telecommunications Policy, (December, 1987), pp. 322-24.
- Stallings, William [1985], "The Evolution of Integrated Services Digital Networks," in P. Zorkoczy (ed.), Oxford Surveys in Information Technology, Volume II, (Oxford: Pergamon, 1985), pp. 195-227.
- Staple, Gregory [1986], "The New World Satellite Order: A Report from Geneva," American Journal of International Law, 80(July, 1986), pp. 699-720.
- Sykes, Alfred C. [1987], "Information Resources: A Nation's Stake in Telecommunications," Telecommunications Policy, (December, 1987), pp. 330-33.
- [1988], "Irreversible Momentum - How Far, How Fast?," Paper Presented to the Pacific Telecommunications Conference, Honolulu, February, 1988.
- Teleglobe Canada [1986], Annual Report for the Year Ending December 31, 1986.
- Telesat Canada [1986], Telesat Corporate Position on Free Trade Between Canada and the United States (1986).
- [1985], Memorandum of Agreement Between Telesat Canada and the Members of Telecom Canada, January 1, 1985 amending the 1976 Connecting Agreement.
- United States. Office of Technology Assessment [1987], International Competition in Services, (Washington, 1987).
- United States Trade Representative [1987], National Trade Estimate: Report on Foreign Trade Barriers, (Washington, 1987).

[1987], Response of the Government of the United States of America to the European Community Green Paper on the Development of the Common Market for Telecommunications Services and Equipment, December 9, 1987.

United States Council on International Business [1986a], U.S. Objectives in International Telecommunications and Information Policies (New York, 1986).

[1986b], OECD Conceptualization of a Framework for Services Trade (New York, 1986).

U.S. - Japan Business Council [1987], The Central Role of Telecommunications in Services Trade, (Washington, 1987).

United Nations Centre on Transnational Corporations [1987], Transnational Corporations in the Service Sector, Including Transborder Data Flow: Report to the Secretary General E/C.10/1987/11 (New York, 1987).

[1984], Transborder Data Flows and Poland, E.84.II.A.8 (New York, 1984).

[1983], Transborder Data Flows and Brazil, E.83.II.A.3 (New York, 1983).

United Nations Conference on Trade and Development [1985], Services and the Development Process, TD/B/1008 Rev 1 (New York, 1985).

[1986], Services and the Development Process: Further Studies, TD/B/1100 (New York, 1986).

[1985], "Trends and Issues in Foreign-Direct Investment and Related Flows," (April, 1985).

Wenders, John T. [1987], "On Modifying the MFJ," Telecommunications Policy, (September, 1987), pp. 243-46.

Wex, Samuel [1984], Instead of FIRA: Autonomy for Canadian Subsidiaries? (Montreal: Institute for Research on Public Policy, 1984).

Whitehead, Stephen P. [1987], "Regulation of Transborder Satellite Use" in The Canadian Satellite User Conference 1987, (Ottawa: Telesat Canada, 1987), pp. 100-104.

Woodrow, R. Brian and Kenneth B. Woodside [1986a], Reconciling Increased Competition to Industrial Policy in the Canadian Telecommunications Sector, A Report Prepared for the Department of Communications, March, 1986.

[1986b], "Players, Stakes and Politics in the Future of Canadian Telecommunications Policy and Regulation," in W.T. Stanbury (ed.), Canadian Telecommunications Policy and Regulation: The Impact of Competition and Technological Change, (Montreal: Institute for Research on Public Policy, 1986), pp. 88-201.

[1988] "Telecommunications Policy and Regulation in Canada: Sectoral Corporatism in the Context of Divided Jurisdiction", Challenges to Federalism in Canada and West Germany (Kingston: Queen's University Institute of Intergovernmental Relations, forthcoming).

Yokokura, Takashi [1987], Emerging Corporate Information Networks: An Overview of Regulatory and Industrial Policy in Japan, (Cambridge: Harvard University Center for Information Policy Research, 1987).

