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INTERNATIONAL TRADE IN SERVICES

ON THE BASIS OF ADMINISTRATIVE RECORDS

SESSION 6B

Jacob Ryten, Assistant Chief Statistician
Business and Trade Statistics,
Statistics Canada

Albert Meguerditchian, Director
International and Financial Economics Division (SNA)
Statistics Canada

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International trade in services has attracted considerable attention since its inclusion on the GATT agenda at the end of 1982. This triggered numerous requests for statistics and analytical studies, but the data available were found to be inadequate in most countries. The gaps in statistical information were large and as a result a fundamental review of the definition and classification of services was required, in addition to data development. Since then much has been done both domestically and internationally to develop a statistical framework and also the corresponding data. In Canada and in other countries administrative records have been used in the production of these data.

The purpose of this paper is to show two things, which although applied to Canada may in fact be true of many other countries. Firstly, it makes explicit the dependence of estimates of Canada's international trade in services on administrative registers as opposed to purely statistical inquiries into transborder transactions of goods and services. Secondly, it shows that whereas in the next few years, for countries such as Canada, demand for more detailed information will be at its highest, the trend towards dismantling such registers will be at its strongest. The conclusion is to raise a note of concern, for it is not clear through which means statistical agencies will fill the vacuum created by administrative simplification and removal of controls.

Traditionally, the compilation of international trade in services and other international transactions of the Current Account of the Balance of Payments has relied on both administrative records and conventional statistical surveys. In contrast to statistical surveys, which are inquiries launched with the exclusive purpose of collecting data to support the estimation of statistics about a particular population of businesses, transactions, people or institutions, administrative records are the result of government administrative activities designed to ensure compliance with legislative acts, regulations, policies or guidelines. They include tax returns filed by individuals and firms, forms filed by immigrants on arrival

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in the country of immigration, Customs documents, etc. An especially valuable source of administrative information on international transactions is also available in countries operating under a system of exchange controls.

The consequence of compliance with administrative controls is that individuals, businesses or institutions register certain activities and the result of this registration is considered necessary to operate whatever laws or regulations they fall under. Registers include descriptions of merchandise, services, means of transport, personal characteristics of immigrants, financial operations etc. The tighter the controls imposed by a government on a particular class of businesses, individuals or transactions, the more detail and better coverage are attained by the corresponding administrative records.

The ways in which administrative records can be used fall into three categories:

- . as auxiliary information to produce statistical estimates;
- . as lists of entities that can be used as frames for statistical surveying, assuming that as a result of enforcement, all members of the class targeted by the government disclose themselves; and
- . as files of micro records to be used for research or analysis.

I. Contribution of Administrative Records to Canada's Trade in Services

Overall, services account for a relatively small proportion of Canadian receipts and payments on Current Account. In 1988, service receipts totalled \$20 billion or 11 per cent of current receipts, while service payments of \$26 billion accounted for 14 per cent of total current payments (See Table 1).

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Table 1
Canada's Current Account,
1988

	\$ billions Canadian	As per cent of total receipts/payments
Receipts		
Merchandise exports	137.3	78
Non-merchandise:	38.8	22
Services	20.0	11
Investment Income	10.9	6
Transfers	7.9	5
Total receipts	176.1	100
Payments		
Merchandise imports	127.5	68
Non-merchandise:	58.9	32
Services	26.0	14
Investment Income	29.3	16
Tranfers	3.7	2
Total payments	186.4	100
Total Current Account	-10.3	

Over the last two decades however, there have been large changes in the composition of Canada's international service transactions. Table 2 shows the relative importance of the main service components in 1970, 1980 and 1988. The share of freight and shipping in international services has declined considerably both in terms of receipts and payments (each falling by 10 percentage points) and conversely, the share of business services increased by the same percentages.

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Business services have become the single most important component of service transactions, reaching one third of receipts and almost two fifths of payments. But whereas there are good traditional administrative sources for other components of the Current Account, the measurement of flows of business services is still not entirely adequate nor are there well developed administrative sources to balance weaknesses in the statistical surveys.

Table 2
Canada's International Transactions in Services, by Category
Selected Years

	1970	1980	1988
	As per cent of total receipts/payments		
Receipts			
Travel	37	31	35
Freight and shipping	35	36	25
Business services	19	26	33
Government transactions	6	4	3
Other services	3	3	4
Total	100	100	100
Payments			
Travel	36	33	37
Freight and shipping	28	24	18
Business services	29	34	39
Government transactions	5	7	5
Other services	2	2	1
Total	100	100	100

International travel, which accounted for over one-third of both service receipts and payments in 1988, is subdivided into passenger fares and other travel related expenditures. For travellers using air and boat as the mode of transport, estimates of passenger fares and travel expenditures are derived by multiplying official volume counts derived from Revenue Canada administrative registers, by expenditure factors estimated on the basis of Statistics Canada statistical surveys. Travel by air and boat accounted for half of both travel receipts and payments in 1988. The same estimation procedure applies to

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travellers entering and leaving Canada through land ports, except that the counts of numbers are estimated by Statistics Canada and the results shared with Revenue Canada. Travel counts constitute an important administrative file for the estimation of international travel. But while the counts of travellers are considered to be reliably measured, the expenditure factors are derived from sample surveys to which response rates are typically low.

Freight and shipping accounted for one quarter of service receipts and nearly a fifth of service payments in 1988. The constituent accounts are inland freight, ocean shipping, and intransit and air freight. As Canadian merchandise trade is valued at f.o.b. plant, inland freight and related distribution services are recorded as part of services. Receipts on inland freight by the trucking industry in Canada are calculated using the volume of trade (provided by Customs) times freight tariffs. Railway companies provide their receipts and payments, as is also the case for pipeline companies. Information on payments for inland freight are obtained from the United States under a reciprocal exchange of statistics. Inland freight is by far the largest component of freight and shipping, accounting for over three quarters of receipts and over three-fifths of payments in 1987 (see Annex). Other freight and shipping transactions such as ocean shipping, intransit transportation and air freight are derived from statistical surveys.

Business services¹ have become the fastest growing component of services. In 1988, they accounted for a third of total service receipts, compared to 19 per cent in 1970. The growth in business service payments was similar, rising from 29 per cent in 1970 to 39 per cent of all service payments in 1988.

The estimation of this component relies on a mixture of techniques. But in the last few years there has been more intensive use of administrative

¹ Components of business services are presented in the Annex. More information is contained in "Canada's International Transactions in Services", Statistics Canada Catalogue 67-203.

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registers. For example, withholding taxes included in receipts and payments are derived from taxation records. Commissions on merchandise trade, broker and agent fees are derived from Customs declaration forms after application of benchmark factors. Postal services are obtained from the public sector agency in charge of postal communications; and data for service transactions of the automotive industry are derived from a mixture of direct survey and from information reported on Customs declaration forms. A significant improvement to the estimation of business services came about because of access to the withholding tax returns, specifically for information on royalties, franchising or similar rights, management and administrative services, and films and videotapes. To the extent that the traditional balance of payments surveys were incomplete in their coverage, the tax returns improved results particularly with respect to transactions entered into by small firms who may escape detection in a purely statistical survey.

Canadian statistics also benefit greatly from the data collected on the basis of an act designed to make public the extent of foreign ownership and control in Canada. The Act in question (Corporations and Labour Unions Returns Act or CALURA) is managed by the Chief Statistician and allows him to collect financial and other information derived from corporations and labour unions operating in Canada in the detail necessary to show how foreign ownership and control may affect the nature of those operations. The service transactions of transnational companies operating in Canada are far from trivial. In 1987, business services provided by and to related firms accounted for over one third of total business service receipts and over one half of payments. A new Revenue Canada form collecting information on international transactions between related firms was implemented in 1988, and it is bound to provide additional information on service transactions with affiliates.

Government transactions are small in relative terms. All told they do not exceed 3 per cent of service receipts and 5 per cent of payments in 1988. In the case of the central government they are mostly related to the expenses of official Canadian representation abroad, contributions to international agencies, and defense related expenses abroad. The source of data is purely administrative. The United States and the United Kingdom provide information on their expenditures in Canada for representation and defense, while receipts from other countries are based on benchmark estimates.

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Other services mostly cover the activities of trade unions, student related expenses and receipts and labour income of commuters and migrant workers. Information on trade unions primarily covers wages, strike receipts and dues paid to international unions and is obtained from the annual returns filed with Statistics Canada under CALURA. Data sources for labour income include information from the Department of Employment and are administrative in nature.

Table 3 is an attempt to quantify the contribution of administrative registers and records to the complete estimates of the Current Account of the Balance of Payments. The following definitions underlie the estimates presented in the table. "Direct use" corresponds to estimates which are directly derived from administrative records. "Indirect use"² applies to cases where data derived from administrative registers are used in conjunction with data estimated from statistical surveys. Excluding the merchandise account which depends almost 100 per cent on Customs clearance documents, the non-merchandise accounts are estimated to depend on administrative registers to the extent of almost half for receipts and one quarter for payments.

For services, administrative records are mostly used as indirect sources, and account for over 40 per cent of receipts and 35 per cent of payments. An important source of administrative records used in the estimation of trade in services consists of Customs trade data, which are used extensively in the estimation of freight and shipping, commissions on exports and imports and for tooling and other automotive charges.

² For "indirect use", the contribution of administrative records was determined according to the nature of the other sources of information used. Whenever administrative records are used together with survey data (for example, travel), 50 per cent of the estimates were allocated to administrative sources. In the cases where the other sources consisted of benchmark factors, such as freight, tariff or commission rates charged by brokers on merchandise trade, 95 per cent of the estimate was attributed to administrative records. If information from administrative records was used to augment survey results, the amount added to survey results was considered as an indirect use of administrative records. This applies, for example, to the use of withholding tax records in determining benchmarks for business service transactions of small firms.

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Table 3
Contribution of Administrative Records to Estimates of Canada's
Current Account, Balance of Payments
1988

CURRENT ACCOUNT		Total	Administrative records			Statistical surveys and other sources
			Total	Direct	Indirect	
		\$billions Canadian	per cent			
Merchandise	Receipts	137.3	100	100	-	-
	Payments	127.5	100	100	-	-
Non-merchandise						
. Services						
Travel	Receipts	6.9	50	-	50	50
	Payments	9.6	50	-	50	50
Freight and Shipping	Receipts	5.1	46	-	46	54
	Payments	4.6	43	-	43	57
Business Services	Receipts	6.7	24	13	11	76
	Payments	10.1	10	3	7	90
Government Transactions	Receipts	.6	76	76	-	24
	Payments	1.2	75	75	-	25
Other Services	Receipts	.7	22	22	-	78
	Payments	.4	69	69	-	31
Total Services	Receipts	20.0	41	8	33	59
	Payments	26.0	35	6	29	65
. Investment Income	Receipts	10.9	22	11	11	78
	Payments	29.3	9	5	4	91
. Transfers	Receipts	7.9	95	95	-	5
	Payments	3.7	73	73	-	27
. Total Non-merchandise	Receipts	38.8	46	26	20	54
	Payments	58.9	25	10	15	75
Total	Receipts	176.1	88	84	4	12
	Payments	186.4	76	71	5	24

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Administrative records can also be used for research and analysis and, accordingly, provide for a better understanding of international trade in services. Projects undertaken or being contemplated in Canada are mostly based on micro data matching of administrative and statistical files and include:

- . linkages of information on firms engaged in international trade in services with records on exports and imports, in order to determine to what extent firms engaged in merchandise trade are also engaged in trade in services and particularly in business services; and
- . linkages of information on direct investment transactors with information on trade in business services and corporate tax records. This study is designed to provide information on the size of firms trading in services, and the importance of cross-border transactions in services versus direct sales of services through foreign direct investment firms in Canada.

II Issues Related to Administrative Records and Trade in Services

The reasons why administrative records are used so extensively in the estimation of the Current Account of the Balance of Payments are obvious. These records are exhaustive and detailed. Compliance with administrative regulation tends to be better than with statistical surveys. In view of the fact that administrative registers will be filled anyway, their use for statistical purposes will reduce overall response burden and in addition represents a much cheaper form of collecting basic information.

The current and potential use of administrative records is, however, under threat. The general threat includes a move towards a paperless society. Pressures for lessening government paperwork will also contribute towards eliminating, at least in part, the information collected currently and keeping tight bounds on new requirements.

There is a trend towards trade liberalization and facilitation. Not only does this imply lower tariffs and less dependence on the customs duty intake, but also less requirements for documentation. Even if this trend does not apply to trade between developed and developing countries, the chances are

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that eventually it will. Since 1947, the major industrial nations have undertaken seven rounds of negotiations under the auspices of GATT to reduce tariffs. As a share of imports, Canadian Customs duties amounted to one tenth in 1955 but four per cent in 1987. By 1986, almost three fourths of Canadian imports from the United States were duty free. Within the next ten years duties between the two countries are slated to disappear. The same situation is likely to apply to pairs and groups of countries envisaging the formation of customs unions or outright economic communities which constitute a framework in which transborder trade is regarded as internal.

These changes are bound to lead to a situation in which traditional administrative sources of information on trade in goods and services and on factor income and transfers will be progressively weakened. The administrative documents recording a transaction will no longer be available, nor will there be a requirement for participants in international trade to register their identity and attributes.

The weakening of the statistical apparatus caused by liberalization was the focal point of the Opening Address to the 1988 Annual Conference of the United Kingdom's Statistics Users' Council³ by the Hon. Francis Maude, M.P., Parliamentary Under Secretary of State for Corporate Affairs.

"I instigated the review of the DTI (Department of Trade and Industry) surveys because I regard the burden imposed by the collection of statistics on firms as a deregulation issue."

"...Reducing burdens on business is a central theme in our negotiating with our partners in Europe as we move towards the completion of the Single European Market..." "The first question we have to consider is whether a regulation is necessary for the completion of the Single Market..." The case needs to be made why accurate and detailed Inter-EC Trade statistics are needed for marketing and other purposes by industry and commerce in the Single European Market, when they are not required in the single American Market."

³ U.K. International Trade Statistics, Proceedings, Statistics Users' Council, Annual Conference, 7th December, 1988, p. ii and iii.

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"So, would the absence of detailed Inter-EC Trade Statistics after 1992 be a hinder or help the development of a Single European Market? (As far as the forthcoming EC regulation on this topic allows, my predilection is to impose the very minimum burden on traders for the collection of visible trade figures in this country, unless users of the figures in industry and commerce can put up a very strong case and say whether the senior executives of their firms and organisations are prepared to bear the cost of providing the information)."

Actually two threats face the balance of payments compiler, specifically in North America and everywhere more generally. The first was described in some detail and relates to the fact that the dependence on administrative records has increased at a time when the quality and indeed the very existence of such documents is threatened. The second relates to the integration of firms operating in more than one country. In 1987, service related transactions between affiliated firms accounted for over half of Canada's international payments on business services and for 37 per cent of total business service receipts (see Table 4).

Table 4
Canada's International Transactions in Business Services -
Transactions with Affiliated and Non-affiliated Firms,
Selected Years

	1973	1983	1987	1973	1983	1987
	\$ millions Canadian			As per cent of total receipts/payments		
Receipts						
Affiliates	282	1,333	2,285	34	33	37
Non-affiliates	559	2,709	3,841	67	67	63
Total	840	4,042	6,126	100	100	100
Payments						
Affiliates	872	2,929	5,104	54	49	54
Non-affiliates	747	3,108	4,293	46	51	46
Total	1,619	6,037	9,397	100	100	100
Balance						
Affiliates	-590	-1,596	-2,819			
Non-affiliates	-188	-399	-452			
Total	-779	-1,995	-3,271			

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Economic unions or free trade areas are expected to lead to greater integration and to growth in the number of companies operating within several countries. In the coming years this is as likely to happen in North America as in Europe.

There is, however, an imperfect notion of services that firms provide to or receive from their affiliates. As such, it does not follow that the recording of intercompany transactions complies with balance of payments standards. For example, under the guise of services, incomes can be repatriated, forms of direct investment can take place, etc., all without the knowledge or consent of any administrative instance and very much in spite of the standards promulgated by the official statisticians.

And yet there has been no commensurate effort to verify to what extent the transactions reported by transnational companies reflect an intrinsic bias or distortion in the classification and valuation of services. Admittedly, there is no reason to expect that within a company the costing of a service and the consideration of whether it generated an internal surplus should abide by the exact same principles as a market transaction. Furthermore, if the company acts rationally it should also search ways of minimizing its tax liability in all countries where it operates. In North America, this would be a standard consideration and existing tax differentials would be a powerful explanatory variable for many corporate strategies. It follows that the valuation attached to each service as well as the propensity to provide transborder services would have to do as much with standards of internal efficiency as with what advantages could be secured within the two countries' tax framework. While in theory the same set of comments could be made about transactions in goods, in practice the requirement by Customs that the Brussels standard of value be adopted by all parties to a transaction reduces the dangers of distortion.

For services, however, no such considerations apply. The auditing of individual transactions and the basis for the valuation thereof is hardly a practical approach to be adopted by the tax authorities. Accordingly, so long as the valuation and classification are applied consistently, it is virtually impossible to establish whether there is a bias and if so in which direction.

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Both threats should spell out the same reaction by a statistical agency. Clearly, it cannot continue relying to anything like the same extent on administrative records. In the case of goods the documentation is threatened with extinction and this will impact on the compilation of services as well. In the case of transactions by transnationals the data are questionable because of the reasons mentioned above. In fact, given the integration of firms, one might question whether cross-border trade in services is still a relevant measure of international service transactions. Should trade in services be looked at in a broader perspective by taking into consideration transactions through foreign affiliates (direct investment firms)? The integration of whole economies into economic communities may blur, to some extent, the concept of residency, as trade within the community may be considered as internal rather than external trade.

These considerations imply a radical change in the fashion of approaching the compilation of international transactions. The parting thought in this paper is that if the threat has been recognized by official statistical agencies, it is not apparent to either of its authors what is the planned response nor even what is the research necessary to formulate such a response.

ANNEX

Canada's International Transactions in Services, by Category
1987

	Receipts	Payments	Balance
	\$ millions Canadian		
Travel			
Passenger fares	1,014	1,751	- 737
Other travel	5,285	7,077	- 1,792
Total	6,299	8,828	- 2,529
Freight and shipping			
Ocean shipping	864	1,313	- 449
Inland freight	3,635	2,975	+ 660
Intransit and air freight	241	529	- 288
Total	4,740	4,817	- 77
Business services			
Consulting and other professional services	768	486	+ 282
Transportation related services	733	806	- 73
Airline transactions	678	767	- 89
Other transportation related	55	39	+ 16
Management and administrative services	229	1,040	- 811
Research and development	647	792	- 145
Commissions	732	539	+ 193
Broker and agent commissions	607	288	+ 319
Other commissions	125	251	- 126
Royalties, patents and trademarks	96	1,099	- 1,003
Films and broadcasting	18	193	- 175
Films	x	153	..
Broadcasting	x	40	..
Advertising and promotional services	57	103	- 46
Financial services			
Insurance	859	1,243	- 384
Insurance companies	670	754	- 84
Insurance brokers	189	489	- 300
Other financial	258	782	- 524
Computer services	179	119	+ 60
Equipment rentals	181	475	- 294
Oil rig rentals	..	126	- 126
Other equipment rentals	181	349	- 168
Franchises and similar rights	1	34	- 33
Communications	428	438	- 10
Refining and processing services	90	..	+ 90
Tooling and other automotive charges	637	650	- 13
Other services	210	597	- 387
Total	6,126	9,397	- 3,271
Government transactions			
Central governments	621	933	- 312
Provincial governments	59	252	- 193
Total	680	1,185	- 505
Other services			
Trade unions	74	114	- 40
Other	397	244	+ 153
Total	471	358	+ 112
TOTAL, All services	18,316	24,586	- 6,270

x - confidential

.. - not available