SOME ESTIMATES OF TRADE FLOWS IN BANKING SERVICES

BY FRANCE ST-HILAIRE

Institute for Research in Public Policy, Montréal, Québec

AND

JOHN WHALLEY

University of Western Ontario

This paper presents some estimates of international trade in banking services. We use IMF data on assets and liabilities of both domestic banks and non-banks with foreign banks, and of foreigners with the domestic banking system to construct measures of the volume of transactions on which banking intermediation services are provided across national borders. We then use estimates of the spread between borrowing and lending rates for depositors and borrowers with the financial institutions involved to estimate the value of international flows of intermediation services. Estimates are presented for 1982–84 and 1991–93 for the U.S., the U.K., and Canada.

I. INTRODUCTION

Those who advocated including services in the Uruguay Round GATT negotiations based their case, in part, on the alleged growing importance of trade in services. These claims were based on estimates of service trade derived from balance of payments (BOP) data, even though it was widely recognized that individual service items could not be identified in these accounts since they were recorded both as part of merchandise trade estimates and as part of the broader receipts and payment of fees, royalties, and investment income (i.e. invisibles).

This paper presents some estimates of international trade in one key service category, banking services, obtained using an alternative method. In the process, we also raise the conceptual issue as to what the measurement of international trade in banking services should include and perhaps more importantly not include. This issue, it turns out, has substantial relevance to the ongoing debate on trade in services.

We use IMF data on assets and liabilities of both domestic banks and non-banks with foreign banks, and of foreigners with the domestic banking system to construct measures of the volume of transactions on which banking intermediation services are provided across national borders. We then use estimates of the spread between borrowing and lending rates for depositors and borrowers with the financial institutions involved to estimate the value of international flows of

intermediation services.[1] We apportion these estimates between depositors and borrowers; and on this basis, make calculations of the value of financial intermediation services traded across national boundaries.

Estimates are presented for three years in the early 1980s and three years in the early 1990s for three countries: the U.S., the U.K., and Canada. Our calculations suggest that the value of international trade flows in banking services is small. For the U.S. for the early 1980s, exports are perhaps around $3–5 billion per year.

This approach to measuring trade in banking services recognizes that the main service which banks provide is one of financial intermediation between depositors and borrowers. Depositors and borrowers both use banks to economize on transactions costs in locating one another for the purpose of effecting mutually advantageous trades. Depositors postpone consumption in return for interest payments by borrowers on their deposits. They also pool risks of default, reducing the variance of their expected returns on their savings. International flows of banking services occur where banks located in one country provide financial intermediation services to borrowers or depositors located in other countries.

This may seem to be a relatively straightforward concept on which to base a measure of international flows of banking services, but in the literature on service trade which has appeared, international flows of banking services are often equated with the foreign source income of domestic banks. These, of course, are quite different. For example, our estimates of exports of banking services by the U.S. of $3–5 billion in the early 1980s contrast with estimates of foreign source income accruing to U.S. banks of $23.2 billion for 1977 [the latest year for which official estimates were available at the time of the launch of the Uruguay Round (1986); see Whichard (1984)].

The implication for the debate on trade in services is that international flows in banking services may be relatively small; but since the importance of the service trade issue is, to a great extent, gauged in terms of foreign affiliate revenues it may well be over-emphasized. The fundamental issue with trade in services which many other authors have raised is whether the main trade-related issues for service industries relate to questions of trade or establishment rights and discriminatory regulations such as those faced by banks in their international operations. Strictly speaking, these are investment rather than trade-related issues, and our estimates seem to confirm this.

II. SERVICES, BALANCE-OF-PAYMENTS DATA AND THE TREATMENT OF BANKING

In attempting to measure international trade in banking services, the wider issues involved in measuring trade in services are readily apparent. There is little, if any, consensus as to what constitutes traded services, and available data is very limited. Definitions of service trade vary between two extremes; one restricted to

[1]While this approach is widely used as a measure of the value of intermediation services, it is nonetheless contentious. See Rymes (1986, 1989, 1990). See also the comments by Wykoff (1992) on measurement of banking services.

services which actually cross national borders, the other incorporating all non-merchandise and non-transfer items reported in the Balance-of-Payments current account.

Nevertheless, the most widely used estimates of service trade flows are all based (in one way or another) on Balance-of-Payments data. These accounts, reported on a national basis, record all transactions between residents of a country and the rest of the world (i.e. flows of real resources, transfers and change in assets or liabilities). The current account of the BOP reports merchandise trade and trade in invisibles.[2] The capital account records all financial transactions.

Table 1 summarizes the main BOP items from the IMF Balance-of-Payments Manual. Invisibles include a number of more readily identifiable service categories such as travel, transportation and freight. Remaining services appear in one miscellaneous category which includes insurance, fees, commissions, royalties and copyrights, construction services, communications and advertising (see the right-hand inset in Table 1).

Listing these items in this way demonstrates the difficulties in separating service transactions on a functional basis. Various services generate fees, royalties, copyrights and commissions. BOP data does not provide any information on the specific activities from which these arise. Constructing estimates of international services flows for such categories as accounting, data processing, education, engineering, franchising, health care, leasing and renting, management consulting, public relations, law and other professional, marketing and technical service is simply not possible from BOP data. Service transactions in the BOP are recorded by type of service only in a small number of cases (i.e. travel, transportation, insurance). The rest are classified according to the type of payment associated with services provided (e.g. royalties, fees, and commissions). Even the receipts and payments of investment income, in effect, embodies a service component.[3]

Banking is a good example of these problems. In the U.K. BOP, for instance, the receipts from overseas operations of national banks include the net receipts of banks from services provided to "non-related" customers (including arbitrage as well as banking charges and commissions); the net receipts for services rendered to overseas branches, subsidiaries and associates of national banks; the net receipts from lending and borrowing involving overseas residents; and the interest, profits and dividends accruing to nationals from overseas branches, subsidiaries and associates of national banks.[4] The first two items are included in "other services," and the second two as part of investment income.[5]

These items, however, do not provide a measure of international trade in banking services, since the service provided by banks is that of financial intermediation. In most cases there is no explicit charge for this service, except for fees and

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[2]It is important to note that invisibles refers to transactions which relate neither to goods flows nor to capital movements.

[3]Stalson (1985) refers to "intractable conceptual difficulties" in both collecting and interpreting U.S. data on services.

[4]U.K. Central Statistical Office, United Kingdom Balance of Payments 1963–73, p. 70, Her Majesty's Stationery Office, London, 1974.

[5]This treatment is approximately the same in the BOP accounts for the U.S. and Canada. The U.K. BOP treatment is described here because of the clearer description of sources and methods of construction provided for these accounts.

TABLE 1

ITEMS INCLUDED IN TYPICAL COUNTRY BALANCE-OF-PAYMENTS ACCOUNTS

A. Goods and Services (Items 1 through 8)	B. Transfer Payments (Items 9 plus 10)

1. *Merchandise*
  1.1 Exports f.o.b., imports
  1.2. Other merchandise (net)
	9. *Private*[1]
	  9.1. To and from foreign governments
	  9.2. Other

2. *Non-Monetary Gold*	10. *Central government*
	  10.1. Intergovernmental
	  10.2. Other

3. *Freight and insurance on international shipments*
  3.1. Freight
  3.2. Insurance
	Other Services Include:

4. *Other transportation*
  4.1. Passenger fares
  4.2. Time charters
  4.3. Part expenditures
  4.4. Other
	1. *Non-merchandise insurance*
	  (*1.1 through 1.4—item 8.1*)
	  1.1. Premiums on direct insurance
	  1.2. Claims on direct insurance
	  1.3. Premiums on reinsurance
	  1.4. Claims on reinsurance

5. *Travel*	2. *Other* (*2.1 through 2.12—item 8.2*) 2.1. Personal income

6. *Investment income*
  6.1. Direct investment income
  6.2. Other dividends
  6.3. Other
	2.2. Management fees
	  2.3. Underwriters' commissions
	  2.4. Agents' fees
	  2.5. Construction activity
	  2.6. Communications

7. *Government, not included elsewhere*
  7.1. Military transactions
  7.2. Non-military transactions
	2.7. Advertising
	  2.8. Subscriptions to press
	  2.9. Film rentals

8. *Other services*
  8.1. Non-merchandise insurance
  8.2. Other
	2.10. Copyrights and patent royalties
	  2.11. Real estate rentals
	  2.12. Other

Memorandum item: factor income (item 6 and part of items 7 and 8)	3. *Total* (*1 plus 2—item 8*)
	4. *Memorandum item:*[2] *factor income*

Source: *IMF Balance of Payments Manual,* 1966, *Tables A and VIII.*
[1] All residents other than the central government.
[2] Item specified for reconciliation with national accounts.

commissions which are relatively minor. The charge for the service is implicit in the difference between the interest rate charged to borrowers, and the rate of interest paid to depositors. The BOP data record estimates of the income flows generated by banks from their international activities and [the value of intermediation services actually traded internationally (except for fees and commission)] is an unidentified portion of these estimates.

    Moreover, for the most part, the activities included in the BOP do not relate to transactions which occur between countries. A U.S. bank affiliate acting as a financial intermediary between two non-residents is generating investment income for the parent bank, not engaging in international trade. While one can argue that it is establishing a presence abroad that allows such transactions to occur; and therefore some element of the income return should be included as trade, it is virtually impossible to distinguish the trade element from the investment element.

What is required is a more direct measure of the value of banking services actually traded internationally. Ideally this estimate should include all fees and charges accruing to domestic banks from non-residents, including their foreign affiliates, plus an imputed financial service charge covering the value of services rendered by national banks to domestic residents.

III. An Estimate of International Trade Flows in Intermediation Services Provided by Banks

Because the BOP estimates do not distinguish the various components of receipts and payments associated with banking activities, we have used an alternative method to construct estimates of international trade in intermediation services provided by both domestic and foreign banks. We have done this for three countries (the U.S., the U.K., and Canada), for the years 1982–84, and 1991–93.

The method we use involves applying estimates of the spread between deposit and lending rates both for U.S., U.K., and Canadian banks, and banks in their largest partner countries to corresponding data on assets and liabilities of both domestic banks with non-residents, and non-resident banks with residents. These yield an estimate of the value of intermediation services provided by domestic banks to both depositors and borrowers abroad, and by non-resident banks to domestic depositors and borrowers. The combined financial intermediation charge is apportioned between the parties to calculate the internationally traded component.

International Financial Statistics (1985, 1994) provides data on inter-country asset and liability positions of resident and non-resident banks. Estimates of intermediation services exported by countries are based on the sum of foreign non-bank deposits with domestic banks (cross-border bank deposits of non-banks by residence of lending bank). Intermediation services imported by countries are based on the sum of deposits of domestic non-banks with foreign banks (cross-border bank deposits of non-banks by residence of depositor); loans to domestic non-banks by foreign banks (cross-border bank credit to non-banks by residence of borrower); and loans to domestic banks (cross-border inter-bank liabilities by residence of borrowing bank).

Table 2 reports both the consolidated claims and liabilities of domestic banks and non-banks with foreigners, and claims and liabilities of foreign banks involving domestic residents. Data on rate spreads from OECD Financial Statistics Monthly are reported in Table 3. These clearly have to be interpreted with caution; but for the purposes of the calculations we make, are unfortunately all that is available. Data on rate spreads in Japan, for instance, are distorted by domestic financial regulation. Also, the variance in rate spreads by country reflects both differences in financial regulation across countries, and the form of financial transactions in which the various national banks engage. Spreads are smaller for the U.K. than for most other countries because charges for bank-to-bank intermediation services are smaller per dollar transacted than for bank-to-non-bank intermediation and U.K. banks engage in more bank-to-bank intermediation activity. This results in the U.K. appearing in our calculations as a net importer rather than a net exporter of banking services.

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TABLE 2
CLAIMS AND LIABILITIES, DOMESTIC AND FOREIGN BANKS, U.S., U.K., AND CANADA, 1982-84 AND 1991-93
(Billions of U.S. Dollars)

	U.S.			U.K.			Canada		
	1982	1983	1984	1982	1983	1984	1982	1983	1984
Claims and Liabilities of Domestic Banks with Foreigners									
Foreign non-bank deposits	45.55	58.83	67.45	151.61	150.53	146.10	18.99	25.00	27.18
Loans to foreign non-banks	107.95	121.23	118.61	142.79	149.67	144.85	7.13	7.76	7.44
Loans to foreign banks	294.06	308.74	324.21	320.08	335.53	344.78	31.02	33.21	34.04
Total	447.56	488.80	510.27	614.48	635.73	635.73	57.14	65.97	68.66
Claims and Liabilities of Foreign Banks with Domestic Residents									
Domestic non-bank deposits	152.36	167.91	161.49	17.72	20.48	20.76	10.98	11.38	12.76
Loans to domestic non-banks	57.54	56.52	68.24	13.75	15.98	13.84	11.18	10.61	11.01
Loans to domestic banks	208.91	246.93	269.47	349.19	365.62	384.39	38.81	36.36	34.83
Total	418.81	471.36	499.2	380.66	402.08	418.99	60.97	58.35	58.60

	U.S.			U.K.			Canada		
	1991	1992	1993	1991	1992	1993	1991	1992	1993
Claims and Liabilities of Domestic Banks with Foreigners									
Foreign non-bank deposits	92.14	91.42	96.72	314.49	295.96	274.80	33.51	27.29	24.36
Loans to foreign non-banks	78.94	86.10	98.37	269.13	291.91	324.45	11.96	11.45	12.65
Loans to foreign banks	577.34	540.62	488.61	713.55	727.01	728.28	34.07	35.40	28.46
Total	748.42	718.14	683.70	1,297.17	1,314.82	1,327.53	79.54	74.14	65.47
Claims and Liabilities of Foreign Banks with Domestic Residents									
Domestic non-bank deposits	268.67	256.59	252.08	74.10	64.57	72.62	14.78	12.13	10.55
Loans to domestic non-banks	277.42	307.40	345.70	65.39	64.32	99.12	37.55	39.82	42.79
Loans to domestic banks	628.32	664.00	710.48	800.16	821.08	859.27	43.20	46.33	42.77
Total	1,174.41	1,227.99	1,308.26	939.65	949.97	1,031.01	95.53	98.28	96.11

Source: International Financial Statistics, 1984 Yearbook, pp. 64-75, IMF, Washington, D.C., 1984.

TABLE 3
INTEREST RATE SPREADS BETWEEN DEPOSITORS AND BORROWERS BY COUNTRY
1982–84 AND 1991–93

	1982	1983	1984	1991	1992	1993
Countries for Which Trade in Intermediation Services are Calculated						
United States						
1. Large time deposits	12.27	9.07	10.47	7.17	4.05	3.19
2. Prime rate	14.86	10.79	12.05	9.52	6.50	6.00
Implicit service charge	1.29	0.86	0.79	1.18	1.23	1.41
United Kingdom						
1. Sterling certificates of deposit (minimum rate)	12.21	10.08	9.88	13.81	10.53	6.82
2. Overdraft (minimum rate)	12.93	10.79	10.68	15.00	11.50	7.80
Implicit service charge	0.36	0.35	0.40	0.60	0.49	0.49
Canada						
1. 90-day deposit receipts	14.06	8.25	9.98	11.07	7.28	6.76
2. Chartered banks prime lending rate	15.99	11.23	12.09	12.55	7.90	6.94
Implicit service charge	0.96	1.49	1.05	0.74	0.31	0.09
Other Partner Countries						
Germany						
1. Time deposits (1–3 months)	7.54	4.56	4.86	7.50	8.03	7.40
2. Discount credit	9.53	6.00	6.09	8.70	10.34	10.36
Implicit service charge	0.99	0.72	0.61	0.60	1.16	1.48
Switzerland						
1. 3–month deposits with major banks	4.29	3.35	3.81	7.50	6.88	4.97
2. Commercial bank's overdraft	7.14	5.82	5.91	8.25	8.00	7.50
Implicit service charge	1.42	1.23	1.05	0.38	0.56	1.27
Japan						
1. Time deposits (1 year)	5.75	5.75	5.50	6.08	4.82	3.86
2. Prime rate	6.00	5.92	5.50	8.25	5.88	4.50
Implicit service charge	0.12	0.08	0.00	1.09	0.53	0.32
France						
1. Time deposits (less than 3 months minimum)	9.31	8.24	7.66	4.50	n/a (4.50)	n/a (4.50)
2. Bank's prime lending rate	13.62	12.25	12.15	10.25	10.35	10.00
Implicit service charge	2.16	2.01	2.24	2.16	2.01	2.24
Belgium						
1. Overdrafts with commercial banks	16.93	13.68	14.41	13.25	13.25	11.75
2. 1-year cash certificates	9.00	8.79	8.96	8.50	8.30	7.00
Implicit service charge	3.97	2.44	2.27	2.38	2.48	2.38

Source: *Financial Statistics Monthly*, OECD, January 1983, 1984, 1985, 1992, 1993, 1994.

Despite these problems, this data on rate spreads has been used along the consolidated country data on inter-country claims and liabilities reported in Table 2 to estimate the value of intermediation services traded by the U.S., the U.K., and Canada for each of three years. These are reported in Table 4. In making these calculations the value of intermediation services has been apportioned between borrowers and lenders using an equal weighting assumption. Since the number of partner countries is so large in each case, we use data on rate spreads for only

TABLE 4

ESTIMATES OF INTERNATIONAL TRADE IN FINANCIAL INTERMEDIATION SERVICES
U.S., U.K. AND CANADA, 1982–84 AND 1991–93

	U.S.			U.K.			Canada		
	1982	1983	1984	1982	1983	1984	1982	1983	1984
Domestic implicit service charge for intermediation (%)	1.29	0.86	0.79	0.36	0.35	0.40	0.96	1.49	1.05
Foreign implicit service charge for intermediation (%)	0.77	0.77	0.62	1.46	1.14	0.96	0.77	0.79	0.99
Estimate of bank services exports[1] (billions of US dollars)	5.77	4.20	4.03	2.21	2.22	2.54	0.55	0.98	0.92
Estimate of bank services imports[1] (billions of US dollars)	3.22	3.63	3.40	5.56	4.58	4.02	0.47	0.46	0.58

	U.S.			U.K.			Canada		
	1991	1992	1993	1991	1992	1993	1991	1992	1993
Domestic Implicit service charge for intermediation (%)	1.18	1.23	1.41	0.60	0.49	0.49	0.74	0.31	0.09
Foreign implicit service charge for intermediation (%)	0.68	0.61	0.73	1.06	1.05	1.16	0.84	0.65	0.57
Estimate of bank services exports[1] (billions of US dollars)	8.83	8.83	9.64	7.78	6.44	6.50	0.59	0.23	0.06
Estimate of bank services imports[1] (billions of US dollars)	7.98	7.49	9.55	9.96	9.97	11.96	0.80	0.63	0.55

[1]Assuming intermediation costs are borne equally by depositors and borrowers.

the more important countries displayed in Table 3, and construct weighted averages using the country composition of assets and liabilities.[6]

While clearly dependent on the interest rate spreads used, the striking feature of these estimates of international flows of banking services from Table 4 is their relatively small size. For the U.S., for instance, international trade flows in banking services are in the range of $3–5 billion per year in the 1980s, and $7–10 billion per year in the early 1990s. This contrasts with estimates of foreign affiliate sales of U.S. banks of $23.2 billion for 1977. These differences emphasize that foreign investment income accruing to U.S. parent banks as a result of operations abroad does not appear to necessarily indicate large international trade in intermediation-type banking services. Service trade, as it relates to banking, may be an important investment issue, but does not appear to be that important a trade issue.

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[6]For the U.S., we use the U.K., Japan, Switzerland, Germany, and Canada as partner countries; for the U.K., we use U.S., Canada, Japan, Germany, Belgium and Switzerland; for Canada, we use the U.S., U.K., Japan, Germany and Switzerland.

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1. INTRODUCTION

All three of the books reviewed here are concerned with services, but the focus of the three is very different, and taken together the amount of material covered is substantial. This brief review cannot hope to do justice to this wealth of information, and thus we focus our attention on a few specific topics. We first set the stage for the review by discussing the definition of services and their measurement. Sections 3 and 4 provide some historical background and document the growth of the service sector. Section 5 reports on output and productivity measures, section 6 reviews other service sector issues, and section 7 concludes our discussion.

2. WHAT ARE SERVICES AND HOW SHOULD THEY BE MEASURED?

One of the first difficulties that practitioners encounter in attempts to measure service output is deciding exactly what services are and how they differ from goods. In his introduction, Griliches provides a definition from the Webster's dictionary that suggests that services are the result of labor that does not produce a tangible commodity, and includes as examples such activities as railroads, laundries, and physician services. One of the most complete discussions of the distinction between goods and services is contained in T. P. Hill (1977), where a service is 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 activities of some other economic unit, with the prior agreement of the former person or economic unit" (Hill, 1977, p. 318). Other definitions include "services are consumed as they are produced and so service consumption and production are aspects of the same process" (ECC, 1991, p. 7). ECC then suggest four distinctions between goods and services: 1) tangibility vs. intangibility; 2) no direct contact

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