BANK FOR INTERNATIONAL SETTLEMENTS

STATISTICS ON PAYMENT SYSTEMS IN THE GROUP OF TEN COUNTRIES

figures for 1994

Prepared by the Committee on Payment and Settlement Systems of the central banks of the Group of Ten countries

Basle
December 1995

© Bank for International Settlements 1995. All rights reserved. Brief excerpts may be reproduced or translated provided the source is stated. ISSN 1024-3380

TABLE OF CONTENTS

		Page
Coun	ntry tables	
	Belgium	1
	Canada	11
	France	23
	Germany	35
	Italy	45
	Japan	55
	Netherlands	65
	Sweden	73
	Switzerland	83
	United Kingdom	91
	United States	101
Com	navativo tablos	112

	·	

COUNTRY TABLES

-1- Belgium

Table 1

Basic statistical data

	1990	1991	1992	1993	1994
Population (millions)	9.99	10.02	10.07	10.10	10.13
GDP (BEF billions)	6,426	6,723	7,034	7,137	7, 6 26
GDP per capita (BEF)	643,243	670,958	698,510	706,634	752,813
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	30.98 33.41	31.27 34.18	33.18 32.12	36.11 34.55	31.84 33.45

Table 2
Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of Belgian francs)

1990 1991 1992 1993 1994 413.2 417.0 424.7 396.3 Notes and coin 414.1 Transferable deposits¹ 905.4 917.6 902.0 1,008.2 1,066.9 Other Narrow money supply 1,318.6 1,334.6 1,316.1 1,432.9 1,463.2 Memorandum item: 5,381.3 5,690.8 6,061.2 Broad money supply 7,110.9 6,621.4

¹ Sight deposits in BEF of companies and private persons held with the Postcheque Office and credit institutions.

Table 3 **Settlement media used by banks**(in billions of Belgian francs)

	1990	1991	1992	1993	1994
Reserve balances held at central bank ¹	•	4.05	2.09	1.41	2.05
Transferable deposits at other institutions ²	717.3	614.1	522.2	378.1	507.0
Other	•	•		•	
Memorandum items:					
Required reserves	•	•	•	•	•
Institutions' borrowing from central bank 1,3	•	3.31	3.74	9.01	3.13

¹ Average of end-of-month figures. ² Payment media held by Belgian credit institutions with other credit institutions (call money and sight accounts, BEF and foreign currencies, in Belgium and abroad). ³ Current account advances.

Table 4

Banknotes and coin

(at year-end, not seasonally adjusted, in billions of Belgian francs)

	1990	1991	1992	1993	1994
Total banknotes and coin					
issued	446.3	450.1	448.1	459.3	431.4
Denominations:					
Notes:					
10,000 francs ¹	•		15.3	80.6	182.6
5,000 francs ²	295.8	297.8	279.1	220.8	6.1
2,000 francs ³					100.3
1,000 francs	106.8	107.3	109.1	111.9	95.6
500 francs	12.2	12.4	12.6	12.9	13.1
100 francs	13.7	14.0	14.1	14.4	14.5
Coin:					
500 francs	1.1	1.1	0.2	0.2	0.2
250 francs	•				0.0
50 francs	5.9	6.5	7.1	7.6	7,8
20 francs	6.5	6.6	6.7	6.8	6.9
5 francs	2.3	2.4	2.5	2.6	2.7
1 franc	1.7	1.7	1.1	1.2	1.3
0.5 francs	0.3	0.3	0.3	0.3	0.3
Banknotes and coin held by					
credit institutions	33.1	33.1	34.0	34.6	35.1
Total banknotes and coin					
outside credit institutions	413.2	417.0	414.1	424.7	396.3

¹ Notes with a denomination of BEF 10,000 have only been issued since 11th December 1992. ² The NBB started withdrawing the BEF 5,000 note, which ceased to be legal tender on 1st December 1994. ³ A new banknote with a denomination of BEF 2,000 was issued on 22nd April 1994.

Table 5

Institutional framework
(at end-1994)

Categories	Number of institutions	Number of branches	Number of accounts (thousands)	Value of accounts (BEF billions)
Central bank	1	18	•	,
Credit institutions	147	7,886 ¹	10,833	998.6
Postcheque	1	1,709	1,201	68.1
Branches of banks incorporated under foreign law	40 25	57 -	•	

¹ Non-full-size branches excluded.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1990	1991	1992	1993	1994
Cash dispensers and ATMs:1					
Number of networks	3	3	3	15	15
Number of machines	939	1,052	1,096	2,819	3,170
Volume of transactions (millions)	70.86	80.79	88.33	115.65	120.96
Value of transactions (BEF billions)	248.52	296.71	331.67	458.18	482.08
EFTPOS:					
Number of networks ²	5	6	6	6	6
Number of terminals	28,253	32,199	40,627	52,984	63,765
Volume of transactions					
(millions) ³	80.34	104.06	131.44	157.81	181.96
Value of transactions (BEF billions) ³	142.64	203.01	276.85	344.43	412.67

¹ As from 1993 the ATMs and the transactions at ATMs which are reserved exclusively for the use of a particular bank's customers are added. ² Six companies have proper POS clients, but the transactions pass through one network, the Banksys network. ³ Figures include payments with credit cards at POS terminals.

Table 7

Number of payment cards in circulation

(in thousands)

	1990	1991	1992	1993	1994
Cards with a cash function	6,377	6,857	7,792	8,316	8,912
Cards with a debit/credit function ¹	6,485	6,967	7,907	8,431	8,912
cards with a debit function cards with a credit function ²	5,250 1,235	5,466 1,501	6,101 1,806	6,434 1,997	6,780 2,132
Cards with a cheque guarantee function	4,651	4,653	4,598	4,856	4,660
Retailer cards	688	767	913	1,002	1,089

¹ Overlaps with the cards with a cash function. ² Most cards with a credit function are of the delayed debit type.

Table 8

Payment instructions handled by selected payment systems: volume of transactions

(in millions)

	1990	1991	1992	1993	1994
Clearing House	27.87	27.28	24.67	22.52	15.88
Securities clearing					
balances ¹	•				•
Postal drafts	2.90	2.63	2.21	2.19	3.76
FX transactions	0.07	0.03			•
S.W.I.F.TCLR system			0.46	0.94	1.15
Debits	5.87	6.22	5.55	4.82	6.25
Ordinary credits	3.86	3.88	3.35	2.46	3.01
Bilaterally exchanged					_
credits	6.92	7.61	7.65	7.16	1.712
Provinces ³	8.21	6.90	5.45	4.95	
Others	0.04	0.01	0.00	0.00	•
CEC	610.33	652.12	695.20	740.25	784.33
Direct debits	45.32	50.76	56.53	61.94	66.43
of which:					
ordinary direct debits	44.08	49.27	54.71	59.89	64.07
refunds	0.51	0.50	0.49	0.51	0.52
unpaid direct debits	0.73	0.98	1.33	1.54	1.84
Other debit operations	260.07	275.35	290.43	306.33	322.14
of which:					
truncated cheques	114.88	110.35	98.85	91.35	84.76
ATMs and POS	145.19	164.92	191.31	214.61	237.02
unpaid cheques ⁴	•	0.08	0.27	0.37	0.36
Credit transfers	304.93	325.94	348.08	371.21	394.64
of which:					
ordinary credit transfers counterparty postal	283.96	298.35	314.59	327.78	342.41
drafts	4.26	3.77	3.52	3.34	2.97
counterparty ATM-POS	16.71	23.82	29.97	40.09	49.26
Large-value credit transfers	0.01	0.07	0.16	0.77	1.12

Negligible quantity. ² The only member still working with this system uses the services of the CEC to a much greater extent. ³ Since 1994, the volume of transactions in the provinces has been split up and classified in the relevant groups. ⁴ The application started in June 1991.

-7 - Belgium

Table 9

Payment instructions handled by selected payment systems: value of transactions

(in billions of Belgian francs)

	1990	1991	1992	1993	1994
Clearing House	181,193	187,000	203,067	298,952	337,567
Securities clearing					
balances ¹	.	5,255	5,531	8,651	11,010
Postal drafts	41	39	43	42	67
FX transactions	14,037	11,841			
S.W.I.F.TCLR system		•	21,970	71,951	104,193
Debits	20,820	18,465	18,482	18,632	16,862
Ordinary credits Bilaterally exchanged	115,828	137,951	149,278	191,255	205,305
credits	162	295	250	234	130
Provinces ²	9,451	5,833	6,518	8,174	•
Others	20,854	7,321	995	13	•
CEC	9,529	12,334	15,928	21,827	24,512
Direct debits	259	299	341	367	407
of which:					
ordinary direct debits	248	286	324	350	387
refunds	4	4	5	5	5
unpaid direct debits	7	9	12	12	15
Other debit operations	1,548	1,627	1,699	1,787	1,830
of which:	ļ				
truncated cheques	1,161	1,170	1,158	1,166	1,148
ATMs and POS	387	455	541	610	671
unpaid cheques ³		2	7	II.	11
Credit transfers	7,474	8,298	9,322	9,733	10,255
of which:					
ordinary credits	7,047	7,806	8,746	9,091	9,553
counterparty postal drafts	49	46	44	43	39
counterparty ATM-POS	378	446	532	599	663
Large-value credit transfers	248	2,111	4,566	9,940	12,020

¹ In January 1991 the NBB launched a securities clearing system for dematerialised Treasury certificates and linear bonds. ² Since 1994, the value of transactions in the provinces has been split up and classified in the relevant groups. ³ The application started in June 1991.

Table 10

Transfer instructions handled by securities settlement systems:
volume of transactions

	1990	1991	1992	1993	1994
NBB clearing:1					
Government securities	•	53,349	80,287	147,180	188,258
CIK:					
Shares (millions) ²	269.3	260.8	253.1	566.0	664.2

¹ In January 1991 the NBB launched a securities clearing system for dematerialised Treasury certificates and linear bonds. ² The volume of shares refers to the number of shares and not to the number of transactions.

Table 11

Transfer instructions handled by securities settlement systems:
value of transactions

(in billions of Belgian francs)

	1990	1991	1992	1993	1994
NBB clearing:1					
Government securities	•	10,989	18,261	35,805	66,148
CIK:					
Shares	319.2	290.0	315.6	494.4	553.8

¹ In January 1991 the NBB launched a securities clearing system for dematerialised Treasury certificates and linear bonds.

Table 12
Indicators of use of various cashless payment instruments:
volume of transactions

(in millions)

Instruments	1990	1991	1992	1993	1994
Cheques issued ¹	206.6	193.8	174.2	139.1	124.1
Payments by debit and credit cards ²	95.5	119.3	144.7	169.2	190.9
Paper-based credit transfers	5.6	5,2	4.6	3.4	3.0
Paperless credit transfers ³	495.9	506.6	524.0	586.9	642.7
Direct debits	65.9	73.2	81.3	88.5	100.1
Other	•	•	•	•	•
Total	869.5	898.1	928.8	987.1	1,060.8

¹ Postal drafts included; until 1992 the figures include partly data relating to cheques used for cash withdrawals. ² Payments with retailers' cards included. ³ In-payment transfers included.

Table 13

Indicators of use of various cashless payment instruments:
value of transactions

(in billions of Belgian francs)

Instruments	1990	1991	1992	1993	1994
Cheques issued ¹	12,179	9,937	12,460	13,246	13,693
Payments by debit and credit cards ²	205	262	331	388	443
Paper-based credit transfers	122,389	141,592	153,511	196,896	205,305
Paperless credit transfers ³	27,654	32,808	35,284	58,709	73,984
Direct debits	374	430	485	787	1,568
Other	•	•	•		
Total	162,801	185,029	202,071	270,026	294,993

Postal drafts included; until 1992 the figures include partly data relating to cheques used for cash withdrawals. Payments with retailers' cards included. In-payment transfers included.

- 10 - Belgium

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1990	1991	1992	1993	1994
Members	33	36	35	34	34
of which: live	32	33	35	33	34
Sub-members ¹	28	35	39	35	37
of which: live	25	28	32	33	36
Participants ²	2	1	2	2	3
of which: live	2	1	1	2	3
Total users	63	66	76	71	74
of which: live	59	62	68	68	73
Memorandum items:					
Total S.W.I.F.T.:					
members	1,812	1,963	2,074	2,244	2,551
sub-members	1,469	1,607	1,738	1,887	2,097
participants	63	<i>78</i>	91	125	218
users	3,344	3,648	3,903	4,256	4,866

¹ Domestic users sponsored by members abroad. ² Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15
S.W.I.F.T. message flows to/from domestic users

	1990	1991	1992	1993	1994
Total messages sent	15,297,042	16,567,543	18,097,152	19,828,726	21,233,594
of which:					
category I ¹	5,222,108	5,347,697	5,751,632	6,145,021	6,331,292
category II ²	4,187,387	4,698,968	5,030,069	5,233,779	5,350,057
Total messages received	12,619,118	13,868,647	15,086,640	17,234,167	18,910,023
of which:					
category I ¹		•	5,171,658	5,556,991	5,835,044
category II ²	•	•	3,596,967	4,073,542	4,198,073
Domestic traffic ³	2,355,072	2,524,657	2,920,427	3,604,238	3,907,203
Memorandum item:					
Global S.W.I.F.T. traffic	332,895,932	365,159,291	405,540,962	457,218,200	518,097,873

¹ Category I: customer (funds) transfers. ² Category II: bank (funds) transfers. ³ Messages sent to/received from domestic users.

Source: S.W.I.F.T.

-11 - Canada

Table 1

Basic statistical data

	1990	1991	1992	1993	1994
Population (millions):					
year-endaverage	27.9 27.7	28.2 28.0	28.6 28.5	29.0 28.9	29.3 29.2
GDP (CAD billions)	671.0	676.0	688.5	710.7	767.1
GDP per capita	24,224	24,142	24,128	24,592	26,271
Exchange rate (domestic currency vis-à-vis USD):					
year-end ¹ average ²	1.1599 1.1668	1.1555 1.1458	1.2709 1.2083	1.3217 1.2898	1.4018 1.3659

¹ Closing spot rate for the year. ² Average noon spot rate for the year.

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in millions of Canadian dollars)

	1990	1991	1992	1993	1994
Notes and coin	19,777	21,051	22,790	24,400	26,152
Narrow money supply (M ₁)	43,498	45,622	48,433	55,428	59,112
Memorandum item:					
Broad money supply (M ₂ +)	499,457	534,989	559,320	578,129	591,999
Transferable deposits ¹	113,858	121,493	127,405	138,529	144,192
of which held by:					
households corporate sector other ²	97,803 466 15,589	103,950 370 17,173	108,626 371 18,408	117,555 236 20,738	122,599 292 21,301

¹ Canadian dollar deposit liabilities only. ² Including non-deposit-taking financial institutions.

Table 3
Settlement media used by credit/deposit-taking institutions

(at year-end, in millions of Canadian dollars)

	1990	1991	1992	1993	1994
Reserve or settlement balances held at central bank	1,721	1,433	1,201	1,295	559
Reserve or settlement balances held at other deposit-taking institutions ¹	139	118	112	123	.3
Memorandum items: Required reserves	5,391	5,466	5,225	4,981	,3
Institutions' borrowing from central bank ²	79	298	155	214	312

¹ Statutory reserves held by chartered banks at other chartered banks under the terms of reserve-holding agreements. Excludes settlement balances held by non-bank Indirect Clearers at their clearing agents. ² Advances to members of the Canadian Payments Association. ³ The statutory requirement for chartered banks to hold reserves against certain of their deposit liabilities was phased out over a two-year period ended July 1994. Banks' required reserves could be satisfied through holdings of notes and coin as well as through deposits at the Bank of Canada.

- 13 - Canada

Table 4

Banknotes and coin

(at year-end, not seasonally adjusted, in thousands of Canadian dollars)

	1990	1991	1992	1993	1994
Total banknotes and coin outstanding	25,210,932	26,766,713	27,978,336	29,697,901	30,789,151
Coinage	2,240,895	2,285,284	2,369,102	2,461,232	2,460,499
Denomination of banknotes:1					
1,000 dollars	1,380,135	1.512.989	1,764,341	2,080,675	2,344,424
500 dollars	23	23	23	23	23
100 dollars	7,676,995	8,470,370	9,446,389	10,395,069	11,121,838
50 dollars	3,436,616	3,649,557	3,768,243	3,862,611	3,897,707
25 dollars	46	46	46	46	46
20 dollars	7,936,798	8,199,334	8,117,219	8,433,602	8,512,078
10 dollars	1,166,303	1,158,192	1,104,404	1,075,244	1,056,548
5 dollars	785,781	891,388	798,979	767,715	762,274
2 dollars	402,933	418,493	430,334	443,765	456,853
1 dollar	171,534	168,164	166,383	165,046	163,988
Other	12,873	12,873	12,873	12,873	12,873
Banknotes held by chartered					
banks	4,972,428	5,389,586	4,640,831	4,713,372	4,360,619
Total banknotes outside					
chartered banks	17,997,167	19,091,843	20,968,403	22,523,297	23,968,033

¹ Value of all notes outstanding at the end of the year.

- 14 - Canada

Table 5
Institutional framework
(at end-1994)

Categories	Number of institutions	Number of branches	Number of transferable deposit accounts (millions)	Value of transferable deposit accounts (CAD millions)
Central bank	1	9	•	•
Chartered banks	67 ²	8,045	•	95,212
Local credit unions and caisses populaires	2,491	3,879	•	16,004
Trust and loan companies	843	1,751	•	8,964
Governmental savings institutions	24	175	•	2,419
Post Office	•	•	•	•
Memorandum item:				
Branches of foreign deposit- taking institutions	•	•	•	•

¹ Household sector only. ² Six operate nationwide. ³ Only a few operate nationwide. Figure excludes those trust and loan companies that do not accept transferable deposits. ⁴ Operate only in Alberta or Ontario.

- 15 - Canada

Table 6
Cash dispensers, ATMs and EFTPOS terminals¹

	1990	1991	1992	1993	1994
Cash dispensers and ATMs:					
Number of networks Number of machines ²	40 11,730	40 13,175	40 14,596	40	40
of which:	11,750	13,1/3	14,390	16,078	16,927
Owned by member institutions of the Canadian Payments Association	11,708	13,154	14,576	16,058	16,927
Owned or operated by other entities	22	21	20	20	0
Volume of transactions (millions): Total	786.9	941.5	1,024.8	1,084.8	1,197.3
of which:					
Withdrawals Deposits Bill payments Inter-account transfers Balance inquiries	560.1 110.9 25.2 36.4 54.3	689.6 122.4 28.4 44.3 56.8	757.4 124.0 32.6 50.6 60.2	796.4 130.5 36.1 56.8 65.0	877.5 143.6 41.7 65.6 68.9
Value of transactions (CAD billions): Withdrawals	35.8	44.8	50.7	55.0	61.4
Deposits	•			•	•
Bill payments	1.9	2.1	2.4	2.7	3.1
Inter-account transfers	•	•	•	•	•
Balance inquiries	•	•	•	•	٠
EFTPOS:					
Number of networks Number of terminals Volume of transactions	10 9,250	11 13,300	11 29,600	10 61,900	11 119,733
(millions)Value of transactions	3.3	10.3	30.3	74.0	185.2
(CAD billions)	0.2	0.5	1.6	3.7	9.4

¹ All figures, other than those for the number of cash dispensers and ATMs owned by member institutions of the Canadian Payments Association, are estimates. ² As at 31st January of the following year.

- 16 - Canada

Table 7

Number of payment cards in circulation

(at year-end, in millions1)

	1990	1991	1992	1993	1994
Debit cards issued by deposit-taking institutions	16.3	17.5	18.5	22.5	24.0
Credit cards issued by deposit-taking institutions ^{2,3}	23.2	24.3	24.4	25.0	27.6
Cheque guarantee cards issued by deposit-taking institutions	•	•		•	
Cheque guarantee cards issued by retailers or by third parties	•	•	•		•
Credit cards issued by retailers or by third parties	115.0	120.0	125.0	125.0	125.0

All figures, other than those for credit cards issued by deposit-taking institutions, are estimates. As at 31st October. Between 50 and 60% of the credit cards issued by deposit-taking institutions can also be used by eligible cardholders to obtain cash from either their deposit or credit card accounts at automated banking machines.

- 17 - Canada

Table 8

Payment instructions handled by selected payment systems:
volume of transactions

(in millions)

	1990	1991	1992	1993	1994
National clearing and settlement system:					
Small cheques Large cheques (over	1,824.3	1,798.0	1,758.4	1,737.8	1,665.3
CAD 50,000)	7.4	7.5	6.8	7.5	6.9
Unqualified ²	11.9	12.3	12.2	12.8	13.5
Tape clearings ³	6.4	5.8	3.2	0.0	0.0
EDI			0.0^{4}	0.04	0.0^{4}
Magnetic tape credits	77.3	87.2	98.7	127.2	169.0
Magnetic tape debits	76.7	97.2	122.1	149.0	174.7
Shared ABM networks	132.2	169.8	201.4	236.2	271.0
Point of sale	0.4	2.1	6.0	40.7	129.8
Total	2,136.5	2,180.0	2,209.0	2,311.1	2,430.2
Interbank International					
Payment System	•	1.6	1.8	2.1	2.2

Owing to the rounding of figures, components may not always add to the total shown. Payment items either that have been returned principally because of insufficient funds in the payer's account or because of stop-payment orders or that do not meet the standards and specifications for MICR-encoded documents of the Canadian Payments Association. Payment items that have had the relevant information stripped from them following sorting. The information is exchanged between Direct Clearers on magnetic tape on a bilateral basis at a limited number of Regional Settlement Points. The physical items are exchanged subsequently. Insignificant. The volume recorded reflects the end-of-day gross settlement of EDI payment items exchanged between participating institutions.

Table 9

Payment instructions handled by selected payment systems:
value of transactions¹

(in billions of Canadian dollars)

	1990	1991	1992	1993	1994
National clearing and					
settlement system:					
Small cheques	1,058.6	1.015.0	1,014.6	1,026,3	1,029.5
Large cheques (over			.,	1,02010	1,025.5
CAD 50,000)	16,242.2	16,939.3	17,125.0	19,209.7	19,922.8
Unqualified ²	25.0	39.4	18.0	26.8	14.3
Tape clearings ³	6.5	6.0	3.7	0.0	0.0
EDI			0.2	2.4	4.3
Magnetic tape credits	83.7	102.6	126.4	141.9	155.1
Magnetic tape debits	18.3	24.0	31.9	37.9	44.4
Shared ABM networks	8.4	11.0	13.4	16.3	19.1
Point of sale	0.0^{4}	0.1	0.5	2.3	6.8
Total	17,442.9	18,137.6	18,333.8	20,463.7	21,196.3
Interbank International					
Payment System	•	7,500.0	10,100.0	12,977.4	15,896.0

¹ Owing to the rounding of figures, components may not always add to the total shown. ² Payment items either that have been returned principally because of insufficient funds in the payer's account or because of stop-payment orders or that do not meet the standards and specifications for MICR-encoded documents of the Canadian Payments Association. ³ Payment items that have had the relevant information stripped from them following sorting. The information is exchanged between Direct Clearers on magnetic tape on a bilateral basis at a limited number of Regional Settlement Points. The physical items are exchanged subsequently. ⁴ Insignificant. The volume recorded reflects the end-of-day gross settlement of EDI payment items exchanged between participating institutions.

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(for the twelve-month period ended 31st October)

	1991	1992	1993	1994	1995
Number of trades/transactions reported to CDS ^{1,2} (millions)	5.4	6.7	9.9	10.6	10.3
Memorandum item:					
Value of eligible securities ³ (CAD billions)	379	465	594	699	790

¹ The Canadian Depository for Securities Limited. ² Consists of trades reported from the Toronto Stock Exchange and the Montreal Exchange and transactions between CDS member institutions. ³ Par value of debt securities plus market value of equity securities on deposit at CDS as at 31st October.

- 19 - Canada

Table 11

Transfer instructions handled by securities settlement systems:
value of transactions

(for the twelve-month period ended 31st October, in trillions of Canadian dollars)

	1991	1992	1993	1994	1995
Value of settlement amounts (not nets) of trades ¹					
Total	•		15.9	20.5	20.9
of which:			ļ		
Government of Canada					
domestic marketable bonds	•	•	13.7	17.5	18.6
other	•	•	2.2	3.0	2.3

¹ Consists of trade values reported from the Toronto Stock Exchange and the Montreal Exchange and both sides of transactions between CDS member institutions.

Table 12
Indicators of use of various cashless payment instruments:
volume of transactions

(in millions; all figures are estimates)

Instruments	1990	1991	1992	1993	1994
Cheques and other paper payment instruments issued	2,220.0	2,188.3	2,135.5	2,109.6	2,022.7
Payments by credit card	887.7	926.7	959.0	1,043.7	1,167.2
Payments by debit card at the point of sale (EFTPOS)	3.3	10.3	30.3	74.0	185.2
Paper-based credit transfers		•	•	•	•
Paperless credit transfers	117.9	133.0	151.0	188.8	244.5
customer initiated ¹ interbank/large-value	25.2	28.4	32.6	36.1	41.7
direct credits	92.7	104.6	118.4	152.7	202.8
Direct debits	92.0	116.7	146.6	178.8	209.6
Total	3,320.9	3,375.0	3,422.4	3,594.9	3,829.2

¹ Bill payments initiated at automated teller machines.

- 20 - Canada

Table 13
Indicators of use of various cashless payment instruments: value of transactions

(in billions of Canadian dollars; all figures are estimates)

Instruments	1990	1991	1992	1993	1994
Cheques and other paper payment instruments issued	20,798.8	21,599.7	21,792.0	24,315.4	25,160.0
Payments by credit card	59.7	62.5	66.4	73.6	84.5
Payments by debit card at the point of sale (EFTPOS)	0.2	0.5	1.6	3.7	9.4
Paper-based credit transfers	•	•	•	•	
Paperless credit transfers	102.3	125.2	154.0	173.0	189.2
customer initiated interbank/large-value direct credits	1.9 100.4	2.1 123.1	2.4 151.6	2.7 170.3	3.1 • 186.1
Direct debits	22.0	28.8	38.3	45.6	53.3
Total	20,983.0	21,816.7	22,052.3	24,611.3	25,496.4

¹ Bill payments initiated at automated teller machines.

- 21 - Canada

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1990	1991	1992	1993	1994
Members	14	14	15	14	14
of which: live	14	14	13	14	14
Sub-members ¹	28	29	28	31	33
of which: live	26	27	27	30	33
Participants ²	1	1	1	2	3
of which: live	0	1	1	1	2
Total users	43	44	44	47	50
of which: live	40	42	41	45	49
Memorandum items:					
Total S.W.I.F.T.:					
memberssub-members	1,812 1,469	1,963 1.607	2,074 1,738	2,244 1,887	2,551 2,097
participantsusers	63 3,344	78 3,648	91 3,903	125 4,256	218 4,866

¹ Domestic users sponsored by members abroad. ² Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15 S.W.I.F.T. message flows to/from domestic users

	1990	1991	1992	1993	1994
Total messages sent	7,579,453	8,420,902	9,200,133	9,883,583	10,960,197
of which:					
category I ¹	1,492,352	1,721,023	1,971,465	2,334,799	2,625,746
category II ²	2,754,512	3,028,624	3,241,260	3,218,948	3,388,084
Total messages received	7,043,854	7,960,221	8,541,677	8,872,447	9,764,225
of which:					
category I ¹	•		2,463,012	2,657,324	3,013,534
category II ²	•	•	3,444,189	3,496,285	3,656,006
Domestic traffic ³	2,298,169	2,544,210	2,808,125	2,927,646	3,262,525
Memorandum item:					
Global S.W.I.F.T. traffic	332,895,932	365,159,291	405,540,962	457,218,200	518,097,873

¹ Category I: customer (funds) transfers. ² Category II: bank (funds) transfers. ³ Messages sent to/received from domestic users.

Source: S.W.I.F.T.

		·
		·
		: :

- 23 - France

Table 1

Basic statistical data

	1990	1991	1992	1993	1994
Population:					
year-end (millions)	56.6	56.9	57.2	57.7	57.7
GDP (FRF billions)	6,509.5	6,776.2	7,010.5	7,082.8	7,376.1
GDP per capita	115,009	119,090	122,561	122,752	127,835
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	Į.	5.356 5.642	5.393 5.294	5.849 5.663	5.416 5.552

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of French francs)

	1990	1991	1992	1993	1994
Notes and coin	255.5	254.4	255.5	249.4	252.2
Transferable deposits ¹	1,433.0	1,354.7	1,351.6	1,376.9	1,419.7
of which held by:					
corporate sector	346.3	367.5	352.8	381.7	414.7
households	782.9	715.3	743.7	742.2	748.0
others	303.8	271.9	255.2	252.0	257.0
Narrow money supply $(M_1)^2$	1,688.5	1,609.2	1,607.1	1,626.3	1,671.9
Broad money supply $(M_3)^3$	5,024.9	5,160.7	5,429.8	5,123.6	5,222.1

¹ Excluding foreign currency deposits. ² M_1 = notes and coin and French franc denominated sight deposits held by non-banks (overseas territories excluded). ³ M_3 = M_1 + taxable passbook accounts, Savings Banks "A" passbook deposits and Mutual Credit Bank "blue" books, popular savings books (LEP), industrial development accounts (CODEVI) and housing savings accounts (CEL) + foreign currency denominated assets, time deposits and money market securities issued by credit institutions.

Table 3

Settlement media used by banks

(at year-end, not seasonally adjusted, in billions of French francs)

	1990	1991	1992	1993	1994
Reserve balances held at central bank ¹	61.1	40.2	7.5	8.3	8.1
Transferable deposits at other institutions	2,926.1	2,846.9	2,482.9	2,631.4	2,839.6
Accounts at the Post Office	1.4	1.3	1.4	,3	.3
Accounts at the Treasury	8.7	12.5	4.7	.3	.3
Memorandum items: Required reserves	57.8	38.9	7.0	7.4	7.3
Institutions' borrowing from central bank ²	172.5	187.3	321.0	392.5	229.4

¹ Monthly average after deduction of cash balances. ² Net stock; calls for tender, repurchase agreements, open market operations and discounting operations. ³ These figures are no longer isolated in the monetary statistics.

- 25 - France

Table 4

Banknotes and coin

(at year-end, not seasonally adjusted, in billions of French francs)

	1990	1991	1992	1993	1994
Total banknotes and coin issued ¹	280.4	281.3	283.5	280.7	284.5
Denomination of banknotes:1					
500 francs	132.8	134.1	134.1	133.8	129.9
200 francs	67.6	70.3	73.4	74.5	81.0
100 francs	55.3	52.4	50.6	47.8	48.3
50 francs	5.9	5.9	6.0	6.5	6.5
20 francs	1.2	1.2	1.1	1.0	1.0
10 francs	0.4				,
Banknotes and coin held by credit institutions ²	14.3	15.3	15.6	14.8	15.8
Total banknotes and coin outside credit institutions ²	255.5	254.4	255.5	249.4	252.2
Memorandum item:					
Banknotes held in overseas territories	10.6	11.5	12.4	16.5	16.5

¹ Including banknotes issued in overseas territories. ² Banknotes issued in overseas territories are not included.

- 26 - France

Table 5
Institutional framework
(at end-1994)

Categories	Number of institutions	Number of branches	Number of accounts ^t (thousands)	Value of accounts (FRF billions)
Central bank	1	211	66	3.2
Commercial banks	427 ²	10,428	18,905	550.9
Savings banks ³	36	4,260	8,623	54.4
Cooperative and rural banks	140	10,624	23,416	404.4
Post Office	1	16,919	9,608	164.1
Municipal credit banks	21	77	88	0.8
Treasury	1	4,102	947	[47.4

¹ Sight deposits. ² Branches of foreign banks: 90; foreign-owned banks: n.a. ³ Including Caisse des dépôts et consignations.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1990	1991	1992	1993	1994
Cash dispensers and ATMs:					
Number of networks	1	1	1	I	1
Number of machines	14,428	16,134	17,432	18,735	20,533
Volume of transactions					
(thousands)	547,720	633,544	694,364	765,734	818,665
Value of transactions					
(FRF millions) ¹	242,822	295,515	316,492	334,083	347,406
EFTPOS:					
Number of networks	I	1	1	1	1
Number of terminals ²	180,000	203,000	320,000	429,000	437,000
Volume of transactions					
(thousands) ²	933,000	1,051,000	1,300,000	1,400,000	1,505,000
Value of transactions					
(FRF millions) ²	303,515	346,650	430,000	460,000	481,000

¹ Including intrabank cash withdrawals and cash withdrawals processed through selected interbank payment systems. ² Estimated. 10% of card payments are still made without using EFTPOS.

Table 7

Number of payment cards in circulation (in thousands)

1990 1991 1992 1993 1994 Cards with a cash function 19,469 19,820 21,072 21,812 22,812 Cards with a debit/credit 19,393 function 19,743 20,892 21,466 22,240 of which: cards with a credit function [276 579 345 453 512 Cards with a cheque guarantee function 86 82 192 193 20,000 Retailer cards (estimated) 20,000 20,000

¹ All cards are at least cards with a debit function.

Table 8

Payment instructions handled by selected payment systems: volume of transactions

(in millions)

	1990	1991	1992	1993	1994	
Clearing houses!	3,589.4	3,625.9	3,652.0	3,677.4	3,659.0	
of which:						
cheques	3,547.9	3,597.0	3.633.4	3,663.5	3,650.0	
retail credit transfers	7.2	5.6	3.8	2,8	2.2	
bills of exchange	25.8	17.8	9.5	6.0	1.9	
avals de trésorerie	0.6	0.6	0.4	0.5	0.4	
large-value credit transfers	7.9	4.9	4.9	4.6	4.5	
Automated clearing houses	3,071.5	3,422.0	3,740.6	4,038.9	4,364.4	
CREIC (truncated cheques		·	*		,	
system)	201.6	214.8	230.8	252.6	259.9	
Ordinateur de compensation	1,722.7	1,874.7	1,811.0	1,467.8	635.7	
of which:						
credit transfersLCRs and paperless bills of	742.5	802.2	781.4	657.0	341.7	
exchange	124.1	126.8	124.3	102,1	49.8	
direct debits	560.2	620.1	588.I	455.8	156.0	
interbank payment orders	9.0	17.0	41.2	47.1	23.0	
ATM withdrawals	256.2	269.8	229.2	192.7	65.0	
card payments	30.7	38.8	46.8	13.1	0.2	
Interbank Teleclearing System						
(SIT)	•	43.7	301.8	764.5	1,791.8	
of which:						
credit transfers LCRs and paperless bills of	•	18.0	107.5	292.3	679.8	
exchange		3.6	10.5	30.5	88.7	
direct debits		8.2	90.3	258.2	636.5	
interbank payment orders	,	0.2	2.5	20.0	55.4	
ATM withdrawals		13.7	91.0	163.5	331.4	
Cartes bancaires	1,147.2	1,288.8	1,397.0	1,554.0	1,677.0	
ATM withdrawals	•		1.3	2.6	4.8	
card payments	1,147.2	1,288.8	1,395.7	1,551.4	1,672.2	
Banque de France	48.2	46.8	42.7	37.6	34.3	
of which:						
Treasury transfers	45.2	44.0	39.6	34.9	32.0	
interbank credit transfers	0.5	0.4	0.9	0.4	0.4	
Banque de France large-					~	
value credit transfers	1.7	1.5	1.3	1.1	0.9	
telegraphic credit transfers	0.8	0.9	0.9	1.2	1.0	
Sagittaire large-value credit transfers	2.5	2.9	3.3	3.9	4.1	
		ر	5.5	3.3	~t.3	

¹ Paris clearing house and provincial clearing houses.

Table 9

Payment instructions handled by selected payment systems: value of transactions

(in billions of French francs)

	1990	1991	1992	1993	1994
Clearing houses ¹	128,205.4	120,023.5	128,371.3	156,778.5	150,624.1
of which:					
cheques	11,357.2	11,634.9	11,582.0	11,130.4	11,300.9
retail credit transfers	1,150.6	1,228.3	1,275.5	1,277.5	1,244.5
bills of exchange	663.0	509.3	316.1	199.0	36.3
avals de trésorerie	80,861.0	71,354.0	73,179.0	79,277.8	71,416.5
large-value credit transfers	34,173.6	35,297.0	42,018.7	64,893.8	66,625.9
Automated clearing houses	6,883.5	7,825.5	8,491.3	9,000.2	9,599.2
CREIC (truncated cheques system)	111.1	119.8	129.1	140.6	143.4
Ordinateur de compensation	6,398.5	7,178.6	7,661.6	6,731.4	3,463.7
of which:					
credit transfers LCRs and paperless bills of	2,639.4	3,104.3	3,458.6	3,292.5	1,913.5
exchange	2,774.6	2,969.3	3,065.5	2,521.6	1,230.5
direct debits	850.1	959.7	991.2	786.3	267.5
interbank payment orders	21.1	29.0	47.2	54.1	28.4
ATM withdrawals	106.8	107.9	88.7	73.9	23.8
card payments	6.4	8.4	10.4	3.0	0.1
Interbank Teleclearing System (SIT)	•	98.8	234.9	1,618.2	5,454.5
of which:				,	·
credit transfers LCRs and paperless bills of	•	43.8	103.8	783.1	2,518.6
exchange		39.1	23.9	434.7	1,825.8
direct debits	•	9.8	69.0	320.6	929.0
interbank payment orders	•	0.6	2.6	15.3	59.1
ATM withdrawals	•	5.5	35.6	61.5	122.0
Cartes bancaires	373.9	428.3	465.7	510.0	537.6
ATM withdrawals		•	0.8	1.7	3.3
card payments	373.9	428.3	464.9	508.3	534.2
Banque de France	37,054.1	40,378.3	42,547.8	44,346.3	39,655.3
of which:					
Treasury transfers	746.7	691.8	467.8	457.8	429.8
interbank credit transfers	160.0	158,6	131.3	199.8	190.5
Banque de France large-					
value credit transfers	28,589.7	32,015.4	34,466.4	36,022.6	34,020.6
telegraphic credit transfers	7,557.7	7,512.5	7,482.3	7,666.1	5,014.4
Sagittaire large-value credit transfers	35,393.0	43,845.0	59,219.0	108,750.0	110,847.0

¹ Paris clearing house and provincial clearing houses.

Table 10

Transfer instructions handled by securities settlement systems:
volume of transactions

	1990	1991	1992	1993	1994
SATURNE:					
Treasury bills	102,374	109,837	126,904	172,254 9,542	182,109 7,859
BMTN 1	•	,	3,639	9,542	7,859
Other TCN 2	•	8,378	6,160	15,809	32,642

¹ Medium-term notes (transferred through SATURNE for the first time in 1992). ² Short-term negotiable instruments.

Table 11

Transfer instructions handled by securities settlement systems: value of transactions

(in billions of French francs)

	1990	1991	1992	1993	1994
SATURNE:					
Treasury bills	3,971.7	5,203.8	10,199.8	19,673.2	23,306.0
BMTN ¹	,		174.8	436.7	290.3
Other TCN ²	•	373.3	342.9	1,169.1	2,167.0
RELIT:3					
Treasury bonds		•	11,400	21,600	25,250
French stocks			2,600	5,100	6,200
Mutual funds	•		8,200	18,000	12,450
Others			3,800	5,300	4,500

¹ Medium-term notes (transferred through SATURNE for the first time in 1992). ² Short-term negotiable instruments. ³ The RELIT DVP system began full-scale operation in 1992.

- 31 - France

Table 12
Indicators of use of various cashless payment instruments:
volume of transactions

(in millions)

Instruments	1990	1991	1992	1993	1994
Cheques issued	4,876.8	4,776.4	4,868.7	4,909.0	4,824.1
Payments by debit and credit card	1,177.9 98.0	1,327.7	1,442.5 77.0	1,564.5	1,672.4 58.3
Paper-based credit transfers of which:	98.0	68.3	77.0	03.8	36.3
customer initiated interbank/large-value	86.5 11.5	80.0 8.3	68.6 8.4	58.0 7.8	51.1 7.2
Paperless credit transfers	1,243.7	1,302.7	1,404.0	1,472.8	1,556.4
of which:					
customer initiated interbank/large-value	1,241.2 2.5	1,299.8 2.9	1,400.7 3.3	1,468.9 3.9	1,552.3 4.1
Direct debits	844.9	853.7	979.6	1,057.8	1,205.1
Bills of exchange	170.0	163.3	159.3	153.6	151.2
ATM withdrawals	547.7	633.5	694.4	765.7	818.7
Total	8,959.0	9,145.6	9,625.5	9,989.2	10,286.2

- 32 - France

Table 13
Indicators of use of various cashless payment instruments:
value of transactions

(in billions of French francs)

Instruments	1990	1991	1992	1993	1994
Cheques issued	18,783	16,276	16,099	15,291	14,255
Payments by debit and credit card	380	437	475	511	534
Paper-based credit transfers	154,316	149,421	160,075	191,426	183,661
of which:					
customer initiated	2,974	3,083	2,797	3,366	2,307
interbank/large-value	151,342	146,338	157,278	188,060	181,354
Paperless credit transfers	41,137	50,231	66,280	117,013	119,162
of which:					
customer initiated	5,744	6,386	7,061	8,263	8,315
interbank/large-value	35,393	43,845	59,219	108,750	110,847
Direct debits and Interbank					
payments orders	1,359	1,499	1,557	2,314	2,604
Bills of exchange	3,826	3,813	3,690	3,445	3,313
ATM withdrawals	243	296	316	334	347
Total	220,044	221,973	248,492	330,334	323,876

- 33 - France

Table 14

Participation in S.W.I.F.T. by domestic institutions¹

	1990	1991	1992	1993	1994
Members	103	105	109	105	108
of which: live	100	104	101	98	103
Sub-members ²	72	83	87	93	98
of which: live	66	81	80	91	96
Participants ³	3	4	4	4	5
of which: live	2	3	3	3	4
Total users	178	192	200	202	211
of which: live	168	188	184	192	203
Memorandum items:					
Total S.W.I.F.T.:					
members	1,812	1,963	2,074	2,244	2,551
sub-members	1,469	1,607	1,738	1,887	2,097
participants	63	78	91	125	218
users	3,344	3,648	3,903	4,256	4,866

¹ Data for France include Monaco, Guadeloupe, Martinique and Réunion. ² Domestic users sponsored by members abroad. ³ Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15
S.W.I.F.T. message flows to/from domestic users¹

	1990	1991	1992	1993	1994
Total messages sent	25,565,700	27,710,200	30,310,818	34,258,946	36,494,832
	25,505,700	27,710,200	30,310,010	31,200,710	50,771,052
of which:					
category I ²	7,607,000	7,999,200	8,533,000	8,966,621	9,608,391
category II ³	8,493,700	9,603,300	10,450,100	11,843,080	12,253,787
Total messages received	23,166,600	25,896,300	28,460,152	31,838,047	33,446,733
of which:					
category f ²	•		8,753,700	9,216,560	9,910,743
category II ³	•	•	10,472,800	12,163,096	12,224,274
Domestic traffic ⁴	7,233,600	8,226,500	9,386,200	10,963,677	11,455,375
Memorandum item:					
Global S.W.I.F.T. traffic	332,895,932	365,159,291	405,540,962	457,218,200	518,097,873

¹ Data for France include Monaco, Guadeloupe, Martinique and Réunion. ² Category I: customer (funds) transfers. ³ Category II: bank (funds) transfers. ⁴ Messages sent to/received from domestic users.

Source; S.W.I.F.T.



- 35 - *Germany*

Table 1

Basic statistical data

	1990	1991	1992	1993	1994
Population (millions):					
year-endaverage	79.8 79.4	80.3 80.0	81.0 80.6	81.3 81.2	81.5 81.4
GDP (DEM billions)	2,426.0	2,853.6	3,075.6	3,159.1	3,320.3
GDP per capita (DEM thousands)	38.4	35.7	38.2	38.9	40.8
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	1.4940 1.6161	1.5160 1.6612	1.6140 1.5595	1.7263 1.6544	1.5488 1.6218

Table 2

Settlement media used by non-banks
(at year-end, in billions of Deutsche Mark)

	1990	1991	1992	1993	1994
Notes and coin!	158.6	171.8	200.5	212.0	225.9
Narrow money supply $(M_1)^2$	584.3	604.0	669.6	726.3	764.1
Memorandum item:					
Broad money supply (M ₃) ²	1,503.0	1,597.7	1,718.7	1,906.6	1,937.0
Transferable deposits ³ of which held by:	444.9	445.0	469.5	527.8	541.1
households corporate sector other	240.2 151.0 53.7	253.7 149.2 42.1	288.5 152.1 28.9	327.3 158.8 41.7	333.1 174.7 33.3

¹ Excluding credit institutions' cash balances. ² M_1 = currency in circulation (excluding credit institutions' cash balances) + domestic non-banks' sight deposits (excluding public sector's deposits held at the central bank). $M_2 = M_1 + domestic non-banks'$ time deposits at less than four years. $M_3 = M_2 + savings$ deposits of domestic non-banks at statutory notice. ³ Sight deposits of domestic non-banks (including deposits held at the central bank).

- 36 - *Germany*

Table 3

Settlement media used by banks
(at year-end, in billions of Deutsche Mark)

	1990	1991	1992	1993	1994
Reserve balances held at central bank ¹	70.9	75.0	86.4	60.4	44.4
of which: required reserves ²	68.9	73.6	85.2	59.6	43.6
Transferable deposits held at other institutions	256.4	226.9	301.2	380.2	342.8
Memorandum item:					
Institutions' borrowing from central bank ³	6.2	1.9	1.6	14.8	9.8

¹ "Actual reserves". ² After deduction of deductible cash balances. ³ Lombard loans.

Table 4

Banknotes and coin

(at year-end, in billions of Deutsche Mark)

	1990	1991	1992	1993	1994
Total banknotes and coin outstanding ¹	179.7	194.6	227.3	238.6	250.9
Denomination of banknotes:					
1,000 Mark	40.7	46.9	64.3	68.5	75.0
500 Mark	21.1	21.5	24.0	24.3	25.7
200 Mark	6.6	9.6	11.5	11.6	11.3
100 Mark	69.6	73.8	82.1	86.8	90.7
50 Mark	17.9	18.3	19.4	20.3	20.4
20 Mark	6.7	6.7	7.4	7.7	7.9
10 Mark	4.0	4.2	4.4	4.7	4.8
5 Mark	0.3	0.3	0.3	0.3	0.3
Banknotes and coin held by credit institutions	21.1	22.8	26.8	26.7	25.0
Total banknotes and coin outside credit institutions ²	158.6	171.8	200.5	212.0	225.9

¹ Including credit institutions' cash balances. ² Identical with Table 2, "Notes and coin".

Table 5
Institutional framework
(at end-1994)

Categories	Number of institutions	Number of branches [†]	Number of accounts (thousands) ²	Value of accounts (DEM billions)
Central bank ³	1	183	37	0.9
Commercial banks ⁴	408	8,382	15,900	191.7
Savings banks	656	20,360	36,900	222.2
Cooperative and rural banks	2,664	20,093	21,900	117.0
Postbank ⁵	1	185	4,600	25.9
Memorandum item: Branches of foreign banks	63	108	•	·

¹ Branches = number of bank offices. ² Sight accounts of domestic non-banks, partly estimated. ³ The Bundesbank as a legal entity comprises the Central Office (in Frankfurt am Main) and nine Land Central Banks as well as 182 branches. ⁴ Including mortgage banks, instalment sales financing institutions, banks with special functions and building and loan associations. ⁵ Excluding 20,000 Post AG post offices which execute semi-cashless payments for Postbank AG.

Table 6

Cash dispensers, ATMs and EFTPOS terminals¹

	1990	1991	1992	1993	1994
Cash dispensers and ATMs:					
Number of networks	4	4	4	4	4
Number of machines Volume of transactions	11,300	13,750	19,000	25,000	29,400
(millions)Value of transactions	•	•	•	•	935
(DEM billions)	•	•	•		238.5
EFTPOS:					
Number of networks ²	11	18	19	18	30
Number of machines ² Volume of transactions	23,152	34,673	51,806	28,000	62,500
(millions) ³ Value of transactions	3.5	20.2	28.0	69.1	104.0
(DEM billions) ³	0.2	1.8	1.9	6.2	10.8

¹ Partly estimated. ² From 1993 on, electronic cash and POZ procedures only. Up to 1993, non-bank systems also included. ³ From 1993 on, electronic cash and POZ procedures only. In 1991 and 1992, electronic cash and other debit card procedures. In 1990, electronic cash procedure only.

- 38 - *Germany*

Table 7

Number of payment cards in circulation¹

(at year-end, in thousands)

	1990	1991	1992	1993	1994
Cards with a cash function	•	•	•	•	
Cards with a debit/credit function	28,726	33,528	39,272	44,842	47,353
cards with a debit function ² cards with a credit function	23,729 4,997	27,424 6,104	31,863 7,409	35,901 8,941	37,113 10,240
Cards with a cheque guarantee function	23,729	27,424	31,863	35,901	37,113
Retailer cards	•	1,500	3,000		4,500

¹ Partly estimated. ² Eurocheque cards, eligible for cash and debit functions in association with a Personal Identification Number (PIN).

Table 8
Payment instructions handled by selected IFTs:
volume of transactions

(in millions)

[
	1990	1991	1992	1993	1994
Retail payments	2,422.1	2,762.2	2,649.5	2,613.5	2,355.1
Maschinell-optische					
Beleglesung (MAOBE) ²	590.4	577.3	511.7	393.5	248.0
Collection items	237.4	230.2	214.9	155.5	86.0
Credit transfers	353.0	347.1	296.8	238.0	162.0
Belegloser					
Datenträgeraustausch (DTA) ³	1,831.7	2,184.9	2,137.8	2,220.0	2,107.1
Collection items	1,562.9	1,788.3	1,693.3	1,702.2	1,496.9
Credit transfers	268.8	396.6	444.5	517.8	610.2
Large-value payments	262.2	426.2	463.5	483.8	477.6
Gross settlement procedures	25.5	83.2	74.5	56.5	34.3
of which:					
Eiliger Zahlungsverkehr					
(EIL-ZV) ⁴	2.4	3.0	2.6	3.4	4.0
Platzüberweisungsverkehr ⁵	23.1	80.2	71.9	53.1	30.3
Net settlement procedures	236.7	343.0	389.0	427.3	443.3
Konventionelle Abrechnung ⁶	234.4	338.0	381.2	416.4	430.6
Collection items	40.1	44.8	57.2	95.4	150.8
Local credit transfers	194.3	293.2	324.0	321.0	279.8
Elektronische Abrechnung					
Frankfurt (EAF) ⁷	2.3	5.0	7.8	10.9	12.7

¹ Does not include figures relating to IFTs, which are not operated by the Deutsche Bundesbank. ² Machine-optical voucher reading procedure, excluding payments submitted in a paper-based form which were converted and passed on in a paperless form by the Bank's regional computer centres/payment units (BSE/GSE cheques and BZÜ credit transfers). ³ Paperless exchange of data media, including payments submitted in a paper-based form which were converted and passed on in a paperless form by the Bank's regional computer centres/payment units (BSE/GSE cheques and BZÜ credit transfers). ⁴ Express electronic credit transfer system. ⁵ Express (paper-based) local credit transfer system. ⁶ Daily local clearing system. ⁷ Daily electronic clearing in Frankfurt.

Table 9

Payment instructions handled by selected IFTs:
value of transactions

(in billions of Deutsche Mark)

	1990	1991	1992	1993	1994
Retail payments	4,054.8	4,726.4	4,846.1	4,822.1	4,688.7
Maschinell-optische					
Beleglesung (MAOBE) ²	2,881.4	3,220.7	3,112.9	2,814.4	2,307.3
Collection items	2,569.8	2,924.2	2,924.8	2,666.5	2,203.4
Credit transfers	311.6	296.5	188.1	147.9	103.9
Belegioser					
Datenträgeraustausch (DTA) ³	1,173.4	1,505.7	1,733.2	2,007.7	2,381.4
Collection items	757.9	887.0	907.4	1,063.8	1,313.9
Credit transfers	415.5	618.7	825.8	943.9	1,067.5
Large-value payments	127,932.7	137,703.9	160,441.4	195,455.3	204,656.0
Gross settlement procedures	16,759.4	18,911.4	22,041.2	27,661.8	30,342.6
of which:					
Eiliger Zahlungsverkehr					
(EIL-ZV) ⁴	8,354.2	10,792.2	13,611.0	18,874.6	22,772.4
Platzüberweisungsverkehr ⁵	8,405.2	8,119.2	8,430.2	8,787.2	7,570.2
Net settlement procedures	111,173.3	118,792.5	138,400.2	167,793.5	174,313.4
Konventionelle Abrechnung ⁶	86,180.2	63,856.3	55,377.1	38,488.5	29,409.9
Collection items	698.9	735.7	818.9	827.6	799.9
Local credit transfers	85,481.3	63,120.6	54,558.2	37,660.9	28,610.0
Elektronische Abrechnung					
Frankfurt (EAF) ⁷	24,993.1	54,936.2	83,023.1	129,305.0	144,903.5

¹ Does not include figures relating to IFTs, which are not operated by the Deutsche Bundesbank. ² Machine-optical voucher reading procedure, excluding payments submitted in a paper-based form which were converted and passed on in a paperless form by the Bank's regional computer centres/payment units (BSE/GSE cheques and BZÜ credit transfers). ³ Paperless exchange of data media, including payments submitted in a paper-based form which were converted and passed on in a paperless form by the Bank's regional computer centres/payment units (BSE/GSE cheques and BZÜ credit transfers). ⁴ Express electronic credit transfer system. ⁵ Express (paper-based) local credit transfer system. ⁶ Daily local clearing system. ⁷ Daily electronic clearing in Frankfurt.

Table 10

Transfer instructions handled by securities settlement systems:

volume of transactions

(in millions)

	1990	1991	1992	1993	1994
Total	22.1	20.5	22.6	27.8	25.2
Delivery versus payment	16.2	16.4	16.5	21.9	20.5
Without countervalue	5.9	4.1	6.1	5.9	4.7

¹ Source: Deutscher Kassenverein AG.

Table 11

Transfer instructions handled by securities settlement systems:

value of transactions

(in billions of Deutsche Mark)

		1991	1992		1994
Delivery versus payment	3,078.3	2,852.9	4,663.5	9,417.8	9,510.5

¹ Source: Deutscher Kassenverein AG.

Table 12

Indicators of use of various cashless payment instruments: volume of transactions¹

(in millions)

Instruments	1990	1991	1992	1993	1994
Cheques issued	784.0	880.0	902.0	934.0	903.0
of which:					
truncated ²	573.0	643.0	658.0	730.0	722.0
Payments by credit and debit					
cards ³	121.7	170.3	214.0	293.5	350.5
Paper-based credit transfers	1,835.4	2,012.3	1,991.2	1,959.1	1,672.2
customer initiated	1,812.0	1,989.0	1,971.0	1,947.8	1,664.7
interbank/large-value ⁴	23.4	23.3	20.2	11.3	7.5
Paperless credit transfers	2,264.5	2,697.3	3,092.4	3,294.3	3,899.4
customer initiated	2,261.0	2,691.0	3,083.0	3,281.2	3,884.3
interbank/large-value ⁴	3.5	6.3	9.4	13.1	15.1
Direct debits ⁵	2,939.5	3,419.8	4,016.0	5,035.9	4,607.0
Total	7,945.1	9,179.7	10,215.6	11,516.8	11,432.1

¹ Partly estimated. ² Not included in direct debits in order to avoid double-counting. ³ Excluding retailer cards. Credit cards: the card companies' settlements with the retailers (normally credit transfers) and payment of the monthly totals by card holders to card issuers by credit transfer, direct debit or cheque are contained in the corresponding items. Debit cards: not included in item "direct debits". ⁴ Only interbank payments via the Bundesbank in Konventionelle Abrechnung in Frankfurt, Elektronische Abrechnung mit Filetransfer, Eiliger Zahlungsverkehr and Platzüberweisungsverkehr. ⁵ Including cash dispenser/ATM withdrawals made with eurocheque cards at banks other than that issuing the card.

Table 13

Indicators of use of various cashless payment instruments:
value of transactions¹

(in billions of Deutsche Mark)

Instruments	1990	1991	1992	1993	1994
Cheques issued	3,997.0	4,443.0	4,583.0	5,343.0	5,550.0
of which:					
truncated ²	228.0	254.0	261.0	583.0	662.8
Payments by credit and debit cards ³	22.6	20.0	25.7	40.0	
Calus	22.6	30.0	35.7	48.3	57.2
Paper-based credit transfers	105,029.3	84,343.0	76,837.7	65,984.4	55,224.8
customer initiated	14,548.0	16,273.0	19,303.0	24,418.6	22,908.5
interbank/large-value ⁴	90,481.3	68,070.0	57,534.7	41,565.8	32,316.3
Paperless credit transfers	35,646.0	68,349.0	103,156.0	155,854.9	177,993.7
customer initiated	4,103.0	5,424.0	9,508.0	11,333.4	15,528.5
interbank/large-value ⁴	31,543.0	62,925.0	93,648.0	144,521.5	162,465.2
Direct debits ⁵	2,573.8	2,902.2	3,906.1	4,481.7	4,766.8
Total	147,268.7	160,067.2	188,518.5	231,712.3	243,592.5

¹ Partly estimated. ² Not included in direct debits in order to avoid double-counting. ³ Excluding retailer cards. Credit cards: the card companies' settlements with the retailers (normally credit transfers) and payment of the monthly totals by card holders to card issuers by credit transfer, direct debit or cheque are contained in the corresponding items. Debit cards: not included in item "direct debits". ⁴ Only interbank payments via the Bundesbank in Konventionelle Abrechnung in Frankfurt, Elektronische Abrechnung mit Filetransfer, Eiliger Zahlungsverkehr and Platzüberweisungsverkehr. ⁵ Including cash dispenser/ATM withdrawals made with eurocheque cards at banks other than that issuing the card.

- 44 - *Germany*

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1990	1991	1992	1993	1994
Members	147	150	152	153	152
of which: live	135	144	148	150	149
Sub-members ¹	70	81	84	82	92
of which: live	61	71	79	78	88
Participants ²	1	1	2	2	6
of which: live	1	1	1	2	3
Total users	218	232	238	237	250
of which: live	197	216	228	230	240
Memorandum items:					
Total S.W.I.F.T.:					
members	1,812	1,963	2,074	2,244	2,551
sub-members	1,469	1,607	1,738	1,887	2,097
participants	63	78	91	125	218
users	<i>3,344</i>	3,648	3,903	4,256	4,866

¹ Domestic users sponsored by members abroad. ² Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15 S.W.I.F.T. message flows to/from domestic users

	1990	1991	1992	1993	1994
Total messages sent	28,299,791	30,963,599	32,585,476	35,359,560	38,187,536
of which:					
category I ¹ category II ²	10,261,651 6,180,512	11,027,035 6,563,223	11,997,937 6,747,897	12,842,381 7,245,703	13,843,274 7,557,127
Total messages received	38,740,113	42,081,217	44,887,628	48,149,365	51,011,768
of which:					
category I ¹ category II ²		•	14,832,041 18,220,015	15,490,352 20,424,752	16,438,145 21,833,621
Domestic traffic ³ Memorandum item:	4,768,910	5,158,337	5,527,524	6,056,083	6,310,196
Global S.W.I.F.T. traffic	332,895,932	365,159,291	405,540,962	457,218,200	518,097,873

¹ Category I: customer (funds) transfers. ² Category II: bank (funds) transfers. ³ Messages sent to/received from domestic users.

Source: S.W.I.F.T.

- 45 - Italy

Table 1

Basic statistical data

	1990	1991	1992	1993	1994
Population (millions):			•		
year-end ^l	57.7	56.8	56.9	57.2	57.2
GDP (ITL billions)	1,312,066	1,429,453	1,504,003	1,550,150	1,641,105
GDP per capita (ITL millions) Exchange rate (domestic currency vis-à-vis USD):	22.7	25.1	26.5	27.3	28.7
year-endaverage	1,130.2 1,198.4	1,151.1 1,241.6	1,470.9 1,232.3	1,704.0 1,573.7	1,629.7 1,611.8

¹ Since 1991 (year of the last census) the figures relating to population have been rectified.

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of Italian lire)

	1990	1991	1992	1993	1994
Notes and coin	69,449	76,354	85,617	89,769	96,221
Narrow money supply (M ₁)	482,357	537,502	544,046	578,472	599,978
Transferable deposits	395,840	441,719	442,418	473,943	488,055
Other	17,068	19,429	16,011	14,760	15,702
Memorandum item:					
Broad money supply ¹	801,991	878,104	920,026	986,268	1,085,278

¹ Since 1994 includes certificates of deposit issued by the former special credit institutions.

Table 3

Settlement media used by credit/deposit-taking institutions
(at year-end, in billions of Italian lire)

	1990	1991	1992	1993	1994
Reserve balances held at central bank ¹	125,688	129,111	130,054	105,917	92,619
of which:					
required reserves	125,491	128,915	129,927	105,796	92,468
Transferable deposits at other institutions ²	61,167	55,016	46,407	52,455	56,352
Memorandum item:					
Institutions' borrowing from central bank ³	2,305	1,134	1,235	1,906	1,888

¹ Since 1990 the data comprise average required reserves and average free reserves for the period 15th December - 14th January. ² Sight interbank deposits and net balances of reciprocal accounts are included. ³ Since 1990 the data comprise institutions' average borrowing through ordinary advances for the period 15th December - 14th January.

Table 4

Banknotes and coin

(at year-end, not seasonally adjusted, in billions of Italian lire)

	1990	1991	1992	1993	1994
Total banknotes and coin outstanding	74,809	82,024	90,859	95,230	101,788
Denomination of banknotes:				4	
100,000 lire	51,336	56,570	63,205	66,862	72,346
50,000 lire	16,553	18,154	20,018	20,662	21,531
10,000 lire	3,784	3,882	3,929	3,903	3,996
5,000 lire	742	776	827	848	905
2,000 lire	104	170	298	346	333
1,000 lire	857	939	945	887	914
Banknotes and coin held by credit institutions	5,360	5,670	5,242	5,461	5,567
Total banknotes and coin outside credit institutions	69,449	76,354	85,617	89,769	96,221

- 47 - Italy

Table 5
Institutional framework
(at end-1994)

Categories	Number of institutions	Number of branches	Number of accounts (thousands)	Value of accounts (ITL billions)
Central bank	1	98	•	•
Commercial banks ¹	256	16,732	20,507	396,784
Cooperative and rural banks	746	6,388	4,693	83,638
Postal Administration	1	14,135	481	7,633
Memorandum item:				
Branches of foreign banks	45	70	8	675

¹ Includes the former special credit institutions (37 institutions with 119 branches) which have been authorised by the 1993 Banking Law to collect deposits.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1990	1991	1992	1993	1994
Cash dispensers and ATMs:					
Number of networks	1	1	I	1	1
Number of machines	9,770	11,571	13,917	15,227	18,672
Volume of transactions					
(thousands) ¹	100,663	131,283	162,583	187,407	211,247
Value of transactions (ITL billions)	28,770	38,992	49,168	58,050	66,537
EFTPOS:					
Number of networks					•
Number of terminals ²	22,185	45,711	62,251	77,206	104,051
Volume of transactions					
(thousands)	5,400	8,500	12,681	17,774	26,095
Value of transactions ¹ (ITL billions)	898	1,727	2,526	3,398	4,943

¹ Data relating to a sample group of 75 banks accounting for approximately 80% of current account deposits of the entire banking system. ² Up to 1990 data relate to the sample group of banks described in footnote 1.

- 48 - Italy

Table 7

Number of payment cards in circulation¹

(in thousands)

	1990	1991	1992	1993	1994
Cards with a cash function	7,761	8,948	10,606	11,295	12,396
Cards with a debit/credit function	11,212	12,991	14,858	16,279	18,210
of which:					
cards with a debit function cards with a credit function	6,659 4,553	8,059 4,932	9,494 5,364	10,555 5,724	12,124 6,086
Cards with a cheque guarantee function ²	1,942	2,323	2,187	1,674	1,766
Retailer cards	•	•	•	•	•

¹ A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures. ² Includes eurocheque cards and, up to 1992, cheque guarantee cards usable only in Italy. Since 1991, the latter have been gradually eliminated.

- 49 - Italy

Table 8

Payment instructions handled by selected payment systems:
volume of transactions

(in thousands)

	1990	1991	1992	1993	1994
Clearing sub-systems:					
Local clearing	442,689	440,125	292,129	253,189	240,675
of which:					
cheques ¹ of which: out-of-town	439,362	436,187	288,458	250,617	238,504
cheques	238,135	222,395	96,062	85,703	<i>85,782</i>
bills of exchange ¹	1,000	1,680	1,430	1,019	
credit transfers ²			441	325	282
other items ^{1,3}	2,327	2,258	1,800	1,228	1,889
Electronic Memoranda	1,255	1,465	1,804	1,896	2,084
of which:					
interbank deposits	411	722	1,020	1,005	731
foreign operations	721	600	542	533	562
credit transfers	34	64	147	187	222
other items ⁴	89	79	95	171	569
paper items	•		•	•	•
SIPS	1,833	2,311	2,780	3,111	3,526
Retail	46,641	125,086	361,783	451,171	489,582
of which:					
cheque truncation	13,006	79,162	317,970	321,354	287,179
Bancomat	33,635	45,924	43,813	56,114	61,616
collection orders	•			73,703	140,333
credit transfers ⁵	•	•	•	•	454
Centralised accounts ⁶	1,005	949	1,136	1,056	1,016
of which:					
payments between banks and Banca d'Italia/					
Treasury	1,000	943	1,116	1,013	973
BISS	5	6	20	43	43

¹ Figures relating to 1990 are estimated. ² Up to 1991 credit transfers are included among the "other items". ³ Includes: payments between the banking system and the Treasury, the Banca d'Italia or the Postal Administration; credit transfers (up to 1991); cash balances of the securities settlement procedures (up to 1992). ⁴ From 1993 on, this category includes the cash balances of the securities settlement procedures. ⁵ Procedure launched in November 1994. ⁶ Debits/credits for the settlement of clearing balances are not included.

- 50 - Italy

Table 9

Payment instructions handled by selected payment systems:
value of transactions

(in billions of Italian lire)

	1990	1991	1992	1993	1994
Clearing sub-systems:					
Local clearing	5,430,309	5,696,810	6,345,384	4,622,317	4,255,270
of which:					
cheques of which: out-of-town	1,506,627	1,631,530	1,605,684	1,583,041	1,587,415
cheques	646,889	643,187	606,197	622,365	629,890
bills of exchange	19,835	48,715	45,193	40,394	
credit transfers ¹	•		1,024,169	732,001	634,657
other items ²	3,903,847	4,016,565	3,670,338	2,266,881	2,033,198
Electronic Memoranda	5,148,000	6,332,000	10,450,000	17,067,600	17,972,187
of which:					
interbank deposits	3,480,000	5,223,000	8,772,000	11,698,000	11,782,702
foreign operations	1,014,000	553,000	782,000	987,000	894,808
credit transfers	128,000	225,000	539,000	716.000	857,732
other items ³	526,000	331,000	357,000	3,666,600	4,436,945
paper items	•				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
SIPS	5,647,324	8,273,530	11,994,531	18,293,744	25,928,601
Retail	15,956	75,368	262,740	492,310	675,298
of which:					4
check truncation	6,845	63,643	251,554	288,342	286,985
Bancomat	9,111	11,725	11,186	16,152	17,821
collection orders	•	•		187,816	367,504
credit transfers ⁴	•	•	•	•	2,988
Centralised accounts	1,634,400	1,650,500	2,873,100	2,619,500	2,428,800
of which:					
payments between banks and Banca d'Italia/					
Treasury ⁵	1,608,900	1,613,700	2,775,000	2,538,300	2,318,900
BISS	25,500	36,800	98,100	81,200	109,900

¹ Up to 1991 credit transfers are included among the "other items". ² Includes: payments between the banking system and the Treasury, the Banca d'Italia or the Postal Administration; credit transfers (up to 1991); cash balances of the securities settlement procedures (up to 1992). ³ From 1993 on, this category includes the cash balances of the securities settlement procedures. ⁴ Procedure launched in November 1994. ⁵ Debits/credits for the settlement of clearing balances are not included.

- 51 - *Italy*

Table 11

Transfer instructions handled by securities settlement systems:
value of transactions

(in billions of Italian lire)

	1990	1991	1992	1993	1994
Securities Settlement					
Procedures:	1,485,532	3,083,221	4,187,516	9,562,669	12,539,583
government securities	1,252,304	2,922,895	4,053,516	9,264,315	12,100,697
bonds	31,196	27,748	25,125	55,547	37,619
shares	202,032	132,578	108,875	242,807	401,267
Government Securities					
Centralised Accounts (CAT) ¹	113,600	324,599	586,274	1,884,042	1,743,402

¹ Procedure launched in September 1990. Net balances resulting from the securities settlement procedures are not included. The number of transfer instructions handled through the CAT procedure amounted to 561,200 in 1993 and 845,800 in 1994.

Table 12

Indicators of use of various cashless payment instruments:
volume of transactions¹

(in millions)

Instruments	1990	1991	1992	1993	1994
Cheques issued	729.7	689.3	674.5	621.6	574.8
Payments by debit and credit					
cards	47.6	63.5	74.8	81.7	100.6
Paper-based credit transfers	617.2	631.3	660.9	697.7	706.0
customer initiated ²	613.9	628.1	658.0	695.5	703.1
interbank/large-value	3.3	3.2	2.9	2.2	2.9
Paperless credit transfers	159.0	168.7	172.5	178.5	208.4
customer initiated	155.9	164.9	167.9	173.6	203.0
interbank/large-value	3.1	3.8	4.6	4.9	5.4
Direct debits	49.9	62.6	69.0	73.2	78.7
Others	168.1	173.4	167.5	159.0	153.1
paperless collections ³	76.7	86.6	95.7	99.9	106.6
paper-based collections ⁴	91.4	86.8	71.8	59.1	46.5
Total	1,771.5	1,788.8	1,819.2	1,811.7	1,821.6

¹ The figures for payment operations effected by banking instruments have been provided by 75 banks accounting for approximately 80% of the current account deposits of the entire banking system. The data on the other payment operations (Banca d'Italia cashier's cheques, postal instruments, credit cards, interbank large-value transfers) relate to the entire system. ² Customer initiated paper-based transfers include postal money orders and inpayments to postal current accounts that are processed automatically but originate from cash payments. ³ Collections of electronic bank receipts (RIBA). ⁴ Collections of commercial bills and paper-based bank receipts.

- 53 - Italy

Table 13

Indicators of use of various cashless payment instruments:

value of transactions¹

(in billions of Italian lire)

Instruments	1990	1991	1992	1993	1994
Cheques issued	2,130,696	2,156,272	2,223,172	2,170,124	2,108,124
Payments by debit and credit cards	8,635	11,754	14,291	15,671	19,218
Paper-based credit transfers	6,161,729	6,330,688	7,191,203	5,596,276	4,709,208
customer initiated ² interbank/large-value	648,982 5,512,747	701,174 5,629,514	745,865 6,445,338	791,095 4,805,181	357,110 4,352,098
Paperless credit transfers	14,245,811	18,227,933	26,236,791	38,812,084	47,766,143
customer initiated interbank/large-value	3,552,987 10,692,824	3,810,603 14,417,330	4,223,160 22,003,630	4,085,540 34,726,544	4,613,156 43,152,987
Direct debits	46,787	61,619	73,741	89,095	106,721
Others	432,347	462,658	468,069	452,127	463,821
paperless collections ³ paper-based collections ⁴	184,661 247,686	215,684 246,974	249,762 218,307	265,398 186,729	298,930 164,891
Total	23,026,005	27,250,924	36,207,267	47,135,377	55,173,235

¹ The figures for payment operations effected by banking instruments have been provided by 75 banks accounting for approximately 80% of the current account deposits of the entire banking system. The data on the other payment operations (Banca d'Italia cashier's cheques, postal instruments, credit cards, interbank large-value transfers) relate to the entire system. ² Customer initiated paper-based transfers include postal money orders and inpayments to postal current accounts that are processed automatically but originate from cash payments. ³ Collections of electronic bank receipts (RIBA). ⁴ Collections of commercial bills and paper-based bank receipts.

- 54 - *Italy*

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1990	1991	1992	1993	1994
Members	192	196	188	190	189
of which: live	188	190	186	187	186
Sub-members ¹	24	28	30	29	32
of which: live	22	24	30	28	32
Participants ²	0	0	0	0	0
of which: live	0	0	0	0	0
Total users	216	224	218	219	221
of which: live	210	214	216	215	218
Memorandum items:					
Total S.W.I.F.T.:					
members	1,812	1,963	2,074	2,244	2,551
sub-members	1,469	1,607	1,738	1,887	2,097
participants	63	78	91	125	218
users	3,344	3,648	3,903	4,256	4,866

¹ Domestic users sponsored by members abroad. ² Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15 S.W.I.F.T. message flows to/from domestic users

	1990	1991	1992	1993	1994
Total messages sent	18,188,905	19,203,007	21,144,390	22,572,543	24,681,961
of which:					
category I ¹	5,852,557	6,110,992	6,695,298	6,845,876	7,596,603
category II ²	5,132,683	5,359,223	5,783,865	5,904,935	6,063,052
Total messages received	16,973,327	18,148,442	20,008,765	22,189,826	25,066,961
of which:					
category I [‡]			6,101,945	6,930,817	8,061,681
category Il ²	•	•	4,240,352	4,758,663	5,448,679
Domestic traffic ³	2,802,044	2,944,909	3,465,396	3,751,213	4,235,252
Memorandum item:					
Global S.W.LF.T. traffic	332,895,932	365,159,291	405,540,962	457,218,200	518,097,873

¹ Category I: customer (funds) transfers. ² Category II: bank (funds) transfers. ³ Messages sent to/received from domestic users.

Source: S.W.I.F.T.

Table 1

Basic statistical data

	1990	1991	1992	1993	1994
Population (millions) ¹	123.6	124.0	124.5	124.8	125.0
GDP (nominal; JPY trillions)	424.5	451.3	463.1	466.0	469.1
GDP per capita (JPY thousands)	3,434.8	3,638.2	3,721.5	3,734.8	3,752.2
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	135.40 144.88	125.25 134.59	124.65 126.62	111.89 111.06	99.83 102.18

¹ As at 1st October.

Sources: Economic Statistics Annual and Economic Statistics Monthly (Bank of Japan).

Table 2

Settlement media used by non-banks¹

(in billions of Japanese yen)

	1990	1991	1992	1993	1994
Notes and coin ²	35,846.9	36,653.9	36,865.8	39,506.0	40,982.4
Narrow money supply $(M_1)^2$	119,628.1	131,044.1	136,138.0	145,614.6	151,665.3
Broad money supply (M ₂ + CDs) ²	504,972.0	516,346.0	515,484.3	526,839.6	541,419.4
Transferable deposits ³	118,046.1	122,019.1	118,279.6	117,463.6	121,103.8
of which held by:					
householdscorporate sector other ⁴	44,318.2 67,906.9 5,821.0	43,288.0 73,140.3 5,590.8	44,209.5 68,094.2 5,975.9	45,240.5 66,228.9 5,994.2	48,507.3 66,144.8 6,451.7
Postal deposits ⁵	10,111.6	12,258.4	12,162.8	12,483.2	13,927.1

¹ Not seasonally adjusted. ² End-year. ³ Demand deposits in yen at city banks, regional banks, regional banks II, trust banks, long-term credit banks and Shinkin banks; end-March. ⁴ Public sector. ⁵ Transferable deposits only; end-March.

Sources: Economic Statistics Annual, Economic Statistics Monthly (Bank of Japan) and other national data.

- 56 - Japan

Table 3

Settlement media used by banks¹

(in billions of Japanese yen)

	1990	1991	1992	1993	1994
Reserve balances held at central bank ²	5,028.3	2,966.3	2,892.5	2,959.8	3,038.6
of which:					
required reserves	5,024.2	2,962.6	2,889.7	2,956.9	3,035.5
Transferable deposits at banks ³	9,699.6	8,572.9	9,752.1	8,987.7	9,420.2
Banks' borrowing from central bank ⁴	6,303.3	10,267.1	7,218.4	6,070.0	5,991.7

¹ Not seasonally adjusted. ² End-year. ³ Demand deposits in yen at city banks, regional banks, regional banks II, trust banks, long-term credit banks and Shinkin banks; end-March. ⁴ Banks' total borrowing from the Bank of Japan consisting of (i) discounting of bills and (ii) loans on bills; end-year.

Source: Economic Statistics Annual (Bank of Japan).

Table 4

Banknotes and coin

(at year-end, not seasonally adjusted, in billions of Japanese yen)

	1990	1991	1992	1993	1994
Total banknotes and coin in circulation	43,017	43,318	42,511	45,279	46,626
Denomination of banknotes:					
10,000 yen	34,895	34,787	33,971	36,475	37,663
5,000 yen	1,752	1,844	1,853	1,912	1,947
1,000 yen		3,069	3,021	3,060	3,093
500 yen	133	132	130	129	128

Source: Economic Statistics Annual (Bank of Japan).

- 57 - Japan

Table 5

Institutional framework¹

Categories	Number of institutions	Number of branches	Number of transferable accounts (millions)	Value of transferable accounts (JPY billions)
Central bank	1	34	0.002	3,038.6
Commercial banks ²	150	15,128	306.0	103,186.3
Cooperative and rural banks ³	5,044	33,584	•	33,756.5
Branches of foreign banks	91	144	•	285.2
Post Office	1	24,419	92.8	13,927.1

¹ Figures at end-1994 or at end-March 1995 for the institutions other than the Post Office. Figures at end-March 1994 for the Post Office. ² Including city banks, regional banks, regional banks II, trust banks and long-term credit banks. ³ Including Shinkin banks, credit cooperatives, labour credit associations, agricultural cooperatives, fishery cooperatives, the Norinchukin Bank and the Shoko Chukin Bank.

Sources: Economic Statistics Monthly, Economic Statistics Annual (Bank of Japan), Center for Financial Industry Information Systems and other national data.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1990	1991	1992	1993	1994
Cash dispensers and ATMs:					
Number of networks	75	27	26	23	22
Number of machines ¹ Volume of transactions	87,931	98,599	108,275	116,732	122,250
(thousands) ² Value of transactions (JPY	207,564	297,669	370,588	416,869	455,684
billions) ²	10,652	14,283	16,678	18,190	19,479
EFTPOS:					
Number of networks ³	143	218	240	266	271
Number of terminals ³ Volume of transactions	10,170	26,359	32,816	21,010	28,320
(thousands) ⁴ Value of transactions (JPY	490	701	695	599	801
billions) ⁴	•	9.8	8.6	12.3	6.6

¹ End-March. ² Figures represent interbank transactions only and do not include intrabank transactions. ³ Figures for 1990 and 1991 include those for city banks, regional banks, regional banks II, Shinkin banks and credit cooperatives. Figures for 1992-94 also include those for labour credit associations. End-year for 1990 and 1991, end-March 1993, end-March 1994 and end-March 1995 for 1992, 1993 and 1994 respectively. ⁴ Figures for 1991 and 1992 are estimated from the transaction volume/value for December 1991 and March 1993 respectively.

Sources: Center for Financial Industry Information Systems, Federation of Bankers Associations of Japan and other national data.

- 59 - Japan

Table 7

Number of payment cards in circulation

(in thousands)

	1990	1991	1992	1993	1994
Cards with a cash function ¹	185,970	201,540	219,930	231,750	244,370
Cards with a debit/credit function	167,213	190,648	209,218	220,738	228,705
cards with a debit function ² cards with a credit function ³	1,093 166,120	3,688 186,960	5,712 203,000	6,218 214,520	7,965 220,740
Cards with a cheque guarantee function ⁴	•	•			
Retailer cards ³	40,010	44,650	49,600	53,020	55,850

¹ Excludes cards issued by fishery cooperatives and the Post Office; end-March. ² For 1990-92, end-year. The figure for 1992 is estimated from the data available. For 1993 and 1994, end-March. ³ End-March. ⁴ Cards with a cheque guarantee function do not exist in Japan.

Source: Center for Financial Industry Information Systems.

Table 8

Payment instructions handled by selected payment systems:
volume of transactions

(in thousands)

	1990	1991	1992	1993	1994
Bill and cheque clearing systems	382,745	367,124	350,245	327,866	318,083
Zengin System	645,246	718,274	779,083	826,386	874,291
Foreign Exchange (Gaitame) Yen Clearing System	6,270	6,052	6,118	6,577	7,077
BOJ-NET	•	3,634	3,710	3,771	3,854

Sources: Payment and Settlement Statistics (Bank of Japan), Economic Statistics Annual (Bank of Japan) and other national data.

- 60 - Japan

Table 9

Payment instructions handled by selected payment systems: value of transactions

(in trillions of Japanese yen)

	1990	1991	1992	1993	1994
Bill and cheque clearing systems	4,797	4,037	3,563	3,262	2,770
Zengin System	1,870	1,777	1,725	1,793	1,894
Foreign Exchange (Gaitame) Yen Clearing System	7,258	6,258	6,208	5,951	6,647
BOJ-NET	36,870	33,980	35,892	39,295	40,705

Sources: Payment and Settlement Statistics (Bank of Japan), Economic Statistics Annual (Bank of Japan) and other national data.

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in thousands)

	1990	1991	1992	1993	1994
Registration system ¹	229.3	227.8	275.6	368.0	439.3
Book-entry system	205.2	306.5	391.9	395.9	426.0
Financing billsTreasury billsGovernment bonds, etc		104.6 121.5 80.4	131.6 173.4 87.0	126.3 159.2 110.4	122.5 152.0 151.5

¹ Government bonds only.

Sources: Payment and Settlement Statistics (Bank of Japan) and other national data.

- 61 - Japan

Table 11

Transfer instructions handled by securities settlement systems:
value of transactions

(in trillions of Japanese yen)

	1990	1991	1992	1993	1994
Registration system ¹	1,390.2	1,012.4	876.8	1,116.1	1,192.4
Book-entry system	946.8	1,253.0	2,021.3	2,504.9	2,182.7
Financing bills Treasury bills Government bonds, etc		536.2 533.9 182.9	710.8 1,035.3 275.2	797.1 1,303.4 404.4	706.0 961.1 515.6

Government bonds only.

Sources: Payment and Settlement Statistics (Bank of Japan) and other national data.

Table 12
Indicators of use of various cashless payment instruments:
volume of transactions

(in millions)

Instruments	1990	1991	1992	1993	1994
Bills and cheques cleared	382.7	367.1	350.2	327.9	318.1
Payments by credit card	•		366.2	359.8	
Paper-based credit transfers ²	604.9	645.2	693.1	751.4	808.6
Paperless credit transfers	613.5	685.2	740.6	788.0	836.5
customer initiated ³	604.6	676.4	731.7	778.3	826.2
interbank/large-value ⁴	8.9	8.8	8.9	9.7	10.3
Direct debits ⁵	1,437.5	1,706.6	•	•	•
Total	•		•	•	

¹ Transactions cleared through bill and cheque-clearing houses. ² Comprising paper-based transfers through the Domestic Funds Transfer System and the Post Office. ³ Transactions through the Zengin System (excluding paper-based transfers). ⁴ Transactions through BOJ-NET and the Foreign Exchange (Gaitame) Yen Clearing System. ⁵ Direct debits for five major public utility charges (electricity, gas, water, telephone and television).

Sources: Economic Statistics Annual (Bank of Japan), Federation of Bankers Associations of Japan, Japan Consumer Credit Industry Association and other national data.

- 62 - Japan

Table 13
Indicators of use of various cashless payment instruments:
value of transactions

(in trillions of Japanese yen)

Instruments	1990	1991	1992	1993	1994
Bills and cheques cleared	4,797.3	4,037.5	3,563.5	3,262.4	2,769.9
Payments by credit card	13.3	16.0	17.3	17.3	17.3
Paper-based credit transfers ²	54.2	53.6	47.7	44.4	43.1
Paperless credit transfers	25,220.0	37,652.6	39,308.6	43,894.9	46,967.0
customer initiated ³ interbank/large-value ⁴	1,817.7 23,402.3	1,706.3 35,946.3	1,667.3 37,641.3	1,794.1 42,100.8	1,870.5 45,096.5
Direct debits ⁵	16.6	•	٠		•
Total	•	•	•		•

¹ Transactions cleared through bill and cheque-clearing houses. ² Comprising paper-based transfers through the Domestic Funds Transfer System and the Post Office. ³ Transactions through the Zengin System (excluding paper-based transfers). ⁴ Transactions through BOJ-NET and the Foreign Exchange (Gaitame) Yen Clearing System. ⁵ Direct debits for five major public utility charges (electricity, gas, water, telephone and television).

Sources: Economic Statistics Annual (Bank of Japan), Federation of Bankers Associations of Japan, Ministry of International Trade and Industry and other national data.

- 63 - Japan

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1990	1991	1992	1993	1994
Members	106	110	112	116	127
of which: live	103	109	110	114	127
Sub-members ¹	69	70	73	78	84
of which: live	66	68	70	76	83
Participants ²	7	7	8	7	8
of which: live	6	6	7	6	7
Total users	182	187	193	201	219
of which: live	175	183	187	196	217
Memorandum items:					
Total S.W.I.F.T.:					
members	1,812	1,963	2,074	2,244	2,55 <i>I</i>
sub-members	1,469	1,607	1,738	1,887	2,097
participants	63	78	91	125	218
users	3,344	3,648	3,903	4,256	4,866

¹ Domestic users sponsored by members abroad. ² Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15 S.W.I.F.T. message flows to/from domestic users

	1990	1991	1992	1993	1994
Total messages sent	15,057,485	15,983,025	17,794,807	19,566,216	21,843,420
of which:		, ,			·
category I ¹	3,119,491	3,654,591	4,206,763	4,462,919	4,728,927
category II ²	4,618,529	4,854,475	4,923,671	4,963,253	5,023,849
Total messages received	15,579,704	16,062,497	17,244,547	18,812,497	20,444,154
of which:					,
category I ¹		•	2,263,207	2,498,926	2,695,175
category II ²	•	•	5,739,005	6,182,981	6,568,628
Domestic traffic ³	2,302,210	2,254,694	2,363,060	2,519,129	2,562,869
Memorandum item:					
Global S.W.I.F.T. traffic	332,895,932	365,159,291	405,540,962	457,218,200	518,097,873

¹ Category I: customer (funds) transfers. ² Category II: bank (funds) transfers. ³ Messages sent to/received from domestic users.

Source: S.W.I.F.T.



- 65 - Netherlands

Table 1

Basic statistical data

	1990	1991	1992	1993	1994
Population (millions):					
year-end	15.0	15.1	15.2	15.3	15.4
GDP (NLG billions)	516.3	541.9	563.1	574.3	600.3
GDP per capita	34,397	35,819	36,958	37,436	38,923
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	1.69 1.82	1.71 1.87	1.81 1.76	1.94 1.86	1.74 1.82

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of Dutch guilders)

	1990	1991	1992	1993	1994
Notes and coin	36.5	37.0	37.0	37.6	38.1
Transferable deposits	87.5	92.3	98.1	112.1	114.1
of which held by:					
persons	40.7	40.4	41.6	45.6	47.0
corporate sector	40.1	42.3	45.1	53.9	54.5
other	6.7	9.6	11.3	12.6	12.6
Narrow money supply					
(M ₁)	123.9	129.3	135.1	149.6	152.2
Broad money supply	386.0	407.2	432.1	465.1	466.9

8,022

Table 3

Settlement media used by banks
(at year-end, in millions of Dutch guilders)

	1990	1991	1992	1993	1994
Reserve balances held at central bank ¹	15,125	2,915	17,557	19,985	19,408
Transferable deposits at other institutions (thousands)	3,979	2,768	1,906	3,118	1,893
Memorandum items: Required reserves	6,605	0	12,484	15,783	11,361

¹ Reserve balances also include "Required reserves" and "Institutions borrowing from central bank", although from the administrative point of view they are considered to be overdrafts instead of balances.

2,799

5,041

4,160

8,503

Institutions' borrowing from central bank

- 67 - Netherlands

Table 4

Banknotes and coin

(at year-end, not seasonally adjusted, in billions of Dutch guilders)

	1990	1991	1992	1993	1994
Total banknotes and coin issued	39.4	39.9	39.9	40.4	40.9
1,000 guilders	4.1 13.4 1.4 1.8 0.7	15.5 4.2 13.6 1.5 1.7 0.7 0.1	15.1 4.3 13.8 1.6 1.7 0.7 0.1	15.5 4.7 13.4 1.7 1.7 0.8 0.1	15.8 5.0 13.2 1.8 1.8 0.8 0.1
Total banknotes outside credit institutions	2.9 36.5	2.9 37.0	2.9 37.0	2.8 37.6	2.8 38.1

Table 5
Institutional framework
(at end-1994)

Categories	Number of institutions	Number of branches	Number of accounts (millions)	Value of accounts (NLG billions)
Central bank	1	12	•	•
Commercial banks	97	2,903	5.6	61.3
Savings banks	28	45	0.1	0.2
Cooperative and rural banks	1	1,923	5.5	32.0
Postbank	1	2,250	6.5	20.6
Memorandum item:				
Branches of foreign banks	23	•	•	•

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1990	1991	1992	1993	1994
Cash dispensers and ATMs:					
Number of networks	2	2	2	2	2
Number of machines Volume of transactions	2,700	3,354	3,964	4,461	4,998
(millions)Value of transactions (NLG	116	207	262	314	367
billions)	20	36	45	56	65
EFTPOS:					
Number of networks	2	2	2	1	1
Number of terminals Volume of transactions	2,223	4,038	11,440	24,549	47,588
(millions)Value of transactions (NLG	27	32	47	67	126
billions)	1.3	1.8	3.8	7.3	14.4

Table 7

Number of payment cards in circulation¹

(at year-end, in thousands)

	1990	1991	1992	1993	1994
Cards with a cash function	8,371	9,273	12,538	13,107	13,988
Cards with a debit/credit function	856	1,950	1,500	1,257	1,257
cards with a debit function cards with a credit function	•		1,500 •	1,257 •	1,257
Cards with a cheque guarantee function	1,998	2,213	1,765	1,796	1,297
Retailer cards		•	•	•	•

¹ A multi-function card may appear in several categories. It is, therefore, not meaningful to add the figures.

Table 8

Payment instructions handled by selected payment systems: volume of transactions

(in millions)

	1990	1991	1992	1993	1994
Interpay ¹	944.1	992.6	1,045.8	1,130.5	1,225.4
of which:					
cheques	114.6	110.5	91.7	71.9	55.8
other	829.5	882.I	954.1	1,058.6	1,169.6
8007 S.W.I.F.T	1,4	2.0	1.8	1.9	2.0
Central bank current account system (FA)	0.8	0.5	0.5	0.4	0.4

¹ Former BankGiroCentrale.

Table 9

Payment instructions handled by selected payment systems: value of transactions

(in billions of Dutch guilders)

	1990	1991	1992	1993	1994
Interpay ¹	1,711.9	1,851.8	1,942.0	2,207.4	2,195.0
of which:					
chequesother	16.5 1,695.4	16.2 1.835.6	15.0 1,927.0	11.7 2,195.7	9.2 2,185.8
ome,	1,093.4	1,033.0	1,927.0	2,193.7	2,103.0
8007 S.W.I.F.T	5,252.9	7,862.0	8,055.0	9,011.0	10,139.7
Central bank current account system (FA)	10,137.0	6,694.2	7,658.5	9,300.1	9,182.5

¹ Former BankGiroCentrale.

- 70 - Netherlands

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in millions)

	1990	1991	1992	1993	1994
NECIGEF	1.142	1.159	1.193	1.323	1.145
Central bank clearing institute	0.002	0.002	0.003	0.002	0.002

Table 11

Transfer instructions handled by securities settlement systems:
value of transactions

(in billions of Dutch guilders)

	1990	1991	1992	1993	1,7,79
NECIGEF	•				
Central bank clearing institute	34.6	38.0	48.5	48.4	79.0

Table 12

Indicators of use of various cashless payment instruments:
volume of transactions

(in millions)

Instruments	1990	1991	1992	1993	1994
Cheques	260.0	247.0	221.9	180.5	144.8
Credit and debit cards	27.0	32.0	46.6	91.7	192.7
Paper-based credit transfers	102.0	98.0	105.0	101.4	79.1
customer initiated		98.0	105.0	101.4	79.1
interbank/large value	0.0	0.0	0.0	0.0	0.0
Paperless credit transfers	956.0	963.0	1,003.1	1,382.3	1,481.0
customer initiated	953.8	960.5	1,000.8	1,380.0	1,478.6
interbank/large value	2.2	2.5	2.3	2.3	2.4
Direct debits	360.0	392.0	431.4	479.5	531.0
Total	1,705.0	1,732.0	1,808.0	2,235.3	2,428.6

Table 13
Indicators of use of various cashless payment instruments:
value of transactions

(in billions of Dutch guilders)

Instruments	1990	1991	1992	1993	1994
Cheques	35.0	33.0	32.0	25.9	21.0
Credit and debit cards	1.3	2.0	3.8	10.0	21.6
Paper-based credit transfers	48.0	45.0	48.0	36.5	26.4
customer initiated interbank/large value	48.0 0.0	45.0 0.0	48.0 0.0	36.5 0.0	26.4 0.0
Paperless credit transfers	18,141.7	17,032.0	18,741.2	21,188.1	22,195.0
customer initiated interbank/large value	2,751.8 15,389.9	2,475.8 14,556.2	3,027.7 15,713.5	2,877.0 18,311.1	2,872,9 19,322.2
Direct debits	223.0	246.0	226.0	229.8	239.8
Total	18,449.0	17,358.0	19,051.0	21,490.2	22,503.8

- 72 - Netherlands

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1990	1991	1992	1993	1994
Members	29	30	29	30	29
of which: live	26	26	29	29	27
Sub-members ¹	23	23	25	28	28
of which: live	22	21	23	26	28
Participants ²	1	1	1	1	0
of which: live	0	0	0	0	0
Total users	53	54	55	59	57
of which: live	48	47	52	55	55
Memorandum items:					
Total S.W.I.F.T.:					
members	1,812	1,963	2,074	2,244	2,551
sub-members	1,469	1,607	1,738	1,887	2,097
participants	63	78	91	125	218
users	3,344	3,648	3,903	4,256	4,866

¹ Domestic users sponsored by members abroad. ² Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15 S.W.I.F.T. message flows to/from domestic users

	1990	1991	1992	1993	1994
Total messages sent	12,168,453	12,944,496	13,547,572	14,543,442	15,253,565
of which:					
category I ¹	5,836,114	6,071,972	6,310,685	6,474,480	6,508,032
category II ²	2,743,791	2,790,345	2,733,648	2,912,403	3,107,787
Total messages received	11,331,221	12,158,421	12,865,625	13,983,712	14,538,364
of which:					
category I ¹		•	4,941,606	5,169,497	5,279,922
category II ²	•	•	1,921,436	2,066,993	2,081,037
Domestic traffic ³	999,117	1,419,578	1,763,389	1,996,747	1,750,991
Memorandum item:					
Global S.W.LF.T. traffic	332,895,932	365,159,291	405,540,962	457,218,200	518,097,873

¹ Category I: customer (funds) transfers. ² Category II: bank (funds) transfers. ³ Messages sent to/received from domestic users.

- 73 - Sweden

Table 1

Basic statistical data

	1990	1991	1992	1993	1994
Population (millions):					
average	8.56	8.62	8.67	8.72	8.79
GDP (SEK billions)	1,359.9	1,447.3	1,441.7	1,442.2	1,517.0
GDP per capita	158,867	167,900	166,286	165,390	172,583
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage	5.6980 5.9189	5.5500 6.0587	7.0500 5.8123	8.3325 7.8015	7.4615 7.7126

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of Swedish kronor)

	1990	1991	1992	1993	1994
Notes and coin	62.0	64.8	64.3	67.1	68.8
Transferable deposits of which held by:	537.6	563.0	589.2	612.5	638.8
households corporate sector other ¹	353.7 173.8 10.1	384.8 167.4 10.8	374.2 199.9 15.1	376.4 213.9 22.2	388.5 229.8 20.5
Other ²	36.9	34.0	29.3	30.5	4.7
Narrow money supply (M ₁)	•	•	•		•
Memorandum item: Broad money supply (M ₃)	636.5	661.8	682.8	710.1	712.3

¹ Local government. ² Postal giro accounts and certificates of deposit.

Table 3

Settlement media used by credit/deposit-taking institutions
(in billions of Swedish kronor)

	1990	1991	1992	1993	1994
Reserve balances held at central bank ¹	5.1	19.4	6.9	11.9	1.1
of which:					
required reserves	12.5	2.9	2.8	5.3	
Transferable deposits at other institutions	158.2	124.1	34.1	34.2	45.3
Other ²	2.2	0.8	1.5	1.1	•
Memorandum item: Institutions' borrowing					
from central bank ³	l 0.0	0.0	0.0	0.0	0.0

¹ Including money market operations and borrowing under special facilities. ² Deposits on postal giro accounts. ³ In the Riksbank Act there is a provision which allows the Riksbank to lend to banks and other financial institutions for reasons other than monetary policy, i.e. for liquidity purposes. This happened for the first time in September 1992. The figures refer to the situation at the end of the year.

Table 4

Banknotes and coin

(in millions of Swedish kronor)

	1990	1991	1992	1993	1994
Total banknotes and coin outstanding	71,979	76,098	73,945	75,722	76,442
Denomination of banknotes:					
10,000 kronor	665	170	19	0	0
1,000 kronor	38,594	41,091	39,299	39,803	39,569
500 kronor	12,182	14,733	15,711	18,384	19,903
100 kronor	15,497	14,669	13,354	12,001	11,298
50 kronor	1,010	1,035	817	261	205
20 kronor	•		1,011	1,525	1,608
10 kronor	1,573	1,313	433	345	315
5 kronor	99	97	96	95	94
Banknotes held by credit institutions	10,266	11,543	9,894	8,919	7,848
Total banknotes outside credit institutions	59,354	61,565	60,846	63,495	65,144

- 76 - Sweden

Table 5

Institutional framework
(at end-1994)

Categories	Number of institutions	Number of branches	Number of accounts (millions)	Value of accounts (SEK billions)
Central bank	I	16	•	•
Commercial banks ¹	15	2,338	24.37	682.7
Savings banks ²	90	352	3.12	59.1
Cooperative and rural banks ¹	•	•		
Post Office	1	1,341	•	
Memorandum item:				
Branches of foreign banks	6	6	0.00	2.1

¹ In 1991 the twelve cooperative regional banks merged into one unit. In 1992 this unit was transformed into a banking company and included in the commercial bank sector. The Postgirot Bank is included from March 1994. Through an agreement with the Post Office, the Postgirot Bank can use the 1,341 branches of the Post Office for marketing their financial services. ² In late 1992 the sector's former commercial bank, Sparbankernas Bank, together with eleven large savings banks, formed a new bank, Sparbanken Sverige AB, which at the end of the year accounted for about 80% of the sector's total balance sheet.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1990	1991	1992	1993	1994
Cash dispensers and ATMs:					
Number of networks	2	2	2	2	2
Number of machines Volume of transactions	2,102	2,221	2,203	2,226	2,281
(millions)Value of transactions (SEK	170	208	218	247	270
billions)	107	152	163	195	218
EFTPOS:					
Number of networks ¹	2	2	2	2	2
Number of terminals Volume of transactions	6,090	8,916	14,276	26,634	25,536
(millions)Value of transactions (SEK	16	33	46	57	77
billions)	8	17	27	38	48

¹ Terminals administrated by BABS and SERVO, two bank-owned companies which collect and redeem transactions for card issuers.

- 77 - Sweden

Table 7

Number of payment cards in circulation¹

(in thousands)

	1990	1991	1992 ²	1993	1994
Cards with a cash function	•	•	4,960	5,162	6,037
Cards with a debit/credit function ³	3,110	3,769	10,463	11,412	12,076
cards with a debit function cards with a credit	1,280	2,352	8,946	9,937	10,379
function	1,830	1,417	1,517	1,475	1,697
Cards with a cheque guarantee function					
Retailer cards	4,100	4,984	7,245	7,961	9,121

¹ A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures. ² From 1992, new source of statistics. ³ Total number of payment cards in Sweden.

Table 8

Payment instructions handled by selected payment systems: volume of transactions

(in thousands)

	1990	1991	1992	1993	1994
Data Clearing (retail clearing) ¹ of which:	145,852	151,434	141,436	127,784	120,957
truncated chequesother		108,299 43,135	98,972 42,464	86,100 41,684	78,983 41,974
The RIX systemof which:	982	91	79	78	84
interbank (large-value) transactions third-party transactions	272	25	28	24	21
("clearing transactions")	712	66	51	54	63

¹ The Data Clearing is managed by the Bank Giro Centre. Calculated bilateral net amounts are reported back to participants and settled via the Riksbank's RIX system. ² Up to 1989, clearing and settlement were carried out on a bilateral net basis. Since 1990 RIX has been operating on a gross basis.

- 78 - Sweden

Table 9

Payment instructions handled by selected payment systems: value of transactions

(in billions of Swedish kronor)

	1990	1991	1992	1993	1994
Data Clearing (retail clearing) ¹ of which:	17,138	19,167	17,920	20,510	9,617
truncated chequesother		18,741 426	17,546 374	20,120 390	9,204 413
The RIX systemof which:	34,949 ²	37,634	44,520	40,898	39,920
interbank (large-value) transactions third-party transactions	13,979 ²	17,502	23,461	16,836	14,101
("clearing transactions")	20,970 ²	20,132	21,059	24,062	25,819

¹ The Data Clearing is managed by the Bank Giro Centre. Calculated bilateral net amounts are reported back to participants and settled via the Riksbank's RIX system. ² Since 1990 RIX has been operating on a gross basis. Total daily payments in the RIX system averaged S.kr. 160 billion during 1994.

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in thousands)

	1990	1991	1992	1993	1994
VPC:1					
of which:					
government securities equities	•	•	•	298 8,084	974 10,787

¹ Värdepapperscentralen AB (Swedish Securities Register Centre). Government and mortgage securities have been included in the VP book-entry system since mid-1993. Therefore the figures refer to the second half of 1993 only. The figures include all transactions between accounts within VPC. The number of trades generating these transactions are, however, considerably lower. The number of actual trades in equities and government securities is only about one-sixth and one-half, respectively, of the figures in the table. Included under "equities" are also some private and corporate bonds.

- 79 - Sweden

Table 11

Transfer instructions handled by securities settlement systems: value of transactions

(in billions of Swedish kronor)

	1990	1991	1992	1993	1994
VPC:1					
of which:					
government securities ² equities	•	•	•	6,807 528	45,569 ³ 1,055

¹ Värdepapperscentralen AB (Swedish Securities Register Centre). ² Government and mortgage securities have been included in the VP book-entry system since mid-1993. Therefore the figures refer to the second half of 1993 only. ³ Due to the dematerialising of securities in 1993-94, a high value is reported for 1994.

Table 12

Indicators of use of various cashless payment instruments:
volume of transactions

(in millions)

Instruments	1990	1991	1992	1993	1994
Cheques issued ¹	120	77	76	•	•
Payments by debit and credit cards	55	68	62	68	85
Paper-based credit transfers	276	210	165	161	170
customer initiated interbank/large-value					
Paperless credit transfers	326	388	425	428	435
customer initiated interbank/large-value					
Direct debits	30	34	37	40	45
Total	807	777	765	697	735

¹ From 1993 no data available.

Table 13
Indicators of use of various cashless payment instruments:
value of transactions

(in billions of Swedish kronor)

Instruments	1990	1991	1992	1993	1994
Cheques issued ¹	698	757	675	•	•
Payments by debit and credit cards	34	43	44	53	64
Paper-based credit transfers customer initiated interbank/large-value	1,871	1,980	2,115	2,230	1,933
Paperless credit transfers	3,474	3,674	3,380	3,587	4,282
Direct debits	188	203	152	205	183
Total	6,265	6,657	6,366	6,075	6,462

¹ From 1993 no data available.

Table 14

Participation in S.W.I.F.T. by domestic institutions

	1990	1991	1992	1993	1994
Members	13	11	11	10	9
of which: live	13	10	10	10	8
Sub-members ¹	10	9	9	9	9
of which: live	10	9	9	9	9
Participants ²	0	0	0	0	0
of which: live	0	0	0	0	0
Total users	23	20	20	19	18
of which: live	23	19	19	19	17
Memorandum items:				·	
Total S.W.I.F.T.:					
members	1,812	1,963	2,074	2,244	2,551
sub-members	1,469	1,607	1,738	1.887	2,097
participants	63	78	91	125	218
users	3,344	3,648	3,903	4,256	4,866

¹ Domestic users sponsored by members abroad. ² Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

- 81 - Sweden

Table 15
S.W.I.F.T. message flows to/from domestic users¹

	1990	1991	1992	1993	1994
Total messages sent	6,248,239	6,701,761	7,088,941	7,447,346	8,701,454
of which:					
category I ¹	2,458,434	2,653,863	2,810,225	2,915,188	3,335,280
category II ²	1,672,378	1,788,521	1,797,251	1,863,230	2,029,226
Total messages received	5,417,561	5,766,385	5,879,573	6,040,394	7,021,354
of which:					
category I ¹			1,980,723	2,136,086	2,427,632
category II ²	•		1,482,130	1,566,639	1,925,165
Domestic traffic ³	980,546	1,055,822	994,931	984,831	1,213,723
Memorandum item:					
Global S.W.I.F.T. traffic	332,895,932	365,159,291	405,540,962	457,218,200	518,097,873

¹ Category I: customer (funds) transfers. ² Category II: bank (funds) transfers. ³ Messages sent to/received from domestic users.



Table 1

Basic statistical data

	1990	1991	1992	1993	1994
Population (thousands):					
year-end	6,751.0	6,842.8	6,908.0	6,968.6	7,021.2
average	6,796.0	6,873.0	6,943.0	6,989.0	7,037.8
GDP (CHF billions)	314.0	331.1	338.8	343.0	356.2
GDP per capita	46,512.0	48,386.6	49,044.6	49,220.8	50,732.1
Exchange rate (domestic currency vis-à-vis USD):					
year-end (December					
average)	1.2776	1.3877	1.4220	1.4640	1.3289
average	1.3880	1.4353	1.4036	1.4775	1.3660

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of Swiss francs)

	1990	1991	1992	1993	1994
Notes and coin	26.34	26.30	26.85	26.96	27.82
Transferable deposits ¹	54.19	52.78	55.00	59.57	63.06
Narrow money supply (M ₁)	80.53	79.08	81.85	86.53	90.88
Memorandum item:					
Broad money supply (M ₃)	372.83	383.76	394.37	418.35	432.41

¹ Sight deposits in Swiss francs.

Table 3

Settlement media used by credit/deposit-taking institutions
(at year-end, in billions of Swiss francs)

	1990	1991	1992	1993	1994
Reserve balances held at central bank	4.49	4.16	4.54	4.73	4.20
Transferable deposits at other institutions	18.77	18.17	18.29	22.82	17.93
Transferable deposits at PTT (Post Office)	1.51	1.39	1.78	1.71	1.45
Memorandum items:					
Required reserves ²	5.66	5.55	5.81	5.81	5.75
Institutions' borrowing from central bank ³	0.17	0.11	0.03	0.01	0.01

Figures at year-end are peak values; average figures are as follows (in billions): 1990: 3.02, 1991: 2.83, 1992: 2.55, 1993: 2.65, 1994: 2.68. ² Cash liquidity (cash, deposits with the Swiss National Bank and the PTT). ³ Lombard credits.

Table 4

Banknotes and coin

(at year-end, not seasonally adjusted, in millions of Swiss francs)

	1990	1991	1992	1993	1994
Total banknotes and coin					
issued	31,438.8	31,270.2	31,359.6	31,374.8	32,634.6
Denomination of banknotes:					
1,000 francs	13,613.3	13,263.0	13,501.9	13,584.9	14,504.6
500 francs	4,081.3	3,912.0	3,782.5	3,748.0	3,835.3
100 francs	9,043.9	9,089.1	9,059.0	8,926.8	9,058.6
50 francs	1,346.9	1,371.6	1,401.9	1,425.1	1,463.6
20 francs	985.4	1,000.7	1,017.9	1,044.9	1,065.6
10 francs	560.7	571.7	581.3	596.9	608.4
Coin	1,807.3	2,062.1	2,015.1	2,048.2	2,098.5
Banknotes held by credit institutions (incl. PTT)	5,108.2	4,696.2	4,375.6	4,462.5	4,815.0
Total banknotes and coin outside credit institutions	26,330.6	26,574.0	26,984.0	26,912.3	27,819.6

Table 5
Institutional framework
(at end-1994)

Categories	Number of institutions	Number of branches	Number of accounts	Value of accounts (CHF billions)
Central bank	1	10 ¹	774	4.20
Credit institutions	393	3,807	•	47.86
Post Office	1	3,668	1,547,292	15.54
Memorandum item:				
Foreign banks	13	23	•	0.13

¹ Including two head offices.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1990	1991	1992	1993	1994
Cash dispensers and ATMs:					
Number of networks ¹	2	2	2	2	2
Number of machines	2,262	2,371	2,669	3,062	3,380
Volume of transactions ^{2,3}	39.40	45.50	51.50	57.67	64.02
Value of transactions ^{2,4}	12.68	14.67	16.27	17.71	19.05
EFTPOS:					
Number of networks ⁵	2	2	2	2	2
Number of terminals:6			_	~	
ec-Direct	2,765	4,763	7,054	9,989	16,140
Postomat-Plus	913	2,281	4,273	8,367	16,702
Volume of transactions ³	9.60	13.60	19.40	27.95	39.85
Value of transactions ⁴	0.47	0.80	1.41	2.43	4.02

¹ Bancomat and Postomat system. ² Only transactions through a central processor. ³ In millions. ⁴ In billions of Swiss francs. ⁵ ec-DIRECT and Postomat-Plus. ⁶ Most of the terminals can be used by both networks.

Table 7

Number of payment cards in circulation

(at year-end, in thousands)

	1990	1991	1992	1993	1994
Cards with a debit/credit function	3,709	4,147	4,547	5,115	5,615
of which:					
cards with a debit function cards with a credit	2,179	2,383	2,691	3,165	3,454
function cards with a cash	1,339	1,518	1,706	1,828	2,059
function	2,728	3,184	3,783	4,359	4,913
Cards with a cheque guarantee					
function	2,356	2,629	2,840	3,286	3,557
Retailer cards	•	•	•		•

¹ Cash withdrawals at ATMs.

Table 8

Payment instructions handled by selected interbank payment systems: volume of transactions

(in millions)

	1990	1991	1992	1993	1994
SIC (Swiss Interbank Clearing)	61.8	65.2	64.3	67.4	88.7
Payments on data media or file transfer ¹	39.5	46.0	56.7	65.5	71.8
Cheques	17.0	15.5	13.0	9.8	7.9

¹ Includes DTA (data media exchange facility) and LSV (direct debit procedure).

- 87 - Switzerland

Table 9

Payment instructions handled by selected interbank payment systems: value of transactions

(in billions of Swiss francs)

	1990	1991	1992	1993	1994
SIC (Swiss Interbank Clearing)	30,355.0	30,431.0	33,369.0	34,126.0	33,254.2
Payments on data media or file transfer ¹	•	•		•	252.5
Cheques	61.1	55.3	46.9	36.5	30.7

¹ Includes DTA (data media exchange facility) and LSV (direct debit procedure).

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in millions)

	1990	1991	1992	1993	1994
SEGA:1					
Deliveries against					
payment	3.81	3.29	3.38	4.20	3.89
Deliveries free of payment.	0.47	0.46	0.44	0.42	0.41

¹ The Swiss Securities Clearing Company.

Table 11

Transfer instructions handled by securities settlement systems:

value of transactions

(in billions of Swiss francs)

	1990	1991	1992	1993	1994
SEGA ¹	374.6	342.1	385.8	654.0	715.7

¹ The Swiss Securities Clearing Company.

Table 12
Indicators of use of various cashless payment instruments:
volume of transactions

(in millions)

Instruments	1990	1991	1992	1993	1994
Through banks:1					
Cheques issued ²	24.1	22.0	19.2	15,4	13.1
Payments by debit and credit cards ³	25.7	38.7	49.4	60.9	75.3
Paperless credit transfers ⁴	93.2	101.8	110.0	119.8	144.6
Direct debits	8.1	9.3	11.0	13.2	16.0
Total	151.1	171.8	189.5	209.3	249.0
Through the PTT:					
Payments by debit cards ⁵	0.4	0.8	2.1	4.4	7.7
Transfers (paper-based and paperless credit transfers, direct debits) ⁶	223.1	236.0	245.6	258.7	255.0
Total	223.5	236.8	247.7	263.1	262.7
Grand total	374.6	408.6	437.2	472.4	511.7

¹ Intrabank payments are not included. ² Eurocheques, bank cheques and Swiss Bankers Travellers Cheques.

³ Eurocheque card, American Express, Eurocard, VISA and Diners Club; partly estimated. ⁴ SIC and banks' data media exchange system. ⁵ POSTCARD. ⁶ Detailed figures are not published by the PTT.

- 89 - Switzerland

Table 13
Indicators of use of various cashless payment instruments:
value of transactions

(in billions of Swiss francs)

Instruments	1990	1991	1992	1993	1994
Through banks:1					
Cheques issued ²	61.97	56.11	47.71	37.21	31.36
Payments by debit and credit cards ³	4.64	6.79	8.43	10.57	12.74
Paperless credit transfers ⁴	30,355.00	30,431.00	33,369.00	34,126.00	33,476.89
Direct debits	•	•	•	•	29.77
Total	30,421.61	30,493.90	33,425.14	34,173.78	33,550.76
Through the PTT:					
Payments by debit cards ⁵	0.03	0.06	0.13	0.30	0.68
Transfers (paper-based and paperless credit transfers, direct debits) ⁶	971.60	1,041.95	1,107.25	1,124.47	1,128.85
Total	971.63	1,042.01	1,107.38	1,124.77	1,129.53
Grand total	31,393.24	31,535.91	34,532.52	35,298.55	34,680.29

¹ Intrabank payments are not included. ² Eurocheques, bank cheques and Swiss Bankers Travellers Cheques. ³ Eurocheque card, American Express, Eurocard, VISA and Diners Club; partly estimated. ⁴ Until 1993, only SIC; since 1994, SIC and banks' data media exchange system. ⁵ POSTCARD. ⁶ Detailed figures are not published by the PTT.

- 90 - Switzerland

Table 14

Participation in S.W.I.F.T. by domestic institutions¹

	1990	1991	1992	1993	1994
Members	107	109	117	119	124
of which: live	101	101	113	115	122
Sub-members ²	52	53	57	61	65
of which: live	47	52	53	60	62
Participants ³	4	5	5	6	10
of which: live	3	2	2	3	8
Total users	163	167	179	186	199
of which: live	151	155	168	178	192
Memorandum items:					
Total S.W.I.F.T.:					
members	1,812	1,963	2,074	2,244	2,551
sub-members participants users	1,469 63 3,344	1,607 78 3,648	1,738 91 3,903	1,887 125 4,256	2,097 218 4,866

¹ Data for Switzerland and Liechtenstein. ² Domestic users sponsored by members abroad. ³ Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15
S.W.I.F.T. message flows to/from domestic users¹

	1990	1991	1992	1993	1994
Total messages sent	25,531,459	26,442,633	28,835,267	30,961,709	33,910,798
of which:					
category I ²	7,180,236	7,644,180	7,912,899	8,024,796	8,648,770
category II ³	7,401,454	7,946,117	8,424,164	8,639,285	8,874,142
Total messages received	22,558,989	23,796,984	25,805,430	27,264,322	30,405,937
of which:					
category I ²	•		5,364,953	5,526,472	5,931,601
category II ³	•	•	4,655,906	4,665,332	4,830,139
Domestic traffic ⁴	4,212,054	4,258,900	4,977,941	5,435,479	6,520,135
Memorandum item:					
Global S.W.I.F.T. traffic	332,895,932	365,159,291	405,540,962	457,218,200	518,097,873

¹ Data for Switzerland and Liechtenstein. ² Category I: customer (funds) transfers. ³ Category II: bank (funds) transfers. ⁴ Messages sent to/received from domestic users.

Table 1

Basic statistical data

	1990	1991	1992	1993	1994
Population (millions):					
mid-year	57.4	57.6	57.81	58.21	58.4 ¹
GDP (GBP billions) ²	550.3	573.4	594.9	630.0	668.9
GDP per capita	9,587	9,955	10,292	10,825	11,453
Exchange rate (domestic currency vis-à-vis USD):					
year-endaverage		0.5354 0.5655	0.6601 0.5661	0.6766 0.6660	0.6392 0.6524

¹ Estimated. ² Nominal at market prices.

Table 2

Settlement media used by non-banks
(at year-end, not seasonally adjusted, in billions of pounds sterling)

	1990	1991	1992	1993 ²	1994
Notes and coin	15.2	15.7	17.0	17.9	18.8
Narrow money deposits ¹	240.0	262.6	357.0 ¹	377.6	391.7
Narrow money supply!	255.2	278.3	374.0 ¹	395.5	410.5
Memorandum items:					
Broad money supply (M4)	474.3	502.1	519.4	546.8	568.3
Broad money deposits	459.1	486.4	502.4	528.9	549.5
of which held by:					
persons	317.4	340.1	354.2	366.7	375.4
corporate sector	63.9	69.8	69.3	75.6	79.6
other	77.7	76.5	78.9	86.6	94.5

¹ Break in series means that this figure is not comparable with previous figures in the series. The definition of deposits in M_2 is altered with effect from December 1992. Previously, bank deposits in M_2 comprised all non-interest-bearing deposits plus "chequable" sight or time deposits regardless of maturity plus other deposits (excluding certificates of deposit) of less than £100,000 and with less than one month to maturity; building society deposits included in M_2 were "transactions accounts" and other deposits of less than £100,000 and up to one month's maturity. Banks now define retail deposits as deposits which arise from the customers' acceptance of an advertised rate (including nil). Building societies include all shares or sums deposited by individuals plus sums from contractual savings schemes (but exclude retail issues of subscribed capital, e.g. perpetual interest-bearing shares). ² Data for 1993 calculated on a new definition of M_4 .

Table 3
Settlement media used by banks, building societies and discount houses

(at year-end, not seasonally adjusted, in billions of pounds sterling)

	1990	1991	1992	1993 ²	1994
Reserve balances held at central bank	1.8	1.6	1.4	1.4	1.5
Sight and time deposits with other banks, building societies, discount houses	200.0	187.0	210.3	204.5	223.6
of which:					
sight	30.5	26.8	31.6	30.6	36.5
time	152.4	140.2	157.2	154.9	168.2
residual	17.1	20.0	21.5	19.0	18.9
Memorandum items:					
Required reserves	0	0	0	0	0
Discount houses' borrowing from central bank	0.04	0	0	0.33	0

 $^{^{1}}$ In respect of deposits which cannot be split between sight and time (e.g. building society deposits with each other). 2 Data for 1993 calculated on a new definition of M_{4} .

Table 4 **Banknotes and coin**(in millions of pounds sterling)

	1990	1991	1992	1993	1994
Total banknotes and coin outstanding ^{1,2}	19,367	19,880	20,445	21,559	23,080
Denomination of banknotes in circulation: ³					
50 pounds	2,518	2,640	2,801	2,996	2,989
20 pounds	5,277	5,797	6,498	7,337	8,362
10 pounds	6,426	6,323	5,856	5,714	5,945
5 pounds	1,528	1,276	1,232	1,211	1,160
1 pound	61	60	58	57	49
Total	15,810	16,096	16,445	17,315	18,505
Banknotes held by credit institutions 1,2,4	4,111	4,165	3,613	3,662	4,328
Total banknotes outside credit institutions 1,2,4	15,256	15,715	16,832	17,897	18,752

¹ Not seasonally adjusted. ² Average for the month of December. ³ Bank of England notes only. ⁴ Figure includes coin.

Table 5

Institutional framework

(at end-1994)

Categories	Number of institutions	Number of branches	Number of accounts (millions)	Value of accounts (GBP billions)
Central bank	1	5	} 73.5 ²	} 186.1 ³
Commercial banks	489	12,759		
Building societies	100	5,566	43.5	206.7 ⁴
Post Office	1	19,782	16.0	1.4 ⁵
Total	591	38,112	133.0	394.2
Memorandum item: Branches of foreign banks	262	•	•	•

¹ Figures for value of accounts with banks and building societies are compatible with the retail element of M_4 . National Savings Bank (NSB) accounts are not included in M_4 . ² Includes estimates. ³ All private sector sterling accounts with UK banks (including the central bank and Girobank). ⁴ Private sector ordinary share and deposit accounts with UK building societies and shares and deposits below £50,000 from corporate bodies. Retail issues of subscribed capital, e.g. perpetual interest-bearing shares, are excluded. ⁵ National Savings Ordinary Accounts only. NSB facilities are available at post offices on an agency basis.

Table 6

Cash dispensers, ATMs and EFTPOS terminals

	1990	1991	1992	1993	1994
Cash dispensers and ATMs:					
Number of networks	3	3	3	3	3
Number of machines (thousands)	17.0	17.8	18.2	18.7	19.5
Volume of transactions (millions)	992	1,066	1,147	1,198	1,292
Value of transactions (GBP billions) ¹	43	49	54	58	60
	43	49	54	20	00
EFTPOS:					
Number of networks ²	3	3	3	3	3
Number of terminals	***		220		250
(thousands) ³ Volume of transactions	110	190	220	270	350
(millions)			•		•
Value of transactions					
(GBP billions)	•		•	•	•

¹ Includes estimated values of building society transactions. ² VISA, SWITCH and MasterCard only. ³ Estimated.

Table 7

Number of payment cards in circulation¹

(at year-end, in millions)

	1990	1991	1992	1993	1994
Cards with a cash function ²	66.9	65.8	67.9	69.6	69.8
Cards with a debit/credit function:					
of which:					
cards with a debit function ³ cards with a credit	19.0	20.1	22.6	24.1	26.0
function ^{2,4}	31.4	28.4	27.9	26.9	27.1
Cards with a cheque guarantee function ⁵	42.3	43.0	44.4	44.0	45.5
Retailer cards ⁶	•	•	8.9	8.5	10.3

¹ A card with multiple functions may appear in several categories. It is, therefore, not meaningful to add the figures. ² Bank cards only (excludes cards issued by building societies). ³ Debit cards were introduced in 1988. ⁴ Bank VISA and MasterCard and travel and entertainment cards (charge cards) only (excludes cards issued by building societies). ⁵ Includes eurocheque cards. ⁶ This figure does not include the number of accounts issued by smaller retailers.

Table 8

Payment instructions handled by selected payment systems: volume of transactions

(in millions)

	1990	1991	1992	1993	1994
Large-value systems:					
Town (paper) ¹	1	0.3	0.1	0.1	<0.1
CHAPS (automated)		8	9	11	12
Cheque and credit clearings:			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		
cheques ^{1,2} paper-based credit	2,517	2,472	2,395	2,323	2,278
transfers ^{1,2}	191	183	182	173	173
BACS:					
credit transfers ¹	756	786	819	858	910
direct debits	846	916	1,001	1,045	1,148
Total	4,319	4,365.3	4,406.1	4,410.1	4,521

¹ Inter-branch items are excluded. ² Includes Northern Ireland and Scotland.

Table 9

Payment instructions handled by selected payment systems: value of transactions

(in billions of pounds sterling)

	1990	1991	1992	1993	1994
Large-value systems:					
Town (paper) 1	4,776	2,228	1,387	1,069	681
CHAPS (automated)		19,050	20,928	23,545	25,053
Cheque and Credit Clearings:					
cheques ^{1,2} paper-based credit	1,210	1,207	1,175	1,194	1,210
transfers ^{1,2}	118	113	110	106	101
BACS:					
credit transfers ¹	418	484	519	574	657
direct debits	250	288	284	262	284
Total	25,652	23,370	24,403	26,750	27,986

¹ Inter-branch items are excluded. ² Includes Northern Ireland and Scotland. (Includes estimates.)

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in thousands)

	1990	1991	1992	1993	1994
CGO ¹	•	584.0	678.2	736.8	768.4
CMO ²	•	219.1	247.6	267.6	285.3

⁻¹ Central Gilts Office. ² Central Moneymarkets Office; the CMO began operations in October 1990.

Table 11

Transfer instructions handled by securities settlement systems: value of transactions

(in billions of pounds sterling)

	1990	1991	1992	1993	1994
CGO ¹	•	4,355	6,862	11,725	15,266
CMO ²	•	1,651	2,054	2,344	2,547

¹ Central Gilts Office. ² Central Moneymarkets Office; the CMO began operations in October 1990.

Table 12
Indicators of use of various cashless payment instruments: volume of transactions

(in millions)

Instruments	1990	1991	1992	1993	1994
Cheques issued: ^{1,4}					
large-value (Town)	1.0	0.4	< 0.1	< 0.1	<0.1
others	3,212.0	3,126.0	3,005.0	2,886.1	2,802.3
Payments by card:					
debit	192.0	359.0	522.0	659.0	808.0
credit ³	693.0	690.0	715.0	738.4	797.7
Paper-based credit transfers ^{2,4}	496.0	477.0	462.0	432.2	414.5
Paperless credit transfers:				Y	
large-value (CHAPS)	8.0	8.0	9.0	11.0	11.6
others ⁴	832.0	861.0	892.0	924.7	975.2
Direct debits	846.0	916.0	1,001.0	1,046.0	1,148.1
Total ⁵	6,280.0	6,437.4	6,606.0	6,697.5	6,957.4

¹ Excludes cheques processed at branch level. Includes cheques used to obtain cash. ² Excludes items processed at branch level. ³ VISA and MasterCard bank credit cards only. Excludes transactions by holders of charge cards (travel and entertainment cards) and retailer cards. ⁴ Includes inter-branch items (values are estimated). ⁵ Excludes postal orders and government payments in cash from post offices against state benefit vouchers.

Table 13
Indicators of use of various cashless payment instruments:
value of transactions

(in billions of pounds sterling)

Instruments	1990	1991	1992	1993	1994
Cheques issued: ^{1,4}					
large-value (Town)others	5,120.0 1,549.0	2,420.0 1,533.0	1,451.0 1,483.0	1,094.6 1,492.0	681.1 1,496.1
Payments by card:					
debit credit ³	5.1 27.7	9.5 29.4	13.8 31.3	17.9 33.5	22.4 37.3
Paper-based credit transfers ^{2,4}	677.0	652.0	621.0	582.0	542.9
Paperless credit transfers:					
large-value (CHAPS) others ⁴	18,880.0 441.0	19,050.0 512.0	20,928.0 542.0	23,545.0 598.0	25,052.0 681.4
Direct debits	250.0	288.0	284.0	262.0	283.6
Total ⁵	26,949.8	24,493.9	25,354.1	27,625.0	28,796.8

¹ Excludes cheques processed at branch level. Includes cheques used to obtain cash. ² Excludes items processed at branch level. ³ VISA and MasterCard bank credit cards only. Excludes transactions by holders of charge cards (travel and entertainment cards) and retailer cards. ⁴ Includes inter-branch items (values are estimated). ⁵ Excludes postal orders and government payments in cash from post offices against state benefit vouchers.

Table 14

Participation in S.W.I.F.T. by domestic institutions¹

	1990	1991	1992	1993	1994
Members	54	54	57	59	60
of which: live	53	53	56	57	59
Sub-members ²	196	204	210	219	231
of which: live	187	197	197	214	228
Participants ³	22	28	28	46	65
of which: live	17	18	23	38	57
Total users	272	286	295	324	356
of which: live	257	268	276	309	344
Memorandum items:					
Total S.W.I.F.T.:					
memberssub-members	1,812 1,469	1,963 1,607	2,074 1,738	2,244 1,887	2,551 2,097
participantsusers	63 3,344	78 3,648	91 3,903	125 4,256	218 4,866

¹ Data for the United Kingdom and the Isle of Man. ² Domestic users sponsored by members abroad. ³ Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Table 15
S.W.I.F.T. message flows to/from domestic users¹

	1990	1991	1992	1993	1994
Total messages sent	40,436,615	43,171,404	48,167,743	54,796,966	60,967,184
of which:					
category I ²	7,639,886	8,106,518	8,851,050	9,537,290	10,352,681
category II ³	14,036,209	14,799,002	16,109,002	18,110,333	19,379,515
Total messages received	35,495,611	37,850,280	42,182,121	48,734,436	55,179,903
of which:					
category I ²	•		10,212,447	11,316,746	12,540,347
category II ³	•	•	7,863,519	8,284,102	8,350,297
Domestic traffic ⁴	9,495,324	10,058,121	11,538,743	12,838,570	14,154,000
Memorandum item:					
Global S.W.I.F.T. traffic	332,895,932	365,159,291	405,540,962	457,218,200	518,097,873

¹ Data for the United Kingdom and the Isle of Man. ² Category I: customer (funds) transfers. ³ Category II: bank (funds) transfers. ⁴ Messages sent to/received from domestic users.

Table 1

Basic statistical data

	1990	1991	1992	1993	1994
Population (millions) ¹	249.9	252.6	255.4	258.1	260.7
GDP (USD billions) ²	5,546.1	5,724.8	6,020.2	6,343.3	6,736.9
GDP per capita (in USD)	22,193.3	22,663.5	23,571.7	24,576.9	25,841.6

¹ Data estimated as of 1st July each year. Includes Armed Forces overseas. ² Annual data.

Sources: US Department of Commerce, Bureau of the Census and Bureau of Economic Analysis.

Table 2

Settlement media used by non-banks¹

(in billions of US dollars)

	1990	1991	1992	1993	1994
Notes and coin held by public ²	249.5	270.3	298.1	328.3	361.1
Transferable deposits ³	586.9	638.7	743.3	821.2	807.7
Narrow money supply (M ₁) ⁴	843.8	916.0	1,046.0	1,153.7	1,173.5
Memorandum item:					
Broad money supply:4					
М ₂	3,366.0	3,472.7	3,533.6	3,606.1	3,638.0
М ₃	4,135.5	4,189.4	4,201.4	4,266.3	4,329.6

Averages of daily figures for the month of December. ² Currency in circulation plus amounts of coin outstanding less amounts held by the Treasury, Federal Reserve banks and depository institutions; weekly average for the last week of each year. ³ Transferable deposits consist of demand deposits and other chequable deposits. ⁴ Composition of money stock measures is as follows: M_1 : currency and coin + travellers' cheques + demand deposits + other chequable deposits. M_2 : M_1 + overnight Euro-dollars and RPs + money market mutual funds (general purpose and broker dealer only) + money market deposit accounts + savings time accounts. M_3 : M_2 + large time deposits (over US\$ 100,000) + term RPs and Euro-dollars + money market funds (institutions only). Data not seasonally adjusted.

Source: Federal Reserve.

Table 3
Settlement media used by banks

(in billions of US dollars, except as noted)

	1990	1991	1992	1993	1994
Balances held at central bank 1	38.7	29.4	32.1	34.9	30.8
Balances due from commercial banks ²	34.5	31.1	33.1	29.0	29.1
Memorandum items:				:	
Banks' borrowing from central bank					
(USD millions) ³	190.0	218.0	675.0	94.0	223.0
Required reserves ⁴	56.1	54.5	55.4	61.9	60.3

¹ Year-end balances of depository institutions held at Federal Reserve banks including reserve balances and required clearing balances. Data not seasonally adjusted. ² Consists of year-end non-interest-bearing balances due from commercial banks in the United States. These transferable balances do not include immediately available funds, such as federal funds sold and securities purchased under agreements to resell (RPs), which together amounted to US\$ 149.1, 151.5, 162.8, 154.7 and 151.7 billion at year-end 1990, 1991, 1992 1993 and 1994, respectively. Data not seasonally adjusted. ³ Monthly average figures may be significantly different from year-end figures. Data not seasonally adjusted. ⁴ Required reserves are biweekly averages of daily figures for weeks ending 26th December 1990, 25th December 1991, 23rd December 1992, 22nd December 1993 and 21st December 1994. Vault cash used to satisfy required reserves in December (average of daily figures, not seasonally adjusted) amounted to US\$ 32.7, 33.3, 34.8, 37.2 and 40.9 billion for 1990, 1991, 1992, 1993 and 1994, respectively.

Source: Federal Reserve.

- 103 - United States

Table 4

Value of banknotes in circulation
(at year-end, in billions of US dollars)

	1990	1991	1992	1993	1994
Total banknotes and coin outstanding 1	325.2	387.5 ²	384.9	431.4	477.6
Banknotes and coin held by depository institutions ³	37.4	37.4	36.6	37.0	42.7
Banknotes and coin held by Treasury and Federal Reserve banks	38.3	79.82	50.2	66.1	73.8
Banknotes and coin outside Treasury and Federal Reserve banks	286.9	307.7	334.7	365.3	403.8
100 dollars	140.2	157.2	177.1	201.5	229.1
20 dollars	33.9 69.0	35.6	38.0	41.0	43.9
10 dollars	12.6	70.0 12.6	73.3 13.0	74.9	80.5
5 dollars	6.3	6.4	6.7	13.2 6.9	13.8 7.3
1 dollar	5.1	5.3	5.5	5.7	6.1
other ⁴	1.1	1.2	1.2	1.3	1.3
coin	18.2	19.3	19.9	20.8	21.8
Total banknotes and coin held by public	249.5	270.3	298.1	328.3	361.1

¹ Total currency and coin outstanding. ² The increase in currency outstanding in 1991 can be partly attributed to increased holdings of high-denomination notes by the Treasury, Federal Reserve banks and depository institutions prior to the introduction of notes with enhanced anti-counterfeiting devices. ³ Partly estimated. ⁴ Miscellaneous banknotes outstanding.

Sources: US Treasury and Federal Reserve.

- 104 - United States

Table 5

Institutional framework
(at end-1994)

Categories	Number of institutions	Number of branches!	Number of accounts (thousands, sight)	Value of accounts (billions, sight)
Central bank ²	1(12)	36	10.5 ³	28.5 ⁴
Commercial banks	10,361	55,001		852.4 ⁵
Thrift institutions ⁶	2,223	14,220 ⁷		38.7 ⁵
Credit unions	12,136	•	•	28.9 ⁵

¹ Number of branches does not include head offices. ² The Federal Reserve is the central bank. The Board of Governors is located in Washington, D.C. and there are twelve District banks located in Atlanta, Boston, Chicago, Cleveland, Dallas, Kansas City, Minneapolis, New York, Philadelphia, Richmond, St. Louis and San Francisco. Eleven regional cheque processing centres are not included in the number of branches. ³ Number of depository institution accounts at the central bank. ⁴ Consists of deposits by depository institutions at the central bank. ⁵ Total transactions accounts. Data not seasonally adjusted. ⁶ Includes savings banks, savings and loan associations, cooperative and industrial banks at year-end 1994. ⁷ Includes number of savings and loan branches in June 1994 and branches of savings, cooperative and industrial banks at year-end 1994.

Source: Federal Reserve.

Table 6

Cash dispensers, ATMs and EFTPOS terminals¹

	1990	1991	1992	1993	1994
Cash dispensers and ATMs:					
Number of networks	90.0	75.0	73.0	65.0	60.0
Number of machines ² Volume of transactions	80,156.0	83,545.0	87,330.0	94,822.0	109,080.0
(billions)Value of transactions (USD	5.8	6.4	7.2	7.5	8.3
billions)	383.0	429.0	482.0	525.0	558.0
EFTPOS: ³					
Number of networks ⁴	40.0	23.0	26.0	26.0	25.0
Number of terminals Volume of transactions	60,000.0	88,000.0	115,042.0	196,000.0	375,500.0
(millions)Value of transactions (USD	180.0	245.4	333.0	430.0	624.0
billions)	6.0	6.4	8.0	10.3	15.6

¹ Estimates provided by POS News (Faulkner & Gray). ² Does not include card-activated terminals which do not dispense cash. ³ Personal Identification Number (PIN)-based debit EFTPOS. ⁴ Both shared and proprietary networks are included.

- 106 - United States

Table 7

Number of payment cards in circulation¹

(in millions)

	1990	1991	1992	1993	1994
Cards with a cash function ²	173.0	177.3	179.9	•	•
Cards with a cheque guarantee function ³	•	•	•	•	•
Cards with a debit/credit function ³	473.2	500.0	520.5	534.6	541.5
of which:					
cards with a debit function cards with a credit	191.0	200.0	205.0	209.0	210.5
function ⁴	282.2	300.0	315.5	325.6	331.0
Retailer cards	469.1	464.4	462.7	461.9	462.9
Oil company cards	123.0	123.4	119.7	117.7	114.2
Travel and entertainment cards	27.9	24.1	22.4	25.6	26.7

¹ Cards that provide multiple functions (i.e., cash and debit) are in widespread use. These cards are reported in more than one category. ² ATM/Cash Dispenser Personal Identification Number (PIN) type debit cards. Prepaid cards which can also be used as a cash substitute are not included. ³ Reliable data on cheque guarantee "cards" are not available. ⁴ Includes VISA, MasterCard, Discover and American Express cards as well as travel and entertainment cards listed below.

Sources: H. Spencer Nilson (Oxnard, California) and Faulkner & Gray.

- 107 - United States

Table 8

Payment instructions handled by selected payment systems: volume of transactions

(in millions)

	1990	1991	1992	1993	1994
Large-value systems:					
CHIPS ²	37.3	37.6	39.1	42.2	45.6
Fedwire ³	62.6	64.7	67.6	69.7	72.0
Cheque clearings:					
private clearing houses and direct exchanges ⁴ Federal Reserve ⁵	19,944.0 19,307.0	20,689.0 19,412.0	21,024.0 19,727.0	22,527.0 19,681.0	26,221.0 17,149.0
Automated clearing houses:					
private ⁶ Federal Reserve ⁷	1,434.8	74.0 1,631.0	106.0 1,843.3	117.0 2,085.1	142.6 2,372.7
Memorandum item:					
"On-us" cheques ⁸	16,149.0	17,364.0	17,648.0	18,089.0	18,300.0

¹ Number of originations. Data do not include non-value messages. ² CHIPS, the Clearing House Interbank Payments System, is operated by the New York Clearing House Association. ³ Fedwire is operated by the Federal Reserve. ⁴ Cheques are processed either "on-us" (about 30%), or by regional private cheque clearing houses (about 43% in 1994, which includes direct exchanges), or by the Federal Reserve. Estimate. *Source:* Federal Reserve. ⁵ Includes personal cheques, commercial cheques, government cheques and postal money orders. ⁶ *Source:* National Automated Clearing House Association. ⁷ Data before 1991 do not include items sent directly to the Federal Reserve by the New York Automated Clearing House but include these items in 1991 and thereafter. Includes all government and commercial debits and credits. Excludes debit items with no value such as notifications of changes in customer information. ⁸ Estimated.

- 108 - United States

Table 9

Payment instructions handled by selected payment systems:

value of transactions

(in billions of US dollars)

	1990	1991	1992	1993	1994
Large-value systems:					
CHIPS [†] Fedwire ²	222,107.6 199,067.2	217,312.3 192,254.9	238,255.5 199,175.0	262,256.4 207,629.8	295,443.8 211,201.5
Cheque clearings:					
private clearing houses and direct exchanges Federal Reserve ³ Automated clearing houses:	13,154.0	12,792.0	13,850.3	14,623.0	12,607.4
private Federal Reserve ⁴	• 4,661.0	• 6,272.6	7,390.5	7,595.1	8,369.5

¹ CHIPS, the Clearing House Interbank Payments System, is operated by the New York Clearing House Association. ² Fedwire is operated by the Federal Reserve. ³ Includes personal cheques, commercial cheques, government cheques and postal money orders. *Source:* Federal Reserve. ⁴ Includes all government and commercial debits and credits. Data before 1991 do not include items sent directly to the Federal Reserve by the New York Automated Clearing House, but include these items in 1991 and thereafter.

Table 10

Transfer instructions handled by securities settlement systems: volume of transactions

(in millions)

	1990	1991	1992	1993	1994
Federal Reserve:					
Government securities	10.9	11.1	11.8	12.0	12.6
Depository Trust Company:					
Corporate and municipal securities ²	72.6	73.2	83.3	98.3	106.0

¹ US Treasury and agency securities transfers processed through the Federal Reserve's Fedwire transfer book-entry securities settlement system. Data exclude reversals (i.e. securities sent in error and returned to sender). ² Book-entry securities deliveries processed by the Depository Trust Company's next-day and same-day funds settlement systems.

- 109 - United States

Table 11

Transfer instructions handled by securities settlement systems: value of transactions

(in trillions of US dollars)

	1990	1991	1992	1993	1994
Federal Reserve: Government securities	99.9	116.3	139.7	146.2	144.7
Depository Trust Company: Corporate and municipal securities ²	8.8	13.9	19.4	27.8	34.0

¹ US Treasury and agency securities transfers processed through the Federal Reserve's book-entry securities settlement system. Data exclude reversals (i.e. securities sent in error and returned to sender). ² Book-entry securities deliveries processed by the Depository Trust Company's next-day and same-day funds settlement systems.

- 110 - United States

Table 12

Indicators of use of various cashless payment instruments: volume of transactions

(in millions)

Instruments	1990	1991	1992	1993	1994
Cheques issued ¹	55,400.0	57,470.0	58,400.0	60,297.2	61,670.0
Payments by card:					
debit ² credit ³	278.0 10,478.1	301.0 11,241.0	505.0 11,700.0	672.0 12,516.0	1,046.0 13,681.6
Paperless credit transfers:					
CHIPS Fedwire ⁴ Federal Reserve ACH ⁵	37.3 62.6 940.8	37.6 64.7 1,058.6	39.1 67.6 1,189.5	42.2 69.7 1,345.8	45.6 72.0 1,525.7
Direct debits:					
Federal Reserve ACH ⁶	486.6	572.6	653.8	739.3	847.0
Total ⁷	67,683.4	70,745.5	72,555.0	75,682.2	78,887.9

¹ Includes personal cheques, commercial and government cheques, commercial and postal money orders and travellers' cheques. Data for the volume of cheques not processed by the Federal Reserve are estimated. ² Estimates are based on June data and include on-line POS debits and ACH/POS debits. *Source:* POS News (Faulkner & Gray, New York). ³ Includes all types of credit card transactions (i.e. bank, oil company, telephone, retail store, travel and entertainment, etc.). Bank cards include VISA and MasterCard credit cards only (excluding debit cards). *Source:* The Nilson Report (Oxnard, CA.). ⁴ Fedwire funds transfer volume only. ⁵ Does not include commercial "on-us" ACH credit transactions originated and received by the same bank. NACHA estimates that "on-us" items increase total ACH volume (debits + credits) by about 24% in 1994. ⁶ Does not include commercial "on-us" debit items. Excludes debit items with no value such as notifications of changes in customer information. ⁷ Does not include 13.0 million government securities transfers on Fedwire in 1994 valued at US\$ 144.7 trillion.

Table 13

Indicators of use of various cashless payment instruments:
value of transactions

(in billions of US dollars)

Instruments	1990	1991	1992	1993	1994
Cheques issued ¹	70,000.0	66,000.0	67,000.0	69,160.7	71,500.0
Payments by card:					
debit ²	13.5	16.3	21.8	28.9	44.9
credit ³	465.8	485.0	529.1	620.6	730.8
Paperless credit transfers:					
CHIPS	222,107.6	217,312.3	238,255.5	262,256.4	295,443.8
Fedwire ⁴	199,067.2	192,254.9	199,175.0	207,629.8	211,201.5
Federal Reserve ACH ⁵	1,423.8	2,462.7	2,411.7	2,698.9	3,284.8
Direct debits:					
Federal Reserve ACH ⁶	3,236.7	3,809.9	4,978.8	4,896.3	5,084.7
Total ⁷	496,314.6	482,341.1	512,371.9	547,291.6	587,290.5

¹ Includes personal cheques, commercial and government cheques, commercial and postal money orders and travellers' cheques. Data for the volume of cheques not processed by the Federal Reserve are estimated. ² Estimates are based on June data and include on-line POS debits and ACH/POS debits. *Source:* POS News (Faulkner & Gray, New York). ³ Includes all types of credit card transactions (i.e. bank, oil company, telephone, retail store, travel and entertainment, etc.). Bank cards include VISA and MasterCard credit cards only (excluding debit cards). *Source:* The Nilson Report (Oxnard, CA.). ⁴ Values of transactions processed on Fedwire funds transfer system only. ⁵ Does not include commercial "on-us" ACH credit transactions originated and received by the same bank. NACHA estimates that "on-us" items increase total ACH volume (debits + credits) by about 24% in 1994. ⁶ Does not include commercial "on-us" debit items. ⁷ Does not include 13.0 million government securities transfers on Fedwire in 1994 valued at US\$ 144.7 trillion.

- 112 - United States

Table 14

Participation in S.W.I.F.T. by domestic institutions¹

	1990	1991	1992	1993	1994
Members	155	158	154	147	147
of which: live	152	152	151	146	143
Sub-members ²	217	222	242	267	293
of which: live	205	212	230	257	286
Participants ³	19	21	23	26	47
of which: live	10	14	17	23	38
Total users	391	401	419	440	487
of which: live	367	378	398	426	467
Memorandum items:					
Total S.W.I.F.T.:					
members	1,812	1,963	2,074	2,244	2,551
sub-members participants	1,469 63	1,607 78	1,738 91	1,887 125	2,097 218
users	<i>3,344</i>	3,648	3,903	4,256	4,866

¹ Data for the United States and Puerto Rico. ² Domestic users sponsored by members abroad. ³ Participants are not shareholders in S.W.I.F.T. and their message traffic over the network is restricted.

Source: S.W.I.F.T.

Table 15 S.W.I.F.T. message flows to/from domestic users 1

	1990	1991	1992	1993	1994
Total messages sent	53,935,959	59,992,143	64,993,013	72,629,616	83,173,828
of which:					
category I ²	7,114,348	7,873,755	9,466,437	11,230,055	13,810,761
category II ³	10,698,462	11,499,568	12,243,759	13,760,056	15,257,951
Total messages received	58,194,552	64,593,442	70,982,141	80,281,134	93,700,305
of which:					
category I ²			15,225,444	17,043,643	20,207,556
category II ³	•	•	35,433,454	37,604,439	41,497,646
Domestic traffic ⁴	9,271,351	10,211,287	10,948,963	11,782,604	13,454,096
Memorandum item:					
Global S.W.I.F.T. traffic	332,895,932	365,159,291	405,540,962	457,218,200	518,097,873

¹ Data for the United States and Puerto Rico. ² Category I: customer (funds) transfers. ³ Category II: bank (funds) transfers. ⁴ Messages sent to/received from domestic users.

Source: S.W.I.F.T.

COMPARATIVE TABLES

Table 1

Notes and coin in circulation¹

	1990	1991	1992	1993	1994	
		τ	JSD per inhabita	nt ²		
Belgium	1,335	1,331	1,239	1,164	1,229	
Canada	611	646	627	636	637	
France	880	863	828	739	807	
Germany	1,330	1,411	1,534	1,511	1,790	
Italy	1,065	1,168	1,023	921	1,032	
Japan	2,570	2,789	2.739	3,243	3,736	
Netherlands	1,440	1,432	1,339	1,287	1,425	
Sweden	1,471	1,587	1,207	1,042	1,120	
Switzerland	3,053	2,802	2,748	2,638	2,982	
United Kingdom	511	509	446	455	504	
United States	998	1,070	1,167	1,272	1,385	
		As	percentage of G	DP		
Belgium	6.4	6.2	5.9	6.0	5.2	
Canada	3.0	3.1	3.3	3.4	3.4	
France	3.7	3.7	3.6	3.5	3.4	
Germany	6.5^{3}	6.0	6.5	6.7	6.8	
Italy	5.3	5.4	5.7	5.8	5.9	
Japan	10.1	9.6	9.2	9.7	9.9	
Netherlands	7.1	6.8	6.6	6.5	6.4	
Sweden	5.3	5.3	5.1	5.3	5.0	
Switzerland	8,4	8.0	8.0	7.9	7.8	
United Kingdom	2.8	2.7	2.9	2.8	2.8	
United States	4.5	4.7	5.0	5.2	5.4	
	As percentage of narrow money ⁴					
Belgium	31.3	31.2	31.5	29.6	27.1	
Canada	45.5	46.1	47.0	44.0	44.2	
France	15.1	15.8	15.9	15.3	15.1	
Germany	27.1	28.4	29.9	29.2	29.6	
Italy	14.4	14.2	15.7	15.5	16.0	
Japan	36.0	33.1	31.2	31.1	30.7	
Netherlands	29.5	28.6	27.4	25.1	25.0	
Sweden	11.3	11.5	10.8	10.7	10.7	
Switzerland	32.7	33.6	33.0	31.2	30.6	
United Kingdom	6.0	5.6	4.8	4.5	4.6	
United States	29.6	29.5	28.5	28.5	30.8	

 $^{^1}$ For explanation of figures see relevant country tables. 2 Year-end figures converted at end-of-year exchange rates. 3 GDP for old Länder only. 4 Narrow money: M_1 ; except for Sweden (M_3) and the United Kingdom (M_2).

Table 2

Transferable deposits held by non-banks¹

	1990	1991	1992	1993	1994		
	USD per inhabitant ²						
Belgium	2,925	2,929	2,700	2,764	3,307		
Canada	3,518	3,728	3,505	3,614	3,511		
France	4,997	4,445	4,381	4,080	4,543		
Germany	3,732	3,655	3,591	3,761	4,287		
Italy	6,070	6,756	5,286	4,863	5,236		
Japan ³	6,058	7,001	7,141	8,160	9,424		
Netherlands	3,448	3,571	3,548	3,834	4,265		
Sweden	11,737	12,450	10,119	8,850	9,811		
Switzerland	6,283	5,565	5,601	5,839	6,758		
United Kingdom	8,067	8,515	8,917	9,589	10,493		
United States	2,349	2,529	2,910	3,182	3,098		
		A	s percentage of C	DP			
Belgium	14.1	13.6	12.8	14.0	14.0		
Canada	17.0	18.0	18.5	19.5	18.8		
France	22.0	19.9	19.3	19.4	19.2		
Germany	18.3 ⁴	15.6	15.3	16.7	16.3		
Italy	30.2	31.0	29.4	30.4	29.8		
Japan	27.8	27.1	25.4	25.1	25.8		
Netherlands	16.9	17.0	17.4	19.5	19.0		
Sweden	42.2	41.2	43.0	44.6	42.4		
Switzerland	17.3	15.9	16.3	17.4	17.7		
United Kingdom	43.6	45.8	57.2	60.0	58.6		
United States	10.6	11.2	12.3	12.9	12.0		
	As percentage of narrow money ⁵						
Belgium	68.7	68.8	68.5	70.0	72.9		
Canada	261.8	266.3	263.0	249.9	243.9		
France	84.9	84.2	84.1	84.7	84.9		
Germany	76.1	73.7	70.1	72.7	70.8		
Italy	82.1	82.2	81.3	81.9	81.4		
Japan ⁶	96.7	97.9	91.5	86.5	85.3		
Netherlands	70.6	71.4	72.6	74.9	75.0		
Sweden	90.3	90.2	90.6	90.6	90.3		
Switzerland	67.3	66.4	67.0	68.8	69.4		
United Kingdom	94.0	94.4	95.2	95.5	95.4		
United States	69.6	69.7	71.1	71.2	68.8		

¹ For explanation of figures and definition of transferable deposits, see relevant country tables. ² Year-end figures converted at end-of-year exchange rates. ³ End-March figure converted at end-March exchange rate. ⁴ GDP for old Länder only. ⁵ Narrow money: M₁; except for Sweden (M₃) and the United Kingdom (M₂). ⁶ End-March figure.

Table 3

Settlement media used by banks¹
(1994)

	Banks' reserves at central bank (USD billion) ²	Banks' reserves at central bank in percentage of narrow money ³	Transferable deposits at other banks (USD billion) ²	Transferable deposits at other banks in percentage of narrow money ²
Belgium	0.064	0.14	15.9	34.7
Canada	0.4	0.95	•	•
France	1.5	0.005	524.3	169.8
Germany	28.7	5.8	221.3	44.9
Italy	56.8	15.4	34.6	9.4
Japan	30.4	2.0	91.6 ⁴	6.6 ⁵
Netherlands	0.014	0.02	1.1	1.2
Sweden	0.15	0.15	6.1	6.4
Switzerland	3.2	4.6	13.5	19.7
United Kingdom	2.3	0.4	349.8	54.5
United States	30.8	2.6	29.1	2.5

¹ For explanation of figures see relevant country tables. ² Year-end figures converted at end-of-year exchange rates. ³ Narrow money: M_1 ; except for Sweden (M_3) and the United Kingdom (M_2). ⁴ End-March figure converted at end-March exchange rate. ⁵ End-March figure.

Table 4
Institutional framework¹
(1994)

	Number of institutions	Number of inhabitants per institution	Number of branches	Number of inhabitants per branch	Number of accounts per inhabitant
Belgium	148	68,453	9,595	1,055	1.2
Canada ²	2,644	11,082	13,850	2,116	•
France	627	92,025	46,621	1,238	1.1
Germany	3,730	21,850	49,203	1,656	1.0
Italy	1,004	56,972	37,353	1,531	0.4
Japan	5,287	23,643	73,309	1,705	
Netherlands	128	120,491	7,133	2,162	1.1
Sweden	107	82,150	4,047	2,172	3.1
Switzerland	395	17,775	7,485	938	•
United Kingdom	591	98,816	38,112	1,532	2.3
United States	24,720	10,546	69,221	3,766	•

¹ For explanation of figures see relevant country tables. ² Deposit-taking institutions only.

Table 5

Cash dispensers and ATMs¹

	1990	1991	1992	1993	1994		
	Number of machines per 1,000,000 inhabitants						
Belgium	94	105	109	279	313		
Canada	420	467	510	554	578		
France	255	284	305	325	356		
Germany	141	171	235	308	361		
Italy	169	204	245	266	326		
Japan	711	795	870	935	978		
Netherlands	180	222	260	291	324		
Sweden	245	258	254	255	259		
Switzerland	335	347	387	439	1		
United Kingdom	296	309	316	321	481		
United States	321	331	342	367	334 418		
		Number o	f transactions pe	r inhabitant			
Belgium	7,1	8.1	8.8	11.5	11.9		
Canada	28.4	33.6	36.0	37.5	41.0		
France	10.0	11.0	12.0	13.3	14.2		
Germany	•	11.0	12.0				
Italy ²	2.2	2.9	3.6	4.1	11.5 4.6		
Japan	1.7	2.4	3.0	3.3			
Netherlands	7.7	13.7	17.2	20.4	3.6		
Sweden	19.9	24.1	25.1	28.3	23.8		
Switzerland	5.8	6.6	7.4	8.3	30.7		
United Kingdom	17.3	18.5	19.8	1	9,1		
United States	23.2	25.3		20.6	22.1		
United States	43.4	23.3	28.2	29.1	31.8		
		Average v	alue of transacti	ons (USD) ³			
Belgium	113.2	117.4	113.2	109.7	125.17		
Canada ⁴	54.8	56.7	55.5	53.5	51.2		
France	81.4	82.7	86.1	77.0	76.4		
Germany	•				157.6		
Italy	238.5	239.2	245.4	196.8	195.3		
Japan	354.2	356.5	355,4	392.9	418.3		
Netherlands	95.3	92.2	98.5	96.4	97.9		
Sweden	106.3	120.6	128,6	101.2	104.7		
Switzerland	231.9	224.6	225.1	207.8	217.8		
United Kingdom	77.0	81.0	83.0	72.7	71.2		
United States	66.0	67.0	66.9	70.0	67.2		
		07.0	00.9	70.0	07.2		

¹ For explanation of figures see relevant country tables. ² Estimated figures referring to the whole system; they differ from those provided in the statistical annex of the Italian chapter. ³ Converted at yearly average exchange rates. ⁴ Average value of a cash withdrawal only.

Table 6
EFTPOS terminals¹

	1990	1991	1992	1993	1994		
	Number of terminals per 1,000,000 inhabitants						
Belgium	2,828	3,213	4,034	5,246	6,294		
Canada	332	472	1,035	2,134	4,086		
France	3,180	3,568	5,594	7,435	7,574		
Germany	290	432	640	344	767		
Italy	385	805	1,094	1,350	1,819		
Japan	82	213	264	168	227		
Netherlands	148	267	751	1,600	3,086		
Sweden	711	1,034	1,647	3,054	2,905		
Switzerland	410	697	1,022	1,433	2,379		
United Kingdom	1,916	3,299	3,806	4,639	5,993		
United States	240	348	450	759	1,440		
		Number of	transactions pe	r inhabitant	J		
D-1-i	7.0	9.9	12.0	15.6	18.0		
Belgium	7.9	9.9	12.0	2.6	6.3		
Canada	0.1	***	22.7	24.3	26.1		
France	16.5	18.5	0.35	0.85	1.28		
Germany	0.04	0.25	0.33	0.85	0.57		
Italy ²	0.12	0.19	0.28	0.005	0.006		
Japan	0.004		1	0.000	1		
Netherlands	1.8	2.1	3.1	4.4	8.2		
Sweden	1.6	3.5	5.3	6.5	8.8		
Switzerland	1.4	2.0	2.8	4.0	5.7		
United Kingdom				. 1.7			
United States	0.7	1.0	1.3	1.7	2.4		
		Average v	alue of transacti	ons (USD) ³			
Belgium	55.4	57.9	57.7	63.2	71.2		
Canada	42.8	44.3	43.8	38.8	37.3		
France	59.7	58.5	62.5	58.0	57.6		
Germany	35.4	53.6	43.5	54.2	64.0		
Italy	138.8	163.6	161.6	121.5	117.5		
Japan	•	103.9	97.7	184.9	80.2		
Netherlands	26.5	30.1	46.0	58.5	62.9		
Sweden	96.5	93.5	101.0	85.5	80.8		
Switzerland	35.3	41.0	51.8	58.8	73.8		
United Kingdom	•						
United States	33.3	26.1	24.0	24.0	25.0		

¹ For explanation of figures see relevant country tables. ² Estimated figures referring to the whole system; they differ from those provided in the statistical annex of the Italian chapter. ³ Converted at yearly average exchange rates.

Table 7

Number of cards¹
(1994, per 1,000 inhabitants)

	Cards with a cash function	Cards with a debit/credit function	Cards with cheque guarantee function	Retailers' cards
Belgium	880	880	459	107
Canada	1,338	519	•	4,266
France	395	385	•	
Germany	•	581	455	25
Italy	217	318	31	
Japan	1,955	1,830	•	447
Netherlands	907	82	84	
Sweden	687	1,374		1,038
Switzerland	700	800	507	
United Kingdom	1,195	909	779	176
United States	•	•	•	1,776

¹ For explanation of figures, see relevant country tables.

Table 8 Relative importance of cashless payment instruments¹ (percentage of total volume of cashless transactions)

	1990	1991	1992	1993	1994		
	Cheques						
Belgium	23.8	21.5	18.8	16.0	11.7		
Canada	66.8	64.8	62.4	58.7	52.8		
France	54.4	52.2	50.6	49.1	46.9		
Germany	9.9	9.6	8.8	8.1	7.9		
Italy ²	44.2	41.6	40.0	37.2	34.0		
Japan				•			
Netherlands	15.2	14.3	12.3	8.1	6.0		
Sweden ⁵	14.9	9.9	9.3	•	•		
Switzerland ³	6.4	5.4	4.4	3.3	2.6		
United Kingdom ⁴	51.0	49.0	45.0	43.1	40.3		
United States	81.9	81.2	80.5	79.7	78.2		
	Payment by cards						
Belgium	11.0	13.3	15.6	16.5	18.0		
Canada	26.8	27.8	28.9	31.1	35.3		
France	13.1	14.5	15.0	15.7	16.3		
Germany	1.5	1.8	2.1	2.6	3.1		
Italy ²	2.4	3.1	3.7	4.1	5.2		
Japan	•						
Netherlands	1.6	1.8	2.6	4.1	7.9		
Sweden ⁵	6.8	8.8	8.2	9.8	11.6		
Switzerland	7.0	9.7	11.8	13.8	16.2		
United Kingdom	14.0	16.0	19.0	20.8	23.1		
United States	15.9	16.3	16.8	17.4	18.7		

¹ For explanation of figures see relevant country tables. In some cases the total may not sum to 100% because of other items. ² Estimated figures referring to the whole system; they differ from those provided in the statistical annex of the Italian chapter. ³ Postal cheques are not included because detailed figures were no longer published by the PTT after 1992. In 1991 its share was approximately 4%, 4 Includes Town cheques. 5 Statistics on the volume and value of cheque payments are not available for 1993 and 1994. The percentage figures for these years therefore do not include cheques.

Table 8 (cont.)

	1990	1991	1992	1993	1994		
			Credit transfers				
Belgium	57.6	57.0	56.8	58.5	60.9		
Canada	3.6	3.9	4.4	5.2	6.4		
France	15.0	15.2	15.4	15.4	15.7		
Germany	51.6	51.3	49.8	45.6	48.7		
Italy ²	40.0	40.9	42.1	44.6	46.8		
Japan	•						
Netherlands	62.1	61.3	61.3	66.4	64.2		
Sweden	74.6	76.9	77.6	84.5	82.3		
Switzerland	84.4	82.7	81.3	80.1	78.1		
United Kingdom ⁶	21.0	21.0	21.0	20.4	20.1		
United States	1.5	1.6	1.8	1.9	2.1		
	Direct debits						
Belgium	7.6	8.2	8.8	9.0	9.4		
Canada	2.8	3.5	4.3	5.0	5.5		
France	9.4	9.3	10.2	10.6	11.7		
Germany	37.0	37.3	39.3	43.7	40.3		
Italy ²	3.1	3.8	4.1	4.4	4.7		
Japan]		
Netherlands	21,1	22.6	23.9	21.5	21.9		
Sweden	3.7	4.4	4.9	5.7	6.1		
Switzerland	2.2	2.3	2.5	2.8	3.1		
United Kingdom	13.0	14.0	15.0	15.6	16.5		
United States	0.7	0.8	0.9	1.0	1.1		

⁶ Paper-based and paperless (includes large-value: CHAPS).

Table 9

Relative importance of cashless payment instruments¹

(percentage of total value of cashless transactions)

	1990	1991	1992	1993	1994			
		Cheques						
Belgium	7.5	5.4	6.2	5,4	4.6			
Canada	99.1	99.0	98.8	98.8	98 <i>.</i> 7			
France	8.5	7.3	6.4	4.6	4.4			
Germany	2.7	2.8	2.4	2.3	2.3			
Italy ²	10.5	9.1	7.1	5.4	4.5			
Japan	•							
Netherlands	0.2	0.2	0.2	0.1	0.1			
Sweden	11.2	11.4	10.6					
Switzerland ³	0.2	0.2	0.1	0.1	0.1			
United Kingdom ⁴	25.0	16.0	12.0	9.4	7.6			
United States	14.1	13.7	13.0	12.6	12.2			
	Payment by cards							
Belgium	0.1	0.1	0.2	0.1	0.1			
Canada	0.3	0.3	0.3	0.3	0.3			
France	0.2	0.2	0.2	0.2	0.2			
Germany	0.02	0.02	0.02	0.02	0.02			
Italy ²	0.04	0.04	0.04	0.03	0.04			
Japan	•	•			•			
Netherlands	0.0	0.0	0.0	0.0	0.1			
Sweden	0.5	0.7	0.7	0.9	1.0			
Switzerland ⁵			,	.				
United Kingdom	0.1	0.2	0.2	0.2	0.2			
United States	0.1	0.1	0.1	0.1	0.1			

¹ For explanation of figures see relevant country tables. In some cases the total may not sum to 100% because of other items. ² Estimated figures referring to the whole system; they differ from those provided in the statistical annex of the Italian chapter. ³ Postal cheques are not included because detailed figures were no longer published by the PTT after 1992. In 1991 its share was below 0.1%. ⁴ Includes Town cheques. ⁵ Below 0.1%.

Table 9 (cont.)

	1990	1991	1992	1993	1994		
•	Credit transfers						
Belgium	92.2	94.3	93.4	94.2	94.7		
Canada	0.5	0.6	0.7	0.7	0.7		
France	88.8	89.9	91.2	93.5	94.0		
Germany	95.5	95.4	95.5	95.7	95.7		
Italy ²	87.0	88.6	91.1	93.2	94.2		
Japan							
Netherlands	98.6	98.4	98.6	98.8	98.7		
Sweden	85.3	84.9	86.3	95.8	96.2		
Switzerland	99.8	99.8	99.9	99.9	99.8		
United Kingdom ⁶	74.0	83.0	87.0	89.5	91.3		
United States	85.1	85.4	85.8	86.3	86.8		
	Direct debits						
Belgium	0.2	0.2	0.2	0.3	0.5		
Canada	0.1	0.1	0.2	0.2	0.2		
France	0.6	0.7	0.6	0.7	0.8		
Germany	1.8	1.8	2.1	2.0	2.0		
Italy ²	0.2	0.3	0.2	0.2	0.2		
Japan							
Netherlands	1.2	1.4	1.2	1.1	1.1		
Sweden	3.0	3.0	2.4	3.3	2.8		
Switzerland	•	•			0.1		
United Kingdom	0.9	1.2	1.1	0.9	1.0		
United States	0.7	0.8	1.0	0.9	0.9		

 $^{^{6}\,}$ Paper-based and paperless (includes large-value: CHAPS).

Table 10a

Features of selected interbank funds transfer systems¹

(figures relate to 1994)

	Type ²	Type ²	Owner/ Manager ³	KI-NONG-9-5-N-56-10000	. of cipants	Processing ⁴	Settlement ⁵	Membership ⁶
				of which direct				
Belgium								
CH	L+R	B + CB	141	70	М	N	0	
CEC	R	B + CB	83		ACH	N	0	
Canada								
IIPS	L	B + PA	67	24		.7	RM	
France								
SAGITTAIRE	L	CB	60	60	RTT	N	RM	
CH Paris ⁸	L+R	В	435	38	M	N	RM	
CH Provinces ⁹	R	СВ	.10	.10	M	N	0	
SIT	R	В	289	23	RTT	N	RM	
CREIC	R	СВ	16	16	ACH	N	0	
Card payments	R.	В	212	11	ACH	N	RM	
TBF	L	CB			RTT	RTGS	0	
Germany								
MAOBE	R	CB	5,700		ACH ¹¹	GS	0	
DTA	R	CB	5,700	•	ACH	GS	0	
EIL-ZV	L	CB	5,700	•	RTT	RTGS	O	
Platz. 12	L+R	CB	5,700	. `	M	GS	0	
Konv. Abrechnung ¹³	L+R	CB	902		M	N	0	
EAF	L	CB	63		RTT	N	RM	
Italy								
Local clearing	L+R	CB	610	271	M	N	0	
Retail	R	CB ¹⁴	973	150	ACH	N	0	
ME ¹⁵	L	CB	299	297	RTT	N	0	
SIPS	L	CB ¹⁴	121	121	RTT	N	О	
BISS	L	CB	424	424	RTT	RTGS	0	

¹ For additional information see relevant country chapters. ² L = Large-value system, R = Retail system. ³ Owner/Manager: B = Banks, CB = Central Banks, PA = Payment Association. ⁴ Processing method: M = Manual, ACH = Automated Clearing House (off-line), RTT = Real-Time Transmission. ⁵ N = multilateral Netting, BN = Bilateral Netting, RTGS = Real-Time Gross Settlement, GS = other Gross Settlement. ⁶ O = Open membership (any bank can apply) or RM = Restricted Membership (subject to criteria). ⁷ Other (see Table 11, Footnote 7). ⁸ Clearing House in Paris. ⁹ Clearing Houses in the provinces. ¹⁰ All institutions on which cheques are drawn or at which bills of exchange are payable are bound by regulations to participate in the local clearing houses, through an agent in certain cases. ¹¹ ACH for paper-based instruments. ¹² Platzüberweisungsverkehr. ¹³ Konventionelle Abrechnung. ¹⁴ System managed by the Interbank Society for Automation in the name and on behalf of the Banca d'Italia. ¹⁵ Electronic memoranda.

Table 10a (cont.)

	Degree of centralisa- tion ¹⁶	Pricing ¹⁷	Closing time for same-day transactions 18	Number of transactions (thousands)	Value of transactions (USD billions) ¹⁹	Ratio of fransactions value to GDP (at annual rate)
Belgium						
ČH	D	v	16.30	15,886	10,091.69	44.3
CEC	С	F	13,45	784,334	769.8	3.2
Canada				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , ,	1.2
IIPS	D	N	16.00	2,215	11,638	20.7
France				•		
SAGITTAIRE	С	F	13.00	4,100	19,965	15.03
CH Paris ⁸	С	F	15.00	722,200	25,699	19.34
CH Provinces ⁹	С	N	11.00	2,936,800	1,431	1.08
SIT	D	F	13.30	1,791,800	982	0.74
CREIC	C	F	NO	259,800	26	0.02
Card payments	C	F.	10.30	1,677,000	97	0.07
TBF	С	F	17.30			
Germany						
MAOBE	D	V	NO	326,900	1,600	0.78
DTA	D	V	NO	2,028,200	1,291	0.63
EIL-ZV	D	F	14.30	3,400	12,252	5.98
Platz.12	D	N	12.00	30,900	6,457	3.15
Konv. Abrechnung ¹³	D	N	12.00	430,600	18,134	8.86
EAF	С	V	12.30	12,700	89,347	43.64
Italy						
Local clearing	D	V	9.30	240,675	2,640	2.6
Retail	С	F	NO	489,582	419	0.4
ME ¹⁵	С	V	16.00	2,084	11,150	11.0
SIPS	С	F	14.00	3,526	16,087	15.8
BISS	С	V	17.00	43	68	0.1

Geographical access to the system: C = Centralised (one processing centre only) or D = Decentralised. ¹⁷ Prices charged to participants: F = Full costs (including investments), V = Variable costs, S = Symbolic costs (below variable costs), N = No costs. ¹⁸ Closing time for same day transactions (NO = no same-day transactions). ¹⁹ Converted at yearly average exchange rates. ²⁰ Card payments and ATM transactions.

Table 10b

Features of selected interbank funds transfer systems¹

(figures relate to 1994)

	Type ²	Owner/ Manager ³	No. of participants		Processing ^t	Settlement ²	Membership ⁶
				of which direct			
Japan							
FEYCS	L	В	2597	259 ⁷	RTT	N	RM
BOJ-NET	L	СВ	395 ⁷	395 ⁷	RTT	RTGS ⁸	RM
Netherlands							
BGC-CH	R	В	66	66	ACH	N	О
8007-S.W.I.F.T	L	СВ	64	64	ACH + RTT	N	0
FA	L	СВ	145	145	RTT	N + RTGS	O
Sweden							
RIX	L	CB	107	20	RTT	RTGS	RM
Data-Clearing	R	В	107	17	ACH		О
Switzerland							
SIC	L + R	CB + B	165	165	RTT	RTGS	RM
DTA/LSV	R	В	165	165	ACH	N	RM
United Kingdom							
CHAPS	L	В	390	16	RTT	N	RM
TOWN	L	В	16	16	M	N	RM
BACS	R	В	50,000	18	ACH	N	RM
Cheque/credit	R	В	613	12	М	N	RM
United States							
Fedwire	L	CB	10,519	10,519	RTT	RTGS	О
CHIPS	L	В	114	114	RTT	N	RM

¹ For additional information see relevant country chapters. ² L = Large-value system; R = Retail system. ³ Owner/Manager: B = Banks, CB = Central Banks. ⁴ Processing method: M = Manual, ACH = Automated Clearing House (off-line), RTT = Real-Time Transmission. ⁵ N = multilateral Netting, BN = Bilateral Netting, RTGS = Real-Time Gross Settlement, GS = other Gross Settlement. ⁶ O = Open membership (any bank can apply) or RM = Restricted Membership (subject to criteria). ⁷ End-1994. ⁸ The system has been designed to allow participants to enter funds transfer instructions continuously, in which case settlement takes place on the central bank's books immediately. It is, however, also used to settle on a net basis.

Table 10b (cont.)

	Degree of centralisa- tion ⁹	Pricing ¹⁰	Closing time for same- day transactions 11	Number of transactions (thousands)	Value of transactions (USD billions)	Ratio of transactions value to GDP (at annual rate)
Japan						
FEYCS	a l	V^{12}	13.45	7,077	65,056	14.2
BOJ-NET	D	V ¹²	17.00	3,854	398,363	86.7
Netherlands				,	ŕ	
BGC-CH	a	F	12.45	1,225.4	1,207	3.7
8007-S.W.I.F.T	С	V	12.45	2.0	5,577	16.9
FA	C	V	15.30	0.4	5,051	15.3
Sweden						
RIX	C	F	16.30	84	5,176	26.3
Data-Clearing	С	F	11.00	120,957	1,247	6.3
Switzerland						
SIC	С	F	16.15	88,717	24,344	93.4
DTA/LSV	С	F	NO	71,846	185	0.5
United Kingdom ¹³					Angelon Angelo	
CHAPS	D	F	15.30	11,649	38,400	37.5
TOWN	C	F	15.50	48	1,044	1.0
BACS	C	F	NO	2,058,000	1,413	1.4
Cheque/credit	D	F	NO	2,451,000	2,010	2.0
United States						
Fedwire	С	F	18.30	72,048	211,202	32.6
CHIPS	C	F	16.30	45,598	295,444	41.1

 $^{^{9}}$ Geographical access to the system: C = Centralised (one processing centre only) or D = Decentralised. 10 Prices charged to participants: F = Full costs (including investments), V = Variable costs, S = Symbolic costs (below variable costs), N = No costs. 11 Closing time for same-day transactions (NO = no same-day transactions). 12 Prices are set on the principle that institutions which are to benefit from on-line processing should pay the relevant charges. 13 Interbank figures only.

Table 11
Operating hours of selected large-value interbank funds transfer systems¹
(as of December 1994)

System	Gross (G) or net (N)	Opening-closing time for same- day value (local time)	Settlement finality (local time)	Cut-off for all third-party payment orders	Cut-off for international corres- pondents' payment orders	Memo item: Standard money market hours (local time)
Belgium C.E.C. ² Clearing House of Belgium	N N	13:46-13:45 ³ 9:00-16:30	16:30 16:30	13:30 13:00	8:30 ⁴ 8:30 ⁴	(0.00 16.15)
Canada ⁶ IIPS	_	8:00-16:00	12:00 ⁸	13:00 14:30 ⁹	16:00 ⁹	(9:00-16:15 ⁵) (8:30-17:30)
France SAGITTAIRETBF (planned)	N G	8:00-13:00 ¹⁰ 7:30-17:30	18:30 7:30-17:30	n.a. (12)	8:00 ¹¹ 8:00 ¹¹	(8:15-17:00)
Germany Express electronic credit transfer				(12)		
system	i	8:15-15:00 8:00-12:00	8:15-15:00 8:00-12:00	(13)	8:00 ¹¹	(9:30-13:00 ¹⁴)
EAF ¹⁵ Italy BISS SIPS	N G	8:00-12:30 8:00-17:00 8:00-14:00	14:30 ¹⁶ 8:00-17:00 16:30	(13) 17:00 14:00	8:00 ¹¹ 9:00 ¹¹ 9:00 ¹¹	(8:45-16:30 ¹⁷)
МЕ Јарап	N	8:00-16:00	16:30	16:00	9:0011	
FEYCSBOJ-NET	N G ¹⁸	9:00-13:45 9:00-17:00	15:00 9:00-17:00	10:30 ¹¹ 14:00	10:30 ¹¹ n.a.	(9:00-17:00)
Central Bank FA System	G N	8:00-15:30 8:00-12:00 ²⁰	8:00-15:30 13:00	n.a. ¹⁹ 8:00 ¹¹	n.a. ¹⁹ 8:00 ¹¹	(9:00-13:00)
Sweden RIX	G ¹⁸	8:15-16:30 ²¹	8:15-16:30 ²¹	12:00 ²²	8:00 ¹¹	(9:00-16:00)
Switzerland SIC	G	18:00-16:15 ²³	18:00-16:15 ²³	15:00 ²³	8:00 ⁴	(9:00-16:00)
United Kingdom CHAPS	N	8:30-15:30 ²⁴	end of day	none	12:00 ¹¹	(7:30-15:30 ²⁵)
United States ⁶ Fedwire CHIPS	G N	8:30-18:30 7:00-16:30	8:30-18:30 18:00 ²⁷	18:00 16:30	18:00 16:30	(8:30-18:30 ²⁶)
ECU clearing system	N	14:01-14:00 ²⁸	15:45	none	none	(TOM/NEXT ²⁹)

Footnotes to Table 11

(n.a. mot applicable)

- ¹ Some systems make no explicit distinction between large-value and retail transactions and may be used to settle interbank transfers relating to a variety of underlying transactions. Some systems may also accept payment orders for a number of value days. Money market hours indicated refer to the time period in which domestic interbank transactions are normally carried out. They therefore do not relate to particular interbank funds transfer systems.
- In June 1990 a special "large-value credit transfer application" was introduced in the C.E.C. All net settlements from the C.E.C. take place at the end of the day at the (manual) Clearing House of Belgium.
- ³ The C.E.C. transfer system operates round-the-clock, five days a week.
- ⁴ S.W.J.F.T. guideline.
- ⁵ Luxembourg dealers, who are important operators in Belgian francs, are only active in the market before noon; the central bank conducts its daily fine-tuning operations at about 11:00.
- ⁶ Eastern time.
- Settlement typically takes place on the basis of bilateral net positions. The net receiving bank in each pair creates a paper document called an inter-member debit voucher and delivers it to the net sending bank as part of the exchanges covered by the Automated Clearing and Settlement System (ACSS) operated by the Canadian Payments Association. Settlement may also take place on a gross basis or on an item-by-item basis, in each case over the ACSS.
- 8 Net settlement at noon the next day (retroactively).
- 9 Local time at the receiving IIPS point, or the beneficiary account point, whichever is earlier.
- SAGITTAIRE'S exchange day, i.e. the period during which orders are recorded by the Bank of France, begins at 8:00 and ends at 17:30. Orders sent after 17:30 are stored by S.W.I.F.T. and processed at the start of the next exchange day. SAGITTAIRE'S accounting day starts at 13:00 on D 1 and ends at 13:00 on D (transfers sent after 13:00 on D, regardless of whether they are processed during the same exchange day or at the start of the following exchange day, are only entered in the accounts on D+1). The net positions of members are drawn up after the close of the accounting day.
- 11 S.W.I.F.T. guideline; in practice it may be later.
- ¹² A cut-off for third-party orders is being discussed for the planned TBF system.
- 13 This is subject to arrangements between the correspondent banks.
- 14 For settlement purposes it can be later.
- 15 Electronic netting system in Frankfurt for interbank transfers predominantly relating to international DM transactions.
- Planned time for communication of completion (positive message) or non-completion (negative message) of settlement.
- 17 The money market may continue to operate beyond the standard hours according to the closing times of the clearing and settlement systems.
- The system has been designed to allow participants to enter funds transfer instructions continuously, in which case settlement takes place on the central bank's books immediately (in the case of RIX, provided they are confirmed by the counterparty). BOJ-NET, however, is also used to settle on a net basis.
- Interbank guilder transfers relating to international transactions are sent through the 8007 S.W.I.F.T. system which is operated by the Netherlands Bank; net settlement of these transactions takes place over the Central Bank FA System.
- The 8007 S.W.I.F.T. system is, for a given value day, also open from 15:00 to 17:00 on the previous business day.
- ²¹ Closing time for new payment orders is 16:15; payments can be confirmed, and thereby settled, until 16:30.
- Since mid-1994, the routine involving a single cut-off time at noon for third-party payment orders has no longer been used. Instead, the participants have to decide among themselves which cut-off times they will use for different types of third-party orders.

- The system is open for input 24 hours a day. Settlement services are limited by the indicated opening and closing times. A value day starts at 18:00 local time on the previous business day and ends at 16:15 on the value day. Third-party payments may be entered for same-day settlement until 15:00. Between 15:00 (cut-off 1) and 16:00 (cut-off 2) only cover (bank-to-bank) payments are accepted for same-day settlement. From 16:00 to 16:15 transactions are restricted to the processing of lombard credits (collateralised loans from the Swiss National Bank at a penalty rate).
- Earliest opening time is 8:30; all banks are required to be open to receive payments by 9:30.
- For same-day value: there are no standard money market hours but trading typically takes place between about 7:30 and 15:30. The market is most liquid in the morning. The Bank of England intervenes in the market as necessary between 9:45 and 15:30.
- ²⁶ Trading occurs among dealers for funds on deposit at Federal Reserve Banks (i.e. federal funds) as early as 6:30.
- Payments over CHIPS become final on completion of settlement, which normally occurs between 17:00 and 17:30.
 Rules are designed to ensure that settlement takes place no later than 18:00.
- ²⁸ ECU payment orders can be sent (for up to 28 forward value days) through S.W.I.F.T. 24 hours a day, seven days a week. At 14:00 (GMT + 1) on each value day the netting computer calculates participants' net net positions. Messages arriving after 14:00 are processed automatically for the next value day(s).
- ²⁹ There is no overnight market for ECU interbank loans. Day-to-day interbank ECU transactions are normally carried out in the Euro-markets on a TOM/NEXT basis.

Table 12
Features of selected securities settlement systems

(figures relate to 1994)

	Type	Owner/ Manager ²	XI 000045045646656666666	o. of Sipants	Settlement of cash leg ³	Delivery ³
				of which direct		
Belgium						
NBB Clearing	G	СВ	208		N	N
CIK	E	В	171		N	N N
Canada			171	'	Ĭ.A.	IN
BBS ⁴	G,E,O	B,SE,O	104	104	N	G,N
DCS ⁵	G	B,SE,O	116	116	N	G,N
France		2,013,0	110	120	1.4	G
SATURNE	G,O	СВ	450	450	N	G
RELIT	G,E,O	B	449	449	N	G
Germany	0,2,0			147	1.4	U
DKV	G,E,O	SE	605	600	N/G	G
Italy	0,23,0		003	000	14/0	U
Securities Settlement						
Procedures:						
Daily Procedure	G	СВ	311	311	N	N
Monthly Procedure	E	СВ	257	257	N I	N
CAT	G	СВ	396	396	.6	G
Japan				350		· ·
JGB registration	G	СВ	408 ⁷	408 ⁷	G/N	G/N
JGB book-entry	G	СВ	3417	3417	G/N	G/N
Netherlands						0/11
NECIGEF	G+E+O	B+CB+SE	53	53	G	G
CB Clearing Institute	G+O	CB	80	80	N	N
Sweden					^ `	1,
VPC	G+E+O	B+O	40	40	G/N	G
OM	О	0	37	37	N	N
Switzerland					-	~ `
SECOM	G,E,O	В	378	378	N ⁸ /G ⁹	G
United Kingdom						_
CGO	G+O	CB/SE	185	15	N	G
СМО	О	СВ	75	12	N	G
United States						
Fedwire	G	CB	8,885	8,885	G	G
DTC (NDFS)10	E,O	B,SE,O	501	501	N	G

¹ G = Government securities, E = Equity, O = Other. ² B = Banks, CB = Central Banks, SE = Stock Exchange, O = Other. ³ G = Gross, N = Net. ⁴ The book-based system of The Canadian Depository for Securities Limited (CDS). ⁵ The real-time, on-line debt-clearing service of CDS, which commenced operation during August 1994. ⁶ Deliveries free of payments. ⁷ End-1994. ⁸ Until 24th March 1995. ⁹ Since 27th March 1995. ¹⁰ Next-day funds settlement.

Table 12 (cont.)

	Delivery lag	Central Securities Depository	Cash Settlement Agent	Number of transactions (thousands)	Value of transactions (USD billions) ¹³	Ratio of transactions value to GDP (at annual rate)
Belgium						
NBB Clearing	T+2/T+512	NBB	NBB	188	2,077.5	0.7
CIK		CIK	NBB	900,000	17.4	8.7
Canada	•	Circ	DOM	900,000	17.4	0.07
BBS ⁴	up to T+3	CDS	B^{14}			
		CD3	13	{10,600 ¹⁵	{15,010 ¹⁵	1047
DCS5	up to T+3	CDS	B ¹⁶	{10,000	{13,010.	{ 26.7
France	up 10 1 15	CDS				
SATURNE	T	Banque de	СВ	223	4,640	3.5
		France		225	4,040	3.3
RELIT	T+3 ¹⁷	SICOVAM	СВ		8,718	6.6
Germany		0100 /	J.D	•	0,730	0.0
DKV	T+0-40	DKV	СВ	25,20018	9,511 ¹⁸	2.9
Italy				25,200	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2.3
Securities Settlement						
Procedures:						
Daily Procedure	T+3	CAT	СВ	•	7,571	7.4
Monthly Procedure	T+15/45	Monte Titoli	СВ		209	0.2
CAT	Т	CAT	.6	845.8	1,081	1.1
Japan					,,,,,,,,	***
JGB registration	T+10 ¹⁹	CB	CB	439.3	11,670	2.5
JGB book-entry	T+10 ¹⁹	СВ	СВ	426.0	21,362	4.7
Netherlands						
NECIGEF	T+3	NECIGEF	KAS-ASS	1,145		_
CB Clearing Institute.	T,T+3	СВ	CB	2	43.5	0.13
Sweden						-
VPC	T+2, T+3 ²⁰	VPC	СВ	3,000	6,249	30.7
OM	T+3		СВ	32,035	1,346	6.8
Switzerland					·	
SECOM	T+3	SEGA	CB	4,306	524	2.0
United Kingdom						
CGO	T+1		CB	768.4	23,400	22.8
CMO	T	CB	CB	285.3	3,904	3.8
United States				and the second		
Fedwire	T,T+1	СВ	CB	12,590	144,702	22.9
DTC (NDFS) ¹⁰	T+3	DTC	DTC	106,000	34,000	4,4

Converted at yearly average exchange rate. ¹² T+2 for Treasury bills; T+5 for OLOs (long-term government bonds). ¹³ Seller delivery. ¹⁴ A single chartered bank. ¹⁵ Figures are for the twelve months ended 31st October 1994. ¹⁶ A single chartered bank, though not the same bank as for the BBS. ¹⁷ When processed by the "SLAB" system (special delivery service by bilateral agreements), the delivery occurs same day. ¹⁸ Delivery-versus-payment settlements only. ¹⁹ T+10 or less. ²⁰ Same-day delivery and settlement is also possible under specific conditions.

Table 13

S.W.I.F.T. traffic: intra G-10 messages flows in 1994
(number of messages, in thousands)

From\To	BE	CA	FR	DE	п	JP	NL
Belgium	3,907	171	2,050	1,930	1,039	317	1,770
Canada	[4]	3,262	235	427	184	248	78
France	1,816	257	11,457	3,082	2,514	515	1,015
Germany	1,128	307	1,964	6,310	2,192	788	1,595
Italy	810	169	2,124	2,912	4,235	412	544
Japan	249	223	482	1,070	443	2,563	150
Netherlands	1,437	110	747	2,588	551	161	1,751
Sweden	267	35	284	1,045	247	94	227
Switzerland	1,317	422	2,290	4,549	1,951	561	986
United Kingdom	2,141	954	2,768	5,554	2,707	2,750	1,422
United States	1,573	2,264	2,748	5,363	2,531	5,082	2,230
Total G-10	14,786	8,174	27,150	34,830	18,596	13,490	11,769
Total non-G-10	4,124	1,590	6,302	16,182	6,471	6,954	2,769
Total all countries	18,910	9,764	33,452	51,012	25,067	20,444	14,538

From\To	SE	СН	GB	US	Total G-10	Non-G-10	All countries
Belgium	219	1,621	2,188	2,103	17,313	3,921	21,234
Canada	32	473	847	3,009	8,936	2,024	10,960
France	234	1,738	3,164	4,276	30,069	6,426	36,495
Germany	532	2,891	3,141	5,118	25,966	12,222	38,188
Italy	188	1,651	2,677	3,414	19,136	5,546	24,682
Japan	74	530	2,282	6,506	14,572	7,272	21,843
Netherlands	175	1,166	1,554	2,093	12,333	2,920	15,254
Sweden	1,214	278	1,159	1,197	6,047	2,654	8,701
Switzerland	235	6,520	3,105	5,281	27,217	6,694	33,911
United Kingdom	888	3,253	14,154	10,156	46,747	14,220	60,967
United States	860	4,175	7,231	13,512	47,570	35,603	83,173
Total G-10	4,650	24,296	41,502	56,664	255,906	99,502	355,408
Total non-G10	2,371	6,110	13,678	37,072	103,625	59,065	162,689
Total all countries	7,021	30,406	55,180	93,736	359,531	158,567	518,097

Source: S.W.I.F.T.

Central bank officials involved in the preparation of the 1995 edition of the statistical update of the "Red Book"

National Bank of Belgium

Mr. Koenraad De Geest

Bank of Canada

Mr. G. Edward Reed

Bank of England

Ms. Mary S. Guy-Jones

Bank of France

Mr. Bertrand Manoury

Deutsche Bundesbank

Ms. Bianca Schönfelder

Bank of Italy

Mr. Ferdinando Sasso

Bank of Japan

Mr. Sawaichiro Kamata

Netherlands Bank

Mr. Simon P. Kappelhof

Sveriges Riksbank

Mr. Bo Dahlheim

Swiss National Bank

Mr. Georg Zeerleder

Board of Governors of the

Ms. Diana Hancock

Federal Reserve System

Mr. Eugene E. Snyder

Bank for International Settlements

Mr. Paul Van den Bergh Mr. Junichi Iwabuchi Mr. Gerhard F. Randecker