

## **Comparative tables**



Table 1  
**Banknotes and coin in circulation**  
 End of year

	Total (USD millions) <sup>1</sup>					Value per inhabitant (USD) <sup>1</sup>				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	12,056	11,044	6,257	nap	nap	1,179	1,078	609	nap	nap
Canada	25,518	23,539	23,697	25,475	32,103	837	764	761	810	1,012
France	44,894	41,488	25,812	nap	nap	745	685	424	nap	nap
Germany	131,707	117,148	59,901	nap	nap	1,604	1,425	727	nap	nap
Hong Kong SAR	12,807	11,770	13,035	14,520	16,472	1,938	1,766	1,938	2,139	2,421
Italy	66,110	64,630	50,805	nap	nap	1,147	1,119	877	nap	nap
Japan	581,944	539,144	507,160	597,537	677,030	4,594	4,248	3,984	4,689	5,305
Netherlands	17,397	15,752	8,052	nap	nap	1,100	989	502	nap	nap
Singapore	6,792	6,520	6,412	7,118	7,548	1,719	1,623	1,552	1,706	1,804
Sweden	10,226	9,409	9,166	10,984	13,698	1,154	1,061	1,030	1,231	1,529
Switzerland	19,830	19,562	21,418	24,590	28,188	2,767	2,714	2,940	3,349	3,807
United Kingdom	45,612	45,059	47,009	54,767	64,842	780	768	796	925	1,092
United States	521,700	535,600	585,400	630,500	667,000	1,868	1,897	2,052	2,188	2,292
CPSS <sup>2</sup>	1,496,591	1,440,665	1,364,124	1,365,492	1,506,882	2,002	1,915	1,801	1,793	2,806

Note: For the footnotes, see the end of the table. Please refer to the individual country tables for a detailed explanation.

Table 1 (cont)

	As a percentage of GDP					As a percentage of narrow money				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	5.1	4.8	2.8	nap	nap	20.4	19.3	11.8	nap	nap
Canada	3.7	3.3	3.4	3.5	3.4	15.6	13.7	13.0	13.0	12.7
France	3.3	3.1	2.0	nap	nap	12.7	11.9	7.4	nap	nap
Germany	6.6	6.2	3.3	nap	nap	23.5	21.9	11.3	nap	nap
Hong Kong SAR	8.1	7.2	8.0	9.1	10.5	48.5	45.0	44.2	43.6	36.0
Italy	5.9	6.0	4.7	nap	nap	14.4	14.1	11.0	nap	nap
Japan	11.7	12.1	13.2	14.3	14.5	24.8	25.0	23.7	20.5	19.9
Netherlands	4.6	4.2	2.1	nap	nap	12.8	11.4	5.7	nap	nap
Singapore	8.0	7.1	7.7	7.9	8.1	36.4	33.9	32.9	34.5	33.2
Sweden	4.2	4.1	4.3	4.1	4.0	nav	nav	nav	nav	nav
Switzerland	8.0	7.7	8.5	8.2	8.2	15.3	15.8	16.3	14.7	12.3
United Kingdom	3.1	3.2	3.3	3.3	3.3	5.0	5.1	5.0	4.8	4.7
United States	5.6	5.5	5.8	6.0	6.1	45.4	48.2	48.7	50.8	50.6
CPSS <sup>2</sup>	6.8	6.5	6.2	7.8	8.0	23.6	23.7	21.9	23.7	22.4

<sup>1</sup> Converted at end-of-year exchange rates.

CPSS: <sup>2</sup> Sum or average excluding those countries for which data are not available.

Table 2  
**Transferable deposits held by non-banks**  
 End of year

	Value per inhabitant (USD) <sup>1</sup>					As a percentage of GDP					As a percentage of narrow money				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	4,609	4,504	4,558	5,593	7,535	19.9	20.0	20.9	21.2	23.1	79.6	80.8	88.2	nap	nap
Canada	4,529	4,832	5,104	5,419	6,973	20.3	20.7	22.8	23.2	23.5	84.4	86.3	87.0	87.0	87.3
France	5,147	5,122	5,371	6,406	7,826	22.8	23.5	25.2	24.6	24.4	87.7	88.8	93.5	nap	nap
Germany	5,212	5,074	5,699	7,411	9,665	21.5	22.1	25.7	27.6	29.7	76.5	78.1	88.7	nap	nap
Hong Kong SAR	2,061	2,160	2,445	2,762	4,296	8.6	8.9	10.1	11.7	18.6	51.5	55.0	55.8	56.4	64.0
Italy	6,798	6,819	7,128	9,231	11,797	35.2	36.3	38.4	40.5	41.7	85.6	85.9	89.0	nap	nap
Japan	13,931	12,748	12,854	18,186	21,327	35.5	36.3	42.5	55.5	58.5	75.2	75.0	76.3	79.5	80.1
Netherlands	7,525	7,712	8,294	9,906	12,146	31.7	32.8	35.2	34.3	34.0	87.5	88.8	94.6	nap	nap
Singapore	3,007	3,158	3,167	3,240	3,636	13.9	13.8	15.8	15.1	16.3	63.6	66.1	67.1	65.5	66.8
Sweden	10,953	10,307	9,868	12,399	15,556	39.8	39.5	40.9	41.1	41.1	nav	nav	nav	nav	nav
Switzerland	8,714	8,228	8,564	11,464	17,424	25.1	23.3	24.8	28.1	37.7	48.2	47.9	47.5	50.5	56.2
United Kingdom	14,723	14,495	15,191	18,314	22,430	59.0	59.9	62.3	64.5	67.6	95.3	95.3	95.3	95.5	95.6
United States	2,212	2,012	2,137	2,089	2,213	6.7	5.8	6.0	5.7	5.9	53.8	51.1	50.7	48.5	48.8
CPSS <sup>2</sup>	6,505	6,186	6,431	8,085	9,756	22.1	20.9	22.1	27.0	29.5	75.6	75.5	77.3	75.2	76.4

Note: Please refer to the individual country tables for a detailed explanation.

<sup>1</sup> Converted at end-of-year exchange rates.

CPSS: <sup>2</sup> Average excluding those countries for which data are not available.

Table 3  
**Settlement media used by banks**  
 End of year

	Banks' reserves at central bank									
	USD billions <sup>1</sup>					As a percentage of narrow money				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	7.4	6.7	6.7	7.7	9.6	12.5	11.8	12.6	nap	nap
Canada	0.9	0.3	0.3	0.4	0.1	0.6	0.2	0.2	0.2	neg
France	24.1	26.0	26.3	34.8	32.8	6.8	7.4	7.5	nap	nap
Germany	33.5	33.0	34.3	40.5	47.9	6.0	6.2	6.5	nap	nap
Hong Kong SAR <sup>2</sup>	1.0	0.1	0.1	0.1	3.6	3.9	0.3	0.3	0.2	8.0
Italy	12.2	11.4	11.5	14.2	18.4	2.7	2.5	2.5	nap	nap
Japan	94.9	36.9	82.6	151.6	231.6	4.0	1.7	3.9	5.2	6.8
Netherlands	7.3	8.7	9.0	8.9	15.9	5.4	6.3	6.4	nap	nap
Singapore	4.5	3.3	3.8	3.7	3.9	24.2	17.1	19.3	18.0	17.0
Sweden	0.5	neg	neg	neg	neg	nav	nav	nav	nav	nav
Switzerland	6.6	4.7	4.7	5.3	6.0	5.1	3.8	3.6	3.2	2.6
United Kingdom	3.3	2.3	2.5	3.0	3.5	0.4	0.3	0.3	0.3	0.3
United States	12.4	13.5	17.8	20.9	22.6	1.1	1.2	1.5	1.7	1.7
CPSS <sup>3</sup>	208.6	147.0	199.4	291.0	396.0	3.3	2.4	3.2	3.2	4.1

Note: For the footnotes, see the end of the table. Please refer to the individual country tables for a detailed explanation.

Table 3 (cont)

	Transferable deposits at other banks									
	USD billions <sup>1</sup>					As a percentage of narrow money				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	6.5	6.6	11.7	8.4	14.8	11.0	11.5	22.0	nap	nap
Canada	5.2	4.5	3.3	3.3	4.2	3.2	2.6	1.8	1.7	1.7
France	190.7	169.2	165.9	186.9	221.9	53.9	48.4	47.4	nav	nav
Germany	114.9	105.5	108.5	133.8	147.5	20.5	19.8	20.5	nav	nav
Hong Kong SAR <sup>2</sup>	nap	nap	nap	nap	nap	nap	nap	nap	nap	nap
Italy	59.3	88.1	75.0	101.5	101.7	12.9	19.2	16.2	nav	nav
Japan	103.1	37.8	52.8	75.3	90.6	4.4	1.8	2.5	2.6	2.7
Netherlands	16.4	49.7	26.9	36.2	37.9	12.1	35.9	19.1	nav	nav
Singapore	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Sweden	11.1	7.9	11.4	10.1	8.6	nav	nav	nav	nav	nav
Switzerland	26.2	30.8	27.4	27.8	52.4	20.3	24.8	20.9	16.6	22.8
United Kingdom	369.8	380.7	430.1	582.2	726.9	40.9	42.7	45.7	51.3	52.2
United States	27.5	32.1	34.8	35.7	35.4	2.4	2.9	2.9	2.9	2.7
CPSS <sup>3</sup>	930.6	912.7	947.8	1,201.2	1,441.8	14.7	15.1	15.3	nap <sup>4</sup>	nap <sup>4</sup>

<sup>1</sup> Converted at end-of-year exchange rates.

Hong Kong SAR: <sup>2</sup> Banks do not maintain reserves with the HKMA as there are no reserve requirements in Hong Kong SAR. The data represent the closing balance of the aggregate balance of settlement accounts.

CPSS: <sup>3</sup> Sum or average excluding those countries for which data are not available. <sup>4</sup> Statistically not relevant.

Table 4  
Institutional framework

	Number of institutions <sup>1,2</sup>		Number of central bank branches <sup>1</sup>		Number of bank branches <sup>1,2</sup>		Number of post office branches <sup>1</sup>		Others <sup>1</sup>		Total number of branches <sup>1,2</sup>		Number of accounts on which payments can be made <sup>3</sup>	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
Belgium	10.9	10.7	0.2	0.2	537.3	480.9	129.9	130.3	nap	nap	667.4	611.4	1.0	nya
Canada <sup>4,5</sup>	47.7	44.0	neg	neg	284.4	284.3	nap	nap	168.6	170.5	453.1	454.9	nav	nav
France	25.6	25.3	3.4	3.4	427.3	419.5	181.2	164.3	nav	nav	611.9	587.2	1.1	1.1
Germany <sup>6</sup>	29.3	27.8	1.4	0.8	611.4	565.8	nap	nap	nap	nap	612.8	566.6	1.0	1.0
Hong Kong SAR <sup>7</sup>	19.7	19.8	neg	neg	216.6	202.4	nap	nap	nap	nap	216.6	202.4	nav	nav
Italy	13.0	12.5	1.7	1.7	513.9	523.1	237.8	243.8	nap	nap	753.4	768.6	0.8	0.6
Japan	16.8	15.3	0.3	0.3	288.5	277.6	189.5	189.0	nap	nap	478.3	466.9	4.2	4.2
Netherlands <sup>8</sup>	6.4	6.4	0.2	0.2	200.3	246.2	142.7	143.2	nap	nap	343.2	389.7	1.3	1.4
Singapore <sup>9</sup>	43.6	41.8	0.7	0.7	135.2	123.3	nap	nap	nap	nap	135.5	123.5	nav	nav
Sweden	14.3	13.7	0.1	0.1	218.7	205.6	134.5	134.0	nap	nap	353.3	339.7	nav	nav
Switzerland	43.3	40.9	0.8	0.8	371.0	361.4	397.5	367.6	nap	nap	769.6	729.8	nav	nav
United Kingdom	7.6	7.2	neg	neg	244.9	240.5	295.6	277.9	nap	nap	540.5	518.4	2.4 <sup>10</sup>	2.4
United States	68.4	64.5	0.1	0.1	275.1	268.4	nap	nap	nap	nap	275.2	268.5	nav	nav
CPSS <sup>11</sup>	38.8	36.7	0.7	0.6	343.2	333.1	213.2	207.4	nap <sup>11</sup>	nap <sup>11</sup>	448.3	435.4	2.2	2.2

Note: Please refer to the individual country tables for a detailed explanation.

<sup>1</sup> Offering cashless payment services; per million inhabitants. <sup>2</sup> Except where noted, excludes branches of foreign banks. <sup>3</sup> Per inhabitant.

Canada: <sup>4</sup> "Number of central bank branches": there are five branches but only one offers payment services. <sup>5</sup> "Others" includes trust and loan companies; local credit unions and caisses populaires; and governmental savings institutions.

Germany: <sup>6</sup> Postbank AG is a fully fledged credit institution, and those post office branches which are entrusted with the semi-cashless payment systems on behalf of Postbank AG are included under "Number of bank branches" (and not "Number of post office branches").

Hong Kong SAR: <sup>7</sup> "Number of central bank branches" excludes the HKMA's two overseas representative offices (London and New York).

Netherlands: <sup>8</sup> "Number of bank branches" excludes the counters of the postal institution.

Singapore: <sup>9</sup> As at end-March. The institutions offering payment services include banks and finance companies. "Number of central bank branches": representative offices in London and New York, which do not offer cashless payment services, and the main office in Singapore.

United Kingdom: <sup>10</sup> "Revised."

CPSS: <sup>11</sup> Average excluding those countries for which data are not available. <sup>11</sup> Statistically not relevant.





Table 5  
Cards with a cash function and ATMs

	Number of ATMs per million inhabitants (end of year)					Number of transactions per inhabitant					Average value per transaction (USD) <sup>1</sup>				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	606	657	669	684	681	17.4	19.8	21.5	23.6	25.4	111.3	97.5	92.8	98.5	120.5
Canada <sup>3</sup>	877	1,037	1,145	1,272	1,394	47.3	48.4	47.9	45.6	43.0	52.4	54.4	56.6	56.8	65.9
France	538	580	606	637	683	17.0	17.9	19.1	19.8	20.3	64.8	56.0	54.7	59.1	73.4
Germany <sup>4</sup>	563	580	603	612	620	18.9	21.0	20.0	20.2	39.6	157.1	135.6	141.4	149.7	200.2
Hong Kong SAR	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Italy	526	551	632	683	671	8.7	9.1	9.9	10.9	11.0	170.6	150.3	148.4	152.6	186.1
Japan <sup>5</sup>	944	922	918	895	872	3.1	3.2	3.1	2.9	2.7	501.3	532.2	474.4	461.0	501.9
Netherlands	422	435	445	466	465	28.5	29.5	30.5	30.5	30.4	93.7	79.7	81.1	100.0	118.6
Singapore <sup>6</sup>	470	446	435	371	371	2.6	2.1	2.1	2.2	1.6	140.0	138.2	124.7	99.1	97.1
Sweden	291	295	289	297	299	35.0	36.2	37.7	36.0	36.6	100.2	92.1	81.4	86.2	106.4
Switzerland	655	675	692	706	722	12.2	13.5	14.8	15.5	15.8	173.2	158.1	151.5	157.3	179.5
United Kingdom	468	563	621	690	783	33.7	34.6	36.8	38.3	40.0	88.8	84.3	84.1	90.0	99.1
United States	813	967	1,136	1,221	nya	39.0	45.3	47.7	36.8	nya	68.0	70.1	68.0	68.0	nya
CPSS <sup>7</sup>	718	795	879	927	nya	25.4	28.4	29.6	25.6	nya3	89.2	86.3	83.2	87.4	nya

Note: For the footnotes, see the end of the table. Please refer to the individual country tables for a detailed explanation.

Table 5 (cont)

	Increase in the number of ATMs (%)					Increase in the number of transactions (%)					Increase in the value of transactions (%) <sup>2</sup>				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	7.7	8.6	2.1	2.7	0.1	11.4	14.1	9.2	10.2	8.3	4.9	-0.1	4.0	16.9	32.5
Canada <sup>3</sup>	13.7	19.4	11.6	12.2	10.5	0.5	3.3	0.1	-3.8	-4.9	4.6	5.7	2.0	-4.4	8.6
France	10.3	8.4	5.0	5.6	7.7	10.3	5.5	7.7	4.1	2.6	13.9	-8.9	5.2	12.4	27.6
Germany <sup>4</sup>	1.3	3.1	4.1	1.7	1.3	10.7	10.8	-4.4	1.2	96.0	2.6	-4.3	-0.3	7.2	162.1
Hong Kong SAR	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Italy	8.0	5.1	15.0	8.3	-1.6	2.5	5.6	8.7	9.9	1.1	-2.1	-7.0	7.3	13.1	23.3
Japan <sup>5</sup>	1.2	-2.2	-0.1	-2.5	-2.4	neg	3.6	-2.2	-8.5	-6.5	15.6	10.0	-12.9	-11.1	1.8
Netherlands	1.6	3.7	3.2	5.4	0.3	5.9	4.4	4.3	0.6	0.2	3.3	-11.1	6.0	24.1	18.9
Singapore <sup>6</sup>	-2.0	-3.3	0.2	-13.9	0.4	-34.8	-15.4	2.7	4.1	-24.9	-32.4	-16.5	-7.3	-17.3	-26.4
Sweden	3.8	1.4	-1.9	3.1	1.1	-6.9	3.5	4.4	-4.2	2.2	-13.9	-4.9	-7.7	1.5	26.0
Switzerland	2.5	3.7	3.6	2.9	3.1	8.5	11.2	11.3	5.6	2.5	4.2	1.5	6.7	9.6	16.9
United Kingdom	11.4	20.5	11.1	11.3	13.8	6.4	3.0	7.3	4.3	4.6	7.6	-2.2	7.0	11.6	15.2
United States	21.4	20.3	18.7	8.6	nya	-2.7	17.4	6.3	-22.1	nya	-2.7	21.1	3.0	-22.1	nya
CPSS <sup>7</sup>	11.3	11.4	11.4	6.1	nya	0.6	12.4	5.0	-12.8	nya	1.1	8.8	1.2	-8.4	nya

<sup>1</sup> Converted at yearly average exchange rates. <sup>2</sup> In USD terms, converted using yearly average exchange rates.

Canada: <sup>3</sup> Data on the value of transactions refer to cash withdrawals only.

Germany: <sup>4</sup> Until 2002, data on the volume and value of transactions are estimated.

Japan: <sup>5</sup> Data on the volume and value of transactions refer to cash withdrawals through the interbank CD/ATM networks only.

Singapore: <sup>6</sup> The transactions refer to shared ATM transactions.

CPSS: <sup>7</sup> Average excluding those countries for which data are not available.

Table 6  
Cards with a debit function and POS accepting terminals

	Number of POS terminals per million inhabitants (end of year)					Number of transactions per inhabitant					Average value per transaction (USD) <sup>1</sup>				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	9,746	11,364	14,047	13,141	10,900	34.6	39.8	45.0	52.1	53.2	53.8	47.0	45.1	47.0	57.1
Canada	13,317	14,231	14,881	15,737	16,416	54.5	63.7	71.9	76.4	81.7	29.2	29.2	27.4	27.8	32.0
France	13,261	13,848	14,845	15,620	16,267	48.3	54.3	60.3	66.9	70.6	49.2	42.8	41.5	43.7	53.1
Germany <sup>3</sup>	5,761	7,194	5,291	5,584	6,008	11.6	13.8	16.2	18.6	20.2	79.4	67.3	62.2	63.3	73.9
Hong Kong SAR	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Italy	7,549	9,878	12,918	14,109	15,945	4.3	5.5	7.5	9.5	10.5	81.5	66.6	66.1	83.5	109.0
Japan	nav	nav	nav	nav	nav	neg	neg	neg	0.1	0.1	247.5	424.0	408.2	420.4	482.6
Netherlands	9,208	9,774	10,333	10,972	11,466	44.3	50.3	59.5	66.2	71.2	48.6	42.9	41.4	44.6	52.6
Singapore	4,506	4,851	5,067	5,625	6,679	16.6	19.1	21.2	23.3	25.3	36.7	35.7	34.9	35.5	38.2
Sweden	9,160	9,821	9,917	11,431	12,062	22.4	28.9	36.6	57.0	74.6	72.7	60.9	54.9	60.0	53.0
Switzerland	8,599	9,369	10,139	10,984	10,803	19.1	23.9	27.7	30.8	33.1	76.0	89.5	100.2	108.3	121.1
United Kingdom	11,970	12,533	13,078	13,691	14,508	35.3	39.9	45.7	50.6	56.7	51.0	49.2	50.7	54.1	63.3
United States	8,414	10,978	12,267	12,144	nya	26.9	33.8	43.6	54.1	nya	43.0	43.9	45.9	44.9	nya
CPSS <sup>5</sup>	9,066	10,863	11,739	12,048	nya	22.7	27.2	33.1	39.2	nya	47.4	45.2	45.8	46.8	nya

Note: For the footnotes, see the end of the table. Please refer to the individual country tables for a detailed explanation.

Table 6 (cont)

	Increase in the number of POS terminals (%)					Increase in the number of transactions (%)					Increase in the value of transactions (%) <sup>2</sup>				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	7.1	16.9	24.0	-6.0	-16.7	19.0	15.5	13.3	16.3	2.5	11.4	0.8	8.7	21.2	24.7
Canada	3.1	7.9	5.7	6.8	5.2	22.6	18.0	14.1	7.5	7.7	21.9	18.1	7.2	9.0	23.8
France	10.5	4.9	7.8	5.8	4.6	12.8	13.1	11.5	11.6	6.0	6.4	-1.7	8.1	17.6	28.6
Germany <sup>3</sup>	30.3	25.0	nap	5.7	7.6	41.1	18.9	17.7	15.1	8.8	32.1	0.9	8.8	17.1	26.8
Hong Kong SAR	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Italy	25.9	31.1	31.1	9.4	13.2	44.2	28.2	36.2	27.7	10.5	29.5	4.7	35.2	61.3	44.2
Japan	nav	nav	nav	nav	nav	nav <sup>4</sup>	716	91.0	34.0	15.0	nav <sup>4</sup>	1,298	83.9	38.0	32.0
Netherlands	8.6	6.9	6.5	6.9	5.1	17.7	14.5	19.1	12.0	8.3	18.8	0.9	15.1	20.6	27.6
Singapore	11.0	9.5	7.4	12.1	19.1	13.5	17.0	14.0	10.8	8.9	14.5	13.8	11.3	12.8	17.1
Sweden	9.1	7.4	1.3	15.6	5.9	23.8	29.3	27.3	56.1	31.2	18.0	8.4	14.7	70.8	15.8
Switzerland	20.7	9.6	9.4	9.2	-0.8	28.9	25.9	17.3	12.1	8.3	53.4	48.3	31.3	21.1	21.1
United Kingdom	14.8	5.0	5.0	5.0	6.3	18.8	13.3	15.4	11.1	12.4	17.5	9.9	18.9	18.4	31.6
United States	38.2	31.9	12.9	neg	nya	31.0	27.2	30.4	25.1	nya	35.3	29.9	36.4	22.4	nya
CPSS <sup>5</sup>	23.2	20.7	12.3	3.3	nya	24.7	20.9	22.4	19.1	nya	23.9	15.5	23.9	21.8	nya

<sup>1</sup> Converted at yearly average exchange rates. <sup>2</sup> In USD terms, converted using yearly average exchange rates.

Germany: <sup>3</sup> For the number of POS terminals, figures prior to 2001 include double-counting of replacement terminals; for this reason, the percentage change in 2001 cannot be calculated.

Japan: <sup>4</sup> The nationwide debit card service launched in January 1999.

CPSS: <sup>5</sup> Average excluding those countries for which data are not available.

Table 7  
Cards with a credit function and accepting terminals

	Number of accepting terminals per million inhabitants (end of year)					Number of transactions per inhabitant					Average value per transaction (USD) <sup>1</sup>				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	nav	nav	nav	nav	nav	4.8	5.2	5.9	5.5	6.6	107.6	94.7	97.3	100.2	120.3
Canada <sup>3</sup>	25,463	29,367	30,165	30,170	30,351	37.7	41.3	42.4	47.5	51.7	62.7	66.7	59.7	65.3	71.9
France	13,261	13,848	14,845	15,620	16,267	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Germany <sup>4,5</sup>	4,905	5,603	5,809	5,736	5,733	3.3	6.5	6.7	6.9	7.1	89.1	60.2	60.1	64.0	76.7
Hong Kong SAR	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Italy	nav	nav	nav	nav	nav	4.0	4.7	5.4	6.2	6.4	97.6	84.6	85.5	89.5	105.6
Japan <sup>6</sup>	5,488	6,069	6,426	7,001	nya	12.0	15.8	17.6	18.4	nya	116.6	100.7	85.3	84.2	nya
Netherlands <sup>7</sup>	nav	nav	nav	nav	nav	2.8	2.9	3.0	2.8	2.7	105.7	101.5	99.5	109.6	125.4
Singapore <sup>8</sup>	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Sweden <sup>9</sup>	9,160	9,821	9,917	11,431	12,062	6.4	7.6	8.6	9.0	9.9	116.7	110.7	94.5	87.7	107.4
Switzerland	nav	nav	nav	nav	nav	12.1	10.4	11.0	11.1	11.0	121.7	115.7	114.3	120.4	139.2
United Kingdom <sup>10</sup>	11,970	12,533	13,078	13,691	14,508	26.2	28.2	30.5	32.5	34.8	98.9	97.0	95.0	99.8	109.2
United States	40,459	44,619	46,264	47,189	nya	52.3	57.3	59.9	62.0	nya	86.6	88.7	88.6	90.1	nya
CPSS <sup>11</sup>	22,834	25,210	26,262	26,988	nya	28.9	32.6	34.4	36.0	nya	89.0	88.6	86.6	88.3	nya

Note: For the footnotes, see the end of the table. Please refer to the individual country tables for a detailed explanation.

Table 7 (cont)

	Increase in the number of accepting terminals (%)					Increase in the number of transactions (%)					Increase in the value of transactions (%) <sup>2</sup>				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	nav	nav	nav	nav	nav	9.7	10.6	13.0	-6.1	20.4	6.3	-2.7	16.1	-3.3	44.4
Canada <sup>3</sup>	-0.3	16.5	3.9	1.0	1.4	13.8	10.7	3.9	13.1	9.7	7.9	17.8	-7.1	23.7	20.8
France	10.5	4.9	7.8	5.8	4.6	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Germany <sup>4,5</sup>	11.1	14.4	3.9	-1.1	neg	-13.7	11.1	2.6	2.9	3.1	-23.9	1.8	2.4	9.6	23.5
Hong Kong SAR	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Italy	nav	nav	nav	nav	nav	30.9	18.8	15.4	14.0	4.5	25.2	3.0	16.6	19.4	23.3
Japan <sup>6</sup>	6.5	10.8	6.2	9.1	nya	1.4	32.3	11.8	4.2	nya	21.9	14.3	-5.3	2.8	nya
Netherlands <sup>7</sup>	nav	nav	nav	nav	nav	4.6	6.2	1.5	-4.0	-3.3	6.8	2.0	-0.5	5.7	10.7
Singapore <sup>8</sup>	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	14.7	15.9	1.1	8.1	7.2
Sweden <sup>9</sup>	9.1	7.4	1.3	15.6	5.9	9.6	17.5	13.9	5.1	10.5	3.7	11.5	-2.7	-2.4	35.3
Switzerland	nav	nav	nav	nav	nav	23.6	-13.5	7.6	1.6	neg	10.4	-17.8	6.3	7.0	15.6
United Kingdom <sup>10</sup>	14.8	5.0	5.0	5.0	6.3	9.4	8.0	8.8	6.7	7.4	15.6	6.0	6.6	12.1	17.5
United States	neg	11.5	4.8	3.0	nya	8.8	10.9	5.6	4.5	nya	11.8	13.6	5.5	6.2	nya
CPSS <sup>11</sup>	1.7	11.1	4.9	3.4	nya	8.4	12.3	6.4	5.2	nya	12.2	12.6	4.0	7.2	nya

<sup>1</sup> Converted at yearly average exchange rates <sup>2</sup> In USD terms, converted using yearly average exchange rates.

Canada: <sup>3</sup> Includes both credit and charge cards.

Germany: <sup>4</sup> For 2000, the percentage change in the number and value of transactions excludes retailer card transactions. <sup>5</sup> The figures for card terminals have been revised and are for the largest market participant, since terminals usually accept different credit card brands.

Japan: <sup>6</sup> Includes cards with a delayed debit function.

Netherlands: <sup>7</sup> Includes cards with a delayed debit function.

Singapore: <sup>8</sup> For both credit and charge cards.

Sweden: <sup>9</sup> Includes delayed debit transactions.

United Kingdom: <sup>10</sup> Includes cards with a delayed debit function; figures for the number of terminals accepting such cards are not available.

CPSS: <sup>11</sup> Average excluding those countries for which data are not available. <sup>12</sup> Not statistically relevant.

Table 8  
Cards with an e-money function and accepting terminals

	Number of electronic money cards (end of year, in thousands)					Average value per reloading (USD) <sup>1</sup>				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	7,898	8,396	8,543	8,271	nya	27.9	24.3	27.3	34.6	37.8
Canada	58	87	74	77	neg	nav	nav	nav	nav	nav
France	neg	neg	319	838	1,272	neg	neg	28.3	29.0	32.3
Germany	60,700	60,700	67,333	67,597	62,817	42.7	29.1	25.3	25.8	28.6
Hong Kong SAR	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Italy	32	45	30	310	668	neg	neg	neg	neg	neg
Japan	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Netherlands	20,100	20,900	21,000	17,300	17,600	nav	nav	nav	nav	nav
Singapore	3,464	4,697	5,639	9,776	11,513	nav	nav	nav	nav	nav
Sweden	540	593	557	490	nya	33.7	27.6	24.4	nav	nav
Switzerland	3,137	3,355	3,524	3,692	3,889	nav	nav	nav	nav	nav
United Kingdom	160	nav	nav	nav	nav	neg	neg	neg	nav	nav
United States	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
CPSS <sup>2</sup>	96,089	98,773	107,019	103,351	nya	nap <sup>3</sup>	nap <sup>3</sup>	nap <sup>3</sup>	nap <sup>3</sup>	nap <sup>3</sup>

Note: For the footnotes, see the end of the table. Please refer to the individual country tables for a detailed explanation.



Table 8 (cont)

	Number of purchase terminals					Average value per transaction (USD) <sup>1</sup>				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	63,993	67,837	88,847	113,298	108,215	4.0	3.5	4.0	5.2	5.8
Canada	970	1,245	490	333	neg	nav	nav	nav	nav	nav
France	nap	nap	13,644	69,172	105,801	neg	neg	3.2	3.6	4.4
Germany	59,732	66,946	80,191	98,492	120,905	3.8	2.5	2.1	2.0	2.3
Hong Kong SAR	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Italy	3,605	6,485	6,644	5,481	7,754	neg	neg	neg	neg	neg
Japan	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Netherlands	125,807	133,548	148,207	164,863	180,108	3.3	2.7	2.4	2.6	3.1
Singapore	14,196	16,270	17,944	42,486	45,870	0.7	1.0	1.2	0.5	0.5
Sweden	43,921	43,000	47,000	37,909	nya	5.8	7.4	4.9	6.2	nya
Switzerland	22,948	27,215	31,290	33,508	34,467	neg	2.2	2.2	2.3	2.8
United Kingdom	1,921	nav	nav	nav	nav	neg	neg	neg	neg	neg
United States	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
CPSS <sup>2</sup>	337,093	362,546	434,257	565,542	nya	2.3	2.2	2.2	1.4	nya

<sup>1</sup> Converted at yearly average exchange rates.

CPSS: <sup>2</sup> Sum and average excluding those countries for which data are not available. <sup>3</sup> Statistically not relevant.

Table 9  
**Number of cards<sup>1</sup>**  
 Per thousand inhabitants

	Cards with a cash function		Cards with a debit function		Cards with a credit function		Cards with a debit function issued by retailers		Cards with an e-money function		Cards with a cheque guarantee function	
	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003
Belgium	1,442.6	1,505.6	1,306.5	1,322.9	294.2	298.5	158.1	115.9	800.7	nya	nap	nap
Canada <sup>2</sup>	nav	nav	nav	nav	1,653.4	1,671.4	nap	nap	2.4	neg	nap	nap
France <sup>3</sup>	741.5	775.0	683.5	722.0	nav	nav	nav	nav	13.7	20.7	nap	nap
Germany	1,447.5	1,420.3	1,135.5	1,096.9	384.4	393.5	nav	nav	758.9	761.2	nap	nap
Hong Kong SAR	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Italy	476.6	503.3	458.6	484.4	374.9	441.1	nap	nap	5.3	11.5	neg	neg
Japan <sup>4</sup>	2,603.4	2,631.2	nav	nav	1,919.3	1,990.3	nap	nap	nav	nav	nap	nap
Netherlands <sup>5</sup>	1,634.9	1,649.7	1,337.6	1,335.8	315.8	350.9	nav	nav	1,071.3	1,083.4	nav	nav
Singapore <sup>6</sup>	1,417.6	1,386.1	1,417.6	1,386.1	773.2	835.1	nap	nap	2,343.8	2,751.0	nap	nap
Sweden <sup>7</sup>	535.6	578.4	548.3	622.2	376.0	409.2	nav	nav	54.9	nya	nav	nav
Switzerland	1,233.3	1,255.2	789.6	802.2	453.9	453.6	nav	nav	502.8	525.2	789.6	802.2
United Kingdom	2,399.9	2,663.3	1,003.6	1,058.7	1,065.8	1,200.2	nap	nap	nav	nav	1,031.9	947.5
United States	2,999.6	nya	903.5	nya	4,361.1	nya	39.6	nya	nav	nav	nav	nav
CPSS <sup>8</sup>	2,173.0	nya	895.3	nya	2,433.4	nya	nap <sup>9</sup>	nap <sup>9</sup>	369.0	nav	nap <sup>9</sup>	nap <sup>9</sup>

Note: Please refer to the individual country tables for a detailed explanation.

<sup>1</sup> A card which has several functions is counted in each relevant column (for example, a eurocheque card which can be used to withdraw cash, to make payments and to guarantee cheques is counted under each of these three items). For this reason, the figures should not be added together.

Canada: <sup>2</sup> Data on cards with a credit function as at 31 October.

France: <sup>3</sup> Figures for cards with a credit function are not provided.

Japan: <sup>4</sup> Data on cards with a cash function are as at end-March of the following year. Data on cards with a credit function include cards with a delayed debit function, and are as at end-March of the current year.

Netherlands: <sup>5</sup> Data on cards with a credit function include cards with a delayed debit function.

Singapore: <sup>6</sup> Data on cards with a cash and/or debit function are based on a survey of selected local and foreign banks.

Sweden: <sup>7</sup> Data on cards with a credit function include cards with a delayed debit function.

CPSS: <sup>8</sup> Average excluding those countries for which data are not available. <sup>9</sup> Statistically not relevant.

Table 10  
Use of cards

	Average number of:							
	Cash withdrawals per card with a cash function		Payments per card with a debit function		Payments per card with a credit function		Payments per card with an e-money function	
	2002	2003	2002	2003	2002	2003	2002	2003
Belgium	16.4	16.9	39.9	40.2	18.8	22.2	14.6	nya
Canada	nav	nav	nav	nav	28.7	30.9	nav	nav
France <sup>1</sup>	26.7	26.1	97.9	97.8	nav	nav	22.0	14.2
Germany	14.0 <sup>2</sup>	27.9	16.4	18.5	17.8	17.9	0.6	0.6
Hong Kong SAR	nav	nav	nav	nav	nav	nav	nav	nav
Italy	22.8	21.8	20.8	21.7	16.5	14.6	neg	4.5
Japan <sup>3</sup>	1.1	1.0	nav	nav	9.6	nya	nav	nav
Netherlands <sup>4</sup>	18.7	18.4	49.5	53.3	8.9	7.7	5.0	6.2
Singapore <sup>5</sup>	nav	nav	16.4	18.2	nav	nav	71.8	133.4
Sweden <sup>6</sup>	67.2	63.3	104.0	119.8	23.9	24.2	1.5	nya
Switzerland	12.6	12.6	39.0	41.2	24.5	24.3	5.4	5.0
United Kingdom	16.0	15.0	50.4	53.5	30.5	29.0	nav	nav
United States	12.3	nya	59.8	nya	14.2	nya	nav	nav
CPSS <sup>7</sup>	12.2	nya	55.5	nya	14.7	nya	9.5	nya

Note: Please refer to the individual country tables for a detailed explanation.

France: <sup>1</sup> Data on payments per card with a credit function are included in those per card with a debit function.

Germany: <sup>2</sup> Estimated.

Japan: <sup>3</sup> Data on cards with a credit function include cards with a delayed debit function.

Netherlands: <sup>4</sup> Data on cards with a credit function include cards with a delayed debit function.

Singapore: <sup>5</sup> Payments per card with a debit function refer to shared ATM transactions.

Sweden: <sup>6</sup> Data on cards with a credit function include cards with a delayed debit function.

CPSS: <sup>7</sup> Average excluding those countries for which data are not available.

Table 11  
**Use of cashless payment instruments**  
 Total number of transactions, in millions

	Cheques					Payments by credit/debit cards				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	80.2	70.7	60.1	28.9	nya	402.1	462.0	523.4	595.1	620.3
Canada	1,716.4	1,658.2	1,589.0	1,515.0	1,449.8	2,809.0	3,230.9	3,556.6	3,897.0	4,228.0
France	4,479.6	4,493.7	4,338.6	4,179.6	3,927	2,911.6	3,292.4	3,670.7	4,095.6	4,341.5
Germany <sup>2,3</sup>	424.0	393.3	319.8	149.7	133.3	1,226.9	1,669.2	1,883.3	2,101.1	2,253.2
Hong Kong SAR	134.1	138.6	133.5	129.6	124.6	nav	nav	nav	nav	nav
Italy	665.2	602.0	584.2	538.1	506.2	476.7	589.8	747.8	911.7	984.7
Japan	239.3	225.9	208.9	187.1	172.0	1,517.8	2,010.6	2,250.3	2,347.3	nya
Netherlands <sup>4</sup>	26.7	14.2	5.3	0.1	neg	744.4	848.3	1,001.9	1,115.2	1,201.2
Singapore <sup>5</sup>	92.6	91.7	92.0	90.7	87.6	75.8	85.5	96.5	106.3	112.7
Sweden	3.5	2.0	1.7	1.5	0.2	255.0	323.0	402.0	589.0	757.0
Switzerland <sup>6</sup>	6.7	11.2	7.2	4.5	3.5	223.0	246.7	282.1	307.9	326.6
United Kingdom	2,859.0	2,699.0	2,565.0	2,393.0	2,251.0	3,406.0	3,788.0	4,257.0	4,681.0	5,186.0
United States <sup>7</sup>	43,812.1	42,500.0	41,222.6	39,985.9	nya	22,106.4	25,734.9	29,542.8	33,441.3	nya
CPSS <sup>8</sup>	54,539.3	52,900.4	51,127.8	49,203.8	nya	36,154.7	42,281.4	48,214.3	54,188.5	nya

Note: For the footnotes, see the end of the table. Please refer to the individual country tables for a detailed explanation.

Table 11 (cont)

	Credit transfers					Direct debits				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	723.0	656.8	752.4	808.1	nya	142.3	166.2	176.8	168.8	nya
Canada	508.5	569.5	639.2	657.6	728.0	405.4	444.4	488.5	520.4	560.6
France	2,050.7	2,093.6	2,175.5	2,564.2	2,587.5	1,730.6	1,968.6	2,063.5	2,183.8	2,353.2
Germany <sup>2,3</sup>	5,274.6	5,442.1	5,544.7	5,413.2	5,692.7	4,220.5	4,511.2	4,561.2	4,287.9	5,252.3
Hong Kong SAR	15.5	16.6	18.1	19.5	20.6	33.5	35.2	37.1	37.2	35.9
Italy	1,003.4	1,018.6	1,053.3	996.6	1,023.8	496.7	569.8	639.4	690.7	722.3
Japan	1,166.9	1,215.3	1,268.1	1,292.5	1,308.4	nav	nav	nav	nav	nav
Netherlands <sup>4</sup>	1,105.5	1,170.4	1,226.9	1,260.5	1,261.4	785.0	836.2	876.1	947.0	990.1
Singapore <sup>5</sup>	13.9	14.6	16.8	17.7	19.9	17.4	17.3	19.0	30.3	44.7
Sweden	796.8	792.9	764.3	435.5	425.6	85.0	91.0	98.0	119.0	130.6
Switzerland <sup>6</sup>	586.0	545.2	503.2	537.7	564.2	30.4	46.1	47.6	50.0	51.2
United Kingdom	1,797.0	1,845.0	1,931.0	2,008.0	2,213.0	1,863.0	2,010.0	2,152.0	2,289.0	2,430.0
United States <sup>7</sup>	3,167.8	3,486.1	3,890.3	3,976.9	4,181.9	1,676.9	1,947.3	2,385.4	2,760.7	3,345.9
CPSS <sup>8</sup>	18,209.7	18,866.8	19,783.8	19,988.1	nya	11,486.6	12,643.2	13,544.6	14,084.8	nya

Note: For the footnotes, see the end of the table. Please refer to the individual country tables for a detailed explanation.

Table 11 (cont)

	Card-based e-money					Total <sup>1</sup>				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	45.5	51.3	60.5	120.8	107.1	1,393.0	1,407.0	1,573.1	1,721.7	nya
Canada	nav	nav	nav	nav	nav	5,439.3	5,903.0	6,273.3	6,590.0	6,966.4
France	nav	nav	2.8	18.4	18.1	11,172.5	11,848.3	12,251.1	13,041.6	13,228.2
Germany <sup>2,3</sup>	20.7	26.6	29.4	35.9	37.4	11,166.7	12,042.4	12,338.4	11,987.4	13,368.9
Hong Kong SAR	nav	nav	nav	nav	nav	183.2	190.3	188.8	186.4	181.1
Italy	neg	neg	neg	neg	neg	2,642.0	2,780.2	3,024.7	3,137.1	3,237.0
Japan	nav	nav	nav	nav	nav	2,924.0	3,451.8	3,727.3	3,826.9	nya
Netherlands <sup>4</sup>	21.8	25.3	30.9	87.0	109.2	2,683.4	2,894.3	3,141.1	3,409.8	3,561.9
Singapore <sup>5</sup>	77.0	100.1	102.2	702.1	1,535.9	276.6	309.1	326.4	947.2	1,800.7
Sweden	4.2	2.9	1.5	0.9	nav	1,144.5	1,211.8	1,267.5	1,145.9	1,313.4
Switzerland <sup>6</sup>	10.7	18.0	19.8	20.0	19.3	856.8	867.2	859.9	920.1	964.8
United Kingdom	nav	nav	nav	nav	nav	9,925.0	10,342.0	10,905.0	11,371.0	12,080.0
United States <sup>7</sup>	nav	nav	nav	nav	nav	70,763.2	73,668.3	77,041.1	80,164.8	nya
CPSS <sup>8</sup>	179.8	224.2	247.0	985.1	1,827.0	120,570.2	126,916.0	132,917.6	138,450.3	nya

<sup>1</sup> Sum of the available data.

Germany: <sup>2</sup> Payments by credit cards: from 2000, the figure includes retailer card transactions. <sup>3</sup> Direct debits: debit card transactions are not included under this item but are shown under "Payments by credit/debit cards".

Netherlands: <sup>4</sup> Payments by credit/debit cards include cards with a delayed debit function.

Singapore: <sup>5</sup> Interbank transactions only. Payments by credit/debit cards exclude credit card transactions. Credit transfers include large-value transactions (MEPS).

Switzerland: <sup>6</sup> Includes eurocheques, bank cheques, Swiss banker traveller's cheques and, as from 2000, Postcheques.

United States: <sup>7</sup> A Federal Reserve study of the cheque clearing system, published in August 2002, estimated that the number of cheques paid in the United States was 49,500 million in 1995 and 42,500 million in 2000. Values for other years are derived from these estimates.

CPSS: <sup>8</sup> Sum and average excluding those countries for which data are not available.

Table 12  
**Use of cashless payment instruments**  
 Total number of transactions per inhabitant

	Cheques					Payments by credit/debit cards					Credit transfers				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	7.8	6.9	5.8	2.8	nya	39.3	45.1	50.9	57.6	59.8	70.7	64.1	73.2	78.2	nya
Canada	56.3	53.9	51.0	48.2	45.7	92.1	104.9	114.2	123.9	133.3	16.7	18.5	20.5	20.9	23.0
France	74.3	74.2	71.2	68.3	63.9	48.3	54.3	60.3	66.9	70.6	34.0	34.6	35.7	41.9	42.1
Germany <sup>2,3</sup>	5.2	4.8	3.9	1.8	1.6	14.9	20.3	22.9	25.5	27.3	64.3	66.2	67.3	65.6	69.0
Hong Kong SAR	20.3	20.8	19.9	19.1	18.3	nav	nav	nav	nav	nav	2.4	2.5	2.7	2.9	3.0
Italy	11.5	10.4	10.1	9.3	8.7	8.3	10.2	12.9	15.7	16.9	17.4	17.6	18.2	17.2	17.6
Japan	1.9	1.8	1.6	1.5	1.3	12.0	15.8	17.7	18.4	nya	9.2	9.6	10.0	10.1	10.3
Netherlands <sup>4</sup>	1.7	0.9	0.3	neg	neg	47.1	53.3	62.5	69.1	73.9	69.9	73.5	76.5	78.1	77.6
Singapore <sup>5</sup>	23.4	22.8	22.3	21.8	20.9	19.2	21.3	23.4	25.5	26.9	3.5	3.6	4.1	4.2	4.7
Sweden	0.4	0.2	0.2	0.2	neg	28.8	36.4	45.2	66.0	84.5	90.0	89.4	85.9	48.8	47.5
Switzerland	0.9	1.6	1.0	0.6	0.5	31.1	34.2	38.7	41.9	44.1	81.8	75.6	69.1	73.2	76.2
United Kingdom	48.9	46.0	43.5	40.4	37.9	58.2	64.6	72.1	79.1	87.3	30.7	31.5	32.7	33.9	37.3
United States <sup>6</sup>	156.9	150.5	144.5	138.7	nya	79.2	91.1	103.5	116.0	nya	11.3	12.3	13.6	13.8	14.4
CPSS <sup>7</sup>	73.0	70.3	67.5	64.6	nya	48.8	56.7	64.2	71.8	nya	24.4	25.1	26.1	26.2	nya

Note: For the footnotes, see the end of the table. Please refer to the individual country tables for a detailed explanation.

Table 12 (cont)

	Direct debits					Card-based e-money					Total <sup>1</sup>				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	13.9	16.2	17.2	16.3	nya	4.4	5.0	5.9	11.7	10.3	136.3	137.3	153.0	166.7	nya
Canada	13.3	14.4	15.7	16.5	17.7	nav	nav	nav	nav	nav	178.4	191.7	201.5	209.5	219.7
France	28.7	32.5	33.9	35.7	38.3	nap	nav	neg	0.3	0.3	185.3	195.6	201.1	213.0	215.2
Germany <sup>2,3</sup>	51.4	54.9	55.4	52.0	63.6	0.3	0.3	0.4	0.4	0.5	136.0	146.5	149.8	145.3	162.0
Hong Kong SAR	5.1	5.3	5.5	5.5	5.3	nav	nav	nav	nav	nav	27.7	28.6	28.1	27.5	26.6
Italy	8.6	9.9	11.0	11.9	12.4	neg	neg	neg	neg	neg	45.8	48.1	52.2	54.1	55.7
Japan	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav	23.1	27.2	29.3	30.0	nya
Netherlands <sup>4</sup>	49.7	52.5	54.6	58.6	60.9	1.4	1.6	1.9	5.4	6.7	169.7	181.8	195.8	211.2	219.3
Singapore <sup>5</sup>	4.4	4.3	4.6	7.3	10.7	19.5	24.9	24.7	168.3	367.0	70.0	76.9	79.0	227.1	430.3
Sweden	9.6	10.3	11.0	13.3	14.6	0.5	0.3	0.2	0.1	nya	129.2	136.6	142.5	128.4	nya
Switzerland	4.2	6.4	6.5	6.8	6.9	1.5	2.5	2.7	2.7	2.6	119.5	120.3	118.0	125.3	130.3
United Kingdom	31.9	34.3	36.5	38.7	40.9	nav	nav	nav	nav	nav	169.7	176.4	184.7	192.1	203.5
United States <sup>6</sup>	6.0	6.9	8.4	9.6	11.5	nav	nav	nav	nav	nav	253.4	260.9	270.0	278.2	nya
CPSS <sup>7</sup>	18.5	20.2	21.5	22.2	nya	1.0	1.2	1.0	4.0	nya	165.6	173.5	180.4	188.8	nya

<sup>1</sup> Sum of the available data.

Germany: <sup>2</sup> Payments by credit cards: from 2000, the figure includes retailer card transactions. <sup>3</sup> Direct debits: debit card transactions are not included under this item but are shown under "Payments by credit/debit cards".

Netherlands: <sup>4</sup> Payments by credit/debit cards include cards with a delayed debit function.

Singapore: <sup>5</sup> Interbank transactions only. Payments by credit/debit cards exclude credit card transactions. Credit transfers include large-value transactions (MEPS).

United States: <sup>6</sup> A Federal Reserve study of the cheque clearing system, published in August 2002, estimated that the number of cheques paid in the United States was 49,500 million in 1995 and 42,500 million in 2000. Values for other years are derived from these estimates.

CPSS: <sup>7</sup> Sum and average excluding those countries for which data are not available.



Table 13  
**Relative importance of cashless payment instruments**  
 Percentage of total volume of cashless transactions<sup>1</sup>

	Cheques					Payments by credit/debit cards					Credit transfers				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	5.8	5.0	3.8	1.7	nya	28.9	32.8	33.3	34.6	nya	51.9	46.7	47.8	46.9	nya
Canada	31.6	28.1	25.3	23.0	20.8	51.6	54.7	56.7	59.1	60.7	9.3	9.6	10.2	10.0	10.5
France	40.1	37.9	35.4	32.0	29.7	26.1	27.8	30.0	31.4	32.8	18.4	17.7	17.8	19.7	19.6
Germany <sup>2,3</sup>	3.8	3.3	2.6	1.2	1.0	11.0	13.9	15.3	17.5	16.9	47.2	45.2	44.9	45.2	42.6
Hong Kong SAR	73.2	72.8	70.7	69.5	68.8	nav	nav	nav	nav	nav	8.5	8.7	9.6	10.5	11.4
Italy	25.2	21.7	19.3	17.2	15.6	18.0	21.2	24.7	29.1	30.4	38.0	36.6	34.8	31.8	31.6
Japan	8.2	6.5	5.6	4.9	nya	51.9	58.2	60.4	61.3	nya	39.9	35.2	34.0	33.8	nya
Netherlands <sup>4</sup>	1.0	0.5	0.2	neg	neg	27.7	29.3	31.9	32.7	33.7	41.2	40.4	39.1	37.0	35.4
Singapore <sup>5</sup>	33.5	29.6	28.2	9.6	4.9	27.4	27.7	29.6	11.2	6.3	5.0	4.7	5.1	1.9	1.1
Sweden	0.3	0.2	0.1	0.1	neg	22.3	26.7	31.7	51.4	57.6	69.6	65.4	60.3	38.0	32.4
Switzerland	0.8	1.3	0.8	0.5	0.4	26.0	28.4	32.8	33.5	33.9	68.4	62.9	58.5	58.4	58.5
United Kingdom	28.8	26.1	23.5	21.0	18.6	34.3	36.6	39.0	41.2	42.9	18.1	17.8	17.7	17.7	18.3
United States <sup>6</sup>	61.9	57.7	53.5	49.9	nya	31.2	34.9	38.3	41.7	nya	4.5	4.7	5.0	5.0	nya
CPSS <sup>7</sup>	45.2	41.7	38.5	35.5	nya	30.0	33.3	36.3	39.1	nya	15.1	14.9	14.9	14.4	nya

Note: For the footnotes, see the end of the table. Please refer to the individual country tables for a detailed explanation.

Table 13 (cont)

	Direct debits					Card-based e-money				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	10.2	11.8	11.2	9.8	nya	3.3	3.6	3.8	7.0	nya
Canada	7.5	7.5	7.8	7.9	8.0	nav	nav	nav	nav	nav
France	15.5	16.6	16.8	16.7	17.8	nap	nav	neg	0.1	0.1
Germany <sup>2,3</sup>	37.8	37.5	37.0	35.8	39.3	0.2	0.2	0.2	0.3	0.3
Hong Kong SAR	18.3	18.5	19.7	20.0	19.8	nav	nav	nav	nav	nav
Italy	18.8	20.5	21.1	22.0	22.3	neg	neg	neg	neg	neg
Japan	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Netherlands <sup>4</sup>	29.3	28.9	27.9	27.8	27.8	0.8	0.9	1.0	2.6	3.1
Singapore <sup>5</sup>	6.3	5.6	5.8	3.2	2.5	27.8	32.4	31.3	74.1	85.3
Sweden	7.4	7.5	7.7	10.4	9.9	0.4	0.2	0.1	0.1	nya
Switzerland	3.5	5.3	5.5	5.4	5.3	1.2	2.1	2.3	2.2	2.0
United Kingdom	18.8	19.4	19.7	20.1	20.1	nav	nav	nav	nav	nav
United States <sup>6</sup>	2.4	2.6	3.1	3.4	nya	nav	nav	nav	nav	nav
CPSS <sup>7</sup>	9.5	10.0	10.2	10.2	nya	0.1	0.2	0.2	0.7	nya

<sup>1</sup> Where the total is the sum of the available data.

Germany: <sup>2</sup> Payments by credit cards: from 2000, the figure includes retailer card transactions. <sup>3</sup> Direct debits: debit card transactions are not included under this item but are shown under "Payments by credit/debit cards".

Netherlands: <sup>4</sup> Payments by credit/debit cards include cards with a delayed debit function.

Singapore: <sup>5</sup> Interbank transactions only. Payments by credit/debit cards exclude credit card transactions. Credit transfers include large-value transactions (MEPS).

United States: <sup>6</sup> A Federal Reserve study of the cheque clearing system, published in August 2002, estimated that the number of cheques paid in the United States was 49,500 million in 1995 and 42,500 million in 2000. Values for other years are derived from these estimates.

CPSS: <sup>7</sup> Average excluding those countries for which data are not available.

Table 14  
**Relative importance of cashless payment instruments**  
 Percentage of total value of cashless transactions<sup>1</sup>

	Cheques					Payments by credit/debit cards					Credit transfers				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	0.6	0.5	0.6	0.7	nya	0.1	0.2	0.2	0.2	nya	98.9	99.0	99.0	98.7	nya
Canada	21.5	14.5	12.7	11.8	8.6	0.5	0.6	0.5	0.6	0.7	77.5	84.4	86.1	86.8	89.9
France	2.9	2.9	2.3	2.4	2.4	0.2	0.2	0.2	0.2	0.2	96.2	96.2	96.8	96.7	96.7
Germany <sup>2,3</sup>	3.8	3.2	2.7	2.3	2.0	0.3	0.4	0.4	0.4	0.5	83.1	85.6	84.7	85.4	86.8
Hong Kong SAR	93.2	93.1	90.6	89.5	90.3	nav	nav	nav	nav	nav	6.0	6.1	8.4	9.4	8.7
Italy	3.7	3.2	2.9	3.1	3.1	0.1	0.1	0.2	0.2	0.2	94.6	95.1	95.1	94.6	94.2
Japan	2.7	2.5	3.4	2.9	nya	neg	0.1	0.1	0.1	nya	97.2	97.4	96.5	97.0	nya
Netherlands <sup>4</sup>	0.1	0.1	neg	neg	neg	1.4	1.4	1.4	1.5	1.5	93.0	93.3	93.6	93.2	93.2
Singapore <sup>5</sup>	5.1	4.7	3.6	3.8	3.8	0.2	0.2	0.2	0.2	0.2	94.6	95.0	96.1	95.8	95.7
Sweden	0.3	0.2	0.2	0.2	0.2	1.9	2.2	2.9	5.4	5.1	95.2	94.8	94.1	90.8	90.7
Switzerland	neg	0.1	neg	neg	neg	0.1	0.1	0.1	0.1	0.1	99.8	99.7	99.7	99.7	99.7
United Kingdom	3.2	2.9	2.6	2.6	2.4	0.2	0.2	0.2	0.3	0.3	96.7	96.1	96.4	96.3	96.5
United States <sup>6</sup>	5.6	5.4	4.9	4.9	nya	0.2	0.3	0.3	0.3	nya	93.0	93.2	93.8	93.7	nya
CPSS <sup>7</sup>	4.6	4.2	4.2	4.2	nya	0.2	0.2	0.2	0.3	nya	94.1	94.6	94.5	94.4	nya

Note: For the footnotes, see the end of the table. Please refer to the individual country tables for a detailed explanation.

Table 14 (cont)

	Direct debits					Card-based e-money				
	1999	2000	2001	2002	2003	1999	2000	2001	2002	2003
Belgium	0.3	0.3	0.3	0.3	nya	neg	neg	neg	neg	nya
Canada	0.5	0.5	0.6	0.8	0.8	nav	nav	nav	nav	nav
France	0.7	0.8	0.7	0.8	0.7	nap	nav	neg	neg	neg
Germany <sup>2,3</sup>	12.8	10.8	12.1	11.8	10.7	neg	neg	neg	neg	neg
Hong Kong SAR	0.8	0.8	1.0	1.1	1.0	nav	nav	nav	nav	nav
Italy	1.6	1.6	1.9	2.1	2.4	neg	neg	neg	neg	neg
Japan	nav	nav	nav	nav	nav	nav	nav	nav	nav	nav
Netherlands <sup>4</sup>	5.5	5.3	5.0	5.2	5.3	neg	neg	neg	neg	neg
Singapore <sup>5</sup>	0.2	0.2	0.2	0.3	0.3	neg	neg	neg	neg	neg
Sweden	2.5	2.7	2.9	3.7	3.9	neg	neg	neg	neg	nya
Switzerland	0.1	0.2	0.2	0.2	0.2	neg	neg	neg	neg	neg
United Kingdom	0.8	0.8	0.7	0.8	0.9	nav	nav	nav	nav	nav
United States <sup>6</sup>	1.2	1.1	1.1	1.1	nya	nav	nav	nav	nav	nav
CPSS <sup>7</sup>	1.1	1.0	1.1	1.1	nya	neg	neg	neg	neg	nya

<sup>1</sup> Where the total is the sum of the available data.

Germany: <sup>2</sup> Payments by credit cards: from 2000, the figure includes retailer card transactions. <sup>3</sup> Direct debits: debit card transactions are not included under this item but are shown under "Payments by credit/debit cards".

Netherlands: <sup>4</sup> Payments by credit/debit cards include cards with a delayed debit function.

Singapore: <sup>5</sup> Interbank transactions only. Payments by credit/debit cards exclude credit card transactions. Credit transfers include large-value transactions (MEPS).

United States: <sup>6</sup> A Federal Reserve study of the cheque clearing system, published in August 2002, estimated that the number of cheques paid in the United States was 49,500 million in 1995 and 42,500 million in 2000. Values for other years are derived from these estimates.

CPSS: <sup>7</sup> Average excluding those countries for which data are not available.

Table 15  
**Features of selected interbank funds transfer systems**  
 End of 2003, unless otherwise noted

	Type <sup>1</sup>	Owner/manager <sup>2</sup>	Number of participants		Processing <sup>3</sup>	Settlement <sup>4</sup>	Membership <sup>5</sup>
			Total	of which: direct			
Belgium							
ELLIPS	L	B+CB	89	16	RTT	RTGS	RM
Clearing House	R	B+CB	88	32	RTT	N	O
CEC	R	B+CB	89	28	RTT	N	O
Canada							
LVTS	L	PA	14	14	RTT	N	O
France							
CH Paris <sup>9</sup>	nap	nap	nap	nap	nap	nap	nap
CH Province <sup>9</sup>	nap	nap	nap	nap	nap	nap	nap
CREIC <sup>9</sup>	nap	nap	nap	nap	nap	nap	nap
SIT	R	CB+B/PA	640	15	ACH	N	O
TBF	L	CB	523	156	RTT	RTGS	O
PNS	L	CB+B/PA	512	21	RTT	BN/RTGS	RM
Germany							
RPS (former DTA)	R	CB	2,075	2,075	ACH	GS	O
RTGS <sup>plus</sup>	L	CB	8,505	93	RTT	RTGS	RM
Hong Kong SAR							
HKD CHATS	L+R	CMA <sup>10</sup>	130	130	RTT	RTGS	RM
USD CHATS	L+R	B	227	67	RTT	RTGS	O
EUR CHATS <sup>11</sup>	L+R	B	45	23	RTT	RTGS	O
Italy							
BI-REL	L	CB	787	204	RTT	RTGS	RM
Local clearing	R	CB	nav	105	RTT <sup>14</sup>	N	O
Retail	R	CB <sup>15</sup>	nav	157	ACH	N	O
Japan							
Zengin System	R	B	1,678	149	RTT	N	RM
FXYCS	L	B	196	34 <sup>16</sup>	RTT	N/RTGS	RM
BOJ-NET Funds Transfer System	L	CB	371	371	RTT	RTGS	RM

Note: For the footnotes, see the end of the table.

Table 15 (cont)

	Type <sup>1</sup>	Owner/manager <sup>2</sup>	Number of participants		Processing <sup>3</sup>	Settlement <sup>4</sup>	Membership <sup>5</sup>
			Total	of which: direct			
Netherlands							
Interpay	R	B	73	73	ACH	N	RM
TOP	L	CB	155	106	RTT	RTGS	RM
Singapore							
SGDCCS	R	PA	61	34	ACH	N	O
USDCCS	R	PA	43	31	ACH	GS	O
Interbank GIRO	R	PA	38	35	ACH	N	O
EFTPOS	R	B	4	4	RTT	N	RM
MEPS	L	CB	117	70	RTT	RTGS	O
Sweden							
K-RIX	L	CB	19	19	RTT	RTGS	RM
E-RIX	L	CB	13	13	RTT	RTGS	RM
Bankgirot	R	B	18	18	ACH	N	O
Dataclearing	R	B	18	18	ACH	N	O
Postgirot <sup>22</sup>	R	B	1,200,000	1,200,000	ACH	GS	O
Switzerland							
SIC	L+R	B+CB	307	307	RTT	RTGS	O <sup>24</sup>
DTA/LSV	R	B	82	82	ACH	GS	O <sup>24</sup>
United Kingdom							
CHAPS Sterling	L	B+CB	nav	13	RTT	RTGS	RM
CHAPS Euro <sup>26</sup>	L	B+CB	nav	19	RTT	RTGS	RM
BACS	R	B	62,000 <sup>27</sup>	14	ACH	N	RM
Cheque/credit	R	B	404	12	M	N	RM
United States							
Fedwire	L	CB	7,736 <sup>30</sup>	7,736 <sup>30</sup>	RTT	RTGS	O <sup>31</sup>
CHIPS <sup>29</sup>	L	B	51	51	RTT	N/BN/GS	RM
European Union							
EURO1	L	B	73	73	RTT	SOS <sup>32</sup>	RM
TARGET <sup>33</sup>	L	CB	10,499	1,059	RTT	RTGS	RM

Note: For the footnotes, see the end of the table.

Table 15 (cont)

	Centralised/ decentralised <sup>6</sup>	Prices charged to participants <sup>7</sup>	Closing time for same day transactions (local time)	Annual number of transactions (thousands)		Annual value of transactions (USD billions) <sup>8</sup>		Ratio of transactions value to GDP	
				2002	2003	2002	2003	2002	2003
Belgium									
ELLIPS	C	F	18:00	1,730	1,760	12,573	15,306	51.3	50.7
Clearing House	D	V	15:00	1,730	1,570	71	74	0.3	0.2
CEC	C	F	15:00	985,400	1,019,030	500	623	2.0	2.1
Canada									
LVTS	C	F	18:30	3,903	4,139	18,444	22,517	25.1	25.9
France									
CH Paris <sup>9</sup>	nap	nap	nap	93,303	nap	173	nap	0.1	nap
CH Province <sup>9</sup>	nap	nap	nap	53,640	nap	22	nap	neg	nap
CREI <sup>9</sup>	nap	nap	nap	4,316	nap	neg	nap	neg	nap
SIT	C	F	13:30	11,043,476	11,298,210	4,187	5,273	2.9	3.0
TBF	C	F	18:00	3,814	3,864	85,660	108,746	59.8	61.6
PNS	C	F	16:00	7,571	7,332	18,820	20,294	13.1	11.5
Germany									
RPS (former DTA)	C	F	07:00	2,156,752	2,188,339	1,991	2,372	1.0	1.0
RTGS <sup>plus</sup>	C	F	18:00	31,893	32,792	117,621	145,115	59.1	60.4
Hong Kong SAR									
HKD CHATS	C	F	17:30 <sup>12</sup>	3,418	3,508	10,536	11,207	65.9	71.3
USD CHATS	C	F	17:30	814	999	1,274	1,236	8.0	7.9
EUR CHATS <sup>11</sup>	C	F	17:30	nap	5	nap	135 <sup>13</sup>	nap	0.9 <sup>13</sup>
Italy									
BI-REL	C	F	18:00	9,612	9,423	23,706	27,953	20.0	19.0
Local clearing	C	V	12:00	102,698	97,907	685	790	0.6	0.5
Retail	C	F	nap	1,630,549	1,710,888	1,763	2,416	1.5	1.6
Japan									
Zengin System	C	F	15:30	1,244,520	1,260,780	17,810	18,909	4.5	4.4
FXYCS	C	F	13:45(N)/19:00(G) <sup>17</sup>	9,238	8,016	48,887	41,567	12.3	9.7
BOJ-NET Funds Transfer System	C	V <sup>18</sup>	19:00 <sup>17</sup>	4,788	4,925	143,988	161,914	36.2	37.7

Note: For the footnotes, see the end of the table.

Table 15 (cont)

	Centralised/ decentralised <sup>6</sup>	Prices charged to participants <sup>7</sup>	Closing time for same day transactions (local time)	Annual number of transactions (thousands)		Annual value of transactions (USD billions) <sup>8</sup>		Ratio of transactions value to GDP	
				2002	2003	2002	2003	2002	2003
Netherlands									
<i>Interpay</i>	C	F	17:00	2,812,350	2,964,946	1,577	2,007	3.8	3.9
<i>TOP</i>	C	F	18:00	4,548	4,717	19,609	24,119	46.8	46.4
Singapore									
<i>SGDCCS</i>	C	V	17:00 <sup>19</sup>	90,283	87,014	212	211	2.4	2.3
<i>USDCCS</i>	C	V	15:30	443	553	11	14	0.1	0.1
<i>Interbank GIRO</i>	C	V	12:00 <sup>20</sup>	45,980	62,400	51	62	0.6	0.7
<i>EFTPOS</i>	C	V	23:59	97,202	105,844	3	4	neg	neg
<i>MEPS</i>	C	V	18:30 <sup>21</sup>	2,037	2,132	5,604	5,658	64.4	61.9
Sweden									
<i>K-RIX</i>	C	F	17:00	1,100	1,302	11,731	13,900	48.6	46.1
<i>E-RIX</i>	C	F	18:00	100	93	1,383	2,141	5.7	7.1
<i>Bankgirot</i>	C	F	nap <sup>23</sup>	363,000	382,000	416	523	1.7	1.7
<i>Dataclearing</i>	C	F	nap <sup>23</sup>	73,000	109,000	124	229	0.5	0.8
<i>Postgirot</i> <sup>22</sup>	C	F	nap <sup>23</sup>	127,000	65,000	123	89	0.5	0.3
Switzerland									
<i>SIC</i>	C	F	16:15	177,000	192,700	28,767	33,202	103.8	103.1 <sup>25</sup>
<i>DTA/LSV</i>	C	F	09:00	103,300	100,100	229	253	0.8	0.8 <sup>25</sup>
United Kingdom									
<i>CHAPS Sterling</i>	C	F	17:00	25,563	27,215	77,863	84,267	49.7	46.9
<i>CHAPS Euro</i> <sup>26</sup>	C	F	17:00	3,664	4,292	28,200	35,227	18.0	19.6
<i>BACS</i>	C	F	nap <sup>28</sup>	3,734,774	4,060,356	3,574	4,200	2.3	2.3
<i>Cheque/credit</i>	D	F	nap <sup>28</sup>	1,817,000	1,704,476	2,170	2,209	1.4	1.2
United States									
<i>Fedwire</i>	C	F	18:30	115,000	123,300	405,762	436,706	38.7	39.7
<i>CHIPS</i> <sup>29</sup>	C	F	17:00	63,300	64,500	315,709	326,561	30.1	29.7
European Union									
<i>EURO1</i>	C	F	16:00	34,401	38,852	45,241	50,501	nap	nap
<i>TARGET</i> <sup>33</sup>	D	F	18:00	64,519	66,608	372,924	474,993	nap	nap

Note: For the footnotes, see the end of the table.



<sup>1</sup> L = large-value system; R = retail system. <sup>2</sup> B = bank(s); CB = central bank(s); PA = payment association. <sup>3</sup> M = manual; ACH = automated clearing house (offline); RTT = real-time transmission. <sup>4</sup> N = multilateral netting; BN = bilateral netting; RTGS = real-time gross settlement; GS = other gross settlement. <sup>5</sup> O = open membership (any bank can apply); RM = restricted membership (subject to criteria). <sup>6</sup> C = centralised (one processing centre where all settlement instructions are processed and accounts settled); D = decentralised (presence of more than one such processing centre). <sup>7</sup> F = full cost (including investments); V = variable costs; S = symbolic cost (below variable cost); N = no cost. <sup>8</sup> Converted at yearly average exchange rates.

France: <sup>9</sup> Closed during 2002.

Hong Kong SAR: <sup>10</sup> Central Monetary Authority. <sup>11</sup> Introduced on 28 April 2003. <sup>12</sup> 12:00 on Saturdays. <sup>13</sup> From 28 August to 31 December 2003.

Italy: <sup>14</sup> Transactions can also be submitted on floppy disk. <sup>15</sup> System managed by SIA (Interbank Company for Automation) in the name and on behalf of the Bank of Italy.

Japan: <sup>16</sup> CLS is counted as a direct participant in this table. <sup>17</sup> Only for participants who made an application for extension of the closing time; for other participants, closing time is 17:00.

<sup>18</sup> Prices are set on the principle that the institutions that are to benefit from online processing should pay the relevant fees.

Singapore: <sup>19</sup> 13:30 on Saturdays. <sup>20</sup> 09:00 on Saturdays. <sup>21</sup> 14:45 on Saturdays.

Sweden: <sup>22</sup> The Postgirot system was purchased by a Swedish bank in the course of 2002. <sup>23</sup> No same day transactions.

Switzerland: <sup>24</sup> With restriction criteria for remote members. <sup>25</sup> Provisional.

United Kingdom: <sup>26</sup> Volume and value figures include both domestic and outward cross-border (TARGET) payments. <sup>27</sup> Estimated. <sup>28</sup> No same day transactions.

United States: <sup>29</sup> CHIPS, the Clearing House Interbank Payments System, is operated by CHIPCo, which is owned by the Clearing House (formerly known as the New York Clearing House Association). <sup>30</sup> Number of depository institutions that used the Fedwire Funds Transfer Service in 2003. Other Fedwire Funds Transfer participants not included here are: the US Treasury and any entity specifically authorised by federal statute to use the Reserve Banks as fiscal agents or depositories; entities designated by the Secretary of the Treasury; foreign central banks, foreign monetary authorities, foreign governments and certain international organisations. <sup>31</sup> Any depository institution, including a US branch or agency of a foreign bank, may maintain an account with a Federal Reserve Bank. To obtain an account, an institution must execute an account agreement pursuant to Operating Circular 1 (Account Relationships), which outlines the terms and conditions for a master account. An institution with an account at a Federal Reserve Bank may access Fedwire subject to the conditions detailed in Federal Reserve Operating Circular 6 and the Federal Reserve Board's Policy Statement on Payment System Risk.

European Union: <sup>32</sup> The legal structure of EURO1 is based on the Single Obligation Structure (SOS), whereby on each settlement day, at any given time, each participant will have only one single payment obligation or claim with respect to the community of the other participants as joint creditors/debtors, which will be settled at the end of the day. In accordance with the SOS, no bilateral payments, claims or obligations between participants will be created by the processing of payments in the system. Nor will there be any form of setoff, novation or netting resulting from the continuous adjustment of the participants' single claim or obligation. <sup>33</sup> TARGET consists of the national RTGS systems of the 12 euro area countries and of the ECB payment mechanism. In addition, the national euro RTGS systems of Denmark, Sweden and the United Kingdom are also connected to TARGET. The figure for TARGET participants is based on a survey of direct and indirect participants. The indirect TARGET participants (9,440 in 2003) are mainly concentrated in Germany (89.1%) and comprise to a large extent branches of large direct participants in RTGS<sup>plus</sup>.

Table 16  
**Operating hours of selected large-value interbank funds transfer systems**  
 End of 2003

System	Gross or net	Opening/closing time for same day value (local time)	Settlement finality (local time)	Cutoff for all third-party payment orders (local time)	Cutoff for international correspondents' payment orders (local time)	Memo: Standard money market hours (local time)
Belgium ELLIPS	Gross	07:00-18:00	real-time	17:00	18:00	07:00-18:00
Canada <sup>1</sup> LVTS	Net	01:00-18:30 <sup>2</sup>	intraday <sup>3</sup>	18:00	18:00	nap <sup>4</sup>
France TBF	Gross	07:00-18:00	real-time	17:00	nap	09:00-17:00
PNS	Gross/Net	08:00-16:00	real-time	16:00	nap	09:00-17:00
Germany RTGS <sup>plus</sup>	Gross	07:00-18:00	real-time	17:00	nap	07:30-18:00
Hong Kong SAR HKD CHATS	Gross	09:00-17:30 <sup>5</sup>	real-time <sup>5</sup>	17:00	17:30	09:00-17:30
USD CHATS	Gross	09:00-17:30	real-time	17:00	17:30	09:00-17:30
EUR CHATS <sup>6</sup>	Gross	09:00-17:30	real-time	17:00	17:30	09:00-17:30
Italy BI-REL	Gross	07:00-18:00	real-time	17:00	nap	07:00-18:00
Japan FXYCS <sup>7</sup>	Net	09:00-13:45	14:30	13:45	13:45	08:30-19:00
	Gross	09:00-19:00	real-time	19:00	19:00	08:30-19:00
BOJ-NET Funds Transfer System <sup>8</sup>	Gross	09:00-19:00	real-time	14:00 <sup>9</sup>	14:00 <sup>9</sup>	08:30-19:00
Netherlands TOP	Gross	07:00-18:00	real-time	17:00	17:00	07:00-18:00

Note: For the footnotes, see the end of the table.

Table 16 (cont)

System	Gross or net	Opening/closing time for same day value (local time)	Settlement finality (local time)	Cutoff for all third-party payment orders (local time)	Cutoff for international correspondents' payment orders (local time)	Memo: Standard money market hours (local time)
Singapore MEPS	Gross	09:00-18:30 <sup>10, 11</sup>	09:00-18:30 <sup>11</sup>	18:30 <sup>12, 13</sup>	18:30 <sup>12, 13</sup>	09:00-18:30 <sup>11</sup>
Sweden K-RIX	Gross	07:00-17:00	real-time	17:00	17:00	09:00-16:15
E-RIX	Gross	07:00-18:00	real-time	17:00	18:00	09:00-16:15
Switzerland SIC	Gross	17:00-16:15 <sup>14</sup>	real-time	15:00	08:00	09:00-16:00
United Kingdom CHAPS Sterling	Gross	06:00-17:00	real-time	16:00	16:00	07:00-16:00
CHAPS Euro	Gross	06:00-17:00	real-time	16:00	16:00	–
United States <sup>15</sup> Fedwire	Gross	00:30-18:30	real-time	18:00	17:00	08:30-18:30 <sup>16</sup>
CHIPS	Gross/Net	00:30-17:00	intraday <sup>17</sup>	16:30	16:30	08:30-18:30 <sup>16</sup>
European Union EURO1	Net	07:30-16:00	after 16:00	16:00	16:00	07:00-18:00
TARGET	Gross	07:00-18:00	real-time	17:00	nap	07:00-18:00

Canada: <sup>1</sup> Local times are Eastern time. <sup>2</sup> The initialisation period for collateral pledging/valuation, setting of bilateral limits, etc begins at 00:30. The payment message exchange period begins at 08:00. <sup>3</sup> Final settlement occurs at 19:30. However, due to the risk controls in place, the LVTS provides intraday settlement finality. <sup>4</sup> No standard hours.

Hong Kong SAR: <sup>5</sup> To 12:00 on Saturdays. <sup>6</sup> Introduced on 28 April 2003.

Japan: <sup>7</sup> Closing time for gross settlement is 19:00 for participants who have applied for an extension, and 17:00 for others. <sup>8</sup> Closing time is 19:00 for participants who have applied for an extension, and 17:00 for others. <sup>9</sup> With the consent of the receiver, payment orders may be entered for same day settlement until the closing time of the system.

Singapore: <sup>10</sup> MEPS accepts forward-dated transactions from 06:00 to 20:00 on Mondays-Fridays and from 06:00 to 15:00 on Saturdays. <sup>11</sup> To 14:45 on Saturdays. <sup>12</sup> 14:45 on Saturdays. <sup>13</sup> MEPS does not impose a cutoff time for third-party/international correspondents' payments, but the Association of Banks in Singapore (ABS) bye-laws on MEPS require all such payments to be made by 17:30 on Mondays-Fridays and 12:30 on Saturdays.

Switzerland: <sup>14</sup> 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 17:00 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 (cutoff 1) and 16:00 (cutoff 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).

United States: <sup>15</sup> Local times are Eastern time. <sup>16</sup> Trading occurs among dealers for funds on deposit at Federal Reserve Banks (ie federal funds) as early as 06:30. <sup>17</sup> Payments over CHIPS become final on completion of settlement, which occurs throughout the day.

Table 17  
**Features of selected securities settlement systems**  
 End of 2003

Name of system	Belgium			Canada	France	
	NBB SSS	Euronext-CIK	Euroclear <sup>7</sup>	CDSX <sup>8</sup>	RGV	RELIT
Type of securities <sup>1</sup>	G, O	E, O	B, C, G, E, O	B, G, E, O	B, C, G, O, E	
Owner/manager <sup>2</sup>	CB	B	B	B, SE, O	Euroclear France	
Number of participants	109	93	1,538	98	630 <sup>10</sup>	
<i>of which: direct participants</i>	109	93	1,538	6	330 <sup>10</sup>	
Settlement of cash leg <sup>3</sup>	G	G	G	N	RTGS	N
Securities settlement (delivery) <sup>3</sup>	G	N	G	G	RTGS	G
Delivery lag (T+n)	T+2, T+3 <sup>6</sup>	T+3	T+3, T+n (OTC)	T+0, T+1, T+3 <sup>9</sup>	from T to T+100	from T to T+30
DVP mechanism <sup>4</sup>	DVP 1	DVP 1	DVP 1	DVP 2	DVP 1	DVP 2
Intraday finality	Yes	Yes	Yes	Yes	Yes	Yes
Central securities depository	NBB	CIK	Euroclear (eurobonds)	CDS	Euroclear France	
Cash settlement agent <sup>2</sup>	NBB	NBB	Euroclear/NBB	CB	CB	
Annual number of transactions (thousands)	175	353	22,000	39,200	27,812 <sup>10</sup>	
Annual value of transactions (USD billions) <sup>5</sup>	4,099	85	133,300	29,011	59,361 <sup>10</sup>	
Ratio of transactions value to GDP	13.6	0.3	441.5	33.4	33.7 <sup>10</sup>	

Note: For the footnotes, see the end of the table.

Table 17 (cont)

	Germany	Hong Kong SAR		Italy		
Name of system	Clearstream Banking Frankfurt (CBF)	CCASS	CMU	LDT	EXPRESS <sup>15</sup>	Monte Titoli
Type of securities <sup>1</sup>	B, G, E, O	E, O	G, O	B, G, E, O	B, G, E, O	B, G, E, O
Owner/manager <sup>2</sup>	SE	SE	CMA <sup>12</sup>	CB	Monte Titoli	Monte Titoli
Number of participants	411	529	157 <sup>13</sup>	212	153	1,869
<i>of which: direct participants</i>	411	529	157 <sup>13</sup>	212	153	473 <sup>16</sup>
Settlement of cash leg <sup>3</sup>	RTGS, N	G/N	G/N	N	RTGS	nap
Securities settlement (delivery) <sup>3</sup>	RTGS, G	G/N	G/N	N	RTGS	RTGS
Delivery lag (T+n)	T+0 to T+40	T+2	T+0	G, B: T+3 <sup>14</sup> E, O: T+5	From T to T+n	T
DVP mechanism <sup>4</sup>	DVP 1 DVP 2 / DVP 3 <sup>11</sup>	DVP 1 / DVP 3	DVP 1 / DVP 3	DVP 3	DVP 1	nap
Intraday finality	Yes	No	Yes	No	Yes	Yes
Central securities depository	CBF	CCASS	CMU	Monte Titoli	Monte Titoli	Monte Titoli
Cash settlement agent <sup>2</sup>	CB	B	CMA <sup>12</sup>	CB	CB	nap
Annual number of transactions (thousands)	45,592	33,772	34	34,209	119	1,630 <sup>17</sup>
Annual value of transactions (USD billions) <sup>5</sup>	16,147	1,139	672	39,128	1,431	nav
Ratio of transactions value to GDP	6.7	7.2	4.3	26.6	1.0	nav

Note: For the footnotes, see the end of the table.

Table 17 (cont)

Name of system	Japan		Netherlands	Singapore		
	BOJ-NET JGB Services	JASDEC <sup>19</sup>	Euroclear Netherlands <sup>23</sup>	CDP	DCSS	MEPS-SGS
Type of securities <sup>1</sup>	G	E, O <sup>20</sup>	B, G, E	E, O	B	G
Owner/manager <sup>2</sup>	CB	B, SE, O	Euroclear	SE	SE	CB
Number of participants	341 (Book-entry System) / 370 (Registration System)	275	80			
<i>of which: direct participants</i>	<i>341 / 370</i>	<i>275</i>	<i>80</i>			
Settlement of cash leg <sup>3</sup>	RTGS	N/G	RTGS	N	G	RTGS
Securities settlement (delivery) <sup>3</sup>	RTGS	N/G	RTGS	G	G	G
Delivery lag (T+n)	T+0 to T+3 <sup>18</sup>	T+3 / T+1, T+2 <sup>21</sup>	T+3	T+3	T+n <sup>25</sup>	T+1
DVP mechanism <sup>4</sup>	DVP 1	DVP 3 / DVP 1 <sup>22</sup>	DVP 1	DVP 2	DVP 1	DVP 1
Intraday finality	Yes	Yes	Yes	Yes	Yes	Yes
Central securities depository	CB	JASDEC	Euroclear Netherlands <sup>23</sup>	CDP	CDP	CB
Cash settlement agent <sup>2</sup>	CB	CB, B	CB, B	B	CB	CB
Annual number of transactions (thousands)	2,939 / 2	37,587	3,072	217,657,000 <sup>24</sup>	5	68
Annual value of transactions (USD billions) <sup>5</sup>	101,038 / 4	nav	779	93	4	450
Ratio of transactions value to GDP	23.5 / neg	nav	1.5	1.0	neg	4.9

Note: For the footnotes, see the end of the table.

Table 17 (cont)

	Sweden		Switzerland	United Kingdom	United States	
Name of system	Stockholmsbörsen	VPC	SECOM	CREST	NBES <sup>27</sup>	DTC
Type of securities <sup>1</sup>	O	G, E, O	B, G, E, O	B, C, G, E, O	G, O	B, C, E, O
Owner/manager <sup>2</sup>	O	B, O	B, O	B, CB, SE, O	CB	B, SE, O
Number of participants	79	44		38,054	1,667 <sup>28</sup>	436
<i>of which: direct participants</i>	79	44		<i>nap</i>	1,667 <sup>28</sup>	436
Settlement of cash leg <sup>3</sup>	N	G/N	G	RTGS	RTGS	N
Securities settlement (delivery) <sup>3</sup>	N	G	G	RTGS	RTGS	G
Delivery lag (T+n)	T+3	T+2, T+3	T+3	from T+0 to T+3	T, T+1 <sup>29</sup>	T, T+3 <sup>30</sup>
DVP mechanism <sup>4</sup>	No	Yes	DVP 1	DVP 1	DVP 1	DVP 2
Intraday finality	Yes	Yes	Yes	Yes	Yes	No
Central securities depository	OM	VPC	SIS SegalInterSettle	<i>nap</i>	CB	DTC
Cash settlement agent <sup>2</sup>	CB	CB	CB	B, CB	CB	CB
Annual number of transactions (thousands)	91,952	10,277	18,800	63,800	20,400	225,200
Annual value of transactions (USD billions) <sup>5</sup>	303	10,802	6,425	95,159	267,644	105,700
Ratio of transactions value to GDP	1.0	35.8	19.9 <sup>26</sup>	53.0	24.3	9.6

Note: For the footnotes, see the end of the table.

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<sup>1</sup> B = bonds; C = CDs; G = government securities; E = equity; O = other. <sup>2</sup> B = bank(s); CB = central bank(s); SE = stock exchange; O = other. <sup>3</sup> G = gross; N = net; RTGS = real-time gross settlement. <sup>4</sup> Delivery Versus Payment mechanism. In DVP Model 1, transfer instructions for both securities and funds are settled on a trade by trade basis, with final transfer of securities from the seller to the buyer (delivery) occurring at the same time as final transfer of the funds from the buyer to the seller (payment). In DVP Model 2, securities transfer instructions are settled on a gross basis, with final transfer of securities from the seller to the buyer (delivery) occurring throughout the processing cycle, but funds transfer instructions are settled on a net basis, with final transfer of the funds from the buyer to the seller (payment) occurring at the end of the processing cycle. In DVP Model 3, transfer instructions for both securities and funds are settled on a net basis, with final transfer of both securities and funds occurring at the end of the processing cycle. <sup>5</sup> Converted at yearly average exchange rates.

Belgium: <sup>6</sup> For Treasury bills, T+2; for bonds, T+3. <sup>7</sup> Figures for Euroclear refer to Euroclear Bank and not the EOC Group.

Canada: <sup>8</sup> During the course of 2003, the Securities Settlement Service (SSS) and Debt Clearing Service (DCS) were replaced by CDSX. <sup>9</sup> Although all securities have the potential for T+0 delivery, money market mutual funds tend to be T+1.

France: <sup>10</sup> RGV and RELIT combined.

Germany: <sup>11</sup> Mixture of DVP 2 + DVP 3 (securities disposition on a gross basis without finality until final settlement of net cash position).

Hong Kong SAR: <sup>12</sup> Central Monetary Authority. <sup>13</sup> Recognised dealer for Exchange Fund Bills and Notes.

Italy: <sup>14</sup> For government bills, T+2. <sup>15</sup> On 8 December 2003, Express II, offering gross and net functionalities, replaced RTGS Express. The data entered in the table refer only to the gross components. <sup>16</sup> Number of intermediaries. <sup>17</sup> Free of payment (FOP) transfers not including multilateral net balances from LdT.

Japan: <sup>18</sup> T+3 is the norm for outright transactions. Most repo transactions are settled on a T+2 or T+3 basis. Settlement for the BOJ's open market operations takes place on a T+0 to T+3 basis. <sup>19</sup> Figures as of end-March 2004. <sup>20</sup> JASDEC started to handle commercial paper (CP) in March 2003. <sup>21</sup> Most CP transactions are settled on a T+1 or T+2 basis. <sup>22</sup> DVP 3 for stocks and DVP 1 for CP.

Netherlands: <sup>23</sup> Formerly known as Necigef.

Singapore: <sup>24</sup> Number of securities cleared. <sup>25</sup> By mutual agreement between counterparties.

Switzerland: <sup>26</sup> Provisional.

United States: <sup>27</sup> NBES is the Federal Reserve's National Book-Entry System. <sup>28</sup> Number of depository institutions that used the Federal Reserve's Securities Service in 2003. Other participants not included here are: the US Treasury and any entity specifically authorised by federal statute to use the Reserve Banks as fiscal agents or depositories; entities designated by the Secretary of the Treasury; foreign central banks, foreign monetary authorities, foreign governments and certain international organisations. <sup>29</sup> Securities are settled on a same day basis within the Federal Reserve's National Book-Entry System. The market convention for the settlement of repurchase agreements is T+0. The convention for US Treasury securities is T+1. Other non-US Treasury securities have different conventions. <sup>30</sup> The market convention for the settlement of corporate equities and bonds is T+3; for money market instruments, the convention is T.

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Table 18  
**Direct participants in CPSS real-time gross settlement systems**  
 End of 2003

Name of system	Belgium	Canada	France	Germany	Hong Kong SAR			Italy	Japan
	ELLIPS	nap	TBF	RTGS <sup>plus</sup>	CHATS			BI-REL	BOJ-NET Funds Transfer System
					HKD	USD	EUR		
Direct participants	16		156	93	130	67	23	204	371
Credit institutions	14		130	92	130	66	22	195 <sup>2</sup>	315
Central bank	1		1	1	1 <sup>1</sup>	1	1	1	0
Non-banks	1		25	nap	0	0	0	8 <sup>3</sup>	56 <sup>4</sup>
<i>of which:</i>									
<i>public authorities</i>	0		nap					0	0
<i>postal administration</i>	1		1					1	1
<i>supervised financial institutions</i>	0		24					5	49

Note: For the footnotes, see the end of the table.

Table 18 (cont)

Name of system	Netherlands	Singapore	Sweden		Switzerland	United Kingdom		United States	European Union
	TOP	MEPS	K-RIX	E-RIX	SIC	CHAPS Sterling	CHAPS Euro	Fedwire	TARGET
Direct participants	106	70	19	13	307	13	19	7,736 <sup>7</sup>	1,059
Credit institutions	98	69 <sup>6</sup>	14	8	297	12	18	7,736 <sup>7</sup>	nav
Central bank	1	1	1	1	1	1	1	1	16
Non-banks	7 <sup>5</sup>	0	4	4	9	0	0	nav	nav
<i>of which:</i>									
<i>public authorities</i>	2		<i>nap</i>	<i>nap</i>	1				
<i>postal administration</i>	0		<i>nap</i>	<i>nap</i>	1				
<i>supervised financial institutions</i>	1		4	4	7				

Hong Kong SAR: <sup>1</sup> The central bank is not a direct participant.

Italy: <sup>2</sup> Of which: 16 branches of other EU banks; seven branches of non-EU banks; two remote participants. <sup>3</sup> Includes Cassa Compensazione e Garanzia (clearing house) and Monte Titoli (Central Securities Depository).

Japan: <sup>4</sup> Includes clearing organisations.

Netherlands: <sup>5</sup> Includes four clearing and settlement organisations.

Singapore: <sup>6</sup> Includes CLS Bank.

United States: <sup>7</sup> Number of depository institutions that used the Fedwire Funds Transfer Service in 2003. Other Fedwire Funds Transfer participants not included here are: the US Treasury and any entity specifically authorised by federal statute to use the Reserve Banks as fiscal agents or depositories; entities designated by the Secretary of the Treasury; foreign central banks, foreign monetary authorities, foreign governments and certain international organisations.

Table 19  
**Direct participants in other CPSS large-value payment systems**  
 End of 2003

	Belgium	Canada	France	Germany	Hong Kong SAR	Italy	Japan
<b>Name of system</b>	nap	LVTS	PNS	nap	nap	nap <sup>1</sup>	FXYCS
Direct participants		14	21				34 <sup>2</sup>
Credit institutions		13	16				34
Central bank		1	1				0
Non-banks		0	4				0
<i>of which:</i>							
<i>public authorities</i>			nap				
<i>postal administration</i>			1				
<i>supervised financial institutions</i>			nap				

	Netherlands	Singapore	Sweden	Switzerland	United Kingdom	United States	European Union
<b>Name of system</b>	nap	nap	nap	nap	nap	CHIPS	EURO1
Direct participants						51	73
Credit institutions						nav	71
Central bank						nav	2
Non-banks						nav	0 <sup>3</sup>
<i>of which:</i>							
<i>public authorities</i>							
<i>postal administration</i>							
<i>supervised financial institutions</i>							

Italy: <sup>1</sup> The only large-value payment system in Italy is BI-REL. For details, see Table 18.

Japan: <sup>2</sup> CLS is counted as a direct participant in this table.

European Union: <sup>3</sup> With system operator EBA Clearing as a technical participant..

Table 20  
**Direct participants in CPSS retail interbank funds transfer systems**  
 End of 2003

	Belgium		Canada	France	Germany	Hong Kong SAR
<b>Name of system</b>	<b>Clearing House</b>	<b>CEC</b>	<b>ACSS</b>	<b>SIT</b>	<b>RPS</b>	<b>nap</b>
Direct participants	32	28	12	15	2,075	
Credit institutions	29	24	11	13	2,074	
Central bank	1	1	1	1	1	
Non-banks	2	3	0	1	nap	
<i>of which:</i>						
<i>public authorities</i>	1	2		nap		
<i>postal administration</i>	1	1		1		
<i>supervised financial institutions</i>	0	0		nap		

	Italy		Japan		Netherlands	Singapore		
<b>Name of system</b>	<b>BI-COMP</b>		<b>Zengin System</b>	<b>Tokyo Clearing House</b>	<b>Interpay</b>	<b>SGDCCS</b>	<b>IBG</b>	<b>EFTPOS</b>
	<b>Local clearing</b>	<b>Retail</b>						
Direct participants	105	157	149	111	73	34	35	4
Credit institutions	102	154 <sup>1</sup>	149	109	73	33	35	4
Central bank	1	1	0	1	0	1	0	0
Non-banks	2	2	0	1	0	0	0	0
<i>of which:</i>								
<i>public authorities</i>	1	0	0	0				
<i>postal administration</i>	1	1	1	1				
<i>supervised financial institutions</i>	0	1	0	0				

Note: For the footnotes, see the end of the table.

Table 20 (cont)

Name of system	Sweden			Switzerland	United Kingdom		United States
	Bankgirot	Dataclearing	Postgirot	DTA/LSV	BACS	Cheque and credit clearing	ACH
Direct participants	19	19	1,200,000	82	14	12	nav
Credit institutions	19	19	nap	82	13	11	
Central bank	nap	nap	nap	0	1	1	
Non-banks	nap	nap	1,200,000	0	0	0	
<i>of which:</i>							
<i>public authorities</i>	<i>nap</i>	<i>nap</i>	<i>1,200,000</i>				
<i>postal administration</i>	<i>nap</i>	<i>nap</i>	<i>nap</i>				
<i>supervised financial institutions</i>	<i>nap</i>	<i>nap</i>	<i>nap</i>				

Italy: <sup>1</sup> Of which: 14 branches of other EU banks and five branches of non-EU banks.

Table 21  
**Access criteria for CPSS real-time gross settlement systems**  
 End of 2003

	Belgium	Canada	France	Germany	Hong Kong SAR	Italy	Japan
<b>Name of system</b>	<b>ELLIPS</b>	<b>nap</b>	<b>TBF</b>	<b>RTGS<sup>plus</sup></b>	<b>HKD CHATS</b>	<b>BI-REL</b>	<b>BOJ-NET Funds Transfer System</b>
Access criteria	+		+	+	+	+	+
Written rules	+		+	+	+	+	+
Minimum level of data or ratios representative of financial strength	+		-	-	+	-	+
Minimum number of transactions	-		-	-	-	-	- <sup>3</sup>
Payment of an entry fee	+		+	-	+	-	-
Approval from the owner/manager or the direct participants	+		+	+ <sup>1</sup>	+	+ <sup>2</sup>	+ <sup>4</sup>
Approval from the local central bank	+		+	+ <sup>1</sup>	+	+	+
Technical requirements	+		+	+	+	+	+
Removal rules	+		+	+	+	+	+

Note: For the footnotes, see the end of the table.

Table 21 (cont)

Name of system	Netherlands	Singapore	Sweden		Switzerland	United Kingdom	United States
	TOP	MEPS	K-RIX	E-RIX	SIC	CHAPS Sterling/Euro	Fedwire
Access criteria	+	+	+	+	+	+	+
Written rules	+	+	+	+	+	+	+
Minimum level of data or ratios representative of financial strength	-	+	+	+	-	-	-
Minimum number of transactions	-	-	-	-	-	-	-
Payment of an entry fee	-	-	+	+	+	+	-
Approval from the owner/manager or the direct participants	+ <sup>5</sup>	+ <sup>6</sup>	+	+	+	+	+
Approval from the local central bank	+	+ <sup>6</sup>	+	+	+	+	+
Technical requirements	+	+	+	+	+	+	+
Removal rules	+	+	+	+	+	+	+

Key: + = yes; - = no.

Germany: <sup>1</sup> The owner/manager is the central bank.

Italy: <sup>2</sup> The owner/manager is the central bank.

Japan: <sup>3</sup> To open a current account at the Bank of Japan, securities companies are required to meet certain standards on market presence set by the Bank of Japan. <sup>4</sup> The owner/manager is the central bank.

Netherlands: <sup>5</sup> The owner/manager is the central bank.

Singapore: <sup>6</sup> The owner/manager is the central bank. All banks are eligible to participate directly in MEPS; regulated non-banks of systemic importance may also seek approval from MAS to participate.

Table 22  
**Access criteria for other CPSS large-value payment systems**  
 End of 2003

	Belgium	Canada	France	Germany	Hong Kong SAR	Italy	Japan
<b>Name of system</b>	<b>nap</b>	<b>LVTS</b>	<b>PNS</b>	<b>nap</b>	<b>CHATS: USD and EUR</b>	<b>nap<sup>2</sup></b>	<b>FXYCS</b>
Access criteria		+	+		+		+
Written rules		+	+		+		+
Minimum level of data or ratios representative of financial strength		-	+		+		+
Minimum number of transactions		-	-		-		+
Payment of an entry fee		+	+		+ <sup>1</sup>		+
Approval from the owner/manager or the direct participants		+	+		+		+
Approval from the local central bank		-	+		+		+
Technical requirements		+	+		+ <sup>1</sup>		+
Removal rules		+	+		-		+

Note: For the footnotes, see the end of the table.



Table 22 (cont)

	Netherlands	Singapore	Sweden	Switzerland	United Kingdom	United States	European Union
<b>Name of system</b>	<b>nap</b>	<b>nap</b>	<b>nap</b>	<b>nap</b>	<b>nap</b>	<b>CHIPS</b>	<b>EURO1</b>
Access criteria						+	+
Written rules						+	+
Minimum level of data or ratios representative of financial strength						+	+
Minimum number of transactions						-	-
Payment of an entry fee						+	+
Approval from the owner/manager or the direct participants						+	+
Approval from the local central bank						-	-
Technical requirements						+	+
Removal rules						+	+

Key: + = yes; - = no.

Hong Kong: <sup>1</sup> Not applicable to indirect participants.

Italy: <sup>2</sup> The only large-value payment system in Italy is BI-REL. For details, see Table 21.

Table 23  
**Risk control measures in other CPSS large-value payment systems**  
 End of 2003

	Belgium	Canada	France	Germany	Hong Kong SAR	Italy	Japan
<b>Name of system</b>	nap	LVTS	PNS	nap	nap	nap <sup>8</sup>	FXYCS
<b>1. Settlement in central banks' accounts</b>		+	+				+
<b>2. Same day settlement</b>		+	+				+
<b>3. Compliance with Lamfalussy standards</b>		+	+				nap
a. Legal framework							
contractual (+) or advisory (-) netting		+ <sup>1</sup>	+				
if contractual: legally enforceable (+) or not (-)		+	nap <sup>5</sup>				
b. Participants' awareness		+	+				
c. Risk management							
<i>monitoring of intraday balance</i>		+	nap <sup>6</sup>				
<i>multilateral limits</i>		+ <sup>2</sup>	nap <sup>6</sup>				
<i>collateral requirements</i>		+	nap <sup>6</sup>				
<i>intraday closures</i>		+ <sup>3</sup>	+ <sup>7</sup>				
d. Timely settlement completion		+	nap <sup>5</sup>				
<i>risk-sharing agreements</i>		+					
<i>full collateralisation of largest net debit position</i>		+ <sup>4</sup>	nap <sup>6</sup>				
e. Fair open access		+	+				
f. Technical reliability		+	+				

Note: For the footnotes, see the end of the table.

Table 23 (cont)

	Netherlands	Singapore	Sweden	Switzerland	United Kingdom	United States	European Union
<b>Name of system</b>	nap	nap	nap	nap	nap	<b>CHIPS</b>	<b>EURO1</b>
<b>1. Settlement in central banks' accounts</b>						+ <sup>9</sup>	+
<b>2. Same day settlement</b>						+	+
<b>3. Compliance with Lamfalussy standards</b>						+	+
a. Legal framework contractual (+) or advisory (-) netting if contractual: legally enforceable (+) or not (-)						+	nap <sup>10</sup> nap <sup>10</sup>
b. Participants' awareness						+	+
c. Risk management <i>monitoring of intraday balance</i>						+	+
<i>multilateral limits</i>						-	+
<i>collateral requirements</i>						-	+
<i>intraday closures</i>						-	-
d. Timely settlement completion <i>risk-sharing agreements</i>						-	+
<i>full collateralisation of largest net debit position</i>						-	+
e. Fair open access						+	+
f. Technical reliability						+	+

Key: + = yes; - = no.

Canada: <sup>1</sup> The LVTS employs multilateral netting by novation. Once the payment instruction passes the risk controls and is accepted by the system, the bilateral obligations are extinguished and replaced by a multilateral obligation vis-à-vis the system as a whole. <sup>2</sup> The LVTS employs bilateral and multilateral limits. <sup>3</sup> Final settlement occurs at the end of the LVTS processing period. However, the risk control mechanisms of the LVTS ensure that, once a payment has passed the risk control mechanisms and been accepted by the system, it is certain to settle and irrevocable. Therefore, the LVTS provides intraday receiver finality. <sup>4</sup> The LVTS is certain to settle even if the defaulter with the largest net debit position defaults.

France: <sup>5</sup> PNS is a hybrid system; the legal and risk framework is comparable to that of the RTGS system. <sup>6</sup> PNS functions on the basis of positive balances, ie multilateral debit cap set to 0. <sup>7</sup> Continuous settlement mechanism.

Italy: <sup>8</sup> There are no large-value net settlement systems in Italy.

United States: <sup>9</sup> Since January 2001, CHIPS has been a real-time final settlement system that continuously matches, nets and settles payment orders. To facilitate this process, each CHIPS participant is required to transfer, via Fedwire, a pre-established opening position requirement to a CHIPS account at the Federal Reserve Bank of New York. Throughout the day, payment orders are settled with real-time finality on the books of CHIPS against positive positions, simultaneously offset by incoming payment orders, or both. At the end of the day, each participant with a final position requirement must transfer, via Fedwire, its requirement to the CHIPS account at the Federal Reserve Bank of New York.

European Union: <sup>10</sup> The system is based on a special legal arrangement, the Single Obligation Structure (SOS).

Table 24a  
**SWIFT traffic: intra-CPSS message flows in 2003**  
 Number of messages

From/to	Belgium	Canada	France	Germany	Hong Kong SAR	Italy	Japan	Netherlands
Belgium	16,878,934	476,263	10,458,808	7,369,169	1,168,184	5,968,498	1,888,972	9,491,512
Canada	561,533	6,206,671	508,465	585,067	409,447	176,347	397,653	169,816
France	4,592,124	418,369	27,608,030	6,516,117	663,097	3,230,707	833,503	3,431,006
Germany	4,554,919	490,982	6,834,498	49,015,448	756,718	6,020,407	1,073,467	5,830,343
Hong Kong SAR	719,252	497,739	440,671	678,674	4,447,420	252,738	2,609,889	220,539
Italy	2,537,035	151,125	3,191,791	5,465,338	302,384	15,533,170	370,057	1,397,404
Japan	1,746,326	330,910	1,127,918	1,389,807	2,175,178	483,657	9,119,303	332,037
Netherlands	5,630,294	191,021	4,557,364	5,915,532	295,952	1,213,069	324,883	36,929,130
Singapore	309,889	152,414	322,692	568,349	1,464,440	90,903	1,834,900	233,712
Sweden	1,128,859	78,438	618,445	1,617,245	124,385	355,526	118,512	711,219
Switzerland	2,285,304	524,755	3,387,693	7,490,234	581,754	1,473,931	1,013,139	1,301,408
United Kingdom	9,072,823	2,623,706	12,549,980	15,196,939	5,045,602	8,379,496	11,536,444	7,843,598
United States	6,574,386	5,007,059	8,481,525	9,924,359	10,040,851	4,670,321	12,159,588	5,346,342
<b>Total CPSS</b>	<b>56,591,678</b>	<b>17,149,452</b>	<b>80,087,880</b>	<b>111,732,278</b>	<b>27,475,412</b>	<b>47,848,770</b>	<b>43,280,310</b>	<b>73,238,066</b>
<b>Total non-CPSS</b>	<b>56,060,775</b>	<b>6,588,683</b>	<b>27,490,808</b>	<b>70,869,890</b>	<b>7,719,413</b>	<b>16,009,788</b>	<b>6,758,704</b>	<b>9,274,148</b>
<b>Total all countries</b>	<b>112,652,453</b>	<b>23,738,135</b>	<b>107,578,688</b>	<b>182,602,168</b>	<b>35,194,825</b>	<b>63,858,558</b>	<b>50,039,014</b>	<b>82,512,214</b>

Source: SWIFT.

Table 24a (cont)

From/to	Singapore	Sweden	Switzerland	United Kingdom	United States	CPSS	Non-CPSS	All countries
Belgium	942,270	901,076	5,286,223	26,585,845	18,240,712	105,656,466	1,040,073	106,696,539
Canada	130,553	62,215	678,306	4,215,181	6,811,500	20,912,754	3,227,972	24,140,726
France	300,374	483,435	2,463,941	24,586,682	13,095,654	88,223,039	11,969,468	100,192,507
Germany	343,115	1,331,778	7,320,836	20,431,614	15,862,748	119,866,873	25,774,388	145,641,261
Hong Kong SAR	1,433,234	74,271	688,685	6,119,383	9,459,118	27,641,613	10,691,170	38,332,783
Italy	61,185	231,791	1,555,031	13,473,354	6,243,634	50,513,299	6,449,559	56,962,858
Japan	2,026,376	123,245	1,228,428	13,957,348	13,955,199	47,995,732	9,120,027	57,115,759
Netherlands	229,216	549,174	1,709,467	11,312,538	7,155,334	76,012,974	8,308,831	84,321,805
Singapore	2,840,103	78,139	511,192	3,369,979	5,040,470	16,817,182	4,488,397	21,305,579
Sweden	69,431	4,549,563	436,614	8,158,549	3,162,706	21,129,492	7,613,494	28,742,986
Switzerland	487,886	357,407	20,310,410	24,865,834	10,602,964	74,682,719	12,251,206	86,933,925
United Kingdom	2,192,339	4,173,511	15,583,653	111,238,776	45,972,674	251,409,541	39,509,652	290,919,193
United States	4,230,315	1,648,412	11,432,805	34,919,949	115,980,263	230,416,175	98,869,734	329,285,909
<b>Total CPSS</b>	<b>15,286,397</b>	<b>14,564,017</b>	<b>69,205,591</b>	<b>303,235,032</b>	<b>271,582,976</b>	<b>1,131,277,859</b>	<b>239,313,971</b>	<b>1,370,591,830</b>
<b>Total non-CPSS</b>	<b>4,593,097</b>	<b>8,112,040</b>	<b>13,692,362</b>	<b>102,757,154</b>	<b>87,058,362</b>	<b>416,985,224</b>	<b>259,987,306</b>	<b>676,972,530</b>
<b>Total all countries</b>	<b>19,879,494</b>	<b>22,676,057</b>	<b>82,897,953</b>	<b>405,992,186</b>	<b>358,641,338</b>	<b>1,548,263,083</b>	<b>499,301,277</b>	<b>2,047,564,360</b>

Source: SWIFT.

Table 24b  
**Geographical breakdown of SWIFT message flows**  
 In 2003

	Messages sent			Messages received		
	Total	To domestic users (% of total)	To other CPSS countries (% of total)	Total	From domestic users (% of total)	From other CPSS countries (% of total)
Belgium	106,696,539	15.82	83.21	112,652,453	14.98	35.25
Canada	24,140,726	25.71	60.92	23,738,135	26.15	46.10
France	100,192,507	27.55	60.50	107,578,688	25.66	48.78
Germany	145,641,261	33.65	48.65	182,602,168	26.84	34.35
Hong Kong SAR	38,332,783	11.60	60.51	35,194,825	12.64	65.43
Italy	56,962,858	27.27	61.41	63,858,558	24.32	50.60
Japan	57,115,759	15.97	68.07	50,039,014	18.22	68.27
Netherlands	84,321,805	43.80	46.35	82,512,214	44.76	44.00
Singapore	21,305,579	13.33	65.60	19,879,494	14.29	62.61
Sweden	28,742,986	15.83	57.68	22,676,057	20.06	44.16
Switzerland	86,933,925	23.36	62.54	82,897,953	24.50	58.98
United Kingdom	290,919,193	38.24	48.18	405,992,186	27.40	47.29
United States	329,285,909	35.22	34.75	358,641,338	32.34	43.39
<b>Total CPSS</b>	<b>1,370,591,830</b>	<b>30.69</b>	<b>51.85</b>	<b>1,548,263,083</b>	<b>27.17</b>	<b>45.90</b>
<b>Total non-CPSS</b>	<b>676,972,530</b>	<b>18.09</b>	<b>61.60</b>	<b>499,301,277</b>	<b>24.53</b>	<b>83.51</b>
<b>Total all countries</b>	<b>2,047,564,360</b>	<b>26.53</b>	<b>75.61</b>	<b>2,047,564,360</b>	<b>26.53</b>	<b>75.61</b>

Source: SWIFT.

Table 24c  
**Total SWIFT members, submembers and participants in CPSS countries**  
 In 2003

	Number of users of the SWIFT network			
	Members	Submembers	Participants	Total number of users
Belgium	22	47	17	86
Canada	13	38	12	63
France	59	122	65	246
Germany	108	115	56	279
Hong Kong SAR	24	152	18	194
Italy	131	95	36	262
Japan	128	99	32	259
Netherlands	25	46	29	100
Singapore	8	135	12	155
Sweden	7	11	12	30
Switzerland	101	80	69	250
United Kingdom	87	272	79	438
United States	114	290	193	597
<b>Total CPSS</b>	<b>827</b>	<b>1,502</b>	<b>630</b>	<b>2,959</b>
<b>Total non-CPSS</b>	<b>1,500</b>	<b>1,581</b>	<b>1,614</b>	<b>4,695</b>
<b>Total all countries</b>	<b>2,327</b>	<b>3,083</b>	<b>2,244</b>	<b>7,654</b>

Source: SWIFT.

Table 24d  
 Relative share of CPSS countries in SWIFT traffic, membership and shareholding  
 In 2003

	Share of messages (%)		Share of total (%)		Share of equity holding	
	Sent	Received	Members	Users	Quantity	Percentage
Belgium	5.21	5.50	0.95	1.12	3,086	3.57
Canada	1.18	1.16	0.56	0.82	1,510	1.75
France	4.89	5.25	2.54	3.21	6,529	7.56
Germany	7.11	8.92	4.64	3.65	7,954	9.21
Hong Kong SAR	1.87	1.72	1.03	2.53	1,359	1.57
Italy	2.78	3.12	5.63	3.42	3,014	3.49
Japan	2.79	2.44	5.50	3.38	3,220	3.73
Netherlands	4.12	4.03	1.07	1.31	3,943	4.57
Singapore	1.04	0.97	0.34	2.03	473	0.55
Sweden	1.40	1.11	0.30	0.39	1,399	1.62
Switzerland	4.25	4.05	4.34	3.27	4,231	4.90
United Kingdom	14.21	19.83	3.74	5.72	7,633	8.84
United States	16.08	17.52	4.90	7.80	17,481	20.25
<b>Total CPSS</b>	<b>66.94</b>	<b>75.61</b>	<b>35.54</b>	<b>38.66</b>	<b>61,832</b>	<b>71.61</b>
<b>Total non-CPSS</b>	<b>33.06</b>	<b>24.39</b>	<b>64.46</b>	<b>61.34</b>	<b>24,509</b>	<b>28.39</b>
<b>Total all countries</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>	<b>86,341</b>	<b>100.00</b>

Source: SWIFT.



