

**Bank of Canada
Triennial Central Bank Survey
of Foreign Exchange and Over-the-Counter (OTC)
Derivatives Markets
Turnover for April, 2004
and
Amounts Outstanding as at June 30, 2004**



March, 2005

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Table 1: Traditional foreign exchange turnover in Canada
Summary of surveys

Billions of U.S. dollars

	Foreign exchange turnover				Number of business days	Average daily turnover	Per cent change
	Spot	Outright forwards	FX swaps	Total			
1983	44.3	5.2	53.7	103.2	20	5.2	
1986	81.5	11.2	98.5	191.2	20	9.6	84.6
1989	123.9	14.1	161.9	299.9	20	15.0	56.3
1992	162.1	17.6	281.2	460.9	21	21.9	46.0
1995	228.5	47.9	290.1	566.5	19	29.8	36.1
1998	226.5	30.0	516.2	772.7	21	36.8	23.5
2001	217.3	45.0	570.6	832.9	20	41.6	13.0
2004	385.7	83.4	663.4	1,132.5	21	53.9	29.6

Table 2: Over-the-counter (OTC) derivatives market turnover in Canada
Summary of surveys

Average daily turnover in billions of U.S. dollars

	Foreign exchange derivatives			Single-currency interest rate derivatives			
	Currency swaps	Options	Total	Forward rate agreements	Interest rate swaps	Options	Total
1995	0.1	0.8	0.9	3.0	1.0	0.3	4.3
1998	0.3	0.8	1.1	2.4	2.9	1.1	6.4
2001	0.3	2.3	2.6	2.9	6.1	0.9	9.9
2004	0.6	4.8	5.4	3.4	7.3	1.4	12.1

Table 3: Total reported foreign exchange turnover in Canada

Millions of U.S. dollars

Instrument and counterparty	Canadian dollar against U.S. dollar			U.S. dollar against other currencies			Canadian dollar against currencies other than the U.S. dollar			All other currency pairs			All currencies		
	April 2001	April 2004	Per cent growth	April 2001	April 2004	Per cent growth	April 2001	April 2004	Per cent growth	April 2001	April 2004	Per cent growth	April 2001	April 2004	Per cent growth
Spot	126,315	169,480	34.2	77,111	186,101	141.3	2,847	5,567	95.5	11,048	24,531	122.0	217,321	385,679	77.5
Reporting dealers	67,200	91,044	35.5	52,735	124,204	135.5							129,102	233,017	80.5
Financial customers	35,605	49,416	38.8	19,008	55,614	192.6							57,611	115,620	100.7
Non-financial customers	23,510	29,020	23.4	5,368	6,283	17.0							30,608	37,042	21.0
Outright forwards	24,941	48,207	93.3	13,348	26,351	97.4	3,769	4,908	30.2	2,945	3,973	34.9	45,003	83,439	85.4
Reporting dealers	5,175	6,269	21.1	6,062	10,824	78.6							12,918	19,320	49.6
Financial customers	9,082	22,940	152.6	4,814	11,639	141.8							17,767	39,750	123.7
Non-financial customers	10,684	18,998	77.8	2,472	3,888	57.3							14,318	24,369	70.2
FX swaps	352,286	391,149	11.0	207,766	259,010	24.7	3,341	9,693	190.1	7,203	3,482	-51.7	570,596	663,334	16.3
Reporting dealers	227,658	241,658	6.1	157,564	204,979	30.1							391,612	451,392	15.3
Financial customers	85,274	114,758	34.6	35,185	42,861	21.8							123,002	162,626	32.2
Non-financial customers	39,354	34,733	-11.7	15,017	11,170	-25.6							55,982	49,316	-11.9
Total reporting dealers	300,033	338,971	13.0	216,361	340,007	57.1	1,954	5,059	158.9	15,284	19,692	28.8	533,632	703,729	31.9
Total customers	203,509	269,865	32.6	81,864	131,455	60.6	8,003	15,109	88.8	5,912	12,294	107.9	299,288	428,723	43.2
Financial	129,961	187,114	44.0	59,007	110,114	86.6	4,923	10,054	104.2	4,489	10,714	138.7	198,380	317,996	60.3
Non-financial	73,548	82,751	12.5	22,857	21,341	-6.6	3,080	5,055	64.1	1,423	1,580	11.0	100,908	110,727	9.7
Local	205,058	242,947	18.5	25,958	33,026	27.2	7,343	13,563	84.7	1,841	2,048	11.2	240,200	291,584	21.4
Cross border	298,484	365,889	22.6	272,267	438,436	61.0	2,614	6,605	152.7	19,355	29,938	54.7	592,720	840,868	41.9
Total turnover	503,542	608,836	20.9	298,225	471,462	58.1	9,957	20,168	102.6	21,196	31,986	50.9	832,920	1,132,452	36.0
<i>Currency swaps</i>	5,639	10,063	78.5	1,058	1,048	-0.9	321	475	48.0	45	966	2,046.7	7,063	12,552	77.7
<i>OTC options</i>	25,019	33,841	35.3	19,161	57,672	201.0	103	2,680	2,501.9	637	6,158	866.7	44,920	100,351	123.4

Table 4: Reported foreign exchange turnover in Canada by instrument and by counterparty
Summary of surveys

Billions of U.S. dollars (and percent shares)

	Instrument						Counterparty					
							Customers					
	Spot		Outright forwards		Foreign exchange swaps		Reporting dealers		Financial		Non-financial	
1983	44	(43)	5	(5)	54	(52)	75	(73)	8	(8)	19	(19)
1986	82	(43)	11	(6)	98	(51)	131	(69)	24	(12)	36	(19)
1989	124	(41)	14	(5)	162	(54)	217	(72)	25	(8)	58	(20)
1992	162	(35)	18	(4)	281	(61)	350	(76)	32	(7)	79	(17)
1995	229	(41)	48	(8)	290	(51)	347	(61)	141	(25)	79	(14)
1998	227	(29)	30	(4)	516	(67)	550	(71)	123	(16)	100	(13)
2001	217	(26)	45	(5)	571	(69)	534	(64)	198	(24)	101	(12)
2004	386	(34)	83	(7)	663	(59)	704	(62)	318	(28)	110	(10)

Table 5: Currency distribution of traditional foreign exchange market turnover in Canada
Summary of surveys

Percent shares

Currency	April 1983	March 1986	April 1989	April 1992	April 1995	April 1998	April 2001	April 2004
U.S. dollar	99.0	99.4	99.2	96.3	96.6	96.8	96.0	95.3
Canadian dollar	75.7	68.2	66.2	65.2	69.6	70.2	61.8	55.5
Euro ^a	--	--	--	--	--	--	15.7	17.7
German mark ^a	10.7	13.4	12.9	17.0	16.0	14.9	--	--
Japanese yen	2.9	4.2	7.3	5.8	6.0	7.3	8.7	9.4
U.K. pound	6.8	8.3	6.3	6.9	4.4	4.6	7.8	7.8
Swiss franc	2.9	4.7	5.6	5.0	4.4	2.3	4.2	4.5
Australian dollar ^b	--	--	--	--	--	1.0	2.3	4.2
Mexican peso ^b	--	--	--	--	--	--	0.5	1.9
Hong Kong dollar ^b	--	--	--	--	--	--	0.2	1.4
Other currencies	2.0	1.8	2.5	3.8	3.0	2.9	2.8	2.3
All currencies^c	200.0	200.0	200.0	200.0	200.0	200.0	200.0	200.0

a. On 1 January 1999, the Euro replaced 11 European countries including the German mark.

b. "--" indicates the currency was not broken out and reported separately.

c. Since every foreign exchange transaction involves two currencies, the reporting of all currencies necessarily sums to 200 per cent.

Table 6: Reported foreign exchange turnover in Canada in April 2004 by currency pair

Millions of U.S. dollars

Instrument and Counterparty	Directly against the U.S. dollar					All other currency pairs	Total
	Canadian dollar	Euro	Japanese yen	U.K. pound	Other		
Spot							
With reporting dealers	91,044	49,377	30,751	16,644	27,432	17,769	233,017
Local	12,513	854	234	139	248	127	14,115
Cross-border	78,531	48,523	30,517	16,505	27,184	17,642	218,902
With financial customers	49,416	26,643	12,023	10,187	6,761	10,590	115,620
Local	23,985	4,227	1,209	1,512	524	1,852	33,309
Cross-border	25,431	22,416	10,814	8,675	6,237	8,738	82,311
With non-financial customers	29,020	3,576	762	932	1,013	1,739	37,042
Local	24,181	1,999	140	573	330	1,436	28,659
Cross-border	4,839	1,577	622	359	683	303	8,383
Outright forwards and FX swaps							
With reporting dealers	247,927	62,432	32,787	42,017	78,566	6,983	470,712
Local	50,681	1,267	340	234	402	771	53,695
Cross-border	197,246	61,165	32,447	41,783	78,164	6,212	417,017
With financial customers	137,698	14,660	14,419	8,476	16,945	10,178	202,376
Local	88,225	4,070	1,444	3,082	2,509	6,799	106,129
Cross-border	49,473	10,590	12,975	5,394	14,436	3,379	96,247
With non-financial customers	53,731	5,857	2,141	1,843	5,217	4,896	73,685
Local	43,363	4,063	549	766	2,310	4,626	55,677
Cross-border	10,368	1,794	1,592	1,077	2,907	270	18,008
Summary by instrument							
Total spot	169,480	79,596	43,536	27,763	35,206	30,098	385,679
(Currency share, per cent)	(44.0)	(20.6)	(11.3)	(7.2)	(9.1)	(7.8)	(100.0)
Total outright forwards and FX swaps	439,356	82,949	49,347	52,336	100,728	22,057	747,773
(Currency share, per cent)	(58.8)	(11.1)	(6.6)	(7.0)	(13.5)	(3.0)	(100.0)
Summary by counterparty							
Reporting dealers							
Spot	91,044	49,377	30,751	16,644	27,432	17,769	233,017
Outright forwards and FX swaps	247,927	62,432	32,787	42,017	78,566	6,983	470,712
Total reporting dealers	338,971	111,809	63,538	58,661	105,998	24,752	703,729
(Currency share, per cent)	(48.2)	(15.9)	(9.0)	(8.3)	(15.1)	(3.5)	(100.0)
Customer							
Spot	78,436	30,219	12,785	11,119	7,774	12,329	152,662
Outright forwards and FX swaps	191,429	20,517	16,560	10,319	22,162	15,074	276,061
Total customer	269,865	50,736	29,345	21,438	29,936	27,403	428,723
(Currency share, per cent)	(63.0)	(11.8)	(6.8)	(5.0)	(7.0)	(6.4)	(100.0)
Total turnover	608,836	162,545	92,883	80,099	135,934	52,155	1,132,452
(Currency share, per cent)	(53.7)	(14.4)	(8.2)	(7.1)	(12.0)	(4.6)	(100.0)

Table 7: Reported foreign exchange market turnover in Canada by maturity^a

Millions of U.S. dollars

Instrument	1995		1998		2001		2004	
	Amount	% share	Amount	% share	Amount	% share	Amount	% share
Outright forwards								
Up to 7 days	26,485	48.2	10,045	30.5	18,103	38.4	28,679	33.7
Over 7 days and up to 1 year	26,621	48.4	20,224	61.4	27,675	58.8	52,377	61.6
Over 1 year	1,850	3.4	2,656	8.1	1,306	2.8	3,995	4.7
Total	54,956	100.0	32,925	100.0	47,084	100.0	85,051	100.0
Foreign exchange swaps								
Up to 7 days	221,465	65.4	458,098	72.2	445,261	70.1	548,093	76.6
Over 7 days and up to 1 year	109,226	32.2	168,461	26.6	177,050	27.9	160,716	22.5
Over 1 year	7,937	2.4	7,668	1.2	12,793	2.0	6,605	0.9
Total	338,628	100.0	634,227	100.0	635,104	100.0	715,414	100.0

a. Not adjusted for local double counting.

Table 8: Foreign exchange transactions in Canada in April 2004 involving the Canadian dollar against all currencies other than the U.S. dollar

Millions of U.S. dollars

Instrument	Euro	Japanese yen	U.K. pound	Australian dollar	Swiss franc	Other	Total
Spot	2,440	872	1,143	711	119	282	5,567
Outright forwards	1,564	1,141	1,075	235	254	639	4,908
FX swaps	6,743	780	1,137	296	248	489	9,693
Total turnover	10,747	2,793	3,355	1,242	621	1,410	20,168
Currency share (per cent)	(53.3)	(13.9)	(16.6)	(6.2)	(3.1)	(6.9)	(100.0)

Table 9: Geographical distribution of global traditional foreign exchange market turnover
Daily averages in billions of U.S. dollars and percent shares

Country	April 2001		April 2004		Per cent growth
	Amount	% Share	Amount	% Share	
Canada	41.6	2.6	53.9	2.2	29.6
United Kingdom	504.4	31.2	753.0	31.3	49.3
United States	253.7	15.7	461.3	19.2	81.8
Japan	146.8	9.1	198.9	8.3	35.5
Singapore	100.7	6.2	125.4	5.2	24.5
Germany	88.5	5.5	117.5	4.9	32.8
Hong Kong	66.8	4.1	102.2	4.2	53.0
Australia	51.9	3.2	80.8	3.4	55.7
Switzerland	70.8	4.4	78.2	3.3	11.9
France	48.0	3.0	64.0	2.7	33.3
Netherlands	30.0	1.9	48.9	2.0	63.0
Denmark	23.3	1.4	40.9	1.7	75.5
Sweden	24.1	1.5	30.8	1.3	27.8
Russia	9.6	0.6	29.8	1.2	210.4
Italy	17.0	1.0	20.0	0.8	17.6
Korea	9.6	0.6	19.8	0.8	106.3
Belgium	10.1	0.6	19.7	0.8	95.0
Mexico	8.6	0.5	14.6	0.6	69.8
Luxembourg	12.9	0.8	14.5	0.6	12.4
Norway	12.8	0.8	14.4	0.6	12.5
Spain	7.6	0.5	13.6	0.6	78.9
Austria	8.0	0.5	13.3	0.6	66.3
South Africa	9.8	0.6	9.7	0.4	-1.0
Taiwan	4.3	0.3	8.3	0.3	93.0
Ireland	8.3	0.5	7.1	0.3	-14.5
New Zealand	3.9	0.2	6.9	0.3	76.9
India	3.0	0.2	6.6	0.3	120.0
Poland	8.0	0.5	6.4	0.3	-20.0
Israel	0.7	-	4.8	0.2	585.7
Greece	4.8	0.3	4.2	0.2	-12.5
Portugal	1.7	0.1	1.9	0.1	11.8
Finland	1.6	0.1	1.8	0.1	12.5
Other countries	25.0	1.5	33.6	1.4	34.4
Total	1,617.9	100.0	2,408.0	100.0	48.8

Source: Bank for International Settlements, Triennial Central Bank Survey. The data are adjusted for local (but not cross-border) double counting arising from business between reporting dealers.

Table 10: Currency distribution of global traditional foreign exchange market turnover^a
 Percent shares of average daily turnover

Currency	April 1989	April 1992	April 1995	April 1998	April 2001	April 2004
U.S. dollar	90.0	82.0	83.3	87.3	90.3	88.7
Euro	--	--	--	--	37.6	37.2
German mark ^b	27.0	39.6	36.1	30.1	--	--
Japanese yen	27.0	23.4	24.1	20.2	22.7	20.3
U.K. pound	15.0	13.6	9.4	11.0	13.2	16.9
Swiss franc	10.0	8.4	7.3	7.1	6.1	6.1
French franc	2.0	3.8	7.9	5.1	--	--
Australian dollar	2.0	2.5	2.7	3.1	4.2	5.5
Canadian dollar	1.0	3.3	3.4	3.6	4.5	4.2
ECU and other EMS currencies	4.0	11.8	15.7	17.3	--	--
Emerging market currencies	--	1.4	1.1	2.9	6.0	6.0
Other currencies	22.0	10.2	9.0	12.3	15.4	15.1
All currencies^c	200.0	200.0	200.0	200.0	200.0	200.0

a. The percentages relate to turnover that has been adjusted for both local and cross-border double counting between reporting dealers, except for the 1989 data which are unadjusted.

b. Data for April 1989 exclude domestic trading involving the German mark in Germany.

c. Since every foreign exchange transaction involves two currencies, the reporting of all currencies necessarily sums to 200 per cent.

Table 11: Global trading of the Canadian dollarPercent share of total^a

Country	April 1992	April 1995	April 1998	April 2001	April 2004
Canada	40.1	41.3	37.7	35.4	30.0
United States	19.0	18.6	18.8	25.4	29.2
United Kingdom	18.3	22.4	23.3	25.9	23.2
Japan	8.8	2.4	1.9	1.3	3.7
Australia	0.5	0.7	0.5	1.9	2.8
Singapore	5.7	5.5	7.8	3.5	2.2
France	0.7	0.7	0.5	1.7	1.7
Hong Kong	5.3	2.9	2.0	0.9	1.4
Switzerland	1.5	2.6	1.9	0.6	1.3
Germany	-	1.4	0.8	0.8	1.1
Netherlands	-	0.3	0.2	0.2	0.9
Belgium	-	-	2.3	0.2	0.5
Luxembourg	-	0.6	1.2	0.4	0.4
Other	0.1	0.6	1.1	1.8	1.6
Total	100.0	100.0	100.0	100.0	100.0

a. "-" indicates the data was not reported.

Table 12: Total single-currency interest rate derivatives turnover in Canada

Millions of U.S. dollars

Instrument and counterparty	Canadian dollar			U.S. Dollar			All other currencies			All currencies		
	April 2001	April 2004	Per cent growth	April 2001	April 2004	Per cent growth	April 2001	April 2004	Per cent growth	April 2001	April 2004	Per cent growth
Forward rate agreements	18,235	25,405	39.3	24,724	37,542	51.8	14,697	8,542	-41.9	57,656	71,489	24.0
Reporting dealers	15,408	22,775	47.8	22,154	33,803	52.6	13,931	8,542	-38.7	51,493	65,120	26.5
Financial customers	1,720	1,914	11.3	2,200	3,408	54.9	766	-	-	4,686	5,322	13.6
Non-financial customers	1,107	716	-35.3	370	331	-10.5	-	-	-	1,477	1,047	-29.1
Interest rate swaps	59,157	70,237	18.7	43,121	32,976	-23.5	19,186	49,347	157.2	121,464	152,560	25.6
Reporting dealers	41,712	43,271	3.7	35,597	24,961	-29.9	18,109	45,326	150.3	95,418	113,558	19.0
Financial customers	9,323	11,648	24.9	4,516	4,822	6.8	677	1,055	55.8	14,516	17,525	20.7
Non-financial customers	8,122	15,318	88.6	3,008	3,193	6.2	400	2,966	641.5	11,530	21,477	86.3
OTC options	12,708	12,346	-2.8	6,435	17,230	167.8	60	845	1,308.3	19,203	30,421	58.4
Reporting dealers	6,918	8,759	26.6	5,202	11,685	124.7	44	845	1,820.5	12,164	21,289	75.0
Financial customers	2,262	2,965	31.1	851	4,160	388.8	16	-	-	3,129	7,125	127.7
Non-financial customers	3,528	622	-82.4	382	1,385	262.6	-	-	-	3,910	2,007	-48.7
Total reporting dealers	64,038	74,805	16.8	62,953	70,449	11.9	32,084	54,713	70.5	159,075	199,967	25.7
Total customers	26,062	33,183	27.3	11,327	17,299	52.7	1,859	4,021	116.3	39,248	54,503	38.9
Financial	13,305	16,527	24.2	7,567	12,390	63.7	1,459	1,055	-27.7	22,331	29,972	34.2
Non-financial	12,757	16,656	30.6	3,760	4,909	30.6	400	2,966	641.5	16,917	24,531	45.0
Local	54,257	53,338	-1.7	9,398	3,136	-66.6	537	116	-78.3	64,192	56,590	-11.8
Cross border	35,843	54,650	52.5	64,882	84,612	30.4	33,406	58,618	75.5	134,131	197,880	47.5
Total turnover	90,100	107,988	19.9	74,280	87,748	18.1	33,943	58,734	73.0	198,323	254,470	28.3

Table 13: Geographical distribution of global OTC derivatives turnover

Daily averages in billions of U.S. dollars and percent shares

Country	April 2001				April 2004				Per cent growth
	Foreign exchange ^a	Interest rates ^b	Total	% Share	Foreign exchange ^a	Interest rates ^b	Total	% Share	
Canada	2.6	9.9	12.5	1.7	5.4	12.1	17.5	1.2	40.0
United Kingdom	37.2	237.8	275.0	36.0	80.4	563.0	643.4	42.7	134.0
United States	18.9	115.7	134.6	17.7	37.4	317.4	354.8	23.5	163.6
France	1.7	65.1	66.8	8.8	2.5	151.3	153.8	10.2	130.2
Germany	3.0	94.0	97.0	12.7	2.9	42.8	45.7	3.0	-52.9
Italy	0.6	23.7	24.3	3.1	3.5	37.9	41.4	2.7	70.4
Japan	5.9	15.8	21.7	2.9	8.5	30.9	39.4	2.6	81.6
Belgium	0.4	14.1	14.5	1.8	1.1	30.5	31.6	2.1	117.9
Netherlands	0.6	24.2	24.8	3.3	3.1	18.8	21.9	1.5	-11.7
Switzerland	5.5	9.6	15.1	2.0	6.2	12.0	18.2	1.2	20.5
Australia	2.9	9.1	12.0	1.6	4.9	12.8	17.7	1.2	47.5
Singapore	3.0	3.2	6.2	0.8	8.4	8.6	17.0	1.1	174.2
Austria	0.5	4.2	4.7	0.7	1.3	13.5	14.8	1.0	214.9
Hong Kong	1.6	2.6	4.2	0.5	3.8	11.3	15.1	1.0	259.5
Ireland	0.4	5.8	6.2	0.8	0.5	12.4	12.9	0.9	108.1
Spain	0.5	20.5	21.0	2.7	0.4	11.9	12.3	0.8	-41.4
Denmark	0.5	5.8	6.3	0.8	1.2	10.8	12.0	0.8	90.5
Sweden	0.9	3.2	4.1	0.5	1.0	7.4	8.4	0.6	104.9
Luxembourg	0.1	4.5	4.6	0.7	0.1	7.3	7.4	0.5	60.9
Norway	0.1	2.9	3.0	0.4	-	5.2	5.2	0.3	73.3
South Africa	0.4	0.6	1.0	0.1	0.1	3.0	3.1	0.2	210.0
Taiwan	0.9	0.1	1.0	0.1	1.2	1.5	2.7	0.2	170.0
Korea	-	-	-	-	0.7	0.9	1.6	0.1	--
Other Countries	0.3	3.6	3.9	0.5	2.7	7.4	10.1	0.7	159.0
Total	88.5	676.0	764.5	100.0	177.3	1,330.7	1,508.0	100.0	97.3

a. Foreign exchange derivatives include currency swaps and OTC options.

b. Interest rate derivatives include forward rate agreements, interest rate swaps and OTC options.

Source: Bank for International Settlements, Triennial Central Bank Survey. The data are adjusted for local (but not cross-border) double counting arising from business between reporting dealers.

Table 14: Role of electronic-based systems and voice brokers

Percentage shares of total transactions, April 2004

Instrument	Dealer transactions		Customer transactions		Direct dealer and customer transactions ^b
	Electronic systems ^a	Voice brokers	Multi-bank dealing systems	Single-bank proprietary platforms	
Spot	37.1	11.6	4.3	1.1	45.9
FX derivatives					
Outright forwards and FX swaps	30.4	36.6	4.2	0.2	28.6
Currency swaps	10.2	10.1	-	1.3	78.4
FX options	0.8	22.0	-	-	77.2
Interest rate derivatives					
Forward rate agreements	-	25.2	-	32.9	41.9
Interest rate swaps	-	12.6	-	16.0	71.4
Interest rate options	-	5.3	-	16.0	78.7

a. For foreign exchange, these include automated order matching systems (e.g. EBS, Reuters 2000/2 and 3000) and other screen based systems (e.g. Reuters Dealing). Similar systems exist for interest rate derivatives but none were reported as being used in Canada.

b. The percentage of direct dealer and customer transactions is calculated as a residual. Direct transactions would mostly be between reporting dealers (banks) and their customers, but could also include interbank direct deals.

Table 15: OTC derivatives reported by Canadian financial institutions
Principal amounts outstanding and gross market values
as at June 30th

Billions of U.S. dollars

Instrument	Principal amounts outstanding		Gross markets values	
	End-June 2001	End-June 2004	End-June 2001	End-June 2004
Foreign exchange derivatives				
Outright forwards & FX swaps	979.3	1,000.4		
Currency swaps	194.9	398.8		
Options	206.7	258.8		
Total	1,380.9	1,658.0	67.4	73.8
Interest rate derivatives				
FRAs	278.3	583.3		
Swaps	1,927.9	2,973.9		
Options	345.0	473.5		
Total	2,551.2	4,030.7	53.0	93.2
Equity and stock index derivatives				
Forwards and swaps	41.4	52.6		
Options	38.5	39.8		
Total	79.9	92.4	5.0	9.3
Commodity and precious metal derivatives	50.8	87.8	5.8	8.1
Credit derivatives	80.8	217.6	0.5	2.2
Other derivatives	0.9	8.9	-	0.3
Total derivatives	4,144.5	6,095.4	131.7	186.9

**Table 16: Foreign exchange derivatives reported by Canadian financial institutions
Principal amounts outstanding and gross market values
as at 30 June 2004**

Billions of U.S. dollars

Currency	Principal amounts outstanding				Gross market values
	Outright forwards and FX swaps	Currency swaps	OTC options	Total	
Canadian dollar	449.9	171.1	66.7	687.7	44.4
U.S. dollar	949.1	304.2	254.0	1,507.3	68.8
Euro	172.2	84.5	55.7	312.4	11.0
Japanese yen	149.1	48.7	103.3	301.1	7.4
U.K. pound	136.1	73.8	10.7	220.6	5.2
Swiss franc	39.5	45.8	3.7	89.0	0.8
Other	104.9	69.5	23.6	198.0	0.8
Total^a	1,000.4	398.8	258.8	1,658.0	73.8
By maturity:					
Up to 1 year	901.3		233.1	1,134.4	
Over 1 year to 5 years	380.2		22.7	402.9	
Over 5 years	117.7		3.0	120.7	

a. Each foreign exchange contract was reported twice, according to the currencies making up the two "legs" of the contract. The totals were halved to correct for this double counting.

**Table 17: Single-currency interest rate derivatives reported
by Canadian financial institutions
Principal amounts outstanding and gross market values
as at 30 June 2004**

Billions of U.S. dollars

Currency	Principal amounts outstanding				Gross market values
	Forward rate agreements	Interest rate swaps	OTC options	Total	
Canadian dollar	98.7	1,078.3	154.5	1,331.5	27.6
U.S. dollar	152.3	803.0	185.7	1,141.0	30.4
Euro	197.0	544.7	105.8	847.5	21.3
Japanese yen	-	78.5	10.6	89.1	3.2
U.K. pound	56.2	294.8	15.3	366.3	5.3
Swiss franc	69.0	41.2	0.5	110.7	0.4
Other	10.1	133.4	1.1	144.6	5.0
Total	583.3	2973.9	473.5	4,030.7	93.2
By maturity:					
Up to 1 year	1,430.3		198.4	1,628.7	
Over 1 year to 5 years	1,499.3		186.8	1,686.1	
Over 5 years	627.6		88.3	715.9	

Table 18: Equity and stock index derivatives reported by Canadian financial institutions
Principal amounts outstanding and gross market values
as at 30 June 2004

Billions of U.S. dollars

Nationality of issuer	Principal amounts outstanding			Gross market values
	Forwards and swaps	OTC options	Total	
Canadian	41.1	16.5	57.6	4.5
American (U.S.)	8.8	10.3	19.1	3.6
European	2.2	11.8	14.0	1.1
Japanese	0.1	1.0	1.1	0.1
Other	0.4	0.2	0.6	-
Total	52.6	39.8	92.4	9.3
By maturity:				
Up to 1 year	38.8	15.2	54.0	
Over 1 year to 5 years	10.2	23.1	33.3	
Over 5 years	3.6	1.5	5.1	

Table 19: All other derivatives reported by Canadian financial institutions
Principal amounts outstanding and gross market values
as at 30 June 2004

Billions of U.S. dollars

Instrument	Principal amounts outstanding			Gross market values
	Forwards & Swaps	OTC Options	Total	
Commodities and precious metals	64.0	23.8	87.8	8.1
Credit	216.5	1.0	217.6	2.2
Other	5.6	3.3	8.9	0.3