



Activity in the Norwegian foreign exchange and derivatives market in April 2007

Norges Bank has every three years since 1989 made a survey of the activity in the Norwegian foreign exchange market in cooperation with the Bank for International Settlements (BIS). The 2007 survey was the seventh in a row. Monthly turnover in the Norwegian foreign exchange market¹ was estimated at USD 574.5 billion in April 2007 against USD 273.4 billion in the corresponding period in 2004. The average daily turnover was USD 32 billion in April 2007 against USD 14 billion in April 2004, an increase of 123%. Preliminary figures from the BIS indicate that Norwegian banks had a market share of 0.8% of the global foreign exchange market in April 2007. This is the same market share as in 2001, but an increase from 0.6% in 2004. Turnover in Norwegian kroner increased from NOK 1 892 billion in April 2004 to NOK 3 447 billion in April 2007, an increase of 82%. The average daily turnover in Norwegian kroner increased from NOK 100 billion in April 2004 to NOK 192 billion in April 2007.

Turnover in the Norwegian derivatives market² rose from USD 100 billion in April 2004 to USD 125 billion in April 2007, an increase of 25%. The average daily turnover was USD 7 billion in April 2007 against USD 5 billion in April 2004, an increase of 31%. According to preliminary figures from BIS, Norwegian banks had a market share of 0.3% of global turnover in the OTC derivatives market. Turnover in Norwegian kroner increased from NOK 694 billion in April 2004 to NOK 728 billion in April 2007, an increase of 8%. Average daily turnover in Norwegian kroner increased from NOK 37 billion in April 2004 to NOK 40 billion in April 2007.

Background to the survey

Due to structural changes in the Norwegian market the number of participating banks has declined over the years. Participation in the survey is voluntary. In 2007, eight out of ten invited banks took part. By comparison, nine banks took part in the 2004 survey. Nevertheless, we estimate, as in 2004, that the survey covers more than 90% of the activity in the Norwegian foreign exchange market. An important aspect of the survey is that all trades should be reported in the country in which the sales desk is located, even if deals entered into in different locations were booked in a central location. Parallel with the Norges Bank survey, similar surveys were made in 54 different countries and coordinated by the Bank for International Settlements (BIS). The results of these surveys will be published simultaneously on the BIS website and by the participating countries. It is estimated that around 1280 finance institutions took part globally. The objective of the survey is to obtain comprehensive and internationally consistent information on the size and structure of the foreign exchange and over-the-counter (OTC) derivatives markets. The purpose of the statistics is to increase market transparency and thereby help central banks, other authorities and market participants to better monitor patterns of activity in the global financial system.

¹ Turnover in the spot market, outright and foreign exchange swaps.

² Since 2004, BIS has defined derivatives as foreign exchange options, currency swaps, forward rate agreements (FRA), interest rate swaps and interest rate options.

The first surveys (1989, 1992 and 1995) covered turnover in the foreign exchange market only. Over the counter derivatives (OTC) were included in 1998. Exchange-traded derivatives are not covered.

In addition to the turnover survey in April, a separate survey coordinated by the BIS took place at the end of June 2007, covering contracts outstanding in the OTC derivatives market. The BIS will publish a preliminary report on these results in November 2007.

The reporting dealers were also asked about changes in total turnover. They found that turnover in the foreign exchange and OTC derivatives markets had been relative stable in the preceding six months. Turnover in April 2007 was considered normal. As was the case in most of the previous surveys, Easter fell in April this year.

In addition, information was provided about the use of automated matching systems in the foreign exchange market. The survey indicates that about 22.5% of the turnover took place through such systems in April 2007.

Turnover in the foreign exchange market

By transaction type

Table 1 shows the turnover in foreign exchange contracts in the five last surveys from the period April 1995 to April 2007. The table shows that forwards have steadily increased its share of turnover, while the share of spot transactions has fallen in the same period. Turnover in forwards showed an increase of no less than 132.5% from April 2004 to April 2007.

The share of overall turnover accounted for by forwards increased from 81.0% in April to 89.1% in April 2007. Spot market turnover increased by 20.7% from April 2004 to April 2007. In terms of volume, activity in the spot market is now back to roughly the same level as in 2001. The market share of spot transactions nevertheless fell from 19.0% in April 2004 to 10.9% in April 2007. However, trading in outright forwards quadrupled in the same period and the market share increased from 3.2% in April 2004 to 7.6% in April 2007.

Table 1a: Total turnover in F/X market in April, by transaction type. In millions of USD and NOK

	1995	1998	2001	2004	2007
Spot	58 365	56 818	61 541	51 920	62 291
Forwards	70 557	111 268	169 893	221 492	512 242
- Outright Forwards	3 891	3 044	7 454	8 720	43 544
- F/X Swaps	66 666	108 224	162 439	212 772	468 698
Total USD million	128 922	168 086	231 434	273 412	574 533
Banking days in April	17	19	18	19	18
Daily total	7 584	8 847	12 857	14 390	31 919
Monthly average USD/NOK	6.19	7.53	9.09	6.92	6.00
Total NOK million	798 027	1 265 688	2 103 735	1 892 011	3 447 198
Daily total in NOK million	46 943	66 615	116 874	99 580	191 511

Table 1b: Total turnover in F/X market in April, by transaction type. Percentage shares

	1995	1998	2001	2004	2007
Spot	45.3 %	33.8 %	26.6 %	19.0 %	10.8 %
Forwards	54.7 %	66.2 %	73.4 %	81.0 %	89.2 %
- Outright forwards	3.0 %	1.8 %	3.2 %	3.2 %	7.6 %
- F/X Swaps	51.7 %	64.4 %	70.2 %	77.8 %	81.6 %
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: Norges Bank. Transactions between local reporting banks are only counted once. Turnover figures for the F/X market cover spot, outright forwards and F/X swaps.

Currency distribution in the foreign exchange market

The US dollar increased its share of turnover from 40.8% in April 2004 to 42.6% in April 2007. The US dollar's share has been more than 40% in the last five surveys, except in 1995 when its share was 36.2%. The Norwegian krone was involved in 30.7% of all transactions. This is down from 37.0% in April 2004 and represents a change in the trend from previous surveys, where the Norwegian krone increased its share of turnover. The percentage share of the euro fell from 13.9% in 2004 to 12.7% in 2007. At the same time, the share of other currencies increased from 8.3% in April 2004 to 14.0% in April 2007. The most important "other currencies" in 2007 were the Australian dollar, with a share of 4.1%, and the Swedish krone, with a share of 3.5%.

Table 2a: Total turnover in the F/X market in April by currency. In millions of USD

	1995	1998	2001	2004	2007
NOK	59 707	102 025	149 231	202 772	353 115
USD	93 996	140 331	204 358	224 011	489 567
EUR (DEM pre-1999)	52 194	58 292	77 880	76 198	145 295
Other	53 447	37 482	34 832	45 720	161 089
Total	259 344	338 130	466 301	548 701	1 149 066

Table 2b: Total turnover in the F/X market in April by currency. Percentage shares

	1995	1998	2001	2004	2007
NOK	23.0 %	30.2 %	32.0 %	37.0 %	30.7 %
USD	36.2 %	41.5 %	43.8 %	40.8 %	42.6 %
EUR (DEM pre-1999)	20.1 %	17.2 %	16.7 %	13.9 %	12.7 %
Other	20.6 %	11.1 %	7.5 %	8.3 %	14.0 %
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: Norges Bank. Transactions between local reporting banks are only counted once, but total turnover is doubled because each foreign exchange transaction involves two currencies. (Figures prior to 2007 include F/X options.)

Currency distribution in the spot market

The Norwegian krone's share increased from 20.8% in April 2004 to 23.5% in April 2007, while the share for euro during the same period was stable at around 41.0%. The US dollar's share has been falling since 2001 and was 22.3% in April 2007. The share of other currencies has been increasing since 2001 and accounted for 13.1% of turnover in April 2007. Turnover in other currencies fell markedly after the euro was introduced in 1999.

Table 3a: Turnover in the F/X spot market in April. In millions of USD

	1995	1998	2001	2004	2007
NOK	17 393	15 454	14 740	21 556	29 263
USD	31 050	33 977	42 309	27 400	27 745
EUR (DEM pre-1999)	40 856	46 931	55 009	42 791	51 212
Other	27 432	17 386	11 025	12 094	16 362
Total	116 730	113 635	123 083	103 841	124 582

Tabell 3b: Turnover in the F/X spot market. Percentage shares

	1995	1998	2001	2004	2007
NOK	14.9 %	13.6 %	12.0 %	20.8 %	23.5 %
USD	26.6 %	29.9 %	34.4 %	26.4 %	22.3 %
EUR (DEM pre-1999)	35.0 %	41.3 %	44.7 %	41.2 %	41.1 %
Other	23.5 %	15.3 %	9.0 %	11.6 %	13.1 %
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: Norges Bank. Transactions between local reporting banks are only counted once, but total turnover is doubled because each foreign exchange transaction involves two currencies.

Currency distribution in the forward market

In the forward market, which includes outright and foreign exchange swaps, the US dollar was involved in 45.0% of the turnover in April 2007 against 44.3% in April 2004. In every survey since 1995 the US dollar has had a high market share of close to 50%. This should come as no surprise since the pricing in the foreign exchange swap market is largely based on the US dollar money market rates. Turnover in euro represented 9.3% in April 2007 against 7.4% in April 2004. The share of turnover involving the Norwegian krone in the forward market decreased from 40.7% in 2004 to 31.6% in 2007. Turnover in other currencies almost doubled, from 7.6% in 2004 to 14.1% in 2007. The most important "other currencies" were the Australian dollar, with a share of 4.7%, the Swedish krona, at 3.5% and the Danish krone, with a share of 1.8%.

Table 4a: Turnover in the forward market in April. In millions of USD

	1995	1998	2001	2004	2007
NOK	41 900	86 360	133 267	180 369	323 852
USD	62 531	105 8621	160 975	196 456	461 646
EUR (DEM pre-1999)	10 885	10 723	21 857	32 658	94 084
Other	25 724	19 773	23 687	33 501	144 902
Total	141 040	222 718	339 786	442 985	1 024 484

Table 4b: Turnover in the forward market in April. Percentage shares

	1995	1998	2001	2004	2007
NOK	29.7 %	38.8 %	39.2 %	40.7 %	31.6 %
USD	44.3 %	47.5 %	47.4 %	44.3 %	45.1 %
EUR (DEM pre-1999)	7.7 %	4.8 %	6.4 %	7.4 %	9.2 %
Other	18.2 %	8.9 %	7.0 %	7.6 %	14.1 %
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: Norges Bank. Transactions between local reporting banks are only counted once, but total turnover is doubled because each foreign exchange transaction involves two currencies. Figures prior to 2004 include currency swaps.

Counterparties in the foreign exchange market (spot, outright and foreign exchange swaps). Cross-border trading accounted for 79.2% of the turnover in the foreign exchange market in April 2007 against 79.4% in April 2004. Its share has been relatively stable at around 80% in the last four surveys. Trading with local reporting dealers only accounted for 0.5% of turnover in April 2007, against 2.3% in 2004. Trading with other financial institutions increased from 8.3% in 2004 to 18.7% in 2007. The share of other customers fell from 15.4% in 2004 to 14.2% in 2007.

Table 5a: Foreign exchange turnover in April by counterparty. In millions of USD

Counterparty \ Year	1995	1998	2001	2004	2007
Reporting dealers	80 803	141 368	201 207	209 279	385 625
- local	14 397	13 021	19 242	6 376	3 103
- cross-border	66 406	128 347	181 965	202 903	382 522
Other financial institutions	23 865	6 933	14 087	22 713	107 648
- local	-	-	9 880	15 089	43 202
- cross-border	-	-	4 207	7 624	64 446
Non-financial customers	25 032	20 799	17 859	42 360	81 260
- local			16 834	35 092	73 326
- cross-border			1 024	7 268	7 934
Total	129 700	169 100	233 152	274 352	574 533
- local	40 726	37 033	45 956	56 558	119 631
- cross-border	88 974	132 067	187 196	217 794	454 902

Table 5b: Foreign exchange turnover in April by counterparty. Percentage shares

Counterparty \ Year	1995	1998	2001	2004	2007
Reporting dealers	62.3 %	83.6 %	86.3 %	76.3 %	67.1 %
- local	11.1 %	7.7 %	8.3 %	2.3 %	0.5 %
- cross-border	51.2 %	75.9 %	78.0 %	74.0 %	66.6 %
Other financial institutions	18.4 %	4.1 %	6.0 %	8.3 %	18.7 %
- local	-	-	4.2 %	5.5 %	7.5 %
- cross-border	-	-	1.8 %	2.8 %	11.2 %
Non-financial customers	19.3 %	12.3 %	7.7 %	15.4 %	14.2 %
- local	-	-	7.2 %	12.8 %	12.8 %
- cross-border	-	-	0.4 %	2.6 %	1.4 %
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
- local	31.4 %	21.9 %	19.7 %	20.6 %	20.8 %
- cross-border	68.6 %	78.1 %	80.3 %	79.4 %	79.2 %

Source: Norges Bank. Trades between local reporting dealers are only counted once. Includes currency swaps prior to 2007.

Maturities

The bulk of the forward contracts had a maturity of seven days or less. In April 2007, the share was 73.3%, against 71.5% in April 2004. Contracts with maturities between seven days and one year had a share of 26.1% in April 2007 against 27.2% in April 2004. Contracts with maturities of over one year had a share of 0.6% in April 2007 against 1.3% in April 2004.

Table 6. Turnover in the forward market (outright and foreign exchange swaps) in April, by maturity. In millions of USD and percentage shares

Maturity	2001	Share	2004	Share	2007	Share
7 days or less	105 653	56.6 %	161 997	71.5 %	377 429	73.3 %
More than 7 days and up to 1 year	78 282	41.9 %	61 441	27.2 %	134 419	26.1 %
Over 1 year	2 834	1.5 %	3 030	1.3 %	3 106	0.6 %
Total	186 770	100.0 %	226 468	100.0 %	514 954	100.0 %

Source: Norges Bank. Not adjusted for double counting as a result of transactions between local reporting dealers. Figures prior to 2007 include currency swaps.

Turnover in the Norwegian OTC derivatives market

The total turnover in derivatives in April 2007 was USD 122.6 billion, against USD 100.3 billion in April 2004, an increase of 22.2%. The average daily turnover in April 2007 was USD 6.7 billion, against USD 5.3 billion in April 2004, an increase of 27.6%. Forward rate agreements (FRAs) are still the most active instrument, accounting for 78.7% of total turnover in the Norwegian derivatives market.

Table 7a: Turnover in derivatives in April by transaction type. In millions of USD and NOK

Instrument / Year	1995	1998	2001	2004	2007
Foreign Exchange Options	778	1 015	1 726	938	1 966
Currency swaps	-	-	300	312	969
Forward Rate Agreements (FRAs)	46 031	50 451	46 629	76 708	96 425
Interest rate swaps	1 099	2 943	5 422	17 800	21 896
Interest rate options	669	107	277	4 513	1 324
Total	48 607	54 515	54 354	100 271	122 580
Total per banking day	2 859	2 869	3 020	5 277	6 736
Total NOK million	300 877	410 498	494 078	693 875	727 536
Average per banking day NOK million	17 699	21 605	27 449	36 520	40 419

Table 7b: Turnover in derivatives in April by transaction type. Percentage shares

Instrument / Year	1995	1998	2001	2004	2007
Foreign exchange options	1.6 %	1.9 %	3.1 %	0.9 %	1.6 %
Currency swaps	-	-	0.6 %	0.3 %	0.8 %
Forward rate agreements (FRAs)	94.7 %	92.5 %	85.8 %	76.5 %	78.7 %
Interest rate swaps	2.3 %	5.4 %	10.0 %	17.8 %	17.8 %
Interest rate options	1.4 %	0.2 %	0.5 %	4.5 %	1.1 %
Total	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Source: Norges Bank. Transactions between local reporting banks are only counted once.

Turnover in foreign exchange derivatives

Turnover in foreign exchange derivatives is modest compared to turnover in the traditional foreign exchange market. Turnover in foreign exchange options increased from USD 0.9 billion in April 2004 to USD 2.0 billion in April 2007, an increase of 110%. Turnover in currency swaps increased from USD 0.3 billion in April 2004 to USD 1.0 billion in April 2007, an increase of 211%.

Table 8: Turnover in foreign exchange derivatives in April by transaction type. In millions of USD

	1995	1998	2001	2004	2007
Foreign exchange options	778	1 015	1 726	938	1 969
Currency swaps	-	-	300	312	969
Total	778	1 015	2 026	1 250	2 938

Source: Norges Bank. Transactions between local reporting dealers are only counted once. Currency swaps are included in the forward market table prior to 2001.

Currency distribution in the foreign exchange derivatives market

The Norwegian krone was involved in 30.9% of the turnover in foreign exchange options in April 2007 against 45.2% of turnover in April 2004. The US dollar share increased to 17.6%, the euro share fell somewhat to 34.0% while the share of other currencies increased to 17.5%. In the currency swap market, the Norwegian krone had a market share of 50.0% in April 2007, while the US dollar share fell to 27.9%, the euro share fell to 14.5% and the share of other currencies fell to 7.6%.

Table 9a: Turnover in foreign exchange derivatives. In millions of USD

Options	1995	1998	2001	2004	2007
NOK	414	211	1 234	848	1 213
USD	415	492	1 075	155	691
EUR (DEM pre-1999)	454	638	1 014	749	1 338
Other	291	323	130	125	690
Total	1 574	1 663	3 453	1 876	3 932
Currency swaps	1995	1998	2001	2004	2007
NOK	-	-	223	118	969
USD	-	-	218	223	541
EUR (DEM pre-1999)	-	-	85	170	280
Other	-	-	74	113	148
Total	-	-	600	624	1 938

Table 9b: Turnover in foreign exchange derivatives. Percentage shares

Options	1995	1998	2001	2004	2007
NOK	26.3 %	12.7 %	35.7 %	45.2 %	30.9 %
USD	26.4 %	29.6 %	31.1 %	8.2 %	17.6 %
EUR (DEM pre-1999)	28.8 %	38.3 %	29.4 %	39.9 %	34.0 %
Other	18.5 %	19.4 %	3.8 %	6.7 %	17,5 %
Total	100.0 %				
Currency swaps	1995	1998	2001	2004	2007
NOK	-	-	37.2 %	18.9 %	50.0 %
USD	-	-	36.3 %	35.7 %	27.9 %
EUR (DEM pre-1999)	-	-	14.2 %	27.3 %	14.5 %
Other	-	-	12.3 %	18.1 %	7.6 %
Total	-	-	100.0 %	100.0 %	100.0 %

Source: Norges Bank. Transactions between local reporting dealers are only counted once, but total turnover is doubled because each foreign exchange transaction involves two currencies.

Turnover in interest rate derivatives

Total turnover in interest rate derivatives was USD 119.6 billion in April 2007 against USD 99.0 billion in April 2004. This represents an increase of 20.9%. Average daily turnover in April 2007 was USD 6.6 billion, against USD 5.2 billion in April 2004.

Turnover by transaction type

Turnover in forward rate agreements (FRAs) increased from USD 76.7 billion in April 2004 to USD 96.4 billion in April 2007, an increase of 25.7%. Turnover in interest rate swaps increased from USD 17.8 billion in April 2004 to USD 21.9 billion in April 2007, an increase of 23.0%. There has been a large fall in the turnover of interest rate options. Turnover fell from USD 4.5 billion in April 2004 to USD 1.3 billion in April 2007, a fall of 70.7%.

Currency distribution

The Norwegian krone was involved in 88.4% of the turnover in interest rate derivatives in April 2007 against 95.5% in April 2004. The US dollar increased its share of turnover from 3.1% in April 2004 to 7.6% in April 2007. This is mainly due to increased trading in interest rate swaps in US dollars. The euro share rose from practically zero in April 2004 to 2.1% of turnover in April 2007.

Table 10: Turnover in interest rate derivatives in April by currency and transaction type. In millions of USD million and percentage shares

FRAs	2001	Share	2004	Share	2007	Share
NOK	41 884	89.8 %	76 055	99.1 %	92 080	95.5 %
USD	1 200	2.6 %	55	0.1 %	700	0.7 %
EUR	1 200	2.6 %	12	0.0 %	1 560	1.6 %
Other	2 345	5.0 %	586	0.8 %	2 085	2.2 %
Total	46 629	100.0 %	76 708	100.0 %	96 425	100.0 %
Interest rate swaps						
NOK	4 702	86.7 %	16 108	90.5 %	12 485	57.0 %
USD	707	13.0 %	1 164	6.5 %	8 363	38.2 %
EUR	13	0.2 %	8	0.0 %	1 003	4.6 %
Other	0	0.0 %	521	2.9 %	45	0.2 %
Total	5 422	100.0 %	17 800	100.0 %	21 896	100.0 %
OTC options						
NOK	75	27.0 %	2 437	54.0 %	1 190	89.9 %
USD	100	36.1 %	1 887	41.8 %	0	0.0 %
EUR	0	0.0 %	0	0.0 %	0	0.0 %
Other	102	36.9 %	189	4.2 %	134	10.1 %
Total	277	100.0 %	4 513	100.0 %	1 324	100.0 %
Total derivatives	2001					
NOK	46 661	89.2 %	94 600	95.5 %	105 755	88.4 %
USD	2 007	3.8 %	3 106	3.1 %	9 063	7.6 %
EUR	1 213	2.3 %	20	0.0 %	2 563	2.1 %
Other	2 448	4.7 %	1 296	1.3 %	2 264	1.9 %
Total	52 329	100.0 %	99 021	100.0 %	119 645	100.0 %

Source: Norges Bank. Transactions between local reporting dealers are only counted once.

Turnover by counterparty

Norwegian counterparties increased their market share for interest rate derivatives from 10.8% in April 2004 to 26.1% in April 2007. The market share for cross-border trades fell from 89.2% in April 2004 to 73.9% in April 2007. Trading between Norwegian reporting dealers represented just 4.2% of turnover in April 2007. This is nevertheless an increase from 2.5% of the turnover in April 2004. In April 2007, 11.2% of total turnover in interest rate derivatives was conducted with counterparties outside the financial sector against only 3.8% in 2004.

Table 11: Turnover in interest rate derivatives in April by counterparty. In millions of USD and percentage shares

Counterparty \ Year	2001	Share	2004	Share	2007	Share
Reporting dealers	34 117	65.2 %	73 673	74.4 %	78 753	65.8 %
- local	8 803	16.8 %	2 443	2.5 %	5 028	4.2 %
- cross-border	25 315	48.4 %	71 230	71.9 %	73 725	61.6 %
Other financial institutions	15 403	29.4 %	21 621	21.8 %	27 500	23.0 %
- local	11 780	22.5 %	4 942	5.0 %	18 700	15.6 %
- cross-border	3 624	6.9 %	16 678	16.8 %	8 800	7.4 %
Non-financial customers	2 808	5.4 %	3 728	3.8 %	13 392	11.2 %
- local	2 578	5.3 %	3 349	3.4 %	7 487	6.3 %
- cross-border	50	0.1 %	379	0.4 %	5 905	4.9 %
Total	53 328	100.0 %	99 021	100.0 %	119 645	100.0 %
- local	23 340	44.6 %	10 734	10.8 %	31 215	26.1 %
- cross-border	28 988	55.4 %	88 287	89.2 %	88 430	73.9 %

Source: Norges Bank. Transactions between local reporting dealers are only counted once.