

Exchange-traded futures and options, by location of exchange

Notional principal, in billions of US dollars

Table D1

Instrument / location of exchange / market risk category / maturity	Open interest			Daily average turnover						
	Dec 2017	Jun 2018	Sep 2018	2016	2017	May 2018	Jun 2018	Jul 2018	Aug 2018	Sep 2018
Futures										
All markets	33,669	38,697	37,855	5,152	5,877	8,270	7,176	4,306	5,234	6,644
Interest rate	33,381	38,418	37,584	5,046	5,762	8,119	7,011	4,191	5,101	6,409
Short-term	31,008	35,874	34,818	4,421	5,065	7,043	6,165	3,681	4,237	5,611
Long-term	2,373	2,543	2,766	625	697	1,076	846	510	864	798
Foreign exchange	289	279	271	106	115	151	164	115	134	235
North America	22,222	26,635	25,903	3,633	3,952	5,433	4,506	2,782	3,392	4,310
Interest rate	22,029	26,463	25,733	3,559	3,871	5,333	4,393	2,709	3,311	4,210
Short-term	20,759	25,062	24,116	3,234	3,501	4,679	4,028	2,428	2,767	3,862
Long-term	1,270	1,401	1,617	325	370	653	365	281	545	348
Foreign exchange	194	172	170	73	81	100	113	73	81	101
Europe	8,700	9,422	9,362	1,236	1,636	2,479	2,290	1,264	1,554	1,910
Interest rate	8,694	9,418	9,358	1,231	1,633	2,476	2,287	1,262	1,551	1,907
Short-term	7,891	8,597	8,538	1,006	1,388	2,129	1,919	1,100	1,308	1,584
Long-term	802	821	819	226	245	347	368	162	243	323
Foreign exchange	6	4	5	4	3	3	3	2	3	3
Asia and Pacific	1,749	1,730	1,724	216	208	227	268	192	204	260
Interest rate	1,725	1,707	1,699	208	199	213	253	178	189	243
Short-term	1,433	1,392	1,375	134	118	137	140	112	113	117
Long-term	292	315	324	74	81	76	113	66	76	127
Foreign exchange	24	24	25	8	9	13	15	14	15	16
Other markets	998	909	866	68	81	131	112	68	84	163
Interest rate	933	830	794	48	58	97	79	42	50	48
Short-term	925	823	788	48	58	96	79	41	49	48
Long-term	8	7	6	0	0	0	0	1	0	0
Foreign exchange	65	80	71	20	23	34	33	26	34	115
Options										
All markets	47,315	54,631	57,685	1,502	1,696	1,807	1,720	1,135	1,354	1,597
Interest rate	47,191	54,490	57,539	1,489	1,682	1,790	1,704	1,122	1,337	1,580
Short-term	46,438	53,549	56,553	1,403	1,571	1,636	1,568	1,034	1,215	1,457
Long-term	753	941	986	86	110	154	137	88	123	123
Foreign exchange	124	141	146	13	14	17	16	13	16	16
North America	36,156	39,751	43,533	1,256	1,413	1,297	1,336	949	1,121	1,366
Interest rate	36,079	39,667	43,453	1,248	1,405	1,287	1,327	942	1,113	1,358
Short-term	35,626	39,085	42,857	1,192	1,330	1,184	1,231	879	1,025	1,270
Long-term	453	583	596	56	74	103	96	63	88	89
Foreign exchange	77	84	80	8	9	10	9	7	8	7
Europe	10,262	14,142	13,497	230	260	488	354	173	215	214
Interest rate	10,260	14,141	13,497	230	259	488	354	172	214	214
Short-term	9,979	13,795	13,122	205	227	438	315	151	183	182
Long-term	281	346	375	26	33	49	39	21	31	32
Foreign exchange	2	1	1	0	0	0	0	0	0	0
Asia and Pacific	22	14	18	6	6	7	7	8	9	9
Interest rate	19	11	15	4	3	2	2	4	3	3
Short-term	0	0	0	0	0	0	0	0	0	0
Long-term	19	11	15	4	3	2	2	4	3	3
Foreign exchange	3	3	3	2	3	5	5	4	5	6
Other markets	875	724	636	9	17	16	24	5	9	8
Interest rate	834	670	574	6	14	13	21	3	7	6
Short-term	833	670	574	6	14	13	21	3	7	6
Long-term	1	1	1	0	0	0	0	0	0	0
Foreign exchange	41	53	62	2	3	2	3	2	3	3