# FIA ANNUAL VOLUME SURVEY

# Commodity and Interest Rate Trading Push Trading Higher in 2013

By Will Acworth

After a tough year in 2012, when the global listed derivatives markets suffered the largest decline in volume in more than a decade, trading activity rebounded slightly in 2013. The total number of futures and options traded on exchanges worldwide reached 21.64 billion contracts, up 2.1% compared to the previous year but still well below the levels seen in 2011 and 2010.

The last time we looked at the annual volume data, the numbers were stunningly negative. In 2012, the total number of futures and options traded globally fell by 15.3%, the biggest annual decline in more than a decade. What's worse, the downward trend was nearly universal. Volume declined in all the major regions—North America, Europe and Asia—and in nearly all categories of product. There was bad news nearly everywhere we looked.

This year the good news is that the trend line is not still pointing down. The bad news is that it didn't really bounce back. Total volume rose by just 2.1% in 2013, only a slight improvement on 2012 and still well below the levels we saw in 2011 and 2010.

Nevertheless, the cycle may be turning. There are still many sectors of the global futures and options industry where trading continues to be relatively dormant. But there are other sectors where benchmark contracts are coming back to life after years of depressed activity.

For example, last year we saw a resurgence in the trading of interest rate futures and options, particularly in North America. The effects of the credit crisis five years ago have not completely melted away, but it appears that the interest rate complex is entering a new phase of growth.

There are also a number of new contracts that are shooting upward. Silver futures exploded in popularity at the Shanghai Futures Exchange, with more than 173 million contracts traded in 2013. Currency futures trading took off at the Moscow Exchange, the United Stock Exchange of India, and several other exchanges around the world. And thermal coal futures were introduced with great success at China's Zhengzhou Commodity Exchange.

In line with this theme we have added a new chart to this year's volume survey. After the usual list of the top twenty contracts in each asset class by total volume, we have added a list of the contracts that had the fastest rate of growth over the last five years. While many of these contracts are relatively small in terms of their absolute volume, they have the potential to drive the next generation of growth in this industry.

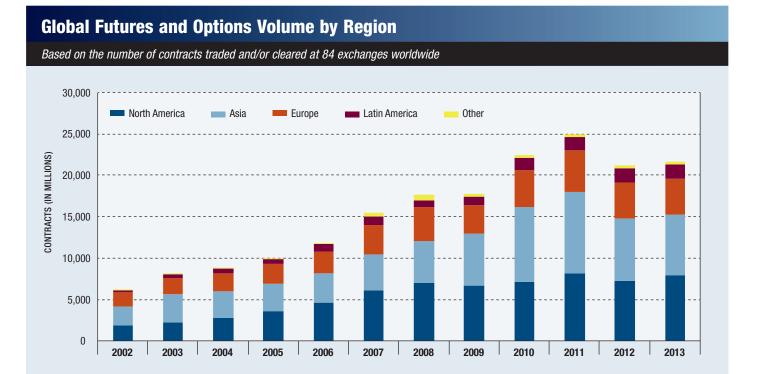
#### **Global Trends**

By region, North America led the way with a 9.9% increase in volume, driven mainly by increased trading of interest rate futures and options at CME Group and the "futurization" of energy swaps at IntercontinentalExchange. In contrast, volumes in Asia, Europe and Latin America were all down on the previous year. North American exchanges now account for 36.7% of the global exchange-traded derivatives market, a larger share than any other region of the world.

By asset class, the interest rate, energy and metals sectors all benefited from double digit increases in volume compared to the previous year. On the other hand, the equity index sector declined by 11.2%, primarily due to a huge decline in the trading of Kospi 200 index options. In 2012, more than 1.58 billion Kospi options changed hands at the Korea Exchange, more than any other listed derivatives contract in the world. In 2013, only 580.46 million Kospi options were traded, a decline of roughly two-thirds.

This is the second year in a row that Kospi options have suffered from a dramatic decrease in volume. This is largely due to a deliberate campaign by the Korean authorities to discourage retail speculation in various types of equity derivatives. In particular, the size of the Kospi options was multiplied by five times, which means that one contract now provides the same exposure to the Kospi stock index that five contracts used to provide.

While this is not the first time that an exchange has changed contract specifications, the enormous amount of volume in the Kospi options contract gives it a disproportionate impact on global volume trends. If we exclude this one contract from the data, total worldwide volume rose by 7.4% rather than 2.1%. If



we look at just Asia, the effect is even more pronounced. Rather than falling 3.1%, trading volume in Asia actually rose 12.8% if the Kospi contract is excluded.

So getting past the technical effects of Kospi, what were the main industry-wide trends in 2013? First, as mentioned above, there was a resurgence of interest rate trading in North America. Interest rate futures volume at U.S. exchanges jumped to 1.21 billion, up 19.6% from the previous year, while interest rate options at U.S. exchanges jumped to 285.92 million, up 25.5% from the previous year. The growth trend was especially strong in Treasury futures and options, with several contracts hitting all-time records for the volume of trading.

Second, in the Asia-Pacific region, there was rapid growth in the trading of equity index futures and options in almost every part of the region and in particular Japan and China. This trend tended to have an "echo" effect outside the home market. For example, the surge of interest in the Japanese stock market affected trading in equity derivatives not only in Osaka but also in Singapore and Chicago.

Third, the commodity futures market in China continued to grow by leaps and bounds. It has been obvious for some time that the exchanges in Dalian, Shanghai and Zhengzhou rank among the largest commodity exchanges in the world. The difference this year is that the market is now significantly broader than it used to be. The Chinese authorities have allowed the exchanges to introduce new types of futures, and some of these contracts—notably futures on coking coal, iron ore and flat glass—have been extremely successful. While much of the trading on China's commodity exchanges continues to be speculative in nature, open interest is rising rapidly, an indication that there is greater commercial interest in holding these contracts over time as a hedge against price volatility.

This year was also notable for a wave of mergers and acquisitions that transformed our list of the top 30 exchanges. IntercontinentalExchange's acquisition of NYSE Euronext, which was completed in December, means that ICE is now the second largest derivatives exchange in the world by total volume, ahead of Eurex and behind CME Group. Moscow Exchange, which was created through the combination of Micex and RTS, is now the eighth largest derivatives exchange in the world, slightly behind Nasdaq OMX and just ahead of Korea Exchange. Japan Exchange, which brings together the Osaka Securities Exchange and the Tokyo Stock Exchange, is now the 14th largest derivatives exchange in the world. Right below it in 15th place is Hong Kong Exchanges.

A note on the source of the data. This year's volume statistics were gathered from 84 exchanges that provide data to FIA on a voluntary basis. The statistics are based on the number of contracts that are traded on exchanges or cleared by a central counterparty on behalf of an exchange. The statistics do not include interest rate swaps or other over-the-counter products that are traded bilaterally and then brought into clearing, but they do include energy swaps that have been converted into futures—a process referred to as "futurization."

Prior to October 2012, ICE did not report volume for a large number of energy swaps that were traded as OTC products. On

Oct. 15, however, most of these contracts were "futurized" and the exchange began reporting volume in these contracts alongside the pre-existing futures and options. This boosted ICE's reported volume for energy futures and options in 2013, since 2012's volume only included two and a half months of trading activity.

#### **Fixed Income: Resurgence in North America**

For exchanges in North America, the big change from 2012 was a revival of trading in interest rate futures and options driven mainly by changes in the outlook for interest rates. This was particularly evident in the Treasury futures and options complex at the Chicago Board of Trade subsidiary of CME.

The 10 year Treasury note futures contract, the flagship of the complex, had a near-record year, with total volume of 325.93 million contracts. That was up 23% from 2012 and only 6.7% below the peak set in 2007, just before the credit crisis hit the financial sector. Five-year Treasury note futures, the second most active contract in the complex, reached 175.33 million contracts traded in 2013, up 31.5% on the previous year and an all-time record in volume.

Options on Treasury futures grew even more rapidly. After hovering around the same level for the last several years, volume in the 10 year Treasury note options surged in 2013 to a record 90.4 million contracts, up 61.2% from 2012. Volume in the 5-year Treasury note options jumped to 24.34 million, up 136.5% from the previous year.

Trading at the short-end of the curve was not quite so robust. The trading of Eurodollar futures, reached 517.25 million contracts. That was up 21.3% from 2012 but down 8.3% from 2011 and down 13.4% from 2008.

Mid-curve options surged in popularity, but not enough to offset a long-term decline in the trading of the conventional Eurodollar options. On a combined basis, the volume in Eurodollar options reached 149.98 million in 2013, up 7.5% on the previous year but down 34.3% from 2008.

Across the Atlantic, a somewhat different trend is playing out. There has been a resurgence in the trading of short-term interest rate futures at Liffe, but the long-term contracts at Eurex remain well below the pre-crisis peak.

Volume in Euribor futures, the benchmark short-term interest rate futures contract in Europe, jumped 33.4% to 238.49 million contracts in 2013. That did not quite reach the peak level of activity set in 2011, but it brought volume in this contract back above the level set in 2008.

Activity in mid-curve options on Euribor futures exploded in 2013, with volume in the one-year, two-year, and three-year midcurve options tripling to 67.58 million. On the other hand, conventional Euribor options continued to decline in popularity, with volume now less than half of what it was a few years ago. On a combined basis, options on Euribor futures reached 118.47 million in 2013, up 27.8% on the previous year. As with Euribor futures, trading activity is now back to roughly the same level as 2008 but below the peak set in 2011.

The bund futures contract at Eurex, the benchmark government bond interest rate futures contract in Europe, had a slight increase in trading, up 3.2% to 190.30 million, but volume in this contract remains 26.2% below 2008. Trading in bobl futures

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at Eurex rose 20.3% to 129.53 million, but volume in this contract is also well below 2008's level.

On the other hand, Eurex has had great success with the introduction of futures on other sovereign debt. The BTP futures, which are based on Italian debt, have risen steadily since they were introduced in 2009 and reached 9.29 million contracts in 2013. The OAT futures, which are based on French debt, were launched in April 2012 and traded 11.73 million contracts in 2013.

Looking beyond Europe and North America, Australia's ASX 24 had another year of solid growth in its interest rate contracts. The exchange's three-year Treasury bond futures increased 11.3% to 48.98 million contracts traded in 2013 and its 10 year Treasury bond futures rose 29.6% to 23.93 million contracts. Volume in both contracts is up by more than 80% since 2008, and the three-year contract is now the most actively traded futures on government debt in the world outside the Chicago Board of Trade and Eurex.

Also worth noting is the steady growth in the short-term interbank interest rate futures at Brazil's BM&FBovespa. Volume in this contract reached 394.06 million in 2013, making it the second most actively traded interest rate contract in the world. While last year's growth in volume was a relatively modest 15.6%, that comes on the heels of several years of similar increases, and today the volume in this contract is more than twice as large as 2008.

#### Equity Index Sector: Strong Growth in Asia

One of the more interesting trends of the year was the surge in the volume of equity derivatives based on Asian stock indices. For example, greater investor interest in the Japanese stock market led to much heavier trading in futures and options based on the Nikkei 225, the leading index of Japanese stocks.

At the Osaka Securities Exchange, trading in the regular size Nikkei 225 futures and the mini Nikkei 225 futures rose 58.3% and 79.3% to 30.91 million and 233.86 million contracts, respectively. At the Singapore Exchange, Nikkei 225 futures rose 39.6% to 39.09 million contracts. At CME, the yen-denominated Nikkei 225 jumped 105.1% to 11.79 million and the dollar-denominated Nikkei 225 futures jumped 176.9% to 4.68 million contracts.

There was also a large increase in the trading of options on the Nikkei 225 index. Trading in this contract rose 17.4% to 57.27 million on the Osaka exchange and 131.8% to 10.18 million contracts at SGX.

There was also a large increase in the trading of equity index futures at the China Financial Futures Exchange in Shanghai. Since this exchange began offering futures based on the CSI 300 stock index in 2010, this contract has been growing steadily. Volume in 2013 reached 193.2 million, up 83.9% from the previous year. In fact, the CSI 300 is now the tenth most active equity index contract in the world.

It is worth noting that the contract's index multiplier is 300

yuan. At current exchange rates, that is equivalent to \$50, which is the same as the index multiplier for the E-mini S&P 500 futures traded at CME. This is a relatively large contract size for Asian derivatives exchanges, and it reflects the desire of the Chinese authorities to encourage the use of this contract by institutional investors rather than retail traders.

Access to this market is difficult from outside China, and many offshore traders have turned instead to the FTSE China A50 index futures traded at SGX. Volume in this contract more than doubled in 2013 to 21.91 million contracts, making it one of the fastest growing equity index contracts in the world.

#### **Commodity Futures: Explosive Growth in China**

China's commodity futures markets have been growing extremely rapidly in recent years, but 2013 stands out for the large number of new contracts that entered the markets. The authorities permitted the launch of futures on an array of commodities, some of which have never been listed before on any other exchange. The list includes bitumen, block board, fiber board, eggs, iron ore, coking coal and thermal coal. The most actively traded of this group was coking coal, which was listed on the Dalian Commodity Exchange in March 2013 and traded 34.26 million contracts by year end.

There was also strong growth in an earlier wave of new contracts introduced in 2012. These include futures on rapeseed, known as canola in the U.S., rapeseed oil, rapeseed meal, flat glass, and silver. Flat glass futures was the most actively traded of this group, reaching 16.14 million contracts traded in 2012 and 186.12 million in 2013.

The single most active contract in China was once again the steel rebar futures, which hit a record of 293.73 million contracts traded on the Shanghai Futures Exchange. This contract, which was launched in April 2009, has emerged as the world's leading futures on steel, and reflects the emergence of commodity futures markets in China as key barometers for economic growth.

China also is seeing explosive growth in futures on precious metals. Silver futures, which were listed on the SHFE in May 2012, traded 21.26 million contracts in its first year, then jumped to 173.22 million in 2013. Gold futures also took off in 2013, jumping from 5.92 million contracts in 20.09 million. Part of the reason for the jump in gold futures trading was the introduction of night trading in July 2013, which allowed domestic investors to trade gold during the hours when the London and New York markets are open.

As a result of this wave of increased activity, the Chinese exchanges were among the fastest growing exchanges in the world in 2013. On a combined basis, China's commodity futures exchanges traded 1.868 billion contracts in 2013, up 38.9% on the previous year.

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#### Shooting Stars: Over the Longer Term

This table ranks individual futures and options contracts by the rate of growth over the five years since 2008. Contracts with less than 10 million contracts in 2013 were not included in order to filter out contracts that started from a very low base. The exception was the energy category; fewer than 10 contracts above the 10 million threshold had a positive growth rate over five years, so the threshold was lowered to nine million.

EQUIT	EQUITY INDEX					
Rank	Contract	2008	2013	% Change		
1	FTSE/China A50 Futures, Singapore Exchange	34,232	21,906,479	63894.2%		
2	Nikkei 225 Options, Singapore Exchange	233,545	10,184,676	4260.9%		
3	CBOE Volatility Futures, CBOE Futures Exchange	1,088,105	39,944,022	3571.0%		
4	Euro Stoxx Banks Futures, Eurex	651,855	10,074,089	1445.4%		
5	CNX Nifty Options, National Stock Exchange of India	150,916,778	874,835,809	479.7%		
6	CBOE Volatility Options, Chicago Board Options Exchange	25,996,699	142,999,960	450.1%		
7	Mini Bovespa Futures, Bolsa De Mercadorias & Futuros	9,928,406	49,215,793	395.7%		
8	RTS Options, Moscow Exchange	11,446,411	42,233,069	269.0%		
9	RTS Futures, Moscow Exchange	87,469,405	266,131,127	204.3%		
10	E-mini S&P 500 Options, Chicago Mercantile Exchange	22,167,648	56,641,470	155.5%		

INTEREST RATES					
Rank	Contract	2008	2013	% Change	
1	10 Year Treasury Bond Futures, Korea Exchange	9,686	11,992,729	123715.1%	
2	Euribor Mid-Curve Options, NYSE Liffe	7,955,894	29,825,751	274.9%	
3	Eurodollar Mid-Curve Options, Chicago Mercantile Exchange	40,883,014	122,159,718	198.8%	
4	IDI Index Options, Bolsa De Mercadorias & Futuros	13,915,878	40,626,100	191.9%	
5	One Day Inter-Bank Deposit Futures, Bolsa De Mercadorias & Futuros	166,983,583	394,055,420	136.0%	
6	3 Month Bankers Acceptance Futures, Montreal Exchange	9,958,833	22,578,143	126.7%	
7	5 Year Treasury Note Options, Chicago Board Of Trade	12,752,318	24,336,555	90.8%	
8	10 Year Canadian Bond Futures, Montreal Exchange	7,363,569	13,824,451	87.7%	
9	3 Year Treasury Bond Futures, ASX 24	26,116,381	48,978,355	87.5%	
10	3 Year Treasury Bond Futures, Korea Exchange	15,958,864	29,291,859	83.5%	

ENER	ENERGY					
Rank	Contract	2008	2013	% Change		
1	Brent Oil Futures, Moscow Exchange	153,438	18,170,809	11742.4%		
2	Brent Crude Oil Options, ICE Futures Europe	121,024	9,675,876	7895.0%		
3	Natural Gas Futures, Multi Commodity Exchange of India	747,506	23,828,800	3087.8%		
4	Brent Crude Oil Last Day Futures, New York Mercantile Exchange	465,056	9,214,951	1881.5%		
5	Brent Crude Oil Futures, ICE Futures Europe	68,368,145	159,093,303	132.7%		
6	Gasoil Futures, ICE Futures Europe	28,805,192	63,964,827	122.1%		
7	Natural Gas Futures, New York Mercantile Exchange	38,730,519	84,282,495	117.6%		
8	Crude Oil Futures, Multi Commodity Exchange of India	20,507,001	39,558,169	92.9%		
9	NY Harbor RBOB Gasoline Futures, New York Mercantile Exchange	20,522,571	34,470,288	68.0%		
10	No. 2 Heating Oil Futures, New York Mercantile Exchange	19,583,052	32,749,553	67.2%		

AGRIC	AGRICULTURAL					
Rank	Contract	2008	2013	% Change		
1	Palm Oil Futures, Dalian Commodity Exchange	6,302,478	82,495,230	1208.9%		
2	Soy Meal Futures, Dalian Commodity Exchange	81,265,439	265,357,592	226.5%		
3	Soy Oil Futures, Dalian Commodity Exchange	44,695,993	96,334,673	115.5%		
4	Rubber Futures, Shanghai Futures Exchange	46,461,103	72,438,058	55.9%		
5	Soybean Meal Futures, Chicago Board of Trade	13,354,174	20,237,181	51.5%		
6	Soybean Options, Chicago Board of Trade	9,806,935	14,760,704	50.5%		
7	Soybean Oil Futures, Chicago Board of Trade	16,928,361	23,805,912	40.6%		
8	Lean Hogs Futures, Chicago Mercantile Exchange	8,505,138	11,277,038	32.6%		
9	Wheat Futures, Chicago Board of Trade	19,011,928	24,993,158	31.5%		
10	Soybean Futures, Chicago Board of Trade	36,373,096	46,721,081	28.4%		

META	METALS					
Rank	Contract	2008	2013	% Change		
1	Gold Futures, Shanghai Futures Exchange	3,890,467	20,087,824	416.3%		
2	Comex Copper Futures, New York Mercantile Exchange	4,618,044	17,127,383	270.9%		
3	Copper Futures, Shanghai Futures Exchange	20,773,258	64,295,856	209.5%		
4	Gold Futures, Moscow Exchange	5,199,919	15,892,846	205.6%		
5	Primary Nickel Futures, London Metal Exchange	5,202,609	13,678,490	162.9%		
6	Comex Gold Options, New York Mercantile Exchange	4,392,737	10,587,160	141.0%		
7	Standard Lead Futures, London Metal Exchange	6,188,753	12,931,067	108.9%		
8	Special High Grade Zinc Futures, London Metal Exchange	16,120,770	30,270,370	87.8%		
9	Comex Silver Futures, New York Mercantile Exchange	8,917,183	14,475,593	62.3%		
10	Gold M Futures, Multi Commodity Exchange of India	10,027,147	15,860,098	58.2%		

CURR	CURRENCY					
Rank	Contract	2008	2013	% Change		
1	US Dollar/Indian Rupee Futures, MCX-SX	8,876,100	496,230,881	5490.6%		
2	US Dollar/Indian Rupee Futures, National Stock Exchange of India	11,448,632	566,399,936	4847.3%		
3	US Dollar Futures, Korea Exchange	6,672,438	51,814,466	676.5%		
4	Australian Dollar Futures, Chicago Mercantile Exchange	11,212,985	26,332,299	134.8%		
5	Mexican Peso Futures, Chicago Mercantile Exchange	5,302,297	10,374,701	95.7%		
6	Euro/Japanese Yen Futures, Tokyo Financial Exchange	5,883,330	11,291,735	91.9%		
7	Canadian Dollar Futures, Chicago Mercantile Exchange	11,378,024	17,427,832	53.2%		
8	US Dollar/Japanese Yen Futures, Tokyo Financial Exchange	13,177,698	20,120,943	52.7%		
9	British Pound Futures, Chicago Mercantile Exchange	20,497,378	29,237,763	42.6%		
10	Japanese Yen Futures, Chicago Mercantile Exchange	32,844,404	42,762,257	30.2%		

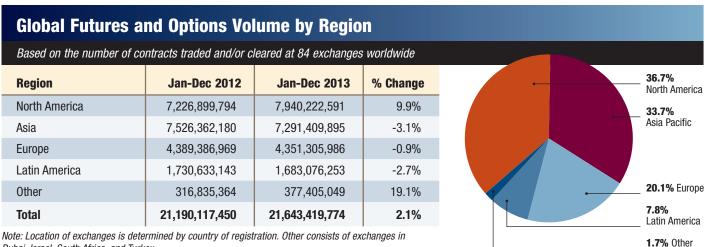
Global Futures and Options Volume					
Based on the number of co	Based on the number of contracts traded and/or cleared at 84 exchanges worldwide				
	Jan-Dec 2012	Jan-Dec 2013	% Change		
Futures	11,072,105,368	12,217,755,153	10.3%		
Options	10,118,012,082	9,425,664,621	-6.8%		
Total	21,190,117,450	21,643,419,774	2.1%		

#### **Global Futures and Options Volume by Category**

Based on the number of contracts traded and/or cleared at 84 exchanges worldwide

Category	Jan-Dec 2012	Jan-Dec 2013	% Change
Individual Equity	6,469,512,853	6,401,526,238	-1.1%
Equity Index	6,048,270,302	5,370,863,386	-11.2%
Interest Rate	2,931,840,769	3,330,719,902	13.6%
Currency	2,434,253,088	2,491,136,321	2.3%
Energy	925,590,232	1,265,568,992	36.7%
Agriculture	1,254,415,510	1,213,244,969	-3.3%
Non-Precious Metals	554,249,054	646,318,570	16.6%
Other	252,686,977	493,359,639	95.2%
Precious Metals	319,298,665	430,681,757	34.9%
Total	21,190,117,450	21,643,419,774	2.1%

Note: Other includes contracts based on commodity indices, credit, fertilizer, housing, inflation, lumber, plastics and weather.



Dubai, Israel, South Africa, and Turkey.

Top 30 Derivatives Exchanges					
Rank	ed by number of contracts traded and/or cleared				
Rank	Exchange	Jan-Dec 2013 Volume	Annual % Change	Dec 2013 Open Interest	Annual % Change
1	CME Group	3,161,476,638	9.2%	83,904,116	19.66%
2	IntercontinentalExchange * #	2,807,970,132	14.7%	135,377,377	12.93%
3	Eurex *	2,190,548,148	-4.4%	77,090,544	-2.52%
4	National Stock Exchange of India	2,135,637,457	6.2%	7,786,961	-40.60%
5	BM&FBovespa	1,603,600,651	-2.0%	56,666,689	-11.10%
6	CBOE Holdings *	1,187,642,669	4.7%	351,428	18.86%
7	Nasdaq OMX *	1,142,955,206	2.5%	7,196,312	6.61%
8	Moscow Exchange	1,134,477,258	6.8%	5,233,255	37.80%
9	Korea Exchange	820,664,621	-55.3%	2,683,821	5.11%
10	Multi Commodity Exchange of India	794,001,650	-17.3%	745,474	-68.47%
11	Dalian Commodity Exchange	700,500,777	10.7%	3,153,905	39.23%
12	Shanghai Futures Exchange	642,473,980	75.9%	2,093,921	68.57%
13	Zhengzhou Commodity Exchange	525,299,023	51.3%	1,998,727	74.99%
14	Japan Exchange Group	366,145,920	56.3%	5,436,115	5.65%
15	Hong Kong Exchanges & Clearing	301,128,507	7.7%	8,183,801	13.50%
16	ASX Group	261,790,908	0.7%	13,956,878	-15.16%
17	BSE	254,845,929	4.5%	32,801	-52.02%
18	JSE South Africa	254,514,098	60.2%	17,857,396	32.62%
19	China Financial Futures Exchange	193,549,311	84.2%	123,166	11.58%
20	TMX Group *	155,753,473	-25.6%	4,329,062	2.30%
21	Taiwan Futures Exchange	153,225,238	-2.2%	1,126,754	7.38%
22	BATS Exchange *	151,814,889	16.2%	N/A	N/A
23	Singapore Exchange	112,077,267	39.1%	3,099,510	21.27%
24	Tokyo Financial Exchange	65,527,790	-2.1%	1,066,906	8.53%
25	Tel Aviv Stock Exchange	60,514,431	-9.9%	1,067,027	68.07%
26	Meff	54,694,502	-18.6%	9,840,349	-3.48%
27	Borsa Istanbul	53,172,365	-14.9%	427,501	54.08%
28	Rosario Futures Exchange	51,176,700	0.2%	3,149,854	134.50%
29	London Stock Exchange Group	50,384,211	-26.5%	7,612,192	-2.28%
30	United Stock Exchange of India	44,931,092	406.9%	19,084	67.33%

\* Open interest for these exchanges does not include options traded in the U.S. and cleared by OCC # Includes NYSE Euronext

## **Exchange Groups**

Futures and options volume broken down by subsidiary exchanges

Exchange	Jan-Dec 2013 Volume	Annual % Change	Dec 2013 Open Interest	Annual % Change
Australian Stock Exchange	139,899,562	-11.20%	11,468,957	-17.90%
Sydney Futures Exchange	121,891,346	18.90%	2,487,921	17.90%
ASX Limited	261,790,908	0.7%	13,956,878	-13.20%
Bolsa de Valores São Paulo	910,894,138	-2.3%	15,352,248	39.9%
Bolsa de Mercadorias & Futuros	692,706,513	-1.6%	41,314,441	-21.7%
BM&FBovespa	1,603,600,651	-2.0%	56,666,689	-11.1%
Chicago Board Options Exchange *	1,070,865,472	1.1%	N/A	N/A
C2 Exchange *	76,583,750	50.1%	N/A	N//
CBOE Futures Exchange	40,193,447	68.2%	351,428	7.9%
CBOE Holdings	1,187,642,669	4.7%	351,428	18.9%
Budapest Stock Exchange	7,612,581	29.5%	435,160	72.0%
Wiener Borse	494,217	-30.4%	61,483	-41.6%
CEE Stock Exchange Group	8,106,798	23.0%	496,643	38.7%
Chicago Mercantile Exchange	1,551,802,526	8.50%	37,224,307	41.30%
Chicago Board of Trade	1,084,825,166	14.90%	14,285,047	7.80%
New York Mercantile Exchange	519,224,681	0.53%	32,216,917	6.20%
Kansas City Board of Trade	5,624,265	4.10%	177,845	0.50%
CME Group	3,161,476,638	9.2%	83,904,116	19.70%
Eurex	1,551,710,217	-6.5%	77,090,544	-2.5%
International Securities Exchange *	606,765,206	-4.0%	N/A	N//
ISE Gemini *	32,072,725	N/A	N/A	N//
Eurex	2,190,548,148	-5.2%	77,090,544	-2.5%
London Metal Exchange	171,099,643	7.1%	1,953,719	3.2%
Hong Kong Exchanges & Clearing	130,028,864	8.5%	6,230,082	17.2%
Hong Kong Exchanges & Clearing	301,128,507	7.7%	8,183,801	13.5%
NYSE Liffe Europe	941,803,236	-1.50%	43,288,676	-5.40%
NYSE Amex Options *	549,050,523	-2.80%	1,025	-6.10%
ICE Futures U.S. **	530,570,456	157.01%	82,182,240	27.20%
NYSE Arca Options *	451,427,061	9.60%	N/A	N//
ICE Futures Europe **	315,484,099	11.80%	9,021,080	8.20%
NYSE Liffe U.S.	13,504,571	-28.30%	641,098	-37.40%
CE Futures Canada	5,688,295	12.90%	244,271	69.60%
Singapore Mercantile Exchange	441,891	-79.10%	12	-93.90%
IntercontinentalExchange Group	2,807,970,132	14.8%	135,378,402	13.40%
Osaka Securities Exchange	327,784,515	59.80%	4,399,393	0.38%
Tokyo Stock Exchange	38,361,405	31.90%	1,036,722	35.90%
Japan Exchange Group	366,145,920	56.3%	5,436,115	5.70%

\* Open interest for U.S. equity options is held at OCC rather than at the exchanges \*\* 2013 data include futurized swaps



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#### **Exchange Groups** (CONTINUED)

Futures and options volume broken down by subsidiary exchanges

Exchange	Jan-Dec 2013 Volume	Annual % Change	Dec 2013 Open Interest	Annual % Change
Italian Derivatives Market	32,500,328	-12.1%	3,922,465	18.0%
Turquoise Derivatives	17,883,883	-43.5%	3,689,727	-17.4%
London Stock Exchange Group	50,384,211	-26.5%	7,612,192	-2.3%
MCX-SX	529,373,957	-7.3%	404,011	-70.9%
Multi Commodity Exchange of India	264,627,693	-31.9%	341,463	-65.1%
Multi Commodity Exchange of India	794,001,650	-17.3%	745,474	-68.5%
Nasdaq OMX PHLX *	681,995,742	-13.80%	21,936	N/A
Nasdaq Options Market *	326,388,360	60.40%	N/A	N/A
Nasdaq OMX Nordic	98,387,962	-6.20%	7,050,443	6.60%
Nasdaq OMX Boston *	35,334,377	147.50%	N/A	N/A
Nasdaq OMX Commodities	848,765	-3.70%	145,869	20.60%
Nasdaq OMX Group	1,142,955,206	2.5%	7,218,248	6.80%
Singapore Exchange	111,416,895	38.9%	3,004,184	19.7%
SGX Asiaclear	660,372	95.6%	95,326	104.4%
Singapore Exchange	112,077,267	39.1%	3,099,510	21.3%
Boston Options Exchange	89,546,651	-38.2%	N/A	N/A
Montreal Exchange	66,206,822	2.9%	4,329,062	2.3%
TMX Group	155,753,473	-25.6%	4,329,062	2.3%

Top 20 Agricultural Futures & Options Contracts					
Rank	Contract	Contract Size	Jan-Dec 2012	Jan-Dec 2013	% Change
1	Soy Meal Futures, DCE	10 tonnes	325,876,653	265,357,592	-18.57%
2	Rapeseed Meal Futures, ZCE *	10 tonnes	421,207	160,100,378	N/A
3	Soy Oil Futures, DCE	10 tonnes	68,858,554	96,334,673	39.90%
4	Palm Oil Futures, DCE	10 tonnes	43,310,013	82,495,230	90.48%
5	Rubber Futures, SHFE	5 tonnes	75,176,266	72,438,058	-3.64%
6	White Sugar Futures, ZCE	10 tonnes	148,290,190	69,794,046	-52.93%
7	Corn Futures, CBOT	5,000 bushels	73,184,337	64,322,600	-12.11%
8	Soybean Futures, CBOT	5,000 bushels	52,041,615	46,721,081	-10.22%
9	Sugar #11 Futures, ICE Futures U.S.	112,000 pounds	27,126,728	29,813,680	9.91%
10	Wheat Futures, CBOT	5,000 bushels	27,379,403	24,993,158	-8.72%
11	Soybean Oil Futures, CBOT	60,000 pounds	27,627,590	23,805,912	-13.83%
12	Corn Options, CBOT	5,000 bushels	26,599,756	23,534,308	-11.52%
13	Soybean Meal Futures, CBOT	100 short tons	18,187,433	20,237,181	11.27%
14	Soybean Options, CBOT	5,000 bushels	18,402,208	14,760,704	-19.79%
15	Corn Futures, DCE	5,000 bushels	37,824,356	13,313,633	-64.80%
16	Live Cattle Futures, CME	40,000 pounds	13,985,374	12,463,043	-10.89%
17	Rapeseed Oil Futures, ZCE *	5 tonnes	2,021	11,853,858	N/A
18	Lean Hog Futures, CME	40,000 pounds	11,461,892	11,277,038	-1.61%
19	No. 1 Soybean Futures, DCE	10 tonnes	45,475,425	10,993,500	-75.83%
20	Crude Palm Oil (FCPO) Futures, MDEX	25 tonnes	7,443,143	7,966,096	7.03%

\* Began trading in December 2012

# **Top 20 Energy Futures & Options Contracts**

Rank	Contract	Contract Size	Jan-Dec 2012	Jan-Dec 2013	% Change	
1	Brent Crude Futures, ICE Futures Europe	1,000 barrels	147,385,858	159,093,303	7.9%	
2	Light, Sweet Crude Oil Futures, Nymex	1,000 barrels	140,531,588	147,690,593	5.1%	
3	Henry Hub Natural Gas Futures, Nymex	10,000 MMBTU	94,799,542	84,282,495	-11.1%	
4	Gasoil Futures, ICE Futures Europe	100 tonnes	63,503,591	63,964,827	0.7%	
5	Crude Oil Futures, MCX	100 barrels	57,790,229	39,558,169	-31.5%	
6	WTI Crude Futures, ICE Futures Europe	1,000 barrels	33,142,089	36,106,788	8.9%	
7	NY Harbor RBOB Gasoline Futures, Nymex	42,000 U.S. gallons	36,603,841	34,470,288	-5.8%	
8	No. 2 Heating Oil Futures, Nymex	42,000 U.S. gallons	36,087,707	32,749,553	-9.3%	
9	Crude Oil (LO) Options, Nymex	1,000 barrels	32,525,624	31,478,060	-3.2%	
10	Natural Gas Futures, MCX	1,250 MMBTU	27,886,670	23,828,800	-14.6%	
11	Natural Gas European-Style Options, Nymex	10,000 MMBTU	24,260,726	21,053,064	-13.2%	
12	Brent Oil Futures, Moscow Exchange	10 barrels	11,952,101	18,170,809	52.0%	
13	U.S. Oil Fund ETF Options *	N/A	21,348,808	16,557,758	-22.4%	
14	Henry Hub Swap (NN) Futures, Nymex	2,500 MMBTU	18,156,113	11,459,837	-36.9%	
15	Brent Crude Oil Options, ICE Futures Europe	1,000 barrels	8,908,862	9,675,876	8.6%	
16	Brent Crude Oil Last Day Futures, Nymex	1,000 barrels	1,161,113	9,214,951	693.6%	
17	U.S. Natural Gas Fund ETF Options *	N/A	12,369,729	7,988,602	-35.4%	
18	EUA Futures, ICE Futures Europe	1,000 EUAs	6,465,262	7,260,390	12.3%	
19	Natural Gas Penultimate Swap Futures, Nymex	2,500 MMBTU	7,945,695	6,418,797	-19.2%	
20	Thermal Coal Futures, ZCE **	200 tonnes	N/A	4,357,384	N/A	

\* Traded on multiple U.S. options exchanges \*\* Began trading in September 2013

Top 20 Interest Rate Futures & Options Contracts					
Rank	Contract	Contract Size	Jan-Dec 2012	Jan-Dec 2013	% Change
1	Eurodollar Futures, CME	1,000,000 USD	426,438,437	517,250,183	21.3%
2	One Day Inter-Bank Deposit Futures, BM&F	100,000 Real	340,800,485	394,055,420	15.6%
3	10 Year Treasury Note Futures, CBOT	100,000 USD	264,997,089	325,928,194	23.0%
4	3 Month Euribor Futures, Liffe	1,000,000 Euro	178,762,097	238,493,786	33.4%
5	Euro-Bund Futures, Eurex	100,000 Euro	184,338,704	190,299,482	3.2%
6	5 Year Treasury Note Futures, CBOT	100,000 USD	133,342,429	175,328,163	31.5%
7	3 Month Sterling Futures, Liffe	500,000 GBP	114,915,025	144,279,092	25.6%
8	Euro-Bobl Futures, Eurex	100,000 Euro	107,645,238	129,530,977	20.3%
9	Eurodollar Mid-Curve Options, CME	1,000,000 USD	91,189,258	122,159,718	34.0%
10	30 Year Treasury Bond Futures, CBOT	100,000 USD	91,745,232	97,963,266	6.8%
11	Euro-Schatz Futures, Eurex	100,000 Euro	93,840,656	95,505,726	1.8%
12	10 Year Treasury Note Options, CBOT	100,000 USD	56,070,376	90,401,169	61.2%
13	2 Year Treasury Note Futures, CBOT	200,000 USD	55,108,651	57,815,900	4.9%
14	3 Month Euribor Options, Liffe	1,000,000 Euro	70,671,111	50,888,649	-28.0%
15	3 Year Treasury Bond Futures, ASX 24	100,000 AUD	44,003,411	48,978,355	11.3%
16	Long Gilt Futures, Liffe	100,000 GBP	37,777,306	42,299,274	12.0%
17	IDI Index Options, BM&F	1 Real x IDI Index	107,961,438	40,626,100	-62.4%
18	FRA on ID x US Dollar Spread Futures, BM&F	N/A	34,986,267	36,458,503	4.2%
19	Euro-Bund Options, Eurex	100,000 Euro	39,924,387	35,220,103	-11.8%
20	3 Month Euribor Mid Curve Options, Liffe	1,000,000 Euro	10,504,341	29,825,751	183.9%

Rank	Contract	Index Multiplier	Jan-Dec 2012	Jan-Dec 2013	% Change
1	CNX Nifty Options, NSE India	50 Indian rupees	803,086,926	874,835,809	8.93%
2	SPDR S&P 500 ETF Options *	N/A	585,945,819	596,304,426	1.77%
3	Kospi 200 Options, Korea Exchange **	500,000 Korean won	1,575,394,249	580,460,364	-63.15%
4	E-mini S&P 500 Futures, CME	50 U.S. dollars	474,278,939	452,291,450	-4.64%
5	Euro Stoxx 50 Futures, Eurex	10 euros	315,179,597	268,495,189	-14.81%
6	RTS Futures, Moscow Exchange	2 U.S. dollars	321,031,540	266,131,127	-17.10%
7	Nikkei 225 Mini Futures, OSE	100 yen	130,443,680	233,860,478	79.28%
8	Euro Stoxx 50 Options, Eurex	10 euros	280,610,954	225,105,846	-19.78%
9	S&P 500 Options, CBOE	100 U.S. dollars	174,457,138	207,488,939	18.93%
10	CSI 300 Futures, CFFEX	300 Chinese RMB	105,061,825	193,220,516	83.91%
11	VIX Options, CBOE	100 U.S. dollars	110,739,796	142,999,960	29.13%
12	S&P BSE 100 Options, BSE ***	50 Indian rupees	86,243,943	141,727,404	64.33%
13	iShares Russell 2000 ETF Options *	N/A	124,525,874	134,857,623	8.30%
14	S&P Sensex India Options, BSE	15 Indian rupees	148,314,519	108,612,615	-26.77%
15	Powershares QQQ ETF Options *	N/A	113,719,614	94,302,472	-17.07%
16	Taiex Options, Taifex	50 New Taiwan dollars	85,626,313	93,452,362	9.14%
17	iPath S&P 500 VIX Short Term Futures ETN Options *	N/A	47,710,104	83,532,121	75.08%
18	iShares MSCI Emerging Markets ETF Options *	N/A	64,284,148	82,452,022	28.26%
19	CNX Nifty Futures, NSE India	50 Indian rupees	80,061,861	74,863,943	-6.49%
20	E-mini Nasdaq 100 Futures, CME	20 U.S. dollars	63,530,758	59,393,053	-6.51%

\* Traded on multiple U.S. options exchanges \*\* Multiplier changed from 100,000 won for series listed from March 2012 onwards \*\*\* Began trading in August 2012

Top 20 Metals Futures & Options Contracts					
Rank	Contract	Contract Size	Jan-Dec 2012	Jan-Dec 2013	% Change
1	Steel Rebar Futures, SHFE	10 tonnes	180,562,480	293,728,929	62.7%
2	Silver Futures, SHFE *	15 kilograms	21,264,954	173,222,611	714.6%
3	Copper Futures, SHFE	5 tonnes	57,284,835	64,295,856	12.2%
4	High Grade Primary Aluminum Futures, LME	25 tonnes	59,123,583	63,767,903	7.9%
5	SPDR Gold Shares ETF Options **	N/A	54,567,743	49,003,859	-10.2%
6	Comex Gold Futures, Nymex	100 troy ounces	43,893,311	47,294,551	7.7%
7	Copper Grade A Futures, LME	25 tonnes	35,874,789	40,486,017	12.9%
8	Silver MIC Futures, MCX	1 kilogram	51,441,996	33,611,357	-34.7%
9	Special High Grade Zinc Futures, LME	25 tonnes	29,559,338	30,270,370	2.4%
10	iShares Silver Trust ETF Options **	N/A	35,963,367	29,722,604	-17.4%
11	Silver M Futures, MCX	5 kilograms	36,266,593	20,267,222	-44.1%
12	Gold Futures, SHFE	1 kilogram	5,916,745	20,087,824	239.5%
13	Copper Futures, MCX	1 tonnes	32,520,309	19,758,713	-39.2%
14	Gold Petal Futures, MCX	1 gram	36,004,247	19,021,199	-47.2%
15	Comex Copper Futures, Nymex	25,000 pounds	16,158,815	17,127,383	6.0%
16	Gold Futures, Moscow Exchange	1 troy ounce	8,156,949	15,892,846	94.8%
17	Gold M Futures, MCX	100 grams	22,213,409	15,860,098	-28.6%
18	Comex Silver Futures, Nymex	5,000 ounces	13,315,679	14,475,593	8.7%
19	Primary Nickel Futures, LME	6 tonnes	11,164,449	13,678,490	22.5%
20	Standard Lead Futures, LME	25 tonnes	14,248,937	12,931,067	-9.2%

\* Began trading in May 2012 \*\* Traded on multiple U.S. options exchanges

### Top 20 Foreign Exchange Futures & Options Contracts

Rank	Contract	Contract Size	Jan-Dec 2012	Jan-Dec 2013	% Change	
1	U.S. Dollar/Indian Rupee Futures, NSE India	1,000 USD	620,215,043	566,399,936	-8.7%	
2	U.S. Dollar/Indian Rupee Futures, MCX-SX	1,000 USD	551,326,121	496,230,881	-10.0%	
3	U.S. Dollar/Russian Ruble Futures, Moscow Exchange	1,000 USD	373,108,731	373,466,315	0.1%	
4	U.S. Dollar/Indian Rupee Options, NSE India	1,000 USD	237,062,966	252,398,423	6.5%	
5	U.S. Dollar Futures, BM&F	50,000 USD	84,049,097	83,426,499	-0.7%	
6	Euro/U.S. Dollar Futures, Moscow Exchange	1,000 Euro	33,632,175	66,436,523	97.5%	
7	Euro FX Futures, CME	125,000 Euro	67,407,741	61,285,617	-9.1%	
8	U.S. Dollar Futures, Korea Exchange	10,000 USD	53,549,300	51,814,466	-3.2%	
9	U.S. Dollar Futures, Rofex	1,000 USD	50,359,614	50,360,076	0.0%	
10	Japanese Yen Futures, CME	12,500,000 Yen	23,520,562	42,762,257	81.8%	
11	U.S. Dollar/Indian Rupee Options, USE	1,000 USD	431,783	29,757,433	6791.8%	
12	British Pound Futures, CME	62,500 GBP	26,166,290	29,237,763	11.7%	
13	Australian Dollar Futures, CME	100,000 AUD	32,727,390	26,332,299	-19.5%	
14	U.S. Dollar/Japanese Yen Futures, TFX	10,000 USD	9,212,876	20,120,943	118.4%	
15	Canadian Dollar Futures, CME	100,000 CAD	22,799,446	17,427,832	-23.6%	
16	Euro/Indian Rupee Futures, NSE India	1,000 Euro	5,770,205	16,984,993	194.4%	
17	U.S. Dollar/Rand Futures, JSE	1,000 USD	8,516,917	16,348,258	92.0%	
18	Euro/Indian Rupee Futures, MCX-SX	1,000 Euro	10,496,445	14,409,559	37.3%	
19	Mexican Peso/U.S. Dollar Futures, Mexder	10,000 USD	9,827,086	13,535,162	37.7%	
20	U.S. Dollar/Indian Rupee Futures, USE	1,000 USD	6,872,015	11,878,194	72.8%	