

FIA Annual Volume Survey: World Futures Volume Soars to New Highs...Again

I remember Rich Sandor, who was the guest speaker at a 10th anniversary celebration dinner sponsored by LIFFE, opening by likening himself to Elizabeth Taylor's most recent husband. "I know what I'm supposed to do," he said. "The challenge will be to make it interesting."

How true. In many ways, the year just past looks like the several years that preceded it. Trading volumes have grown. This is still chiefly a

financial business.

Markets outside of the U.S. continue to grow faster than those in the U.S. And the volume numbers have been skewed again by the staggering number of Kospi options traded on the Korea Stock Exchange.

Fortunately, in addition to the usual ebbing and flooding of trading activity, the European invasion of Chicago provides an excellent object of discussion for

this year's review; electronic trading has breathed new life into foreign exchange futures trading; and the 2.8 billion Kospi options that traded last year raise an interesting question about just how one should evaluate the growth of the market for exchange-traded derivatives.

Broad Developments

Overall futures and options trading volume increased 30% last year, which is slightly less than the 37% rate of growth in 2002 and the 47%

growth in 2001. In absolute terms, the trend looks the opposite. The absolute increase in over-all futures and options trading was 1.90 billion contracts in 2003, up from an increase of 1.61 billion in 2002 and 1.16 billion in 2001. Options trading grew slightly faster (32%) in 2003 than did futures trading (27%), but much of the difference can be attributed to the 50% increase in Kospi options at the KSE. Otherwise, markets in the U.S. and abroad experienced roughly the same kind of growth.

The growth of futures and options trading last year is all the more remarkable because it took place against a backdrop of mainly steady to lower volatility. Stock prices in all the major world stock markets were substantially less volatile in 2003 than in the year before. Government bond volatility as measured by the volatility of the Euro-Bund and 10-year Treasury note contract was somewhat higher, but deposit rate volatility, if measured in basis points, was slightly lower. Energy volatility was very little changed.

Electronic Inroads

Electronic trading is a way of life outside of the U.S., and given the lessons we continue to learn in the U.S., it may finally be safe to say that electronic trading will eventually dominate trading in the U.S.

For one thing, the E-mini contracts at Chicago Mercantile Exchange have done wonders both for stock index and foreign exchange trading. For example, trading in E-mini S&P 500 futures increased 39% to 161 million contracts last year, while pit trading in the S&P 500 "big" contract actually fell 15% to 20 million contracts. The same was true for E-mini trading in the

By Galen Burghardt

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Nasdaq 100 and Russell 2000 indexes.

For another, electronic trading may actually be breathing new life into exchange-traded foreign exchange, which has been losing both volume and market share for years. Last year, for the first time in many years, forex futures trading volume actually increased, and most of this was done on Globex.

New Guys on the Block

For the first time, this year's volume data include results from the Dalian Commodities Exchange (a Chinese exchange that does a huge trade in soy bean futures) and Bovespa (a Brazilian exchange that trades equity and equity index options). Both rank in the top 20 globally. The FIA has back filled its database so the inclusion of these new exchanges does not skew the growth figures, and we welcome their presence in the survey.

Top Ten

Keeping an eye on the top ten of just about everything is a useful way of staying in touch with major developments in the industry. Of the

top ten exchanges, for example, the first six kept their 2002 rankings. The International Securities Exchange moved up to seven, though, which reflects its continued inroads into the stock option business. The Chicago Board Options Exchange enjoyed some volume growth last year (6%), but the ISE experienced more (61%) and has closed the volume gap with the CBOE considerably. Also, Bovespa and the Mexican Derivatives Exchange muscled their way onto the list of ten largest exchanges. In Bovespa's case, it was trading in stock options that did the job, while at Mexder it was a 28-day interest rate contract that was responsible for its growth.

To cement further the idea that interest rates are the real foundation of this business, six of the ten contracts with the largest growth in volume were on interest rates. Three, including the formidable Kospi 200 option, were based on equities and one on an agricultural product. At the other end of the growth spectrum, we find that five of the 10 largest decreases in trading volume were equity contracts, two were interest rate contracts, two were based on energy products, and one was based on a currency exchange rate.

Top Twenty Contracts *(in millions—net of individual equities)*

Rank	Contract	Exchange	2003	2002	Change	% Change
1	Kospi 200 Options	KSE	2,837.72	1,889.82	947.90	50.16%
2	Euro-Bund Futures	Eurex	244.41	191.26	53.15	27.79%
3	3-Month Eurodollar Futures	CME	208.77	202.08	6.69	3.31%
→ 4	TIIE 28 Futures	MexDer	162.08	80.60	81.48	101.10%
5	E-Mini S&P 500 Index Futures	CME	161.18	115.74	45.43	39.26%
6	Euro-Bobl Futures	Eurex	150.09	114.68	35.41	30.88%
7	10-Year T-Note Futures	CBOT	146.75	95.79	50.96	53.20%
8	3-Month Euribor Futures	Euronext	137.69	105.76	31.94	30.20%
9	Euro-Schatz Futures	Eurex	117.37	108.76	8.61	7.92%
10	DJ Euro Stoxx 50 Futures	Eurex	116.04	86.35	29.68	34.37%
11	3-Month Eurodollar Options	CME	100.82	105.58	-4.76	-4.51%
12	5-Year T-Note Futures	CBOT	73.75	50.51	23.23	46.00%
13	CAC 40 Index Options	Euronext	73.67	84.34	-10.67	-12.66%
14	E-Mini Nasdaq 100 Futures	CME	67.89	54.49	13.40	24.59%
15	30-Year T-Bond Futures	CBOT	63.52	56.08	7.44	13.26%
16	Kospi 200 Futures	KSE	62.20	42.87	19.34	45.11%
17	DJ Euro Stoxx 50 Options	Eurex	61.79	39.48	22.32	56.53%
18	No. 1 Soybean Futures	DCE	60.00	12.69	47.31	372.82%
19	3-Month Euribor Options	Euronext	57.73	33.48	24.25	72.43%
20	Interest Rate Futures	BM&F	57.64	48.57	9.07	18.68%

Interest Rates

Eurodollar trading in the U.S. was flat, while trading in Treasury futures increased 40%. In Europe, trading in Euribor contracts was up 41%, while trading in EuroGerman contracts (i.e., the Eurobund/bobl/schatz complex) was up 23%. Some of the patterns that seem to bear watching are these.

Eurodollar trading in the U.S. is a huge busi-

ness and, partly because of the extreme changes that have influenced the short end of the dollar deposit curve, trading volume has exceeded 300 million contracts for the second year in a row. On the other hand, trading in Euribor contracts is growing relatively faster than Eurodollar trading. Over the past two years, total Euribor contract volume has increased from 113 million to 196 million contracts, while Eurodollar trading has increased from 272 million to 310 million contracts. The difference in growth rates may reflect two forces: one, the maturation of the Euro-based yield curve and the more rapid growth of the Euro swap market as compared to the dollar swap market, and two, the fact that Euronext.Liffe uses an all-electronic trading market.

One of the main factors driving Eurodollar volume during the course of the year was hedging activity emanating from the U.S. mortgage market. Deflation fears early in the year drove the 10-year Treasury rate to unusually low levels, fueling a mortgage refinancing boom that encouraged very active trading of Eurodollar futures and options. When Treasury yields reversed direction in June and July, refinancings slowed dramatically, and Eurodollar trading slowed in response.

In the government debt market, Eurex contracts still enjoy the greater market share. Last year, 511 million EuroGerman futures traded on Eurex, while 289 million Treasury futures traded on the CBOT. The greater rate of growth of Treasury trading at the CBOT reflected a pronounced acceleration of a shift to the middle part of the Treasury yield curve. While trading in 30-year Treasury bond futures was up (14%) for the first time in a while, trading increased 53% in 10-year note futures and 45% in 5-year note futures. In the broad sweep of things, then, the 5 and 10-year parts of the Treasury yield curve now dominate Treasury futures trading. What is still missing is an active 2-year Treasury note contract. While Euro-Schatz futures traded 117 million contracts last year, the 2-year note contract at the CBOT traded only 4 million.

Equities

In addition to the influence of E-mini equity futures on the growth and shape of equity index trading, several other factors were at work. Options on individual equities had an up year in the U.S. after being down 3% in 2002. Pan-European index options like the DJ Euro Stoxx 50 are moving up, while national index options such as the DAX and CAC 40 are moving down. This

Volume by Category *(in millions)*

Global	2003	2002	Change	% Change
Equity Indices	3,960.87	2,791.18	1,169.69	41.91%
Interest Rate	1,881.27	1,478.44	402.83	27.25%
Individual Equities	1,558.52	1,354.70	203.82	15.05%
Ag Commodities	261.15	199.39	61.77	30.98%
Energy Products	217.56	209.37	8.19	3.91%
Non-Precious Metals	90.39	71.57	18.82	26.29%
Foreign Currency/Index	77.85	60.56	17.28	28.53%
Precious Metals	64.46	51.26	13.20	25.75%
Other	0.66	0.80	-0.14	-17.14%
TOTAL	8,112.73	6,217.28	1,895.45	30.49%

U.S.	2003	2002	Change	% Change
Individual Equities	791.64	679.70	111.94	16.47%
Interest Rate	678.30	579.21	99.09	17.11%
Equity Indexes	420.55	327.72	92.82	28.32%
Energy Products	112.40	115.93	-3.53	-3.05%
Ag Commodities	107.86	97.70	10.16	10.40%
Foreign Currency/Index	36.10	26.07	10.03	38.46%
Precious Metals	21.76	14.91	6.85	45.94%
Non-Precious Metals	3.25	2.92	0.33	11.24%
Other	0.66	0.73	-0.07	-9.85%
TOTAL	2,172.52	1,844.90	327.62	17.76%

Non U.S.	2003	2002	Change	% Change
Equity Indices	3,540.32	2,463.46	1,076.87	43.71%
Interest Rate	1,202.97	899.23	303.74	33.78%
Individual Equities	766.88	675.01	91.88	13.61%
Ag Commodities	153.29	101.69	51.60	50.75%
Energy Products	105.16	93.44	11.72	12.54%
Non-Precious Metals	87.14	68.65	18.49	26.93%
Precious Metals	42.70	36.35	6.35	17.47%
Foreign Currency/Index	41.74	34.49	7.25	21.03%
Other	0.00	0.07	-0.06	-98.80%
TOTAL	5,940.22	4,372.38	1,567.83	35.86%

reflects an interesting consolidation of Europe as an equity market and helps to solidify the notion of European economic union. There was a pick up in trading of Japanese equity index contracts, which may reflect a change in investment managers' view of the Japanese market. The very small value Kospi 200 option on the Korea Stock Exchange yet again experienced a breathtaking increase in trading volume.

Commodities

While commodities account for a relatively small fraction of global futures and options trading, they have been attracting the attention of some major hedge funds and have enjoyed, at least in metals and agricultural commodities, increases in trading activity. Metals trading, both precious and non-precious, was up 26%, while trading in agricultural commodities was up 31%.

In contrast, trading in energy contracts was up only about 4%, mainly because of a sharp decline in natural gas futures and options trading at the New York Mercantile Exchange.

Competitive Influences on Trading Volume

A titanic competitive struggle is now underway in Chicago. Four of the largest futures exchanges in the world are engaged in a battle for dollar-denominated interest rate futures trading. Eurex, which dominates European government bond futures trading, opened up its markets for Treasury bond and note futures on Feb. 8. And Euronext Liffe, which has the market for Euribor futures and options trading, has scheduled the opening of its Eurodollar futures market for March 18.

Their efforts also shed light on some important aspects of the way exchanges compete with

Largest Changes in Individual Contract Volume

(Net of individual equities)

Gains (in millions)

Rank	Contract	Exchange	2003	2002	Change	% Change
1	Kospi 200 Options	KSE	2,837.72	1,889.82	947.90	50.2%
→ 2	TIIIE 28 Futures	MexDer	162.08	80.60	81.48	101.1%
3	Euro-Bund Futures	Eurex	244.41	191.26	53.15	27.8%
4	10-Year T-Note Futures	CBOT	146.75	95.79	50.96	53.2%
5	No. 1 Soybean Futures	DCE	60.00	12.69	47.31	372.8%
6	E-mini S&P 500 Futures	CME	161.18	115.74	45.43	39.3%
7	Euro-Bobl Futures	Eurex	150.09	114.68	35.41	30.9%
8	Euribor Futures	Euronext	137.69	105.76	31.94	30.2%
9	DJ Euro Stoxx 50 Futures	Eurex	116.04	86.35	29.68	34.4%
10	Euribor Options	Euronext	57.73	33.48	24.25	72.4%

Declines (in millions)

Rank	Contract	Exchange	2003	2002	Change	% Change
1	CAC 40 Index Options	Euronext	73.67	84.34	-10.67	-12.7%
2	Natural Gas Futures	Nymex	19.04	24.36	-5.32	-21.8%
3	Eurodollar Options	CME	100.82	105.58	-4.76	-4.5%
4	Nemax 50 Futures	Eurex	0.75	4.70	-3.95	-84.1%
5	S&P 500 Futures	CME	20.18	23.70	-3.52	-14.9%
6	Shekel-Dollar Rate Options	TASE	8.34	11.54	-3.20	-27.7%
7	DAX Options	Eurex	41.52	44.03	-2.51	-5.7%
8	Korea Treasury Bond Futures	Kofex	10.29	12.78	-2.49	-19.5%
9	Natural Gas Options	Nymex	8.74	10.97	-2.22	-20.3%
10	DJ Industrial Index Futures	CBOT	4.42	6.49	-2.07	-31.9%

one another. For example, trading costs will be an important factor in determining whether Eurex will succeed in its effort to gain a foothold in Treasury futures trading. Yet Eurex has not chosen to compete in this area as intensely as it could. To be sure, it had lower exchange fees than the CBOT until the CBOT dropped its own fees to match Eurex. But it did not do what many observers thought it would, and that is cut the tick size in half in the markets that really matter—10-year and 5-year Treasury note futures. Granted, the tick size for the Eurex Treasury bond contract is 1/64th, which is half that for the CBOT's bond contract, but it is also 1/64th for the 10s and 5s. As a result, the all-in costs of trading Treasury note futures—the bid/ask spread plus brokerage and exchange fees—are roughly the same in both markets.

Global Futures Volume

(In millions)

	2002	2003	% Change
U.S. Futures	851.31	1,042.97	22.51%
Non-U.S. Futures	1,473.60	1,927.54	30.8%
Futures Volume	2,324.91	2,970.51	27.77%

Global Options Volume

(In millions)

	2002	2003	% Change
U.S. Options	993.59	1,129.55	13.68%
Non-U.S. Options	2,898.78	4,012.67	38.43%
Options Volume	3,892.37	5,142.22	32.11%

Grand Total	6,217.28	8,112.73	30.49%
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Global Futures and Options Volume

(In millions)

	2002	2003	% Change
Equity Indices	2,791.18	3,960.87	41.91%
Interest Rate	1,478.44	1,881.27	27.25%
Individual Equities	1,354.70	1,558.52	15.05%
Ag Commodities	199.39	261.15	30.98%
Energy Products	209.37	217.56	3.91%
Non-Precious Metals	71.57	90.39	26.29%
Foreign Cur/Index	60.56	77.85	28.53%
Precious Metals	51.26	64.46	25.75%
Other	0.80	0.66	-17.14%
Total Volume	6,217.28	8,112.73	30.49%

Whether Eurex can wrest Treasury futures trading from the CBOT or Euronext.Liffe can take any Eurodollar market share from CME is a wide open question. But one thing is clear. Their challenge to the Chicago exchanges has increased competitive pressures and will make it cheaper and easier for the ultimate users to trade these contracts.

What Is the Measure of a Market?

My editors at *Futures Industry* have asked from time to time whether we might not consider different ways of measuring the size and growth of the futures market. Trading volume is an excellent measure for a large part of the industry because the incomes of market makers and brokers are directly related to the number of contracts traded. Traders and hedgers, on the other hand, are more interested in how much risk they can take or lay off, which suggests a measure that takes into account the portfolio values of the contracts traded.

The 2.8 billion Kospi options that traded on the Korea Stock Exchange provide an interesting example of why the distinctions matter. It seems that every year for the past several years, there has been a small contract somewhere in the world that has skewed the growth numbers. Sometimes it has been French equity futures, sometimes green bean futures in China, and sometimes interest rate options in Brazil. In most of these cases, though, while the trading volumes were large, they did not completely dominate the picture. This year, though, the Kospi experience swamped the data and made it impossible to ignore the question.

The Kospi options illustrate three things that matter when considering the size of a market. First, the contract is comparatively small. The option is defined in such a way that the value of the underlying stock portfolio is about \$6,000. Second, the contract exhibits a hellishly high relative trading velocity. The year-end open interest in the options was only 3.1 million, which means that the open interest turned over 915 times over the course of 2003, or about 4 times a day. Even by speculative standards, this is a high rate of turnover. Third, they are options with deltas less than 1.0. As a result, the portfolio exposure represented by open positions in the options might be as little as half as much as the value of the underlying stock portfolio.

Volume, Open Interest, and Relative Trading Velocity

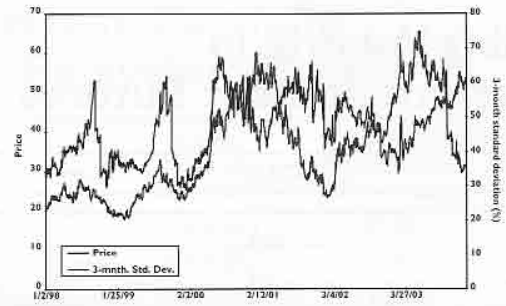
For many market participants, a more relevant measure of market size is open interest. Often, for the sake of not representing too large a

Energy Markets

Crude Oil
Historical Volatilities and Prices

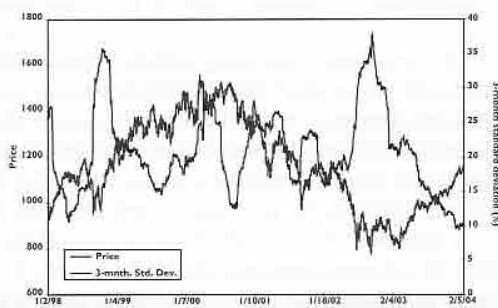


Natural Gas
Historical Volatilities and Prices



Stock Prices

S&P 500
Historical Volatilities and Prices

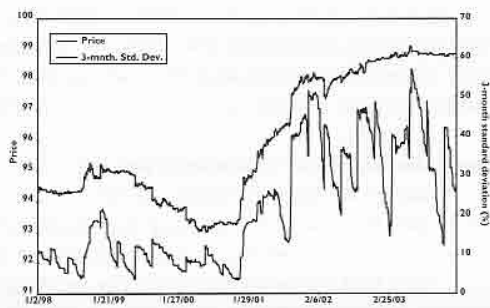


DAX
Historical Volatilities and Prices

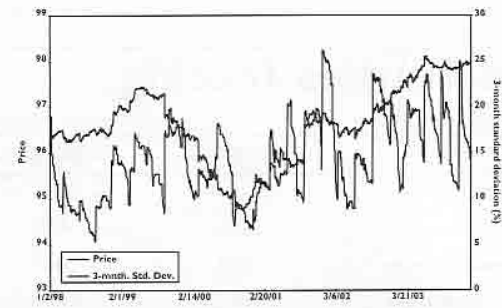


Money Markets

Eurodollar
Historical Volatilities and Prices



Euribor
Historical Volatilities and Prices

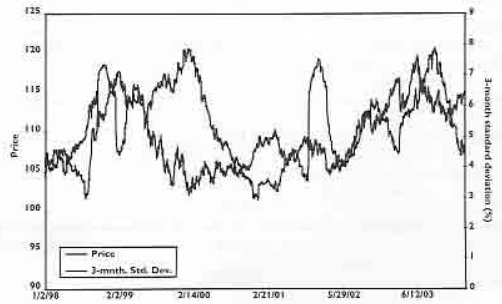


Bond Markets

U.S. 10-Year
Historical Volatilities and Prices



Bund
Historical Volatilities and Prices



Trading Volume in Government Debt Futures

(millions of contracts in 2003)

Maturity	CBOT	Eurex	Ratio
Bond	64	N/A	N/A
10-Year	147	244	1.7
5-Year	74	150	2.0
2-Year	4	117	29.3
Total	289	511	1.8

Trading Volume in Money Market Futures and Options

(millions of contracts)

	2001	2002	2003
Eurodollars			
futures	184	202	209
options	88	106	101
total	272	308	310
Euribor			
futures	91	106	138
options	22	33	58
total	113	139	196
Total	385	447	506

Swap Futures Trading

(thousands of contracts)

	2001	2002	2003
Liffe (Euros)			
2-year	686	997	580
5-year	1502	1438	1022
10-year	1967	1614	1031
total	4155	4049	2633
CBOT (\$s)			
5-year	0	53	110
10-year	59	662	1039
total	59	715	1149
CME (\$s)			
2-year	N/A	6	7
5-year	N/A	13	43
10-year	N/A	7	40
total	N/A	26	90
Total	4214	4790	3872

share of any given market, traders' positions are not allowed to exceed a given percentage of a market's open interest, so the depth of the open interest is an important indication of the market's ability to handle large orders. Likewise, trading velocity, which measures the speed with which contracts circulate within the market, can be viewed as another indicator of liquidity. A relatively high velocity reading indicates the presence of large amounts of speculative, in-and-out trading compared to longer-term position taking, and generally would be associated with relatively tight bid-ask spreads. The table called Trading volume, open interest, and relative velocity shows just how different contracts can be in these three respects.

For example, the Kospi 200 option, which far outranks the rest of the field in terms of trading volume, drops to eighth overall in terms of open interest. Because its open interest is so small relative to its trading volume, it has a relative trading velocity of 915. At this rate, open interest in these options turns over nearly four times a day. The TIIE 28 interest contract at the Mexican Derivatives Exchange, on the other hand, had 20.4 million contracts outstanding at year-end, first place in terms of open interest. But because total volume for the year was only 162 million, its relative trading velocity was only eight, which was second from the bottom of the table.

It is interesting to note that while the turnover rate for Kospi 200 options is huge, it is only about twice as fast as the rate at which the E-mini equity futures turn over at the CME.

Portfolio and Risk Equivalent Values

Once you start thinking about the size of open positions and what they represent, you have at least two more ways of thinking about the size of a market. One is in terms of the portfolio equivalent value of open positions. Another is in terms of the risk that those open positions represent.

Portfolio equivalent value is a useful enough concept if one is thinking about markets that are like one another. For example, a single Eurodollar futures contract might be thought of as the equivalent of \$1,000,000 of a 3-month time deposit, while a 10-year note contract at year-end (trading at a price of 112 and change) could be thought of as having a value equal to that of \$112,000 of a comparable maturity Treasury note. With these values, the 4,770,643 Eurodollar contracts outstanding at the end of 2003 would have a portfolio equivalent value of \$4,770,643 million (\$4.7

trillion) as shown in the table called Open interest, portfolio and risk equivalent value (which is limited to futures contracts to skirt the problem of not knowing options' deltas). A number like this would make sense to bankers who think in terms of money market risk. In contrast, the 939,435 10-year Treasury note contracts outstanding would have had a portfolio equivalent value of \$105,466 million, which might be compared with a portfolio of Treasury notes.

The most serious shortcoming of portfolio equivalent values is that while they make sense within a market, they are not useful across markets because they represent different kinds of risks. To show how much this matters, we calculated the numbers shown in the risk equivalent value column by multiplying year end open interest, the standard deviation of daily price changes and the value of a price point in each market. The resulting product represents one standard deviation of the change in the value of open positions in each market. For example, a one standard deviation change in the value of open Eurodollar positions in 2003 (using year-end open interest as the size of open positions) was \$929 million per day. The next largest market was the DJ Euro Stoxx 50 contract with a daily standard deviation of \$613 million. Ten-year Treasury note futures ranked third with a daily standard deviation of \$538 million. And by this measure, the 3-month Sterling contract, which ranked sixth in year-end open interest, would have ranked third to last in terms of risk equivalent exposure.

Focusing on risk also helps us to ferret out truly small contracts that may have a large influence on global trading volume and open interest but that wield comparatively small economic influence. A case in point is the TIEE 28 interest rate contract at the Mexican Derivatives Exchange. Year-end open interest in was 20 million contracts, which placed it at the top of the list of the most active futures contracts. With a notional value of 100,000 Mexican pesos, the portfolio equivalent value of these contracts was \$181 billion, which placed it somewhere in the middle of the pack. On a risk equivalent basis, though, it ranked dead last. The daily standard deviation of changes in the value of the open positions was only \$31 million.

Bringing Up the Rear

We have been keeping our eye on two markets with the hope that they would take off and become real forces in the futures business. One is single stock futures. The other is swap futures. At

Open Interest, Portfolio and Risk Equivalent Values

Contract	Open Interest (Dec 2003)	Portfolio Equiv. Value (USD millions)	Risk Equivalent Value
TIEE 28 Futures	20,408,853	181,865	31
3 Month Eurodollar Futures	4,770,643	4,770,643	929
3 Month Euribor Futures	2,236,471	2,730,382	379
DJ Euro Stoxx 50 Futures	1,290,355	44,756	613
10-Year T-Note Futures	939,435	105,466	538
3 Month Sterling Futures	915,958	777,900	122
Euro-Bund Futures	806,131	114,571	451
5-Year T-Note Futures	798,056	89,083	309
Euro-Bobl Futures	639,551	88,814	250
Crude Oil Futures	600,240	17,749	396
Euro-Schatz Futures	562,980	74,800	83
30-Year T-Bond Futures	426,050	46,573	370
E-mini S&P 500 Index Futures	363,330	20,200	178
E-mini Nasdaq 100 Futures	164,307	4,834	60

Trading Volume, Open Interest, and Relative Velocity

Contract	Trading Volume (2003)	Open Interest (Dec. 2003)	Relative Velocity
Kospi 200 Options	2,837,724,953	3,102,844	915
Euro-Bund Futures	244,414,274	806,131	303
Eurodollar Futures	208,771,164	4,770,643	44
TIEE 28 Futures	162,077,312	20,408,853	8
E-mini S&P 500 Index Futures	161,176,639	363,330	444
Euro-Bobl Futures	150,087,139	639,551	235
10-Year T-Note Futures	146,745,281	939,435	156
3 Month Euribor Futures	137,692,190	2,236,471	62
Euro-Schatz Futures	117,370,528	562,980	208
DJ Euro Stoxx 50 Futures	116,035,326	1,290,355	90
3 Month Eurodollar Options	100,823,779	8,877,361	11
5-Year T-Note Futures	73,746,445	798,056	92
CAC 40 Index Options	73,668,131	6,971,843	11
E-mini Nasdaq 100 Futures	67,888,938	164,307	413
30-Year T-Bond Futures	63,521,507	426,050	149
Kospi 200 Futures	62,204,783	84,837	733
DJ Euro Stoxx 50 Options	61,794,673	9,216,122	7
3 Month Euribor Options	57,733,239	6,543,946	9
BM&F Interest Rate Futures	57,641,625	2,050,550	28
Crude Oil Futures	45,436,931	600,240	76

Source: Carr Futures

this writing, it seems that single stock futures are slowly gaining ground. Total contract volume grew from 32 million in 2002 to 55 million in 2003. This is still not much, but growth is growth, and these contracts are laboring under especially onerous rules and regulations. On a global basis, OneChicago ranked fifth in total contract volume, while NQLX ranked eighth. Some exchanges enjoyed a double or tripling of trading volume, and the Australian Stock

Exchange is a newcomer to the list.

Swap futures, though, seem not to be going anywhere. Volume at the CBOT and CME is growing but from a small base. Swap futures trading at Euronext.liffe, which had been showing signs of promise, has been falling, and the overall volume total is in a downward trend. I can only assume that the world conspires to make sure I'm wrong about what will and won't succeed. *

Top 40 Futures Exchanges (Volume figures do not include options on futures)

2003 Rank	2002 Rank	Exchange	2002 Volume	2003 Volume	% Change
1	1	Eurex	536,013,920	668,650,028	24.74%
2	2	Chicago Mercantile Exchange	444,537,987	530,989,007	19.45%
3	3	Chicago Board of Trade	276,316,047	373,669,290	35.23%
→ 4	4	Euronext	221,275,462	267,822,143	21.04%
5	7	Mexican Derivatives Exchange	84,274,979	173,820,944	106.25%
6	6	BM&F	95,912,579	113,895,061	18.75%
7	5	New York Mercantile Exchange	107,359,719	111,789,658	4.13%
8	8	Tokyo Commodity Exchange	75,413,190	87,252,219	15.70%
9	10	Dalian Commodity Exchange	48,407,404	74,973,493	54.88%
10	9	London Metal Exchange	56,303,779	68,570,154	21.79%
11	11	Korea Stock Exchange	42,868,164	62,204,783	45.11%
12	12	Sydney Futures Exchange	33,987,967	41,831,862	23.08%
13	22	Shanghai Futures Exchange	12,173,083	40,079,750	229.25%
14	25	National Stock Exchange of India	10,199,111	36,141,561	254.36%
15	13	Singapore Exchange	32,623,190	35,356,776	8.38%
16	14	International Petroleum Exchange	30,233,664	33,258,385	10.00%
17	15	Central Japan Commodity Exchange	30,011,863	31,538,530	5.09%
18	16	OM	20,208,149	22,667,198	12.17%
19	17	Tokyo Grain Exchange	18,670,931	21,084,727	12.93%
20	19	New York Board of Trade	16,272,144	18,822,048	15.67%
21	18	MEFF	17,314,065	17,110,745	-1.17%
22	21	Tokyo Stock Exchange	13,630,046	15,965,175	17.13%
23	23	JSE Securities Exchange South Africa	11,233,002	14,947,523	33.07%
24	24	Osaka Securities Exchange	11,134,754	13,231,287	18.83%
25	20	Korea Futures Exchange	14,596,861	12,954,907	-11.25%
26	26	Bourse de Montreal	8,058,498	10,676,279	32.48%
27	28	Taiwan Futures Exchange	6,377,808	9,953,118	56.06%
28	29	Hong Kong Exchanges & Clearing	6,228,037	8,174,652	31.26%
29	27	Italian Derivatives Market	7,071,028	7,302,565	3.27%
30	30	Osaka Mercantile Exchange	5,207,652	6,162,589	18.34%
31	45	Budapest Stock Exchange	1,072,566	4,939,893	360.57%
32	32	Tokyo International Financial Futures Exchange	4,470,763	4,771,917	6.74%
33	31	Kansai Commodities Exchange	4,488,914	3,441,365	-23.34%
34	42	Budapest Commodity Exchange	1,338,846	3,237,088	141.78%
35	35	Fukuoka Futures Exchange	3,170,986	2,739,383	-13.61%
36	50	Rosario Futures Exchange	399,432	2,708,313	578.04%
37	36	Kansas City Board of Trade	2,755,949	2,634,424	-4.41%
38	43	Malaysia Derivatives Exchange	1,276,787	2,009,460	57.38%
39	41	Yokohama Commodity Exchange	1,507,210	1,852,158	22.89%
40	39	Winnipeg Commodity Exchange	2,155,796	1,811,616	-15.97%

Global Futures and Options Volume

2003 Rank	2002 Rank	Exchange	2002 Volume	2003 Volume	% Change
1	1	Korea Stock Exchange	1,932,749,868	2,899,937,895	50.04%
2	2	Eurex	801,200,873	1,014,932,312	26.68%
3	3	Euronext	696,323,560	694,970,981	-0.19%
4	4	Chicago Mercantile Exchange	558,447,820	640,209,634	14.64%
5	5	Chicago Board of Trade	343,882,529	454,190,749	32.08%
6	6	Chicago Board Options Exchange	267,616,496	283,946,495	6.10%
7	8	International Securities Exchange	152,399,279	244,968,190	60.74%
8	7	American Stock Exchange	186,039,445	180,074,778	-3.21%
9	11	Bovespa	90,884,897	177,223,140	95.00%
→ 10	14	Mexican Derivatives Exchange	84,274,979	173,820,944	106.25%
11	9	New York Mercantile Exchange	133,744,435	137,225,439	2.60%
12	10	BM&F	101,615,788	120,785,602	18.86%
13	12	Philadelphia Stock Exchange	88,955,247	112,705,597	26.70%
14	15	Tokyo Commodity Exchange	75,413,190	87,252,219	15.70%
15	13	Pacific Exchange	85,426,649	86,152,637	0.85%
16	18	Dalian Commodity Exchange	48,407,404	74,973,493	54.88%
17	17	London Metal Exchange	58,634,004	72,308,327	23.32%
18	16	OM	60,920,817	72,137,347	18.41%
19	21	Sydney Futures Exchange	36,243,524	44,755,340	23.49%
20	33	National Stock Exchange of India	13,287,113	43,081,968	224.24%
21	34	Shanghai Futures Exchange	12,173,083	40,079,750	229.25%
22	19	Tel-Aviv Stock Exchange	41,419,705	38,098,479	-8.02%
23	22	Singapore Exchange	32,887,395	35,648,224	8.39%
24	24	International Petroleum Exchange	30,441,474	33,341,244	9.53%
25	23	JSE Securities Exchange South Africa	30,966,583	33,001,743	6.57%
26	36	Taiwan Futures Exchange	7,944,254	31,874,934	301.23%
27	25	Central Japan Commodity Exchange	30,011,863	31,538,530	5.09%
28	20	MEFF	41,382,257	31,471,330	-23.95%
29	27	Osaka Securities Exchange	20,584,972	28,235,033	37.16%
30	26	New York Board of Trade	20,928,479	24,832,158	18.65%
31	28	Tokyo Grain Exchange	18,728,266	21,120,468	12.77%
32	29	Italian Derivatives Market	17,246,629	17,731,994	2.81%
33	32	Bourse de Montreal	14,491,971	17,682,999	22.02%
34	30	Tokyo Stock Exchange	14,759,690	17,035,830	15.42%
35	58	Australian Stock Exchange	N/A	16,955,039	N/A
36	35	Hong Kong Exchanges & Clearing	11,029,404	14,546,213	31.89%
37	31	Korea Futures Exchange	14,623,295	12,956,139	-11.40%
38	37	Osaka Mercantile Exchange	5,207,652	6,162,589	18.34%
39	51	Budapest Stock Exchange	1,072,966	4,939,893	360.40%
40	39	Tokyo International Financial Futures Exchange	4,470,763	4,771,917	6.74%
41	41	Oslo Stock Exchange	3,175,729	3,823,814	20.41%
42	46	Budapest Commodity Exchange	1,624,401	3,673,978	126.17%
43	38	Kansai Commodities Exchange	4,491,954	3,444,296	-23.32%
44	40	Kansas City Board of Trade	3,326,836	3,099,805	-6.82%
45	55	Rosario Futures Exchange	408,470	2,842,496	595.89%
46	42	Fukuoka Futures Exchange	3,170,986	2,739,383	-13.61%
47	49	Malaysia Derivatives Exchange	1,276,787	2,009,460	57.38%
48	43	Helsinki Exchanges	2,644,358	1,968,343	-25.56%
49	47	Yokohama Commodity Exchange	1,507,210	1,852,158	22.89%
50	44	Winnipeg Commodity Exchange	2,193,283	1,842,776	-15.98%
51	56	OneChicago	184,081	1,619,194	779.61%
52	48	Wiener Borse	1,327,084	1,392,529	4.93%
53	45	BrokerTec Futures Exchange	2,109,670	1,356,825	-35.69%
54	50	Minneapolis Grain Exchange	1,262,769	1,133,731	-10.22%
55	57	NQLX	90,091	858,900	853.37%
56	53	Copenhagen Stock Exchange	536,796	762,050	41.96%
57	52	New Zealand Futures Exchange	627,018	493,250	-21.33%
58	54	MidAmerica Commodity Exchange	483,253	142,298	-70.55%