

**IOMA**  
**Derivatives Market Survey**  
**2006**

Conducted by WFE  
With the help of Didier Davydoff,  
IEM Finance

May 2007



*As of December 2006, the members of IOMA / IOCA were:*

American Stock Exchange	London Metal Exchange Ltd. (LME)
Athens Derivatives Exchanges	MEFF
Australian Stock Exchange	Mercado Mexicano de Derivados (MEXDER)
Bolsa de Valores do São Paulo (BOVESPA)	New York Board of Trade (NYBOT)
Borsa Italiana SpA	New York Mercantile Exchange (NYMEX)
Bourse de Montréal	NOS Clearing ASA
Bursa Malaysia Clearing	OMX Exchanges
Bursa Malaysia Derivatives	Osaka Securities Exchange
Canadian Derivatives Clearing Corp.	Oslo Børs
Chicago Board of Trade (CBOT)	Philadelphia Stock Exchange (PHLX)
Chicago Board Options Exchange	Shenzhen Stock Exchange
Chicago Mercantile Exchange (CME)	Singapore Exchange
Copenhagen Stock Exchange	Sydney Futures Exchange (SFE)
Eurex	Taiwan Futures Exchange (TAIFEX)
Euronext	Tel-Aviv Stock Exchange
Euronext.liffe	Thailand Futures Exchange
Hong Kong Exchanges and Clearing	The Clearing Corporation
ICE Futures	The Options Clearing Corporation, Inc.
International Securities Exchange (ISE)	Tokyo Stock Exchange
Korea Exchange	Wiener Börse AG
LCH.Clearnet	Zhengzhou Commodity Exchange

*Every effort has been made to ensure that the information in this Survey is accurate at the time of printing, but the Secretariat cannot accept responsibility for errors or omissions.*



# International Options Market Association

## 2006 Derivatives Market Survey

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## INTRODUCTION

This report is the result of the annual survey conducted by the World Federation of Exchanges for the International Options Markets Association (IOMA) derivatives exchanges. The subject is the trading of derivatives products, and it covers 49 exchanges. Some of these exchanges trade a wide range of derivatives contracts, while many specialise in a single area of the market. The survey results were analysed into six groups representing underlying assets:

- Single equity
- Equity indices
- Short-term interest rates
- Long-term interest rates
- Currencies
- Commodities

The survey was compiled from questionnaire responses sent by IOMA members, and data from exchange websites. The author wishes to thank exchanges which responded to the questionnaire, and specially exchange staff who gave further assistance in response to enquiries.

The report starts with a brief overview of changes to the structure of the industry during 2006. The section “The Global Derivatives Market” describes the overall developments in derivative volumes. The section “Exchange and Product Trends” examines volumes and value at each exchange within each major product type. It shows changes from 2005 for all exchanges. The study ends with “Concluding Remarks”, which raise further questions for consideration.

The findings of this report were presented for comment by Didier Davydoff at the IOMA/IOCA Annual Conference held in Mexico in May 2007.



## THE INDUSTRY STRUCTURE

As in previous years, 2006 saw some modifications in the derivatives exchange business.

- The Yokohama Commodity Exchange merged with the Tokyo Grain Exchange in April 2006. Silk and vegetable contracts listed on the Yokohama Commodity Exchange were moved to the Tokyo Grain Exchange list.
- The Thailand Futures Exchange (TFEX), which was created as a subsidiary of the Stock Exchange of Thailand in May 2004, started trading in April 2006 with futures on the SET50 index.
- On 12 January 2007, the NYBOT, a leading soft commodity exchange in the United States, became a subsidiary of ICE, a leading energy exchange regulated in the United Kingdom.
- The Philadelphia Stock Exchange (PHLX) re-launched its wholly owned subsidiary - the Philadelphia Board of Trade (PBOT) - as a fully electronic marketplace on 6 October 2006.

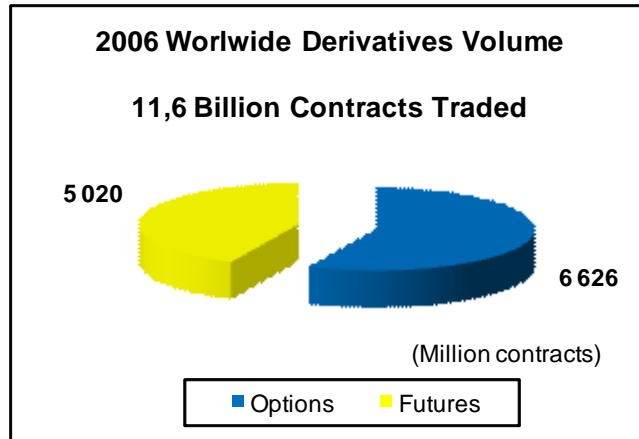
For the first time, we also include in this report figures relating to the trading of currency futures on the Turkish Derivatives Exchange, which started in 2005.

Products added or dropped during 2006		
	<i>Added</i>	<i>Dropped</i>
Stock Futures	Bursa Malaysia	
Index Options	Budapest SE	
Index Futures	Thailand Futures Exchange (TFEX)	
STIR Options	Singapore Exchange OMX	
STIR Futures	JSE South Africa	
LTIR Options		Singapore Exchange
LTIR Futures	Philadelphia SE Budapest SE Tel Aviv SE	Hong Kong Exchanges
Currency Options	MexDer	
Currency Futures		Tokyo Financial Exchange
Commodity Futures	TAIFEX	



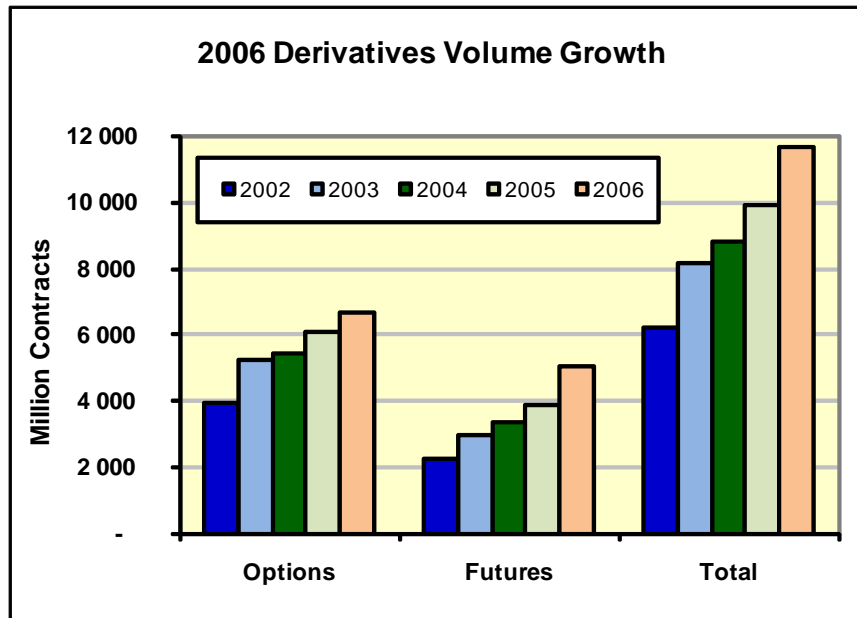
## THE GLOBAL DERIVATIVES MARKET

A new historic record of 11.6 billion derivative contracts were transacted in 2006 on exchanges worldwide, with 5.0 billion futures and 6.6 billion options traded.



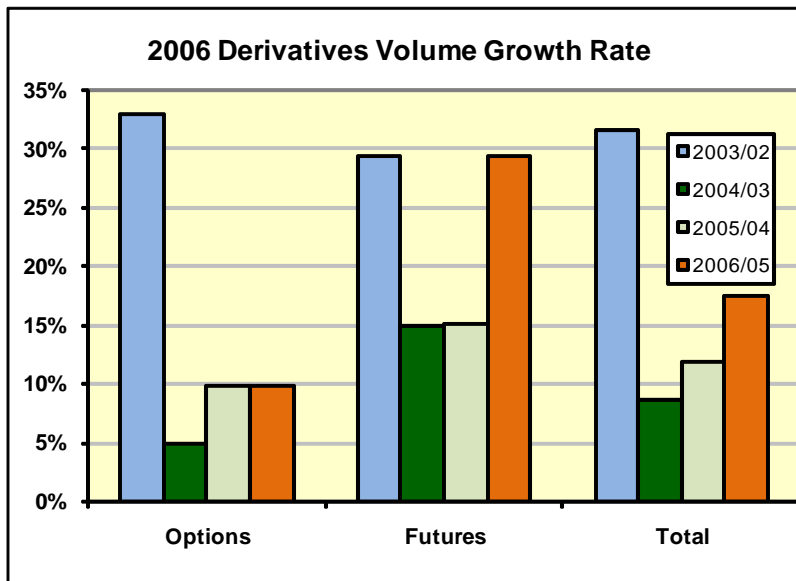
The increase in derivatives markets activity in 2006 confirmed their continuing growth over recent years. In 2006, trading volumes were almost twice as high as four years ago (in 2002). In the last four years, from 2002 to 2006, the average annual growth rate of the number of traded contracts reached 14% for options and 22% for futures.

The sharp increase in the number of contracts traded in 2006 is due mainly to futures.



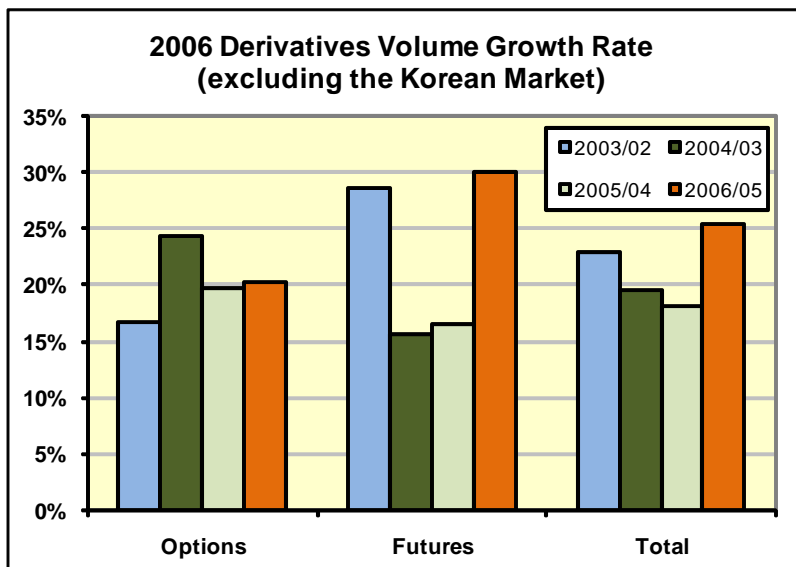


In 2006, the rate of growth of futures reached the same exceptional level as in 2003 i.e. 29%. It remained stable at 10% for options compared to 2005.



The global activity of derivatives exchanges is heavily influenced by the weight of the Korea Exchange in option trading, although the share of the Korea Exchange activity – mostly concentrated on the KOSPI 200 index options – in global derivatives trading decreased from 27% in 2005 to 21% in 2006. Traded volumes on the Korea Exchange decreased by almost 5%.

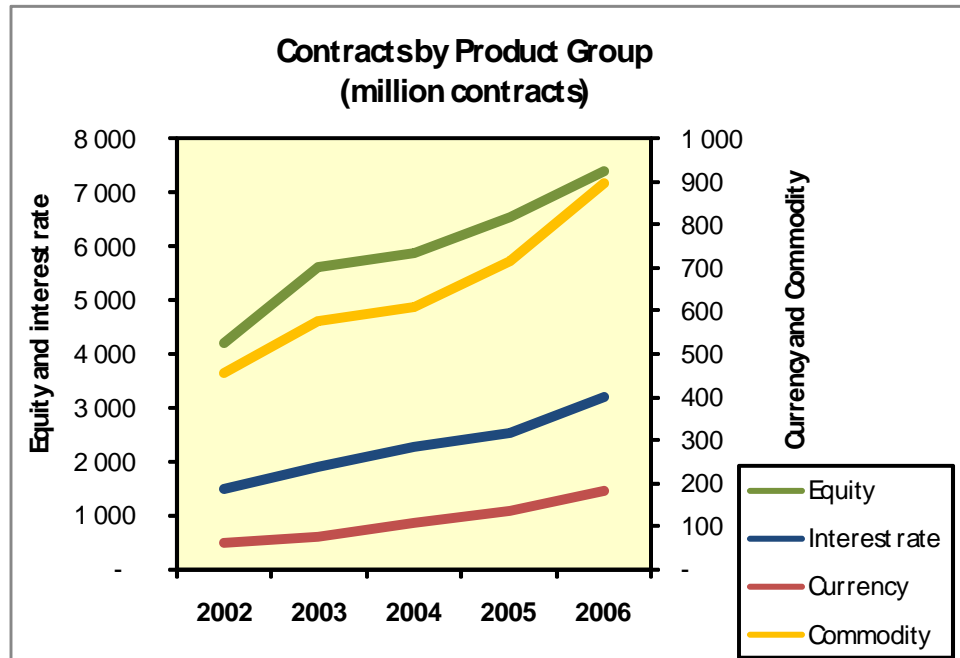
When the Korean Market is excluded from statistics, the growth rate of options trades is 20%. Although the growth of options trading remains very strong, this figure is lower than in 2004.





## EXCHANGE AND PRODUCTS TRENDS

In 2006, the contract volumes increased for all products. The growth of all types of products accelerated. Equity products are still by far the most actively traded ones in terms of number of contracts.

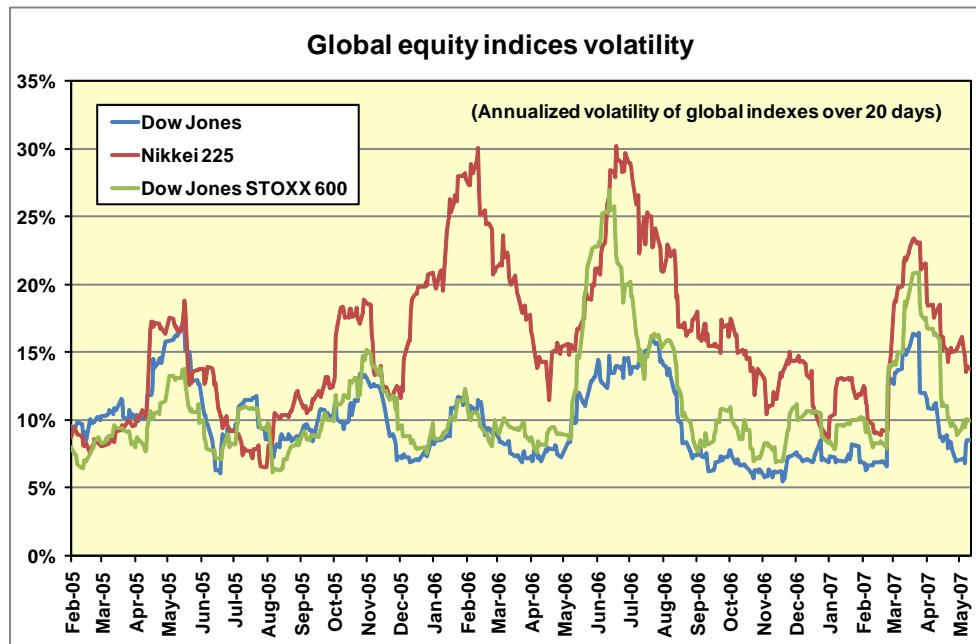




## A - EQUITY PRODUCTS

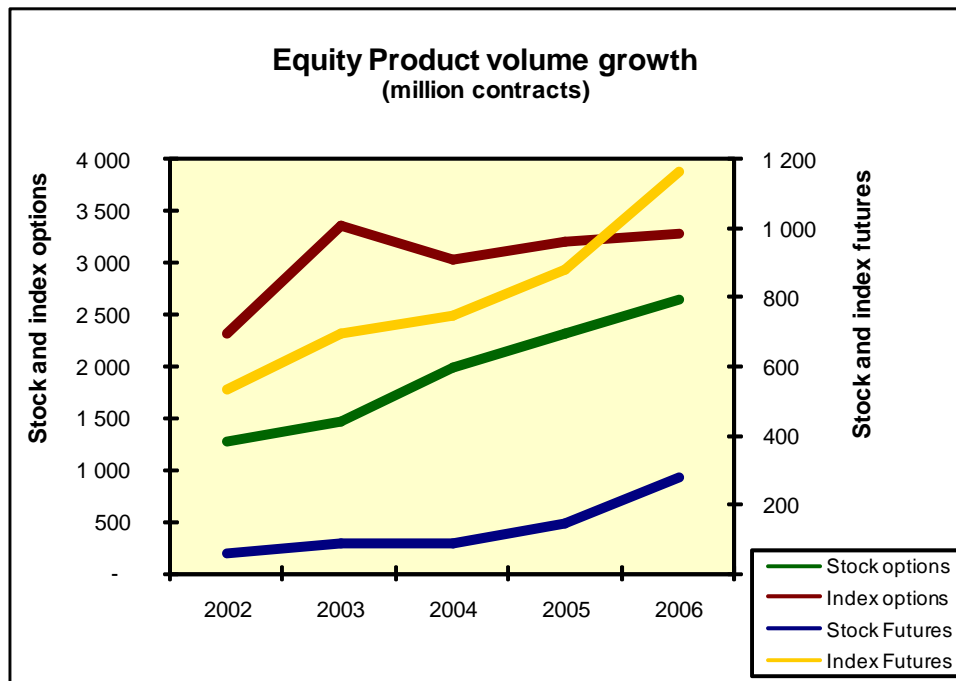
In 2006, equity products accounted for 63% of all derivatives contracts in terms of the number of contracts traded, against 66% in 2005.

Equity derivatives developed in a period of uneven volatility on the underlying cash markets. 2006 saw a temporary surge of volatility from May to September, related to the fall of equity markets during this period. However, volatility was back to historically low levels by the end of the year. At the beginning of 2007, volatility increased again.



The year 2006 was marked by a sharp increase in the number of stock and index futures traded whereas the volume of index options traded remained stable.

Among index options markets, the Korea Exchange accounted for 74% of the global volume in 2006 against 79% in 2005.



Retail investors play a greater role in equity-linked derivatives trading than they do in other segments of the derivatives market. This feature is specially pronounced in single equity options and futures trading, and less pronounced in index futures trading, as shown in the table below which reports the ratio of the total notional value of trading to the number of contracts for those markets which provided the information. Average notional value increased for all types of equity products, due to the good performance of the underlying markets.

Average notional value of one contract (all markets), in thousands of US \$		
	2005	2006
Equity options	2	3
Equity futures	5	6
Stock index options	19	25
Stock index futures	57	65

OTC trading in equity-linked derivatives is still much less significant than on other derivatives segments. With a notional amount outstanding equal to 6.8 billion US\$ at the end of June 2006, equity-linked derivatives accounted for only 1.8% of the total OTC derivatives outstanding on all underlying products.

Nevertheless, between June 2005 and June 2006, the OTC equity-linked market increased faster in terms of notional value (+49%) than the whole OTC derivatives market (+31%).



<b>Notional amounts outstanding of OTC equity-linked derivatives</b>				
		<i>Notional amounts in billion of US\$</i>		<i>Annual change</i>
		<b>June 2005</b>	<b>June 2006</b>	
American equities	Options	687	1 270	85%
	Forwards & swaps	385	520	35%
European equities	Options	2 283	2 682	17%
	Forwards & swaps	558	737	32%
Asian equities	Options	365	1 232	237%
	Forwards & swaps	39	61	57%
<b>TOTAL</b>		<b>4 551</b>	<b>6 783</b>	<b>49%</b>

Source: BIS

All segments of OTC equity-linked markets increased between June 2005 and June 2006. The most important rise concerned Asian equities options: their notional outstanding amounts more than tripled.

### ➤ **Stock options**

In 2006, trading volumes in stock options increased rapidly (14.8% in 2006, against 13% in 2005).

The leadership of the Americas was reinforced by a strong increase in trading volumes, at a rate of growth of almost 25%. On the contrary, trading volumes in Europe, Africa and Middle East declined slightly. The Asia Pacific region still lags behind the other regions despite a growth rate of 21% in 2006.

As in 2005, the US growth of stock options trading in 2006 was driven by QQQ options tracking the NASDAQ index performance. QQQ options are traded on the ISE (37 million options traded in 2006), the Philadelphia Stock Exchange (11 million options) and AMEX. ISE and CBOE maintained their first and second positions in the world for their volume of stock option contracts traded, thanks to a rate of growth of over 20%. Volumes on AMEX slightly declined, whereas the Pacific Stock Exchange showed a rapid growth of 36% against 40% in 2005.

In Canada, the Bourse de Montréal showed a growth of over 20% but its size in stock options trading lags behind US markets. However, the Boston Options Exchange, which is a subsidiary of the Bourse de Montréal (jointly with the Boston Stock Exchange, the Interactive Brokers Group LLC, Credit Suisse First Boston, JPMorgan, Citigroup, Morgan Stanley and UBS) is a significant stock exchange in the US, with a volume of stock options trading reaching 92 million contracts traded in 2006.



In South America, BOVESPA (Sao Paulo Stock Exchange) confirmed its third position in the world for the volume of contracts traded. This market is highly concentrated: in 2006 Petrobras PN options accounted for 72% of overall trading in stock options. Petrobras PN options were the most actively traded stock option in the world in 2006. Other markets in South America where stock options are traded include Buenos Aires, which declined significantly in 2006 (-47%) and Mexder in Mexico, which more than doubled its volumes of trading in 2006.

The decrease of stock options volumes of trading in the Europe/Africa region mainly comes from Euronext.liffe. But this fall in the number of contracts traded is the consequence of a multiplication by ten of an important part of the contracts traded in Paris in the course of 2005. When the statistics are rebased, the number of traded contracts on Euronext.liffe increased 12% in 2006.

Eurex trading activity increased 6.5% and is now ranked first in Europe, both for the number of contracts traded and the notional value traded. 66% of contracts traded on Eurex were options on German equities, 21% on Swiss equities, and 13% on equities from other countries. In 2006, volumes of options traded on German equities increased 11.2%, they declined 2.6% on Swiss equities and they were stable on equities from other countries. In November 2006, Eurex added some Danish and Swedish equity options to this product segment.

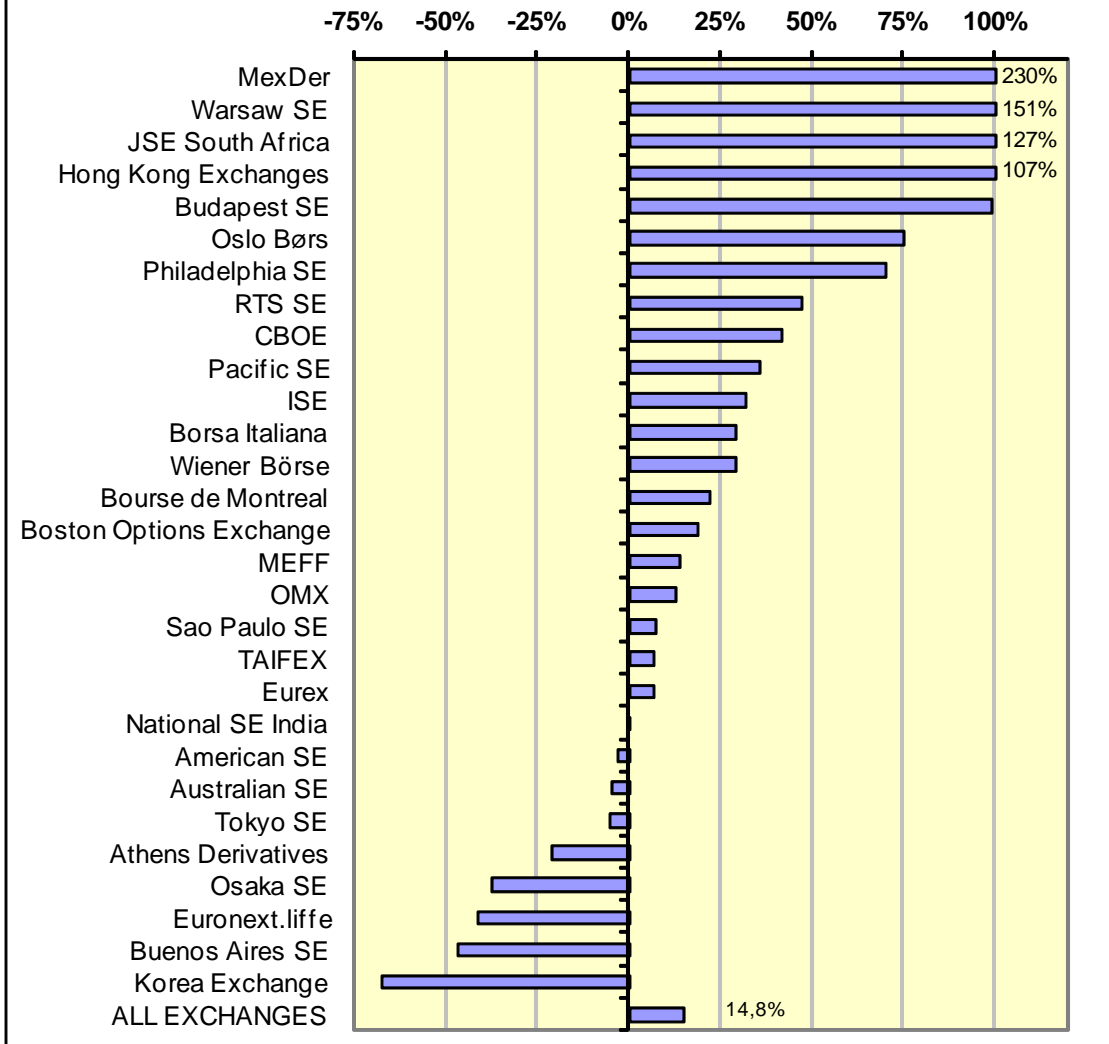
OMX confirmed its third rank in Europe. Borsa Italiana, MEFF in Spain, Oslo Börse, and RTS in Russia, showed significant growth rates. Smaller markets include the Wiener Börse and the Warsaw stock Exchange whose activity grew sharply. Volumes declined in Athens.

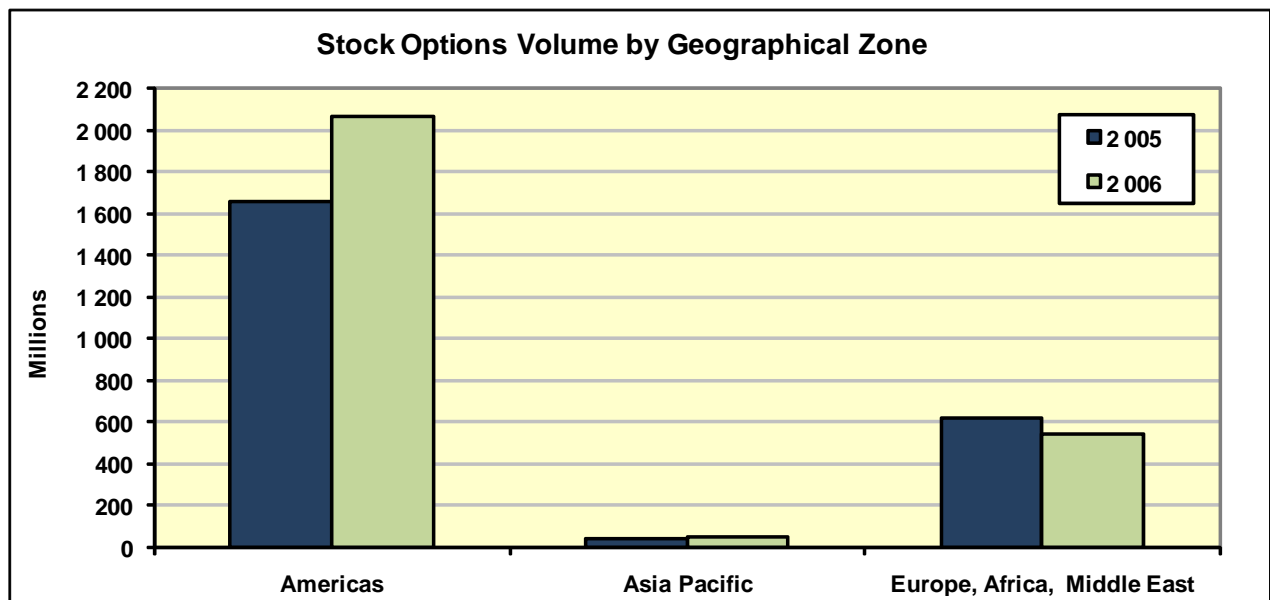
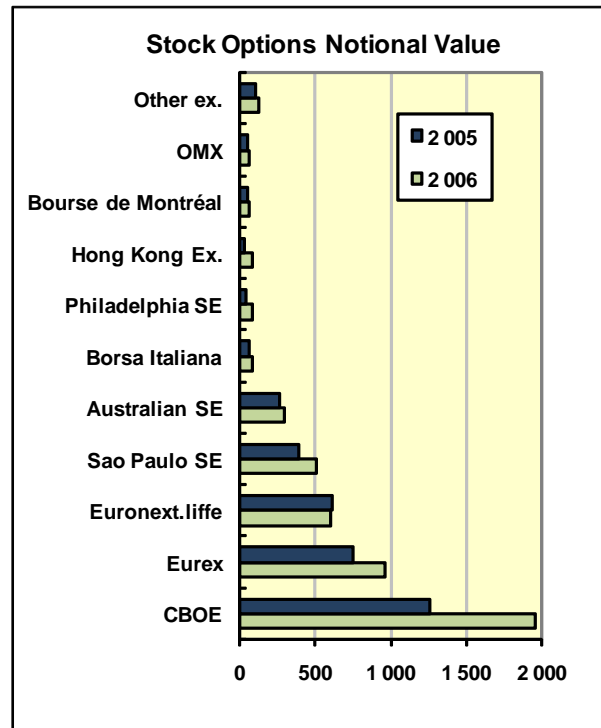
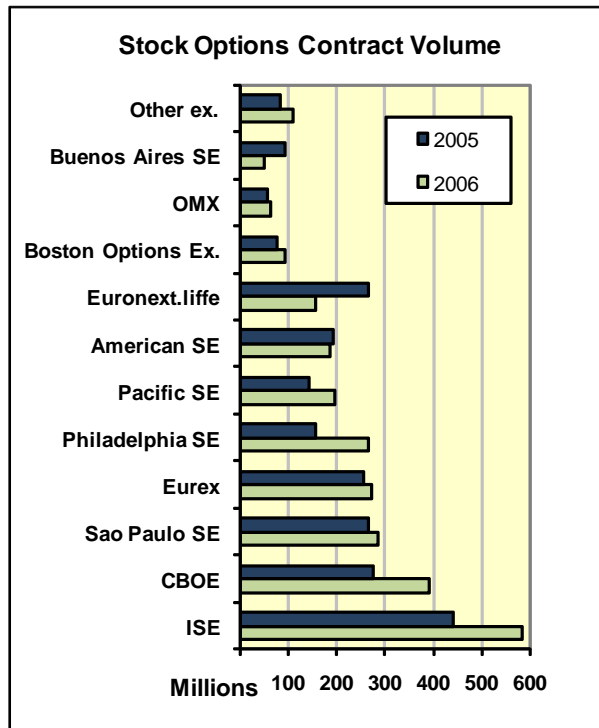
JSE South Africa showed a 127% growth rate, which partly offsets the fall observed in 2005.

In the Asia-Pacific region, trading volumes slightly decreased on the Australian Securities Exchange (ASX) but they more than doubled in Hong Kong. The volumes were comparable to 2005 on the National Stock Exchange of India and on TAIFEX. They declined on the Japanese markets and in Korea.



### 2006/2005 % Change Stock Options Volume







The 20 most actively traded stock options accounted for 22.5% of global volumes of trading in stock options.

Among the options that appear in the top 20 most actively traded equity options, five are listed on ISE, five on Eurex , four on Sao Paulo SE and three on Euronext.liffe.

<b>The 20 most actively traded stock options in the world in 2006</b>						
<b>Rank in 2006</b>	<b>Rank In 2005</b>	<b>Underlying Equity</b>	<b>Millions of traded contracts</b>	<b>Market Share</b>	<b>Options Prem. million \$</b>	<b>Exchange</b>
1	7	Petrobras PN	207	7.8%	7 816	São Paulo SE
2	2	Allianz	39	1.5%	2 659	Eurex
3	3	Ericsson B	39	1.5%	na	OMX
4	4	QQQQ	37	1.4%	na	ISE
5	1	Telemar PN	34	1.3%	798	São Paulo SE
6	10	Deutsche Telekom	30	1.1%	3 070	Eurex
7	5	Net PN	22	0.8%	50	São Paulo SE
8	higher than 20	IWM	20	0.8%	na	ISE
9	higher than 20	Vale R Doce PNA	19	0.7%	901	São Paulo SE
10	19	SPY	17	0.6%	na	ISE
11	6	Münchener Rückversicherung	16	0.6%	934	Eurex
12	higher than 20	SAP	16	0.6%	1 142	Eurex
13	8	Nokia	16	0.6%	1 711	Eurex
14	13	QQQQ	na	na	na	Amex
15	18	Apple Inc.	14	0.5%	na	ISE
16	9	Royal Dutch Shell	12	0.5%	1 929	Euronext.liffe
17	higher than 20	ING	12	0.5%	4 092	Euronext.liffe
18	higher than 20	ABN Amro	11	0.4%	3 443	Euronext.liffe
19	20	QQQQ	11	0.4%	na	Philadelphia SE
20	higher than 20	Google Inc.	11	0.4%	na	ISE
		<b>TOTAL</b>	<b>598</b>	<b>22.5%</b>	<b>na</b>	



## ➤ Stock futures

The impressive development of stock futures accelerated in 2006, with volumes of trading that almost doubled. The most active exchange in the world for stock futures trading is the National Stock Exchange of India, where more than 100 million contracts were exchanged. Other exchanges where stock futures are traded in the Asia Pacific region include the Australian Stock Exchange, Honk Kong Exchanges. Bursa Malaysia also entered the market in 2006.

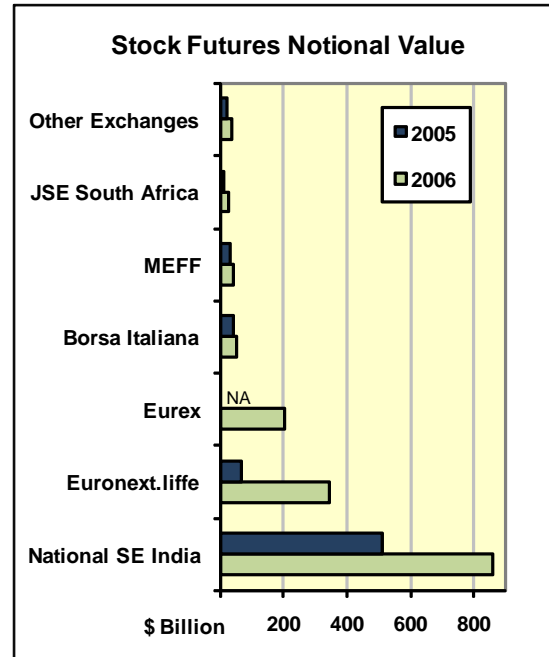
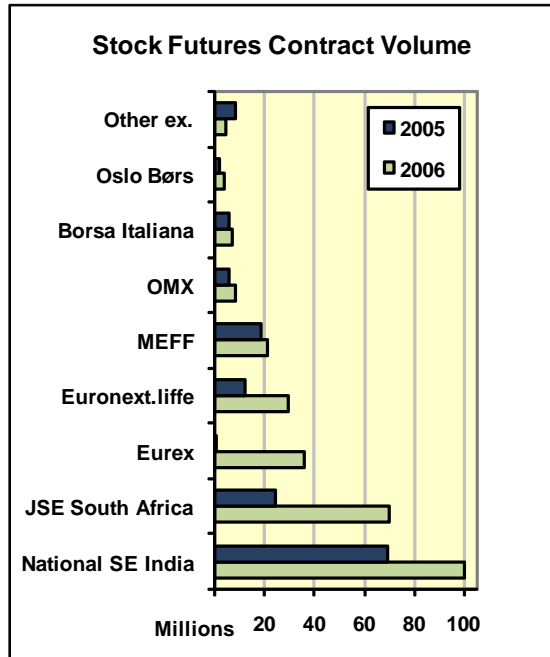
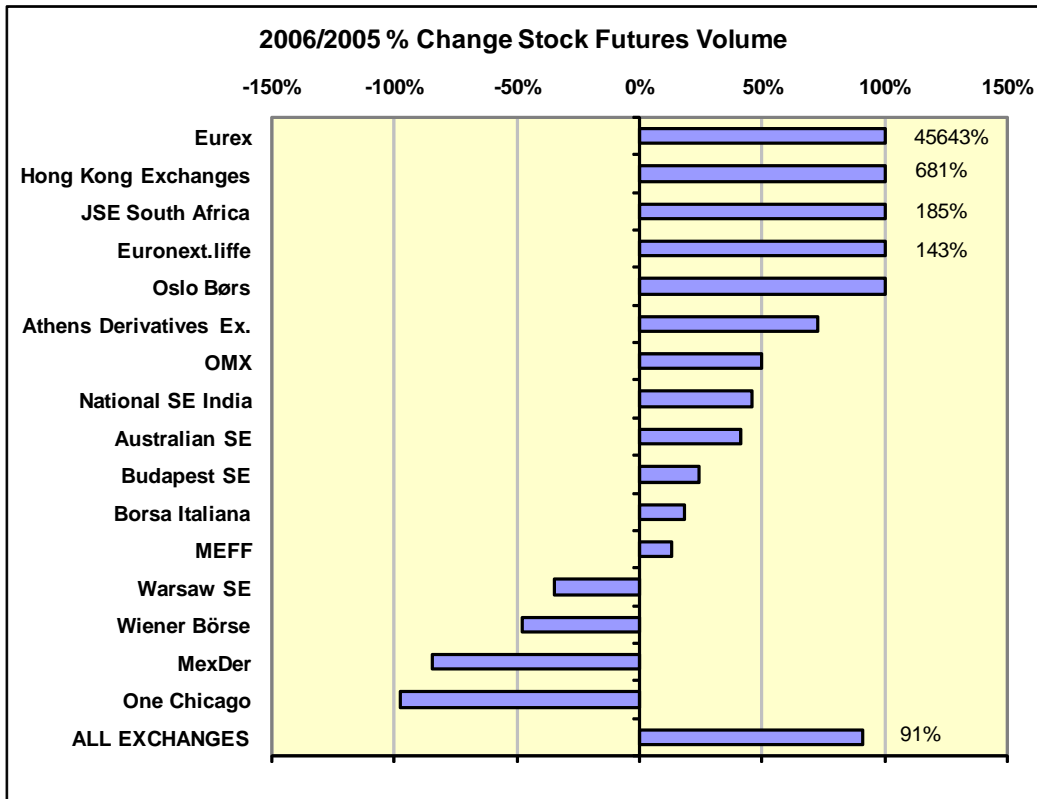
During the first quarter of 2007, this tremendous growth of single stock futures volumes seems to be continuing and even to be accelerating. JSE, Euronext.Liffe and Eurex are showing very important volume growth rates.

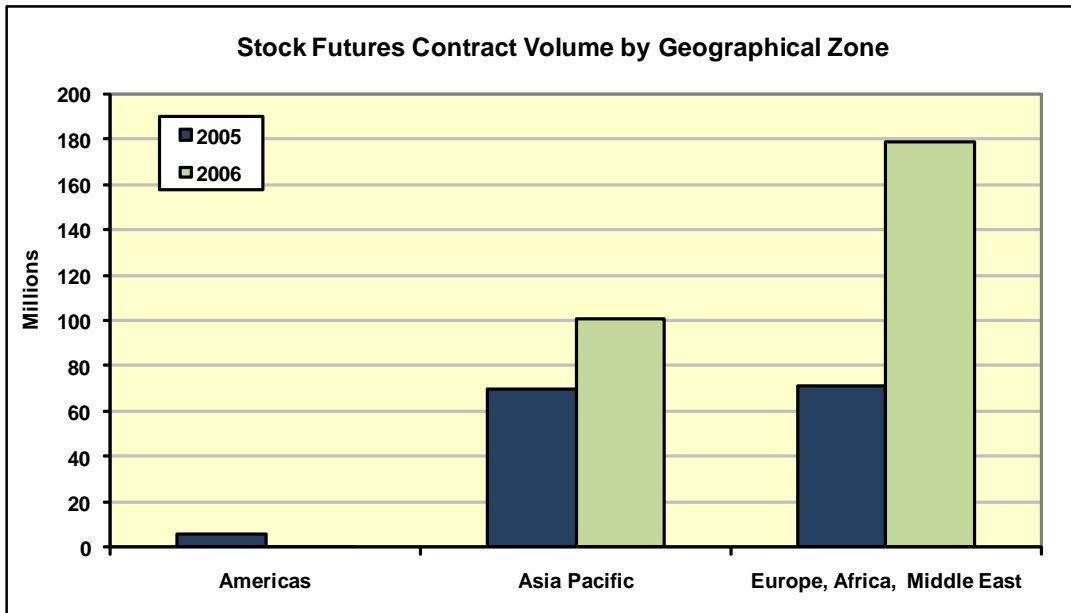
Single Stock Futures Contracts Volume			
	Jan-March 2007	Jan-March 2006	Change
JSE	44	13	229%
National Stock Exchange of India	30	25	18%
Euronext.liffe	12	3	319%
Eurex	11	2	610%
MEFF	4	7	-47%
OMX	3	2	35%
Athens Derivatives Exchange	1	1	-11%

In the European time zones, the leader in terms of number of traded contracts is still JSE South Africa, whose activity in these products almost tripled twice, in 2005 and 2006. This growth is the result of an aggressive advertising campaign aimed at both the retail and the wholesale market, and of positive changes in the regulatory regime of these products in South Africa. The open interest increased even faster (it was multiplied by eight between 2005 and 2006), thanks to a new method of valuation of all contracts, including non-liquid contracts. However the size of stock futures contracts is smaller on JSE South Africa than on other leading exchanges, and the stock futures notional value of trades on this market is outpaced by the National Stock Exchange of India, Euronext.liffe, Eurex, Borsa Italiana and MEFF.

In Europe, EUREX, which appeared as a new player in this market in 2005, was ranked first in terms of number of contracts traded in 2006. All shares denominated in euros and Swiss francs from the Dow Jones STOXX 600 index are tradable on EUREX. But the most active market in Europe is Euronext.liffe in terms of notional value traded.

In the Americas, the Mexder is the only place where it is possible to trade stock futures.







## ➤ **Index options**

Index options trading in the world increased 37% in terms of notional value but the volume of traded contracts did not increase more than 2.5% in 2006. This relatively slow development comes from the predominant weight of Korea in global figures. If Korea is withdrawn from aggregated figures, the global market shows a 30% rate of growth.

The KOSPI 200 options are still by far the most active index options in the world, with 2,414 million contracts traded in 2006, although this figure is 4.8% less than the previous year.

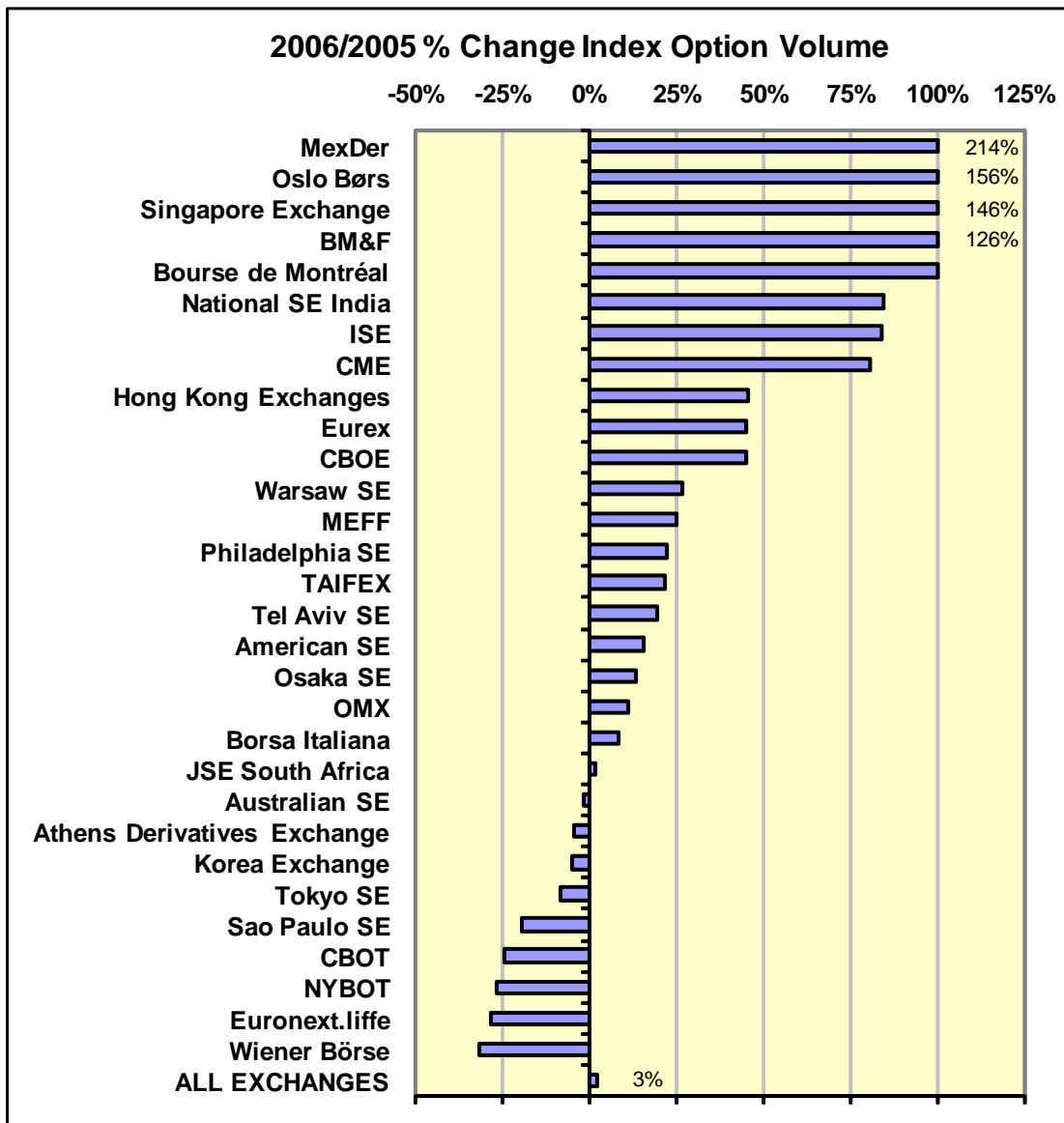
The Dow Jones Euro STOXX 50 options maintained their leadership position in Europe, with 150 million contracts traded; they also showed the most important growth rate (+65%). The list of the top 10 index options did not change noticeably compared to 2005. The only change was the exit of the CAC 40 from this list and the entry of the FTSE 100. If Korea is withdrawn, the 5 other most actively traded index options concentrate 56% of the number of contracts traded.

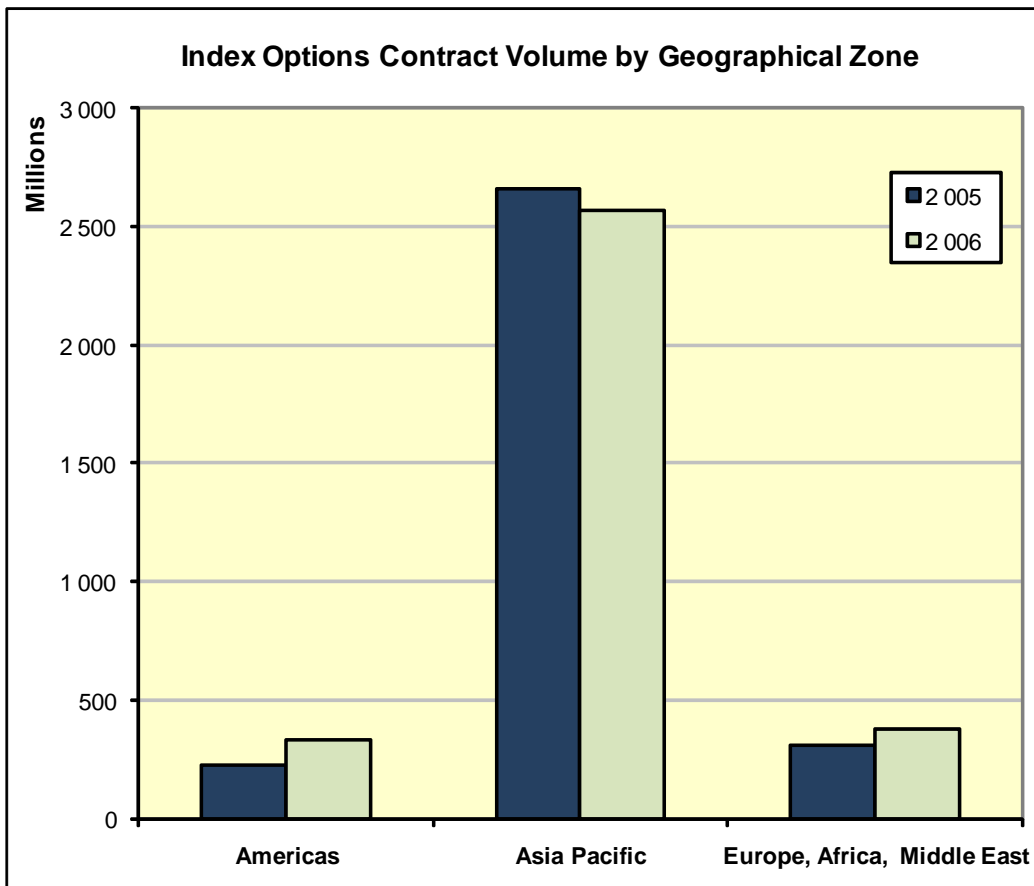
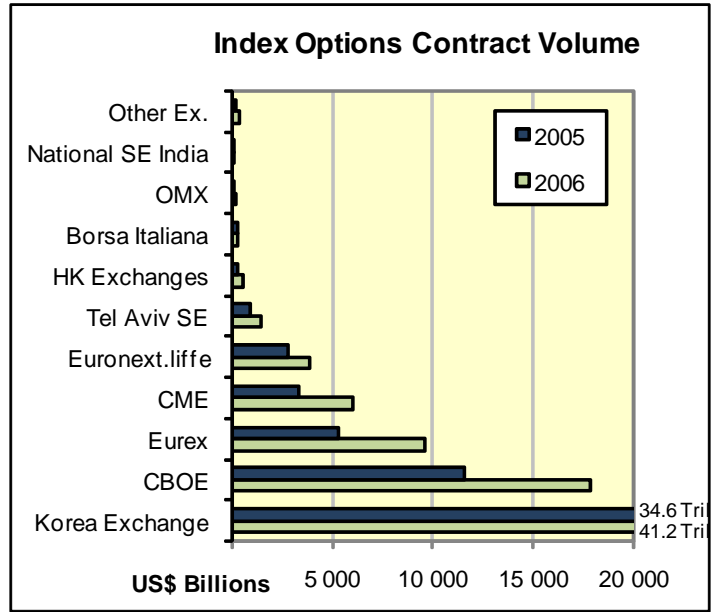
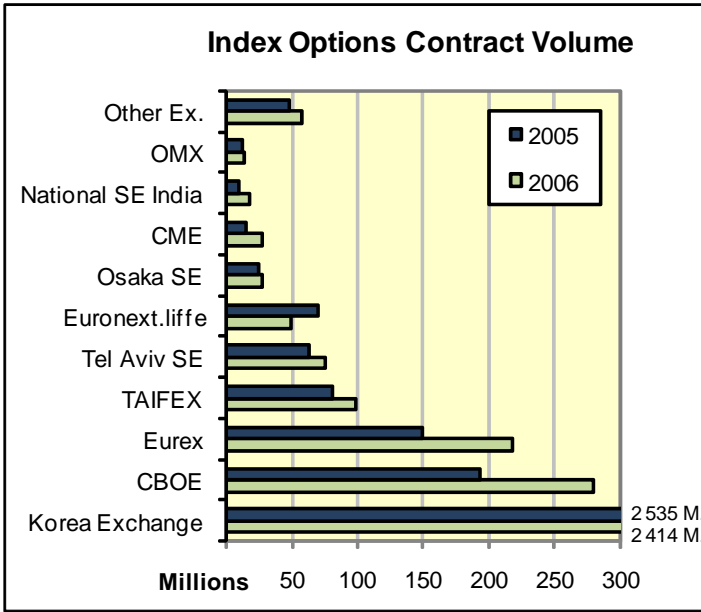
CBOE and Eurex maintained their second and third positions, with each showing a 45% increase in volumes of trading. TAIEX and the Tel Aviv Stock Exchange took fourth and fifth positions, respectively, for the number of contracts traded. In terms of notional value traded, Euronext.liffe is still in fourth position, but it lost this rank in terms of contracts traded. As in 2005, this decrease of the number of contracts traded is due to the multiplication by 10 of the CAC 40 contract size, which was implemented in the course of 2005. Euronext.liffe index options rebased figures show an increase of 19% in 2006.

In the Europe Africa Middle East zone trading activity grew on all exchanges except Athens. A newcomer in this index options segment is the Budapest Exchange. On the whole, index options trading value increased 20% in 2006 in this region. This market is still innovative: in 2006, EUREX launched the first European “weekly options”. More than 700,000 weekly options were traded on the DAX index and the Dow Jones Euro STOXX 50.

In the Americas, a majority of markets also showed an increase in their trading volumes, except CBOT, NYBOT and the Sao Paulo Exchange. The growth was especially rapid on BM&F (+126%), the Bourse de Montréal (+107%), CME (+81%) and ISE (+84%). On the whole, index options trading values increased 46% in 2006 in this region.

In the Asia Pacific region, the market grew 38%, excluding Korea Stock Exchange activity. The growth was especially rapid on the National Stock Exchange of India (+84%).







The 10 most actively traded index options in the world in 2006						
	Underlying Index	Millions of traded cont.	Market share	Market share Excl. Korea	Annual Change	Exchange
1	Kospi 200	2 399	73.1%	-	-5.4%	Korea Exchange
2	Euro Stoxx 50	150	4.6%	17.3%	+65.2%	Eurex
3	S&P 500	104	3.2%	12.0%	+45.3%	CBOE
4	TAIFEX	97	3.0%	11.2%	+21.0%	TAIFEX
5	TA 25	75	2.3%	8.7%	+19.6%	Tel-Aviv SE
6	DAX	61	1.9%	7.1%	+14.5%	Eurex
7	Nikkei 225	28	0.9%	3.3%	+13.4%	Osaka SE
8	AEX	26	0.8%	3.0%	+30.5%	Euronext.liffe
9	S&P 100	17	0.5%	2.0%	-8.4%	CBOE
10	FTSE 100	16	0.5%	1.8%	+4.2%	Euronext.liffe
11	OMX	14	0.4%	1.6%	+11.3%	OMX
	<b>TOTAL</b>	<b>2 988</b>	<b>91.0%</b>	<b>67.8%</b>		

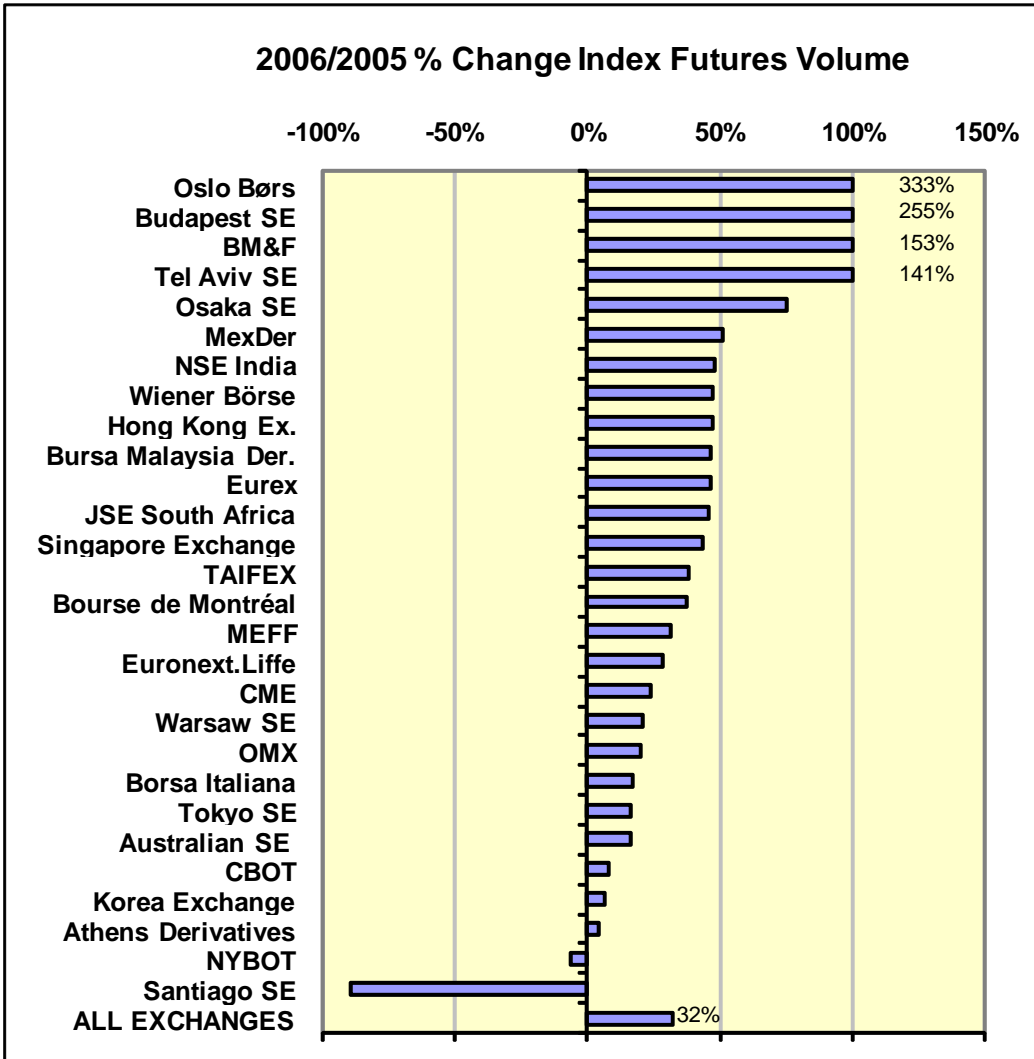
### ➤ Index futures

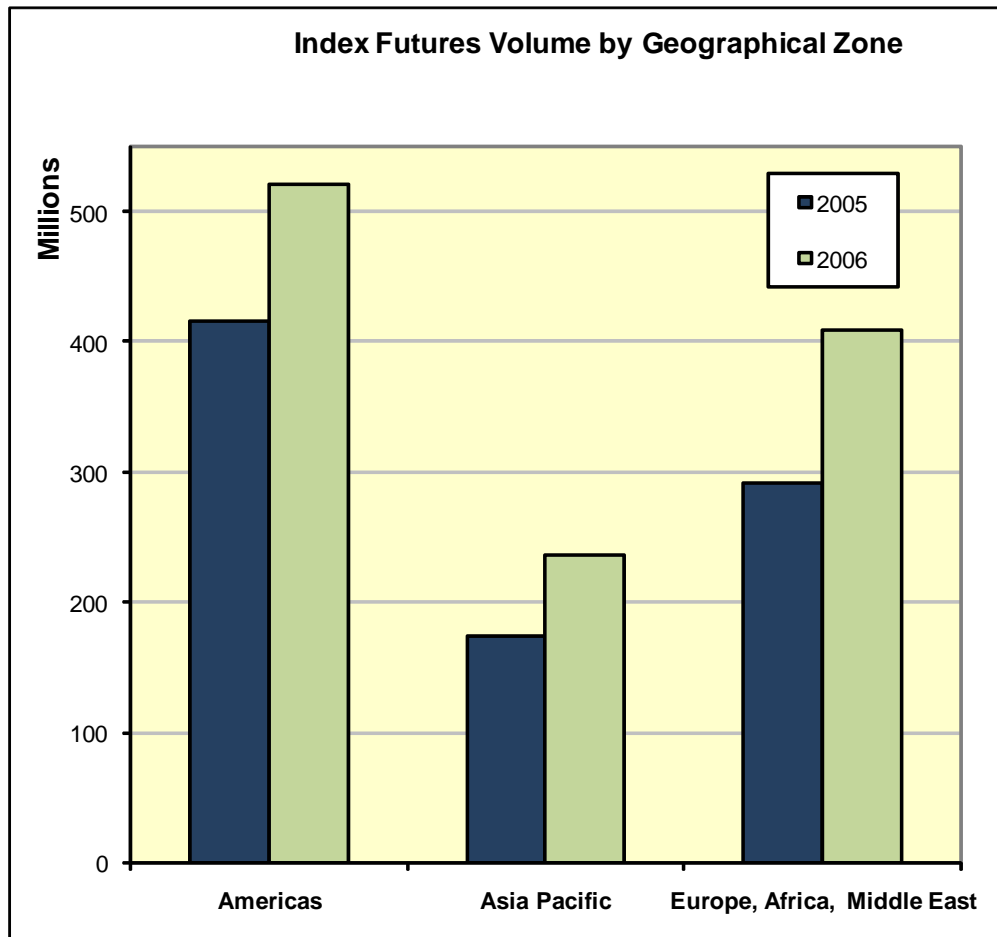
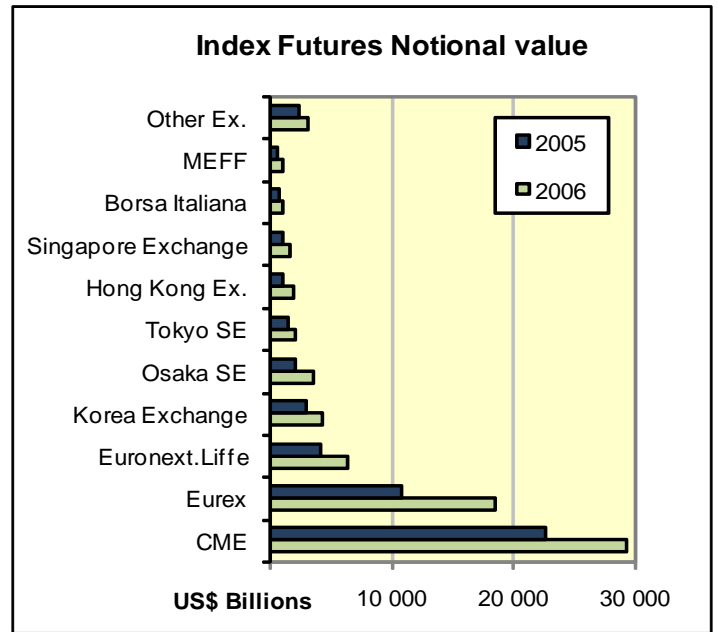
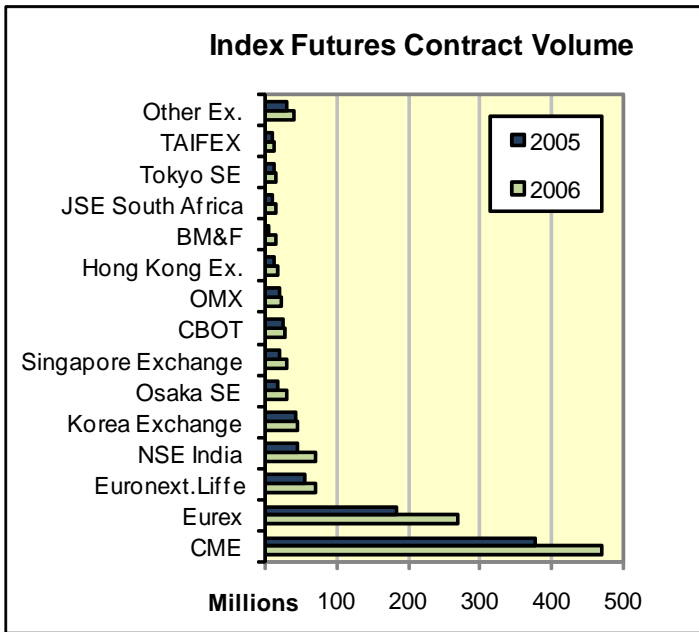
The growth of overall volumes of index futures accelerated again in 2006 to 32% against 17% in 2004. The growth of notional value was 43%, a figure that can be compared to the rise of global stock indices (the MSCI world index in USD increased 18.6%).

The Americas kept their dominant position over other regions in terms of number of contracts traded. However, the Europe Africa Middle East region comes first in terms of notional value of traded contracts.

In the Americas, CME concentrated 90% of the number of traded contracts. Its growth accelerated in 2006 (30% in 2006 against 24% in 2005). As in 2005, the MINI S&P futures account for half of the number of contracts traded, and it is followed by the E-MINI Nasdaq and the S&P 500.

In Europe, EUREX kept its lead thanks to the Dow Jones EURO STOXX 50 index futures, which accounted for 80% of its overall volume of traded index futures. The market share of national indices decreased again. Euronext.liffe, OMX and JSE South Africa are the next most important places for the trading of index futures in terms of number of traded contracts. However, Borsa Italiana and MEFF are ahead of OMX and JSE South Africa in terms of notional traded value. All other exchanges active in futures trading (Athens, Budapest, Wiener, Tel Aviv, Warsaw) also showed a strong growth of index futures trading in 2006.



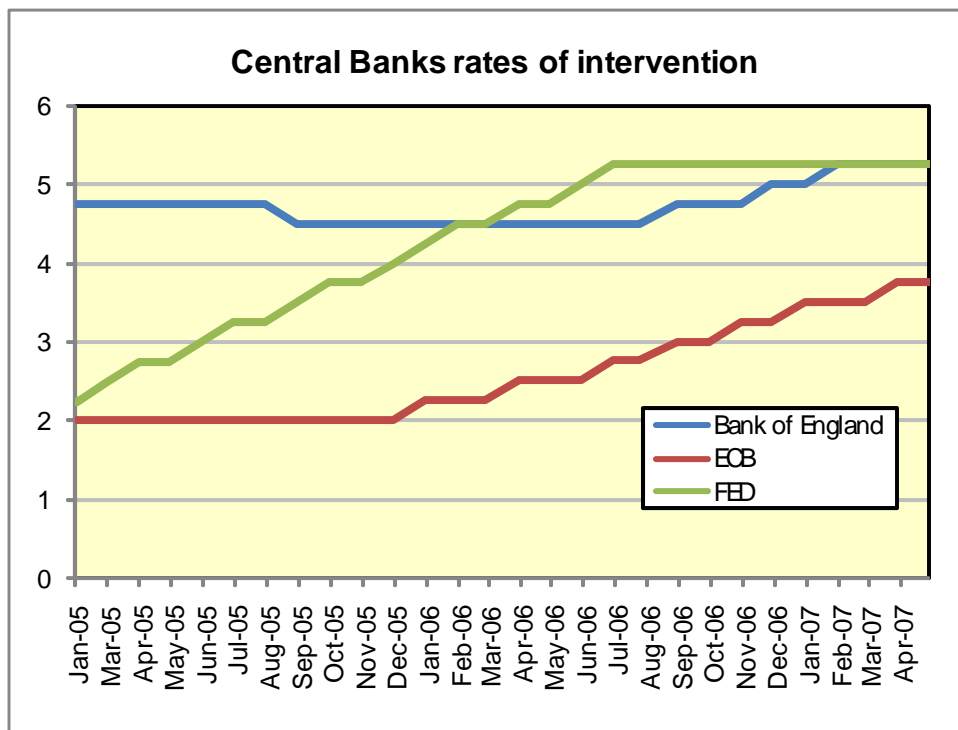


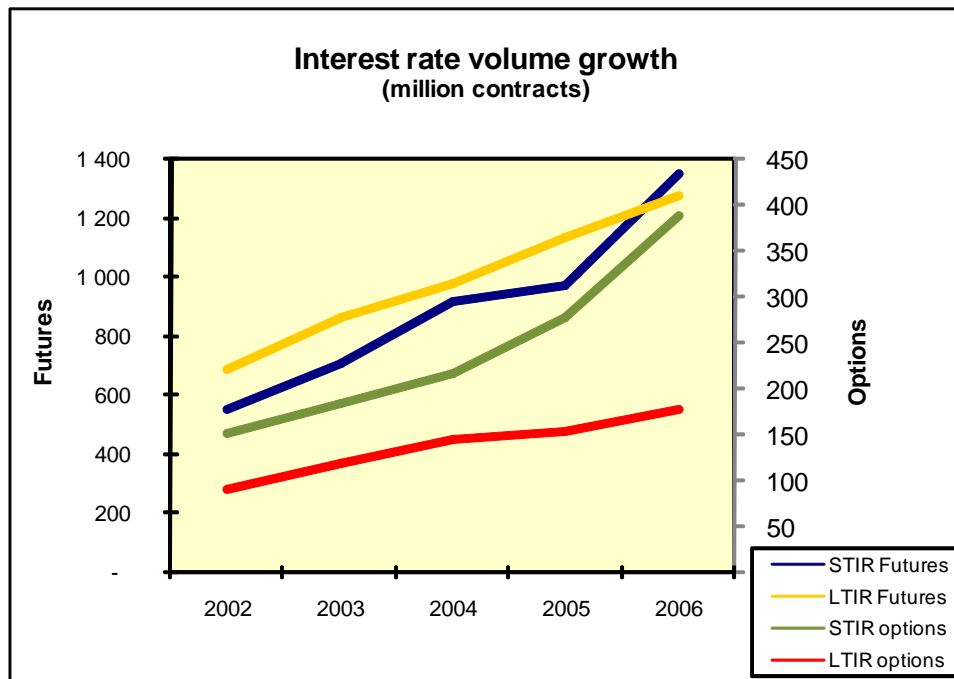


## B - INTEREST RATE PRODUCTS

A total 3.2 billion interest rate derivatives were traded on-exchange in 2006, an increase of 26% over 2005. Short term interest rate options and futures volumes increased by 39%, and long term interest rate derivatives by 13%.

This growth was stimulated by changes and uncertainty concerning interest rates, especially short term interest rates driven by Central Banks rates of intervention: Since December 2005 in Europe, the ECB increased its intervention rate 6 times and the Bank of England 3 times. In the US, the FED increased it 4 times in the first semester of 2006.





### ➤ STIR Options and Futures

CME and Euronext.liffe remain the two leaders on the STIR derivatives market but with a very important growth of its turnover on STIR Futures (+156%), Mexder is in third position for futures with a turnover very close to that of Euronext.liffe. Nevertheless, the notional value of contracts traded on the Mexder remains much less important than on Euronext.liffe and the CME.

The volume of STIR Futures traded also increased on BM&F. In 2005, BM&F and Mexder had shown a decrease of their volume on STIR Futures.

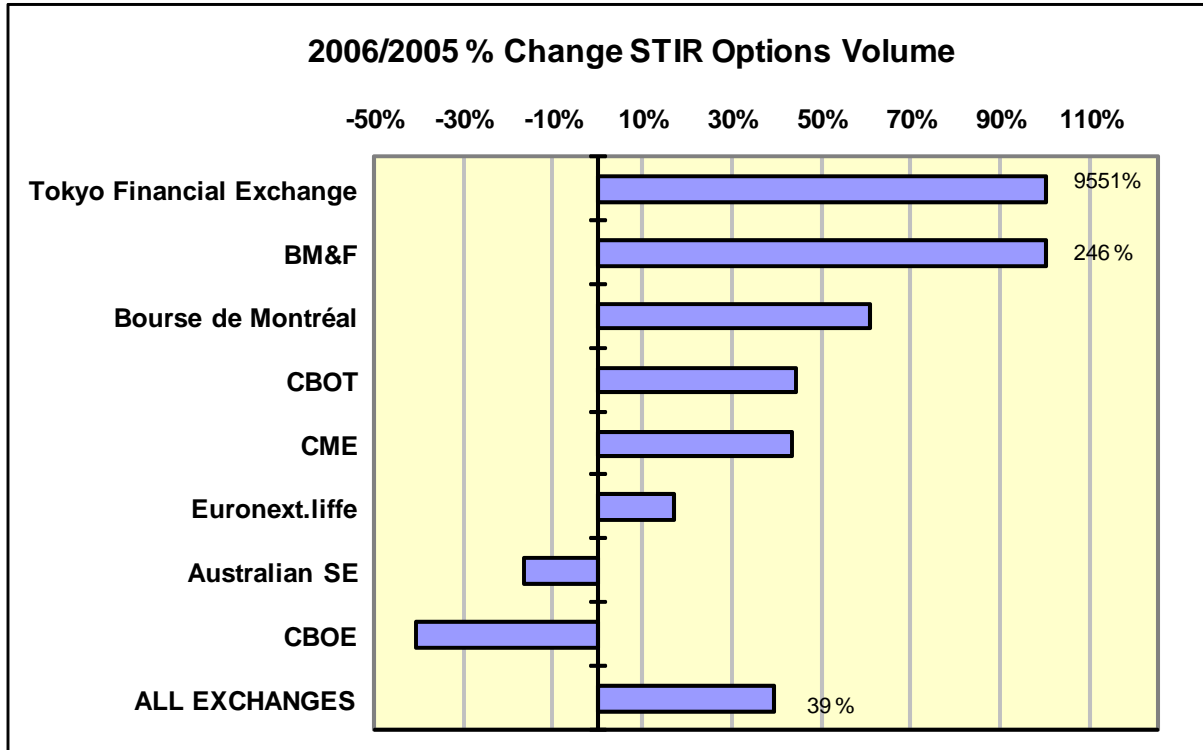
Regarding STIR Options, BM&F increased its volume very significantly (+246%), but its turnover still lags far behind that of CME and Euronext.liffe.

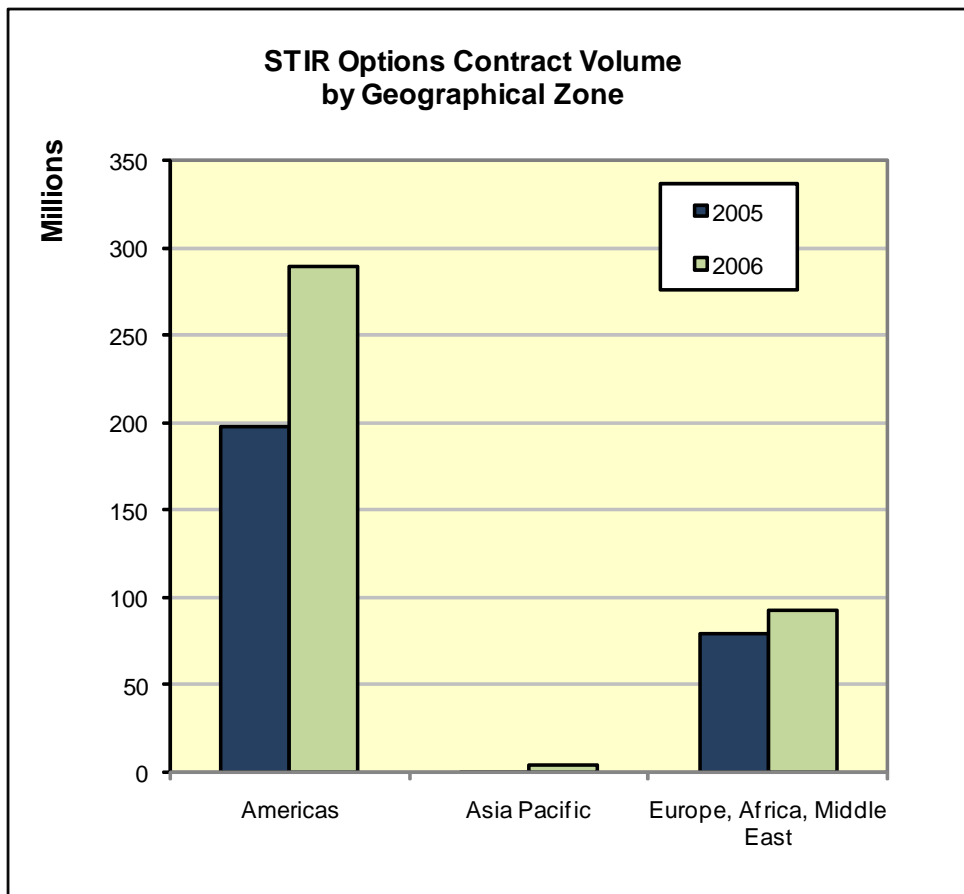
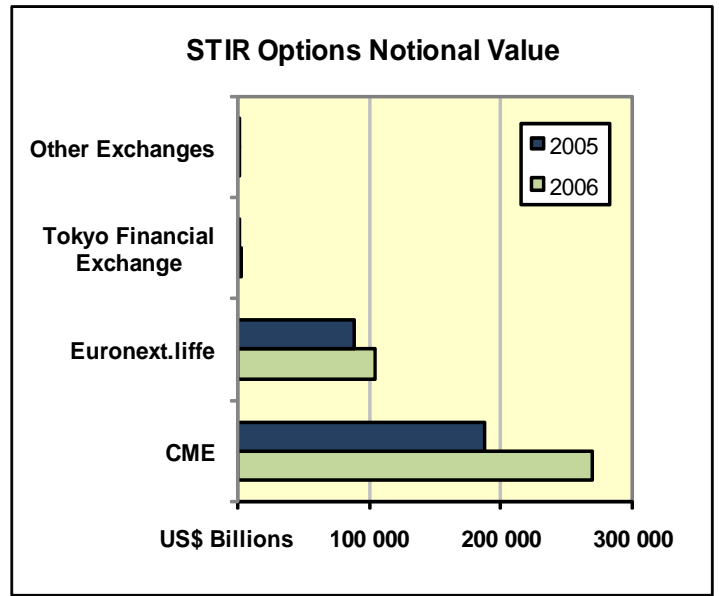
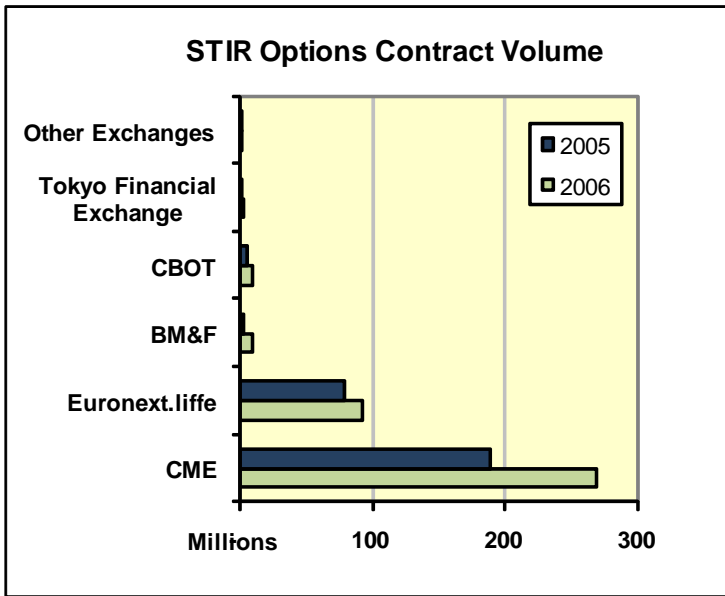
In the US, CBOT volumes are not very important compared with the CME but they are increasing rapidly.

In Asia, volumes of STIR options traded on the Tokyo Financial Exchange were very small in 2005 but they were multiplied by 96 in 2006. It allowed the Tokyo Financial Exchange to rise to the fourth position regarding the trading of STIR options. The Japanese Stock Exchange also increased its volumes of trades on STIR Futures very significantly. This increase compensated for the decrease on Hong Kong Exchange, Korea Exchange and TAIFEX.



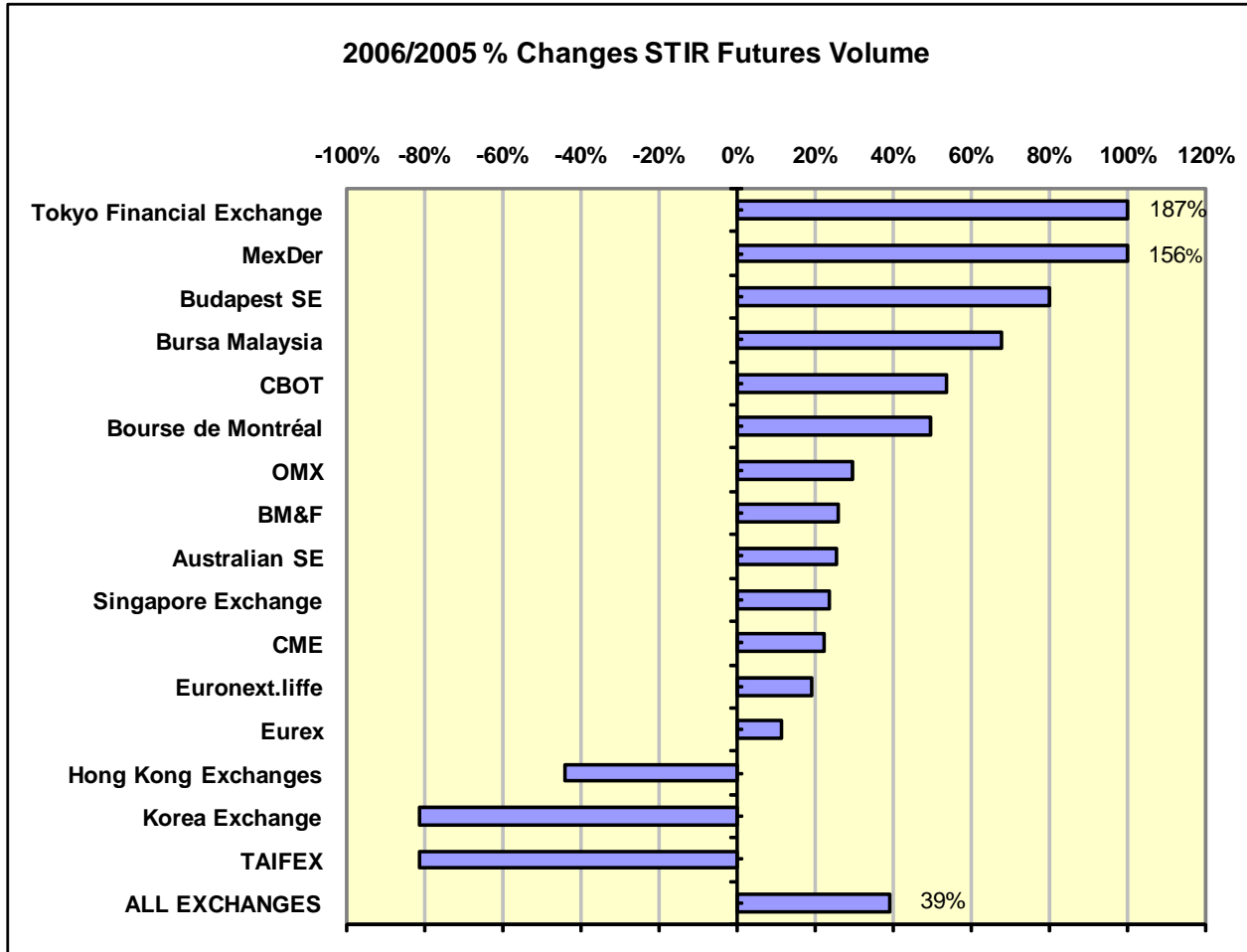
*a) STIR Options*

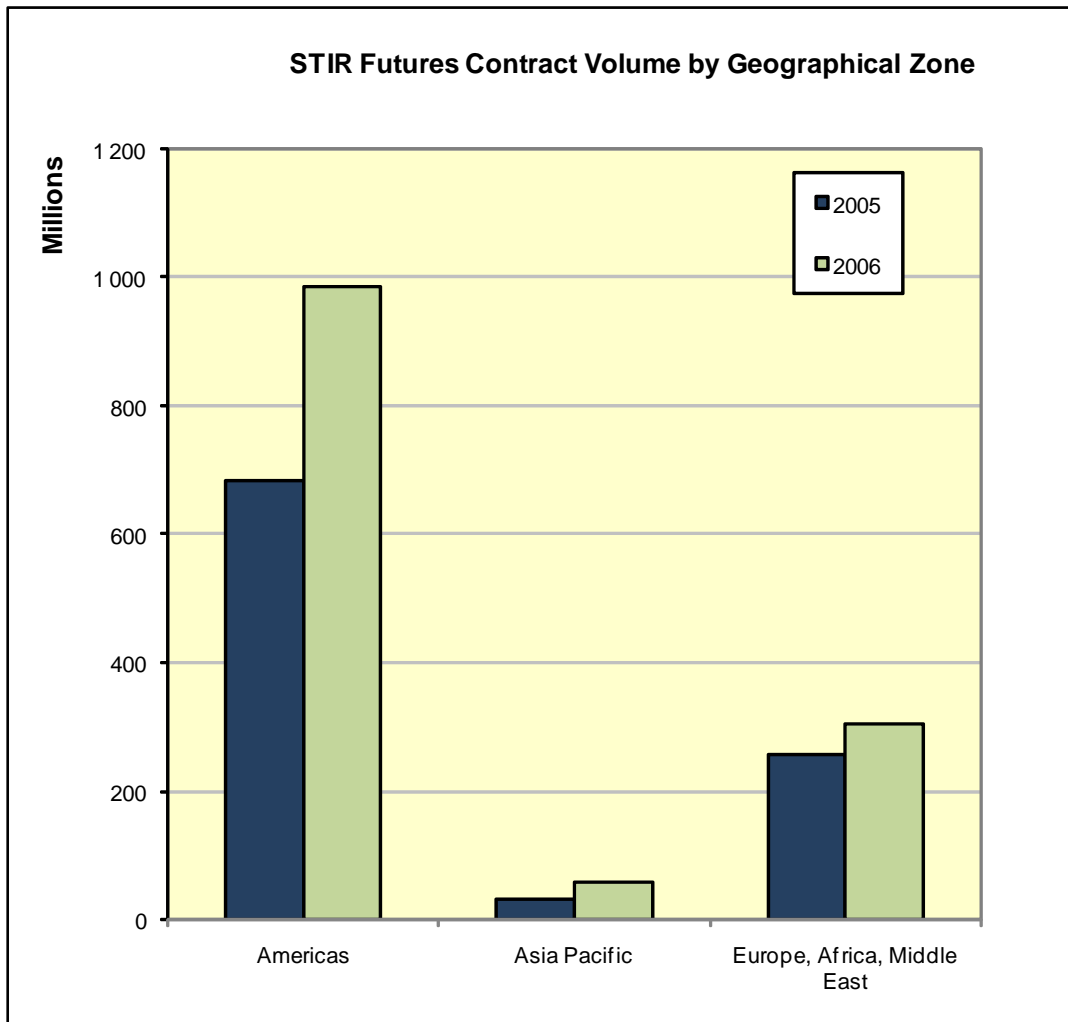
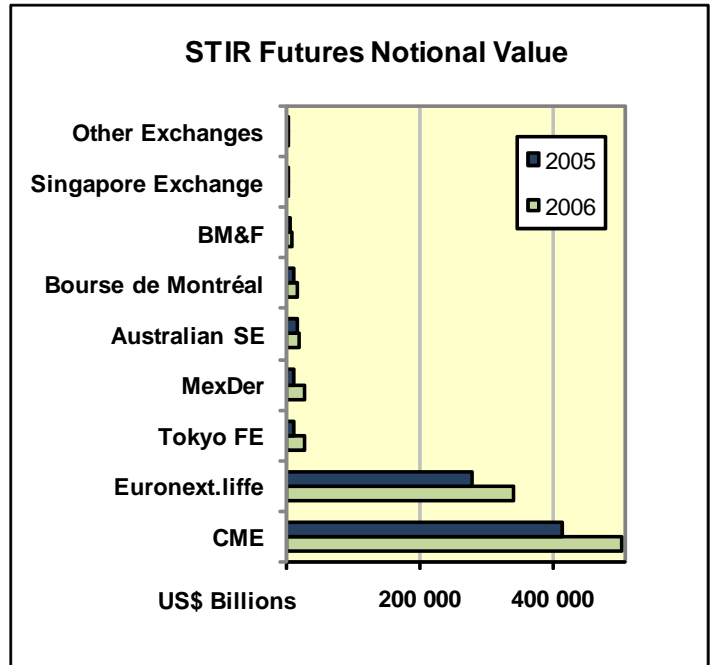
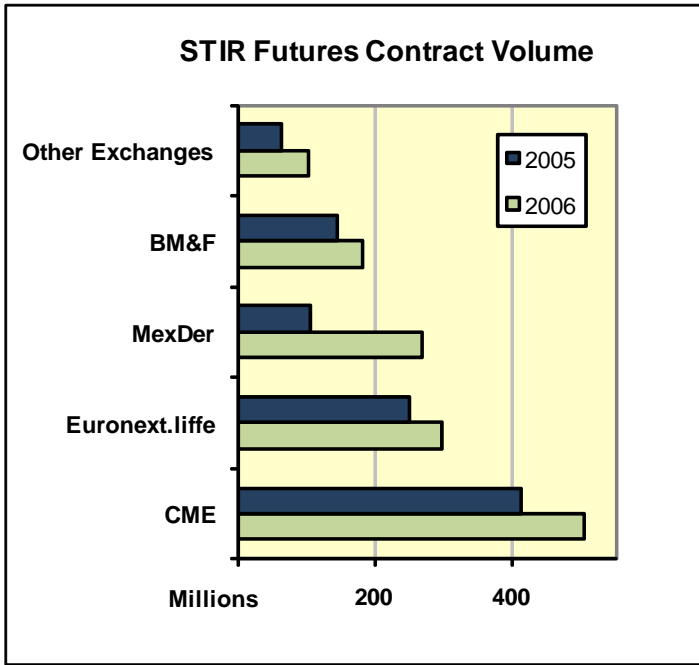






*b) STIR Futures*







## ➤ **LTIR Options and Futures**

CBOT and Eurex still represented most of the global trading in long term interest rate derivatives in 2006. Trading volume increased 13% on the CBOT and 11% on EUREX. On Eurex, the Euro Bund Futures with 319.9 million traded, are still the most active. The fastest growth has been observed on the Euro Bobl futures (+24.6%), with 197.3 million contracts exchanged. The third contract is the Euro Schatz Future. These three underlying bonds have also active options.

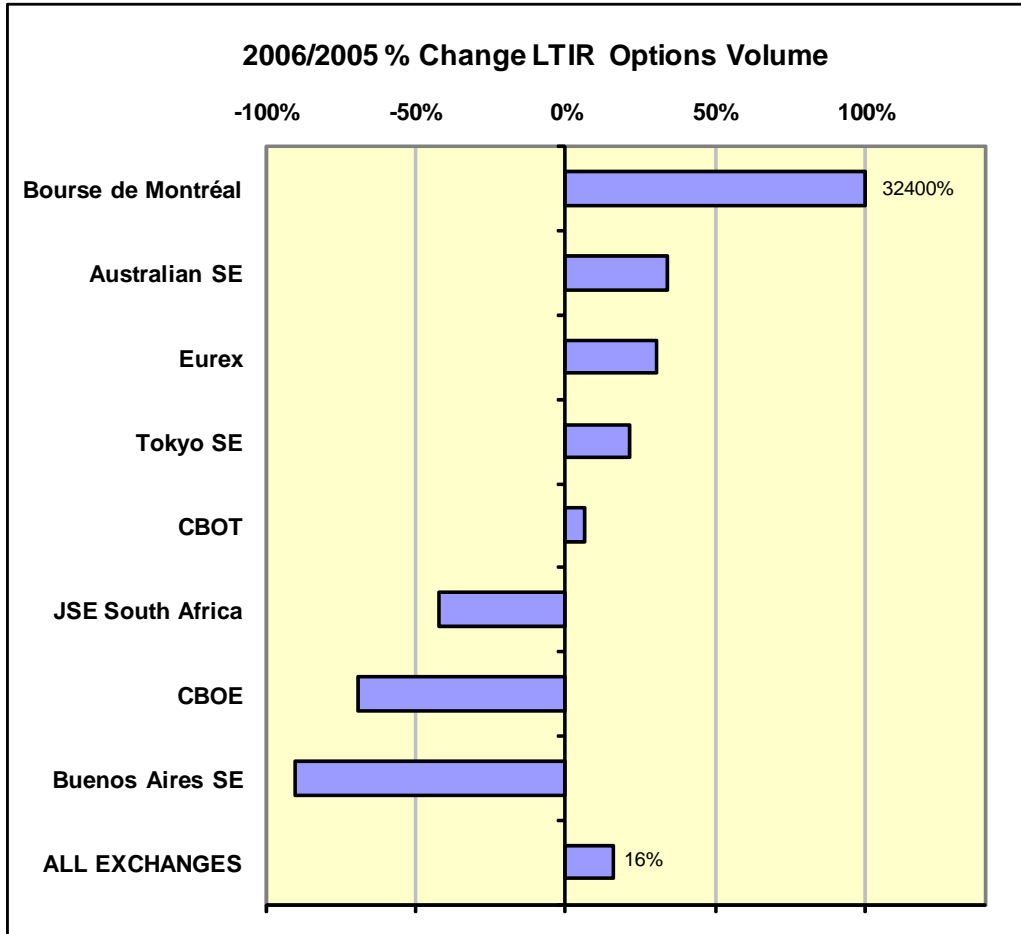
In the Americas, LTIR options that had stopped being traded on the Bourse de Montreal in 2005 were traded again in 2006 but the volumes and the notional value remained very low. LTIR options traded on the Buenos Aires SE and on CBOE continued to decline sharply: the volume was divided by ten on Buenos Aires SE and by three on CBOE. As far as LTIR futures are concerned, the number of contracts traded increased on all the American markets in 2006. Moreover, Philadelphia SE started trading LTIR futures.

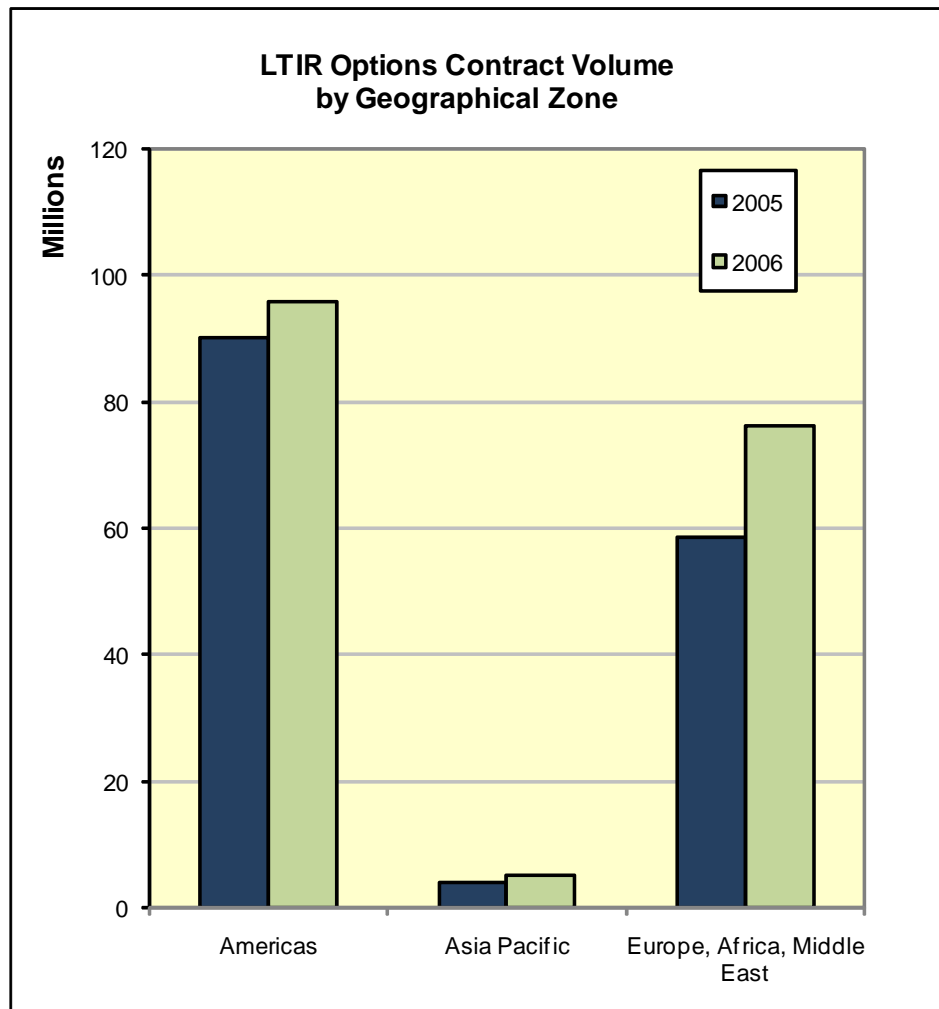
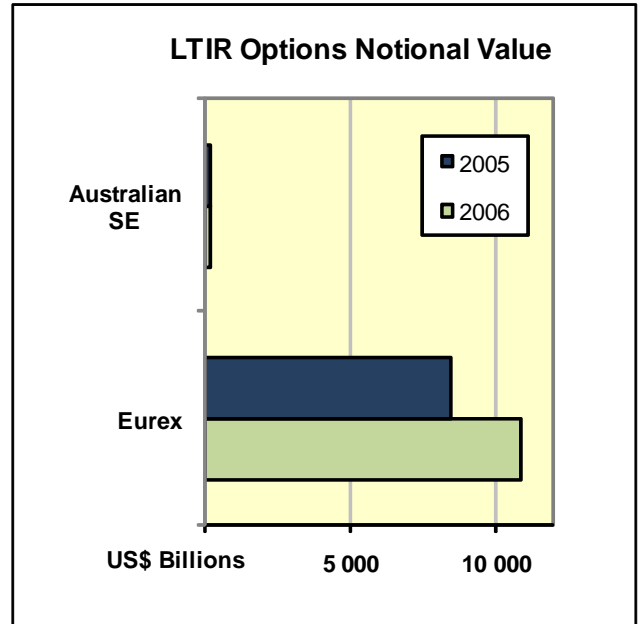
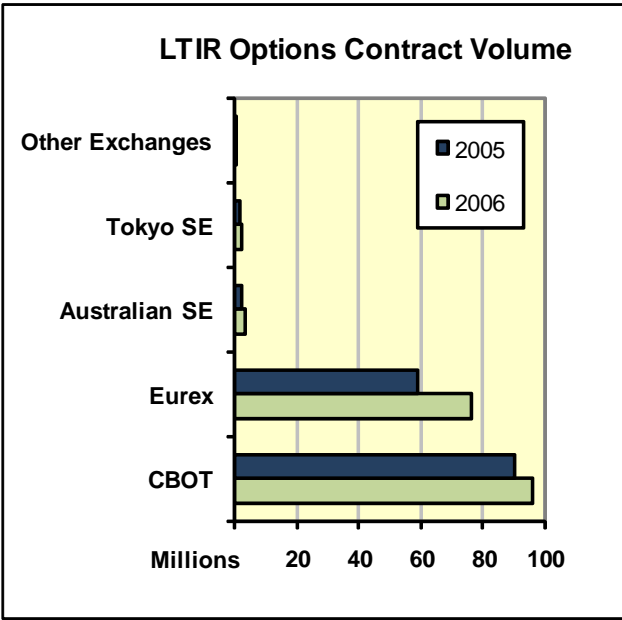
In Europe, Eurex, Euronext.liffe and OMX showed an increase of their LTIR futures trading in 2006. The volumes of LTIR futures trades decreased on the Warsaw SE and MEFF. Two European exchanges started trading LTIR futures: the Budapest SE and the Tel Aviv SE.

In Asia, the volume of LTIR derivatives trades increased slightly but remained much less important than in the Americas and Europe due to the importance of Eurex and CBOT. LTIR options stopped being traded on the Singapore Exchange and LTIR futures as well on the Hong Kong Exchange.



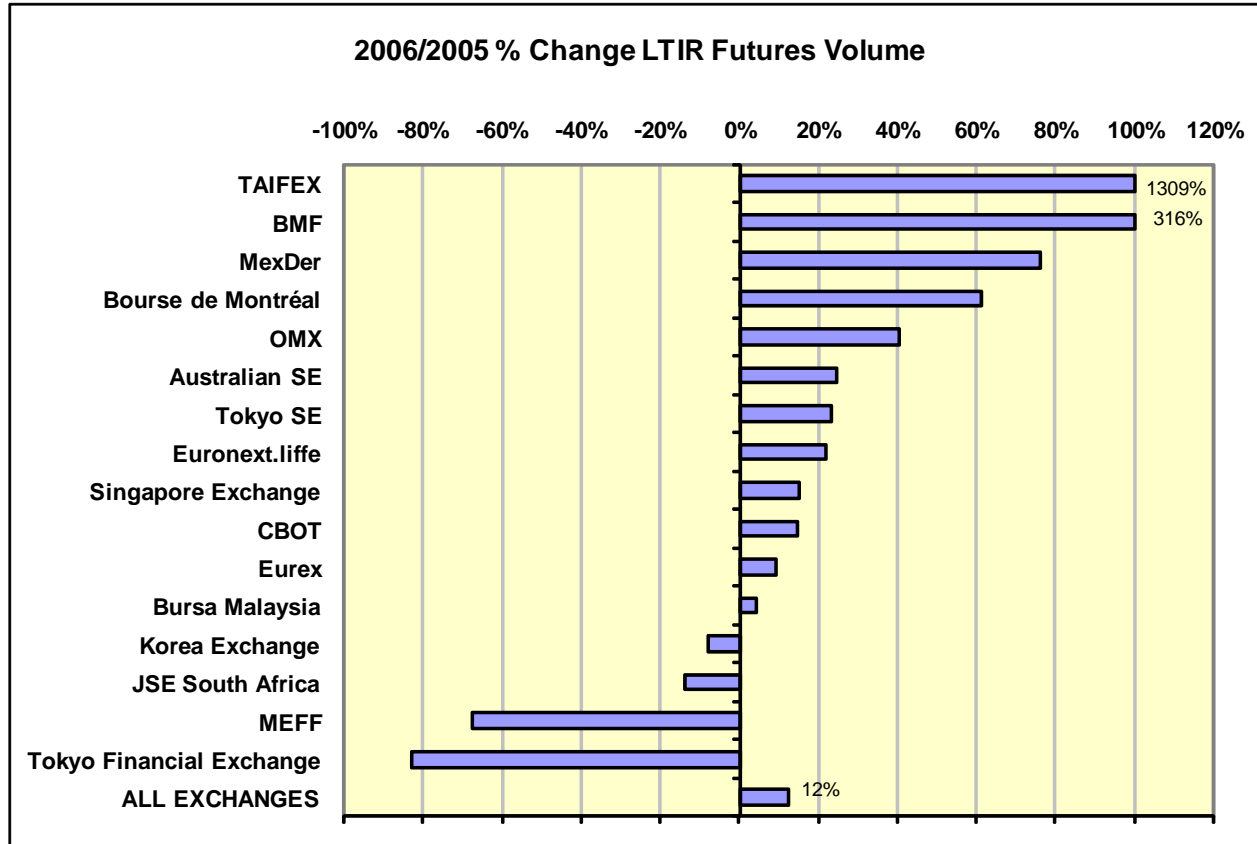
*a) LTIR Options*

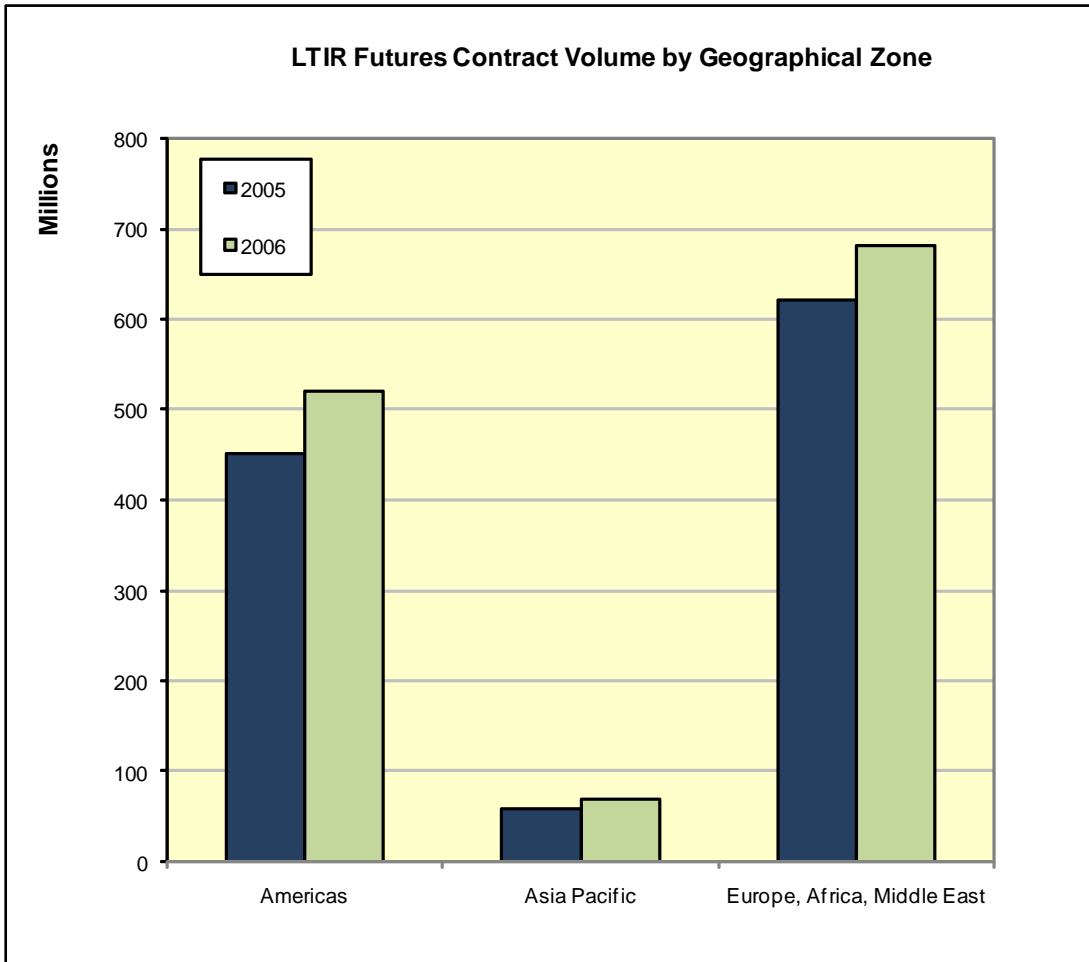
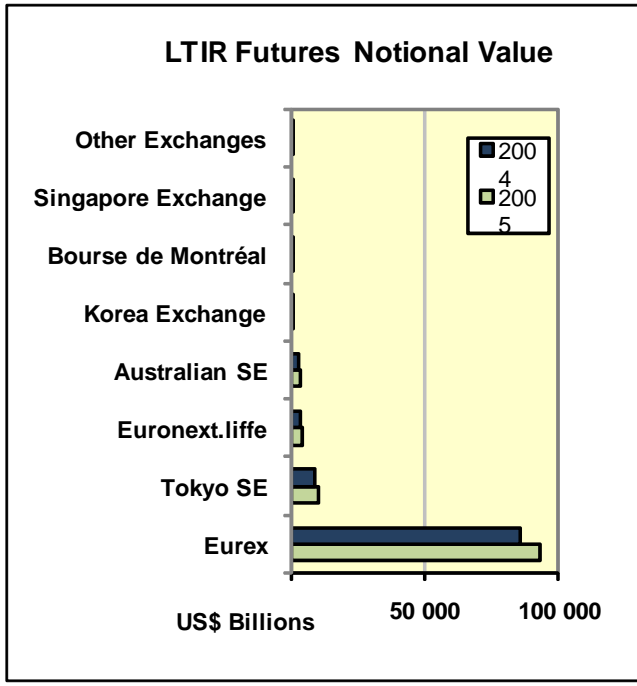
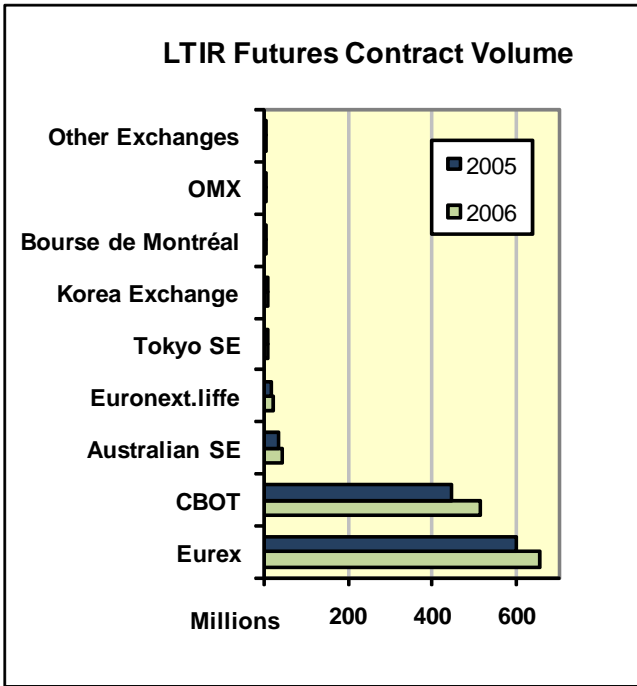






*b) LTIR Futures*

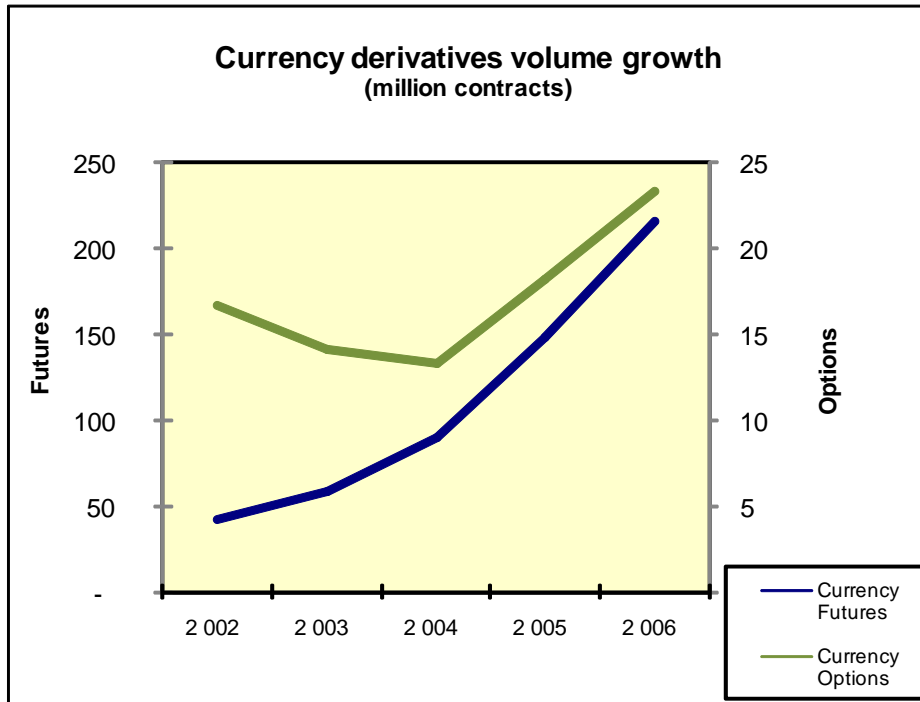






## C – CURRENCY PRODUCTS

Currency derivatives remain a relatively small segment of organised derivatives markets. With 215 million futures and 23 million options traded in 2006, they still represented 2% of overall derivatives volume. However, the important growth observed in 2005 continued on the same trend in 2006.

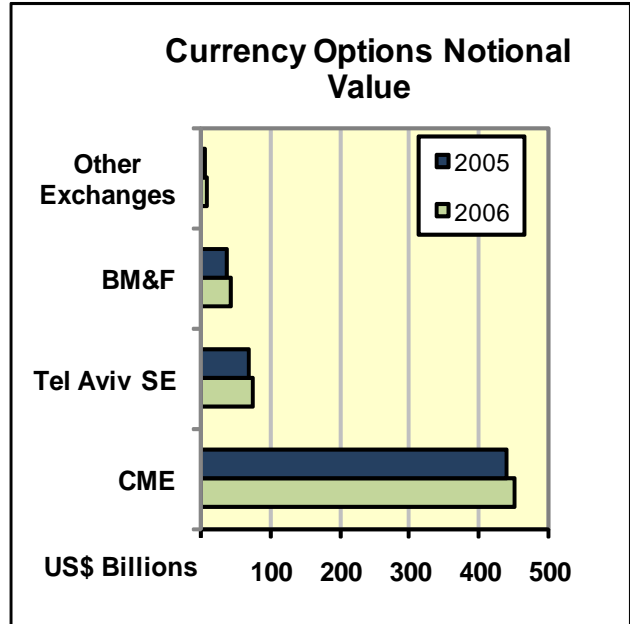
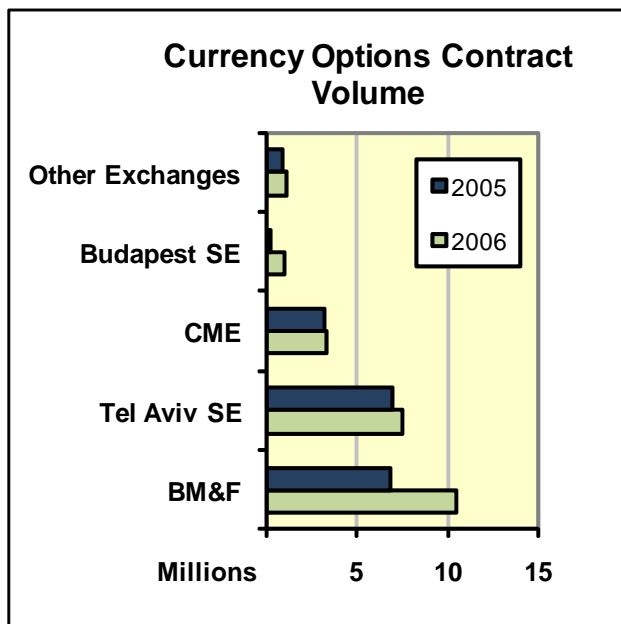
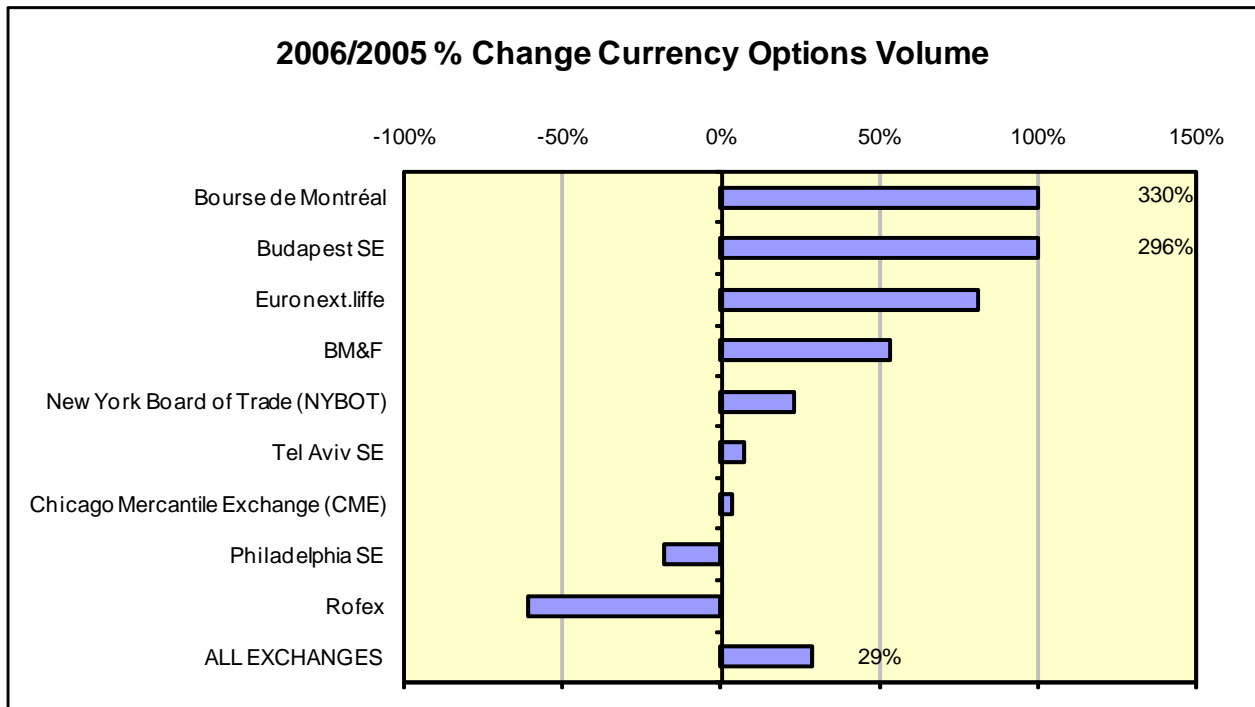


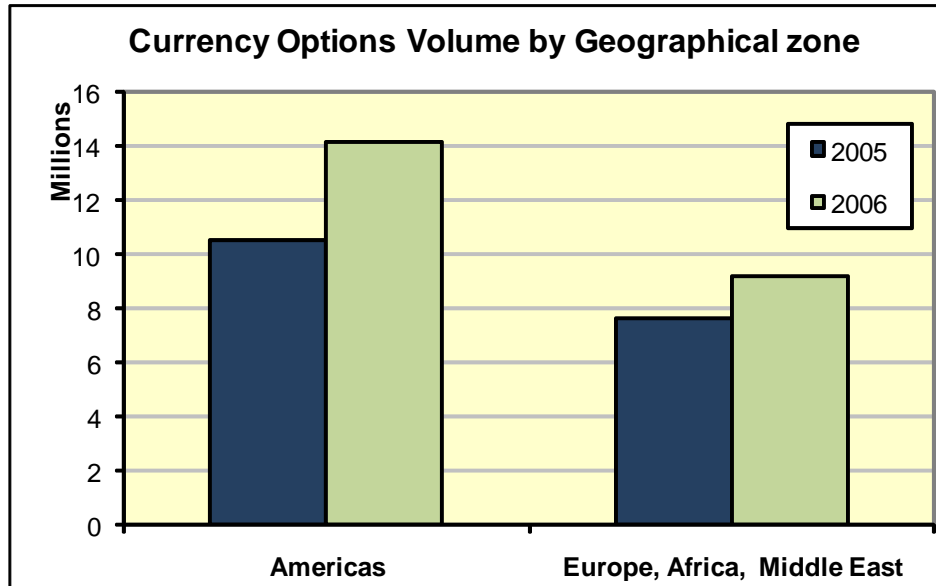


**a) Currency Options**

BM&F, the Tel Aviv SE and CME accounted for 92% of the total volume of currency options trades in 2006. The important growth rate of BM&F in 2006 (54%) allowed the market to be first for the trading of currency options. Currency option trading remains modest in size as compared to the size currency futures.

One Stock Exchange started trading currency options in 2006, namely MexDer, but at present the volume is very low.





### *b) Currency Futures*

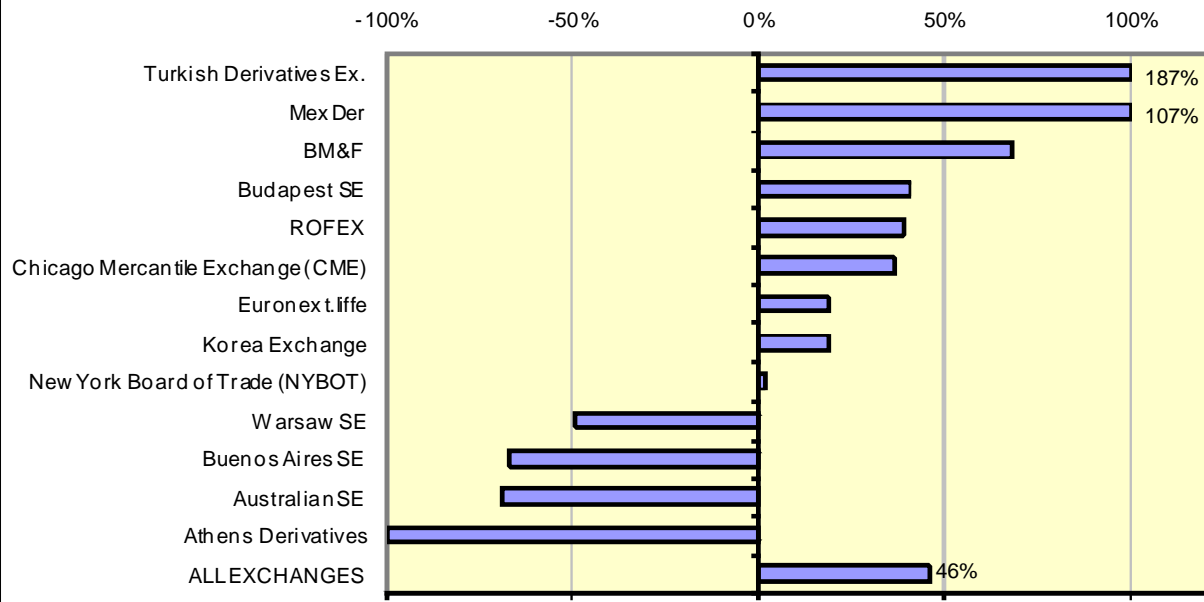
In 2006, as in 2005, 79% of the currency futures trades were concentrated on CME and BM&F. On both Stock Exchanges the rate of growth of volumes in 2006 was important.

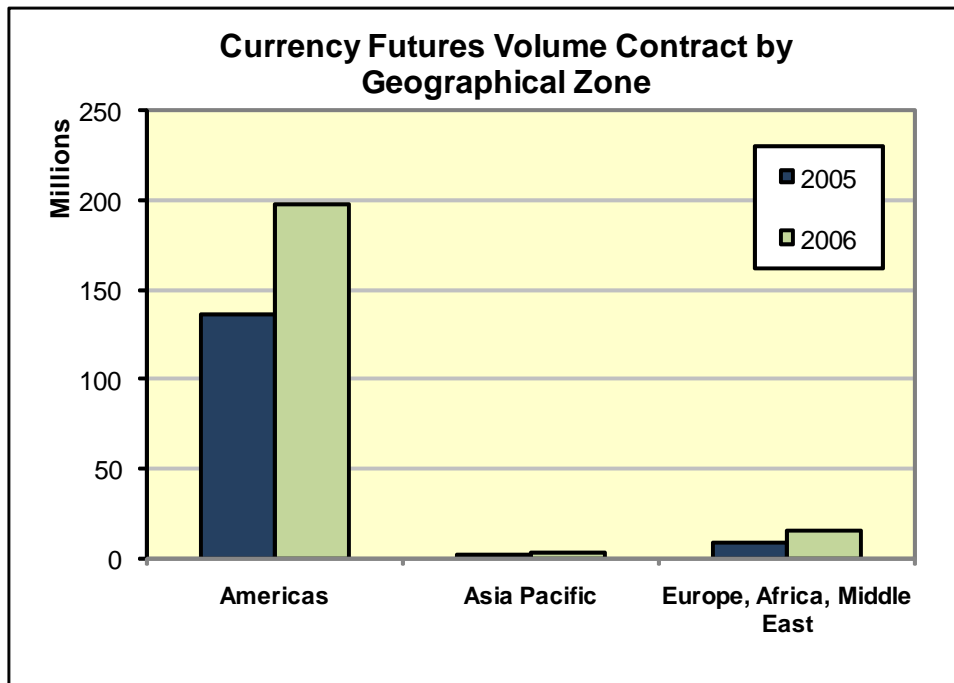
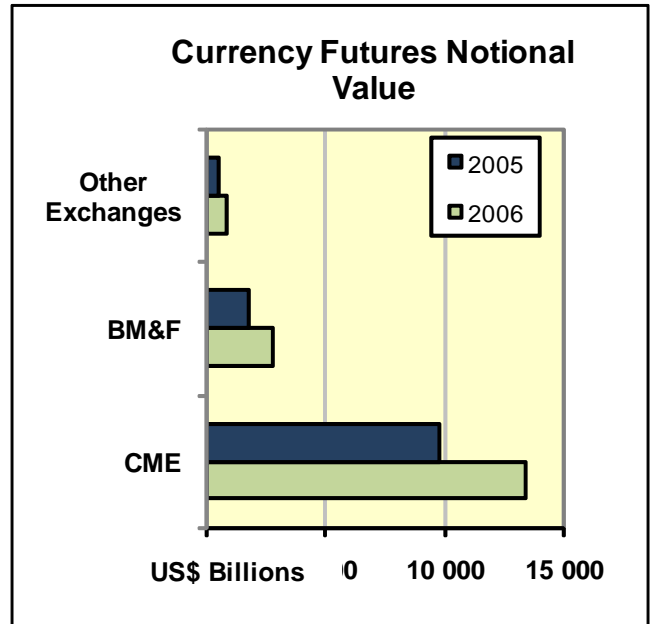
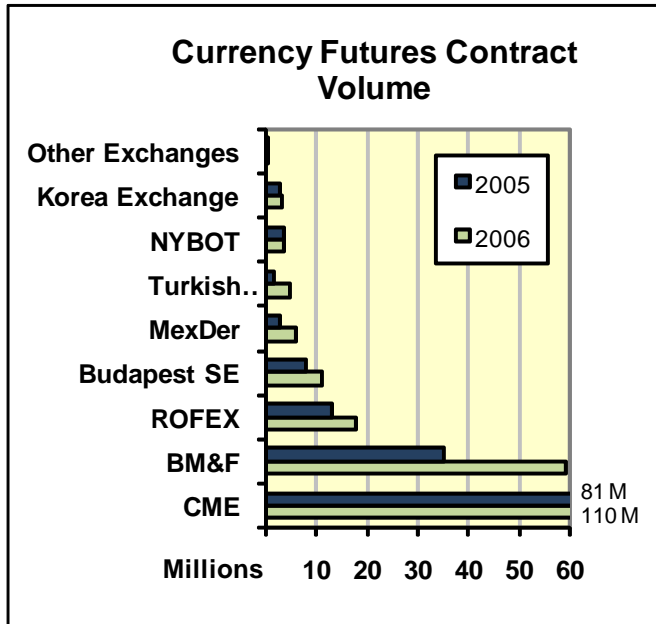
Despite the high growth rate of the turnover on the Turkish Derivatives Exchange, the Budapest SE and Euronext.liffe, the volume of trades in the European time zone remained far behind the Americas.

In Asia the turnover is still very low compared to Europe and the Americas. Moreover, the Tokyo Financial Exchange stopped trading currency futures in 2006.



### 2006/2005 % Currency Futures Volume





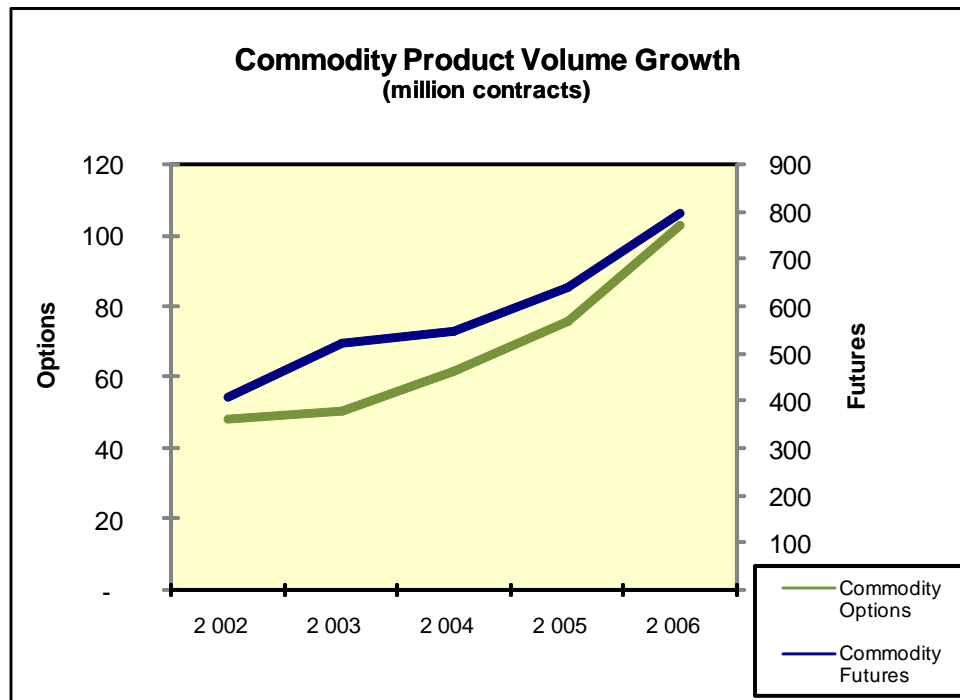


## D - COMMODITY DERIVATIVES

The growth of commodity derivative markets accelerated in 2006: 794 million commodity futures were transacted, an increase of 24% over 2005; 103 million options were contracted, an increase of 36%.

This acceleration is due to the diversification of the market participants. Prices of raw materials are under pressure from the needs of China, and many investors found it easy to get an exposure to raw materials through derivative products. These products offer high returns, no correlation with stocks and bonds, and an inflation edge.

The performance of agriculture products slowed down while energy products were negative, offsetting the very good performance of 2005. Prices of industrial and precious metals increased rapidly.





<b>Dow Jones AIG Commodity Indexes</b> <i>Performance Summary in US \$</i>				
	Agriculture	Energy	Industrial Metals	Precious metals
2006	2.1	-41.4	72.4	27.1
2005	21.4	42.2	33.5	20.4
2004	9.2	19.1	26.3	7.4

### ➤ Energy derivatives

Most of energy derivatives trading concentrated on two exchanges: ICE Futures and NYMEX..

Main contracts traded on the NYMEX trading floors traded simultaneously on the CME Globex electronic trading system. Some contracts are exclusively traded on Globex, including fractional energy futures and fractional COMEX metal futures. The NYMEX ClearPort electronic platform is used for trading or exclusively for the clearing of 250 financially settled contracts that replicate OTC energy transactions.

Two initiatives for the creation of new energy derivatives markets has recently been announced.

In March 2007, the Montreal Exchange and the NYMEX announced that they will develop an energy market in Canada, through the creation of a joint corporation that will provide trading and clearing of OTC (as a first step) and exchange-traded (as a second step) options and futures on crude oil, natural gas and electricity products. These contracts will be based primarily on Canadian energy commodities.

Meanwhile the Dubai Mercantile Exchange (DME), a joint venture between Tatweer, a member of Dubai holding and the New York Mercantile Exchange (NYMEX), announced that they will launch a new energy futures exchange in May 2007. Three contracts will initially be proposed for trading: a physically delivered Oman Crude Oil Futures Contract and two financially settled contracts, a Brent-Oman spread contract and a WTI-Oman spread contract. Clearing and settlement services will be provided by the NYMEX.

In 2006, 192 million energy futures and 54 million energy options were traded on the NYMEX, while 93 million futures were traded on ICE Futures.



<b>The five most actively traded energy options in the world in 2006</b>				
<i>Name of the contract</i>	<i>Millions of contracts</i>			<i>Exchange</i>
	<b>2006</b>	<b>2005</b>	<b>2004</b>	
Crude Oil	21	15	12	NYMEX
Natural Gas	10	9	8	NYMEX
Crude Oil Calendar Spread Options	1.2	0.4	0.4	NYMEX
Crude Oil Average Price Options	0.8	0.0	0.0	NYMEX
Heating Oil	0.6	1.0	0.8	NYMEX

<b>The five most actively traded energy futures in the world in 2006</b>				
<i>Name of the contract</i>	<i>Millions of contracts</i>			<i>Exchange</i>
	<b>2006</b>	<b>2005</b>	<b>2004</b>	
Light, Sweet Crude Oil	71	60	53	NYMEX
Brent	44	30	25	ICE Futures
WTI	29	-	-	ICE Futures
Fuel Oil	25	20	6	Shanghai Futures Exchange
Natural Gas	23	19	17	NYMEX

➤ **Metal derivatives**

Performances of industrial metals were very positive in 2006, thanks to strong fundamental conditions. Driven by copper, base metal prices on LME in Europe and COMEX in the US topped in May 2006 as a result of strong Chinese and global demand, supply issues and low levels of stockpiles. The volatility of prices was high and the second half of May showed a fall.

<b>The five most actively traded metal options in the world in 2006</b>				
<i>Name of the contract</i>	<i>Millions of contracts</i>			<i>Exchange</i>
	<b>2006</b>	<b>2005</b>	<b>2004</b>	
Primary Aluminium	4.8	4.6	2.3	LME
Gold	3.7	2.9	4.7	NYMEX
Copper – Grade A	1.9	2.2	1.8	LME
Silver	1.6	1.1	1.0	NYMEX
Special High Grade Zinc	1.4	1.0	0.5	LME



<b>The five most actively traded metal futures in the world in 2006</b>				
<b>Name of the contract</b>	<b>Millions of contracts</b>			<b>Exchange</b>
	<b>2006</b>	<b>2005</b>	<b>2004</b>	
Primary Aluminium	36	30	29	LME
Aluminium	28	4	14	Shanghai Futures Exchange
Copper – Grade A	19	19	18	LME
Gold	16	16	15	NYMEX
Special High Grade Zinc	12	11	10	LME

### ➤ **Agricultural derivatives**

The interest for Agricultural derivatives has been stimulated by the perspective that some products, namely sugar and corn, can be used as biofuels. This pushed the price of sugar up as it is the base for the production of ethanol in Brazil, the leading country manufacturing biofuels (the second one being the United States where manufacturers use corn).

Grain derivative markets were also very active and bullish (+40% over the year), as concerns over the drought in Australia and poor weather conditions in the US and eastern Europe dramatically diminished global stocks.

The growth of agricultural derivative markets has been partly driven by the new market participants who interact with traditional hedgers (producers, processors, manufacturers or merchants handling the commodity). In the United States, the CFTC announced at the end of 2006 that the so-called “Commitments of Traders Reports” will include supplemental tables showing the share of open positions held by “Index Traders” in agricultural derivative futures and options. Index Traders are managed funds, pension funds and other institutional investors that seek exposure to commodity prices as an asset class in an unleveraged and passively-managed manner using a standardized commodity index”. Most Index Traders are market participants that hedge OTC transactions involving commodity indices, such as swap dealers who are counterparts of institutional Index Traders. In the first quarter of 2007, Index Traders accounted for 9 to 41% of long open positions depending on the products and markets.



Share of Index Traders in Long futures and options combined open positions , as of March 13, 2007 (in %)		
Chicago Board of Trade	Wheat	41.2
	Corn	18.2
	Soybeans	22.8
	Soybean oil	24.3
New York Board of Trade	Cotton n°2	32.7
	Cocoa	9.6
	Sugar n°11	28.6
	Coffee C	23.8
Chicago Mercantile Exchange	Lean Hogs	41.1
	Live Cattle	32.9
	Feeder Cattle	21.4

Source: CFTC

In Europe, agricultural derivatives markets are less developed than in the Americas and Asia because the Common Agricultural Policy protects producers against price falls. However this policy was reformed in 2003 and a new reform is scheduled for 2013. Furthermore, like in other parts of the world, new types of market participants were attracted by the impressive price increases of several commodities. With more than 9 million futures and 700.000 options, Euronext.liffe was the main European Exchange for agricultural derivatives, with a growth of 16% in contracts traded of in 2006.

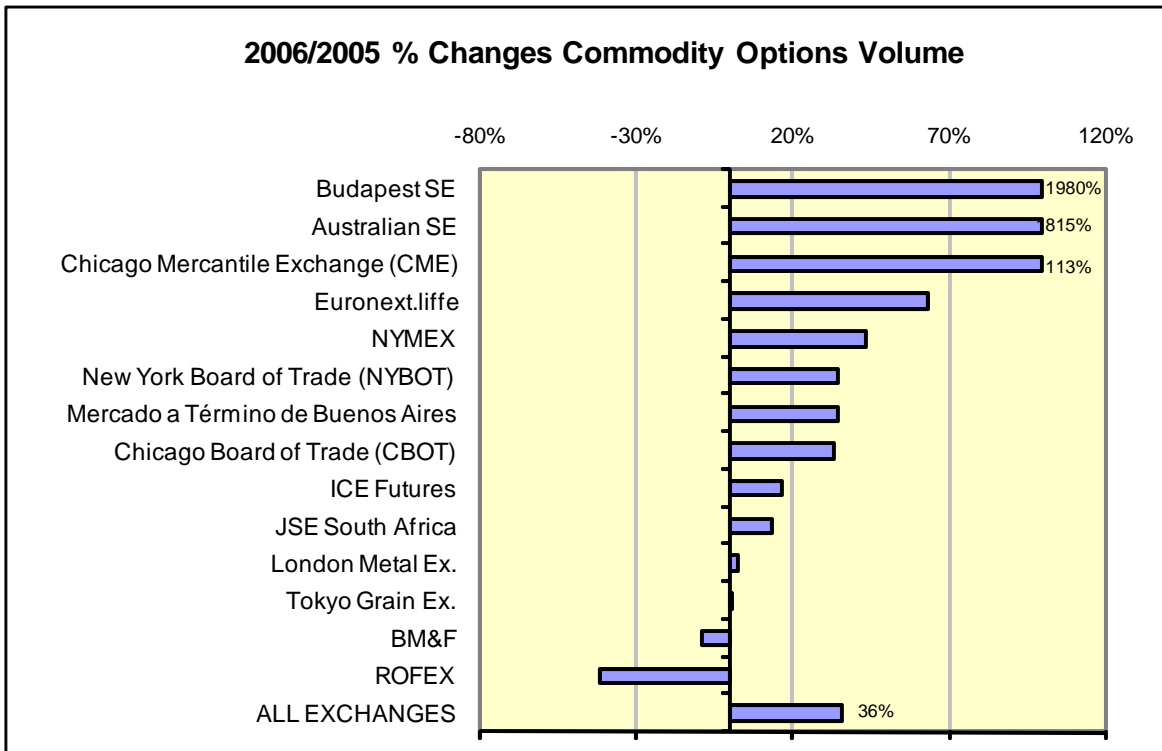
Other exchanges listing agricultural futures are RMX in Hanover (Germany), with potatoes futures being the main products, and Budapest. In 2006, 60,000 contracts were traded on RMX.

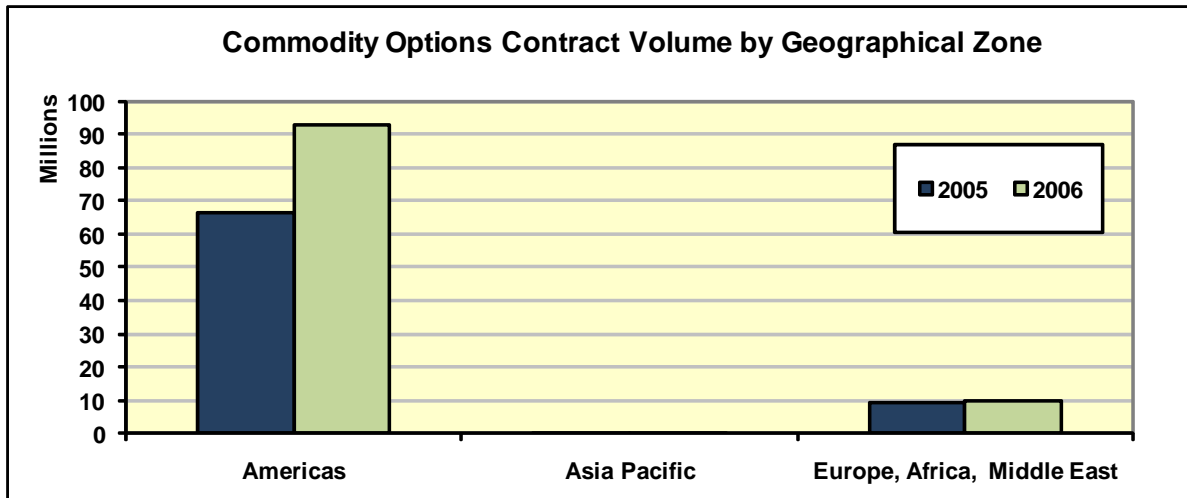
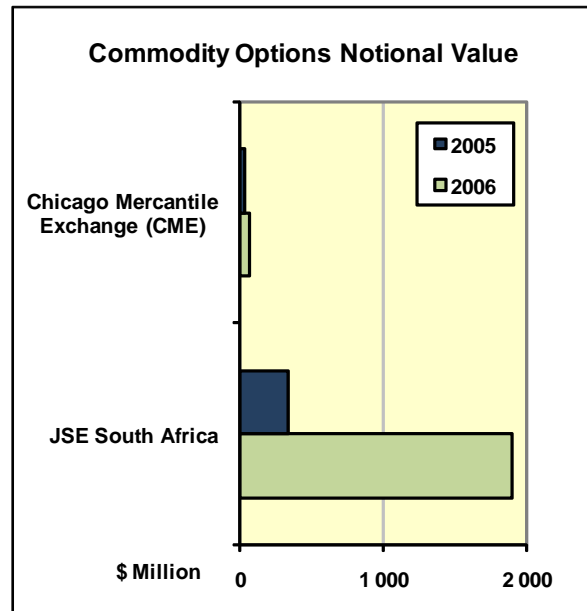
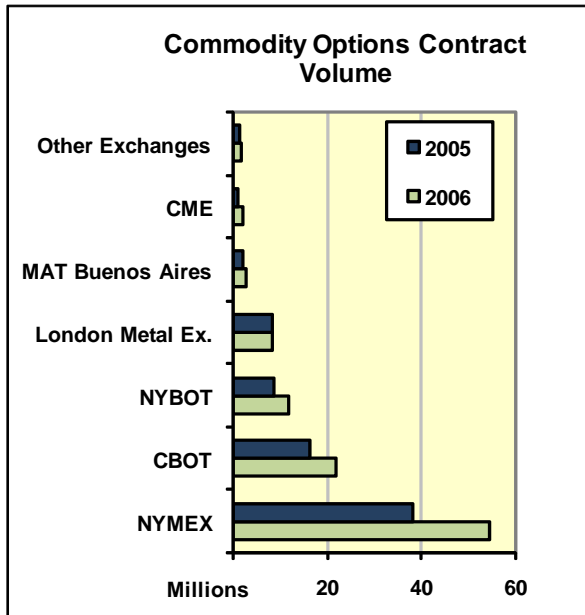
The five most actively traded agricultural options in the world in 2006				
Name of the contract	Millions of contracts			Exchange
	2006	2005	2004	
Corn	11	6	8	CBOT
SO - Sugar 11	6	4	3	NYBOT
Soybeans	6	7	6	CBOT
KO - Coffee "C"	3	2	2	NYBOT
Wheat	3	2	1	CBOT



The five most actively traded agricultural futures in the world in 2006				
Name of the contract	Millions of contracts			Exchange
	2006	2005	2004	
Corn	68	22	6	Dalian CE
Corn	47	28	24	CBOT
Soybean meal	32	37	25	Dalian CE
Soybeans	23	20	19	CBOT
Wheat	16	10	8	CBOT

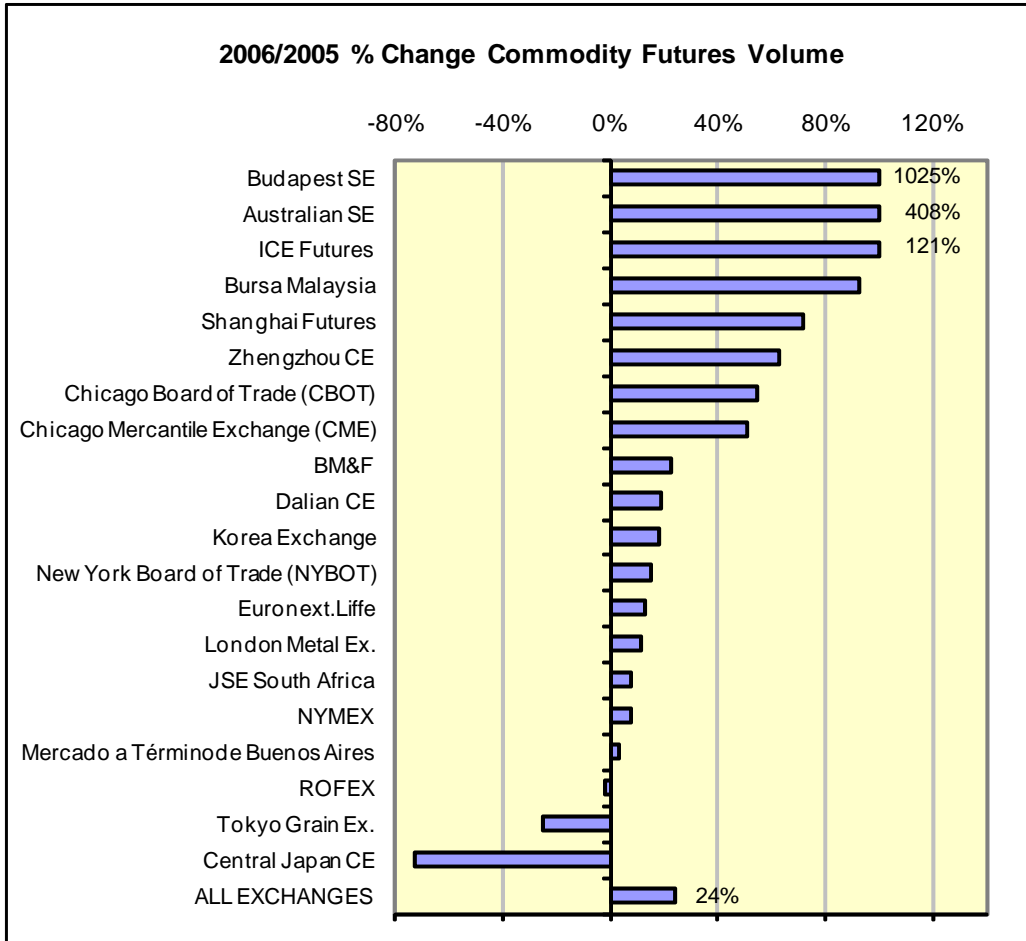
*a) Commodity Options*

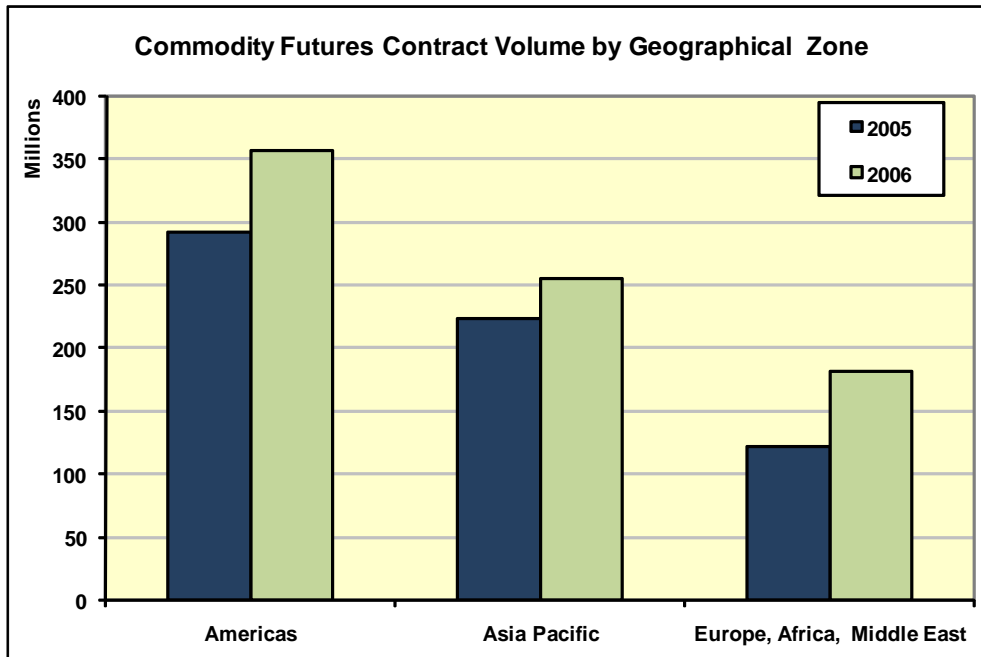
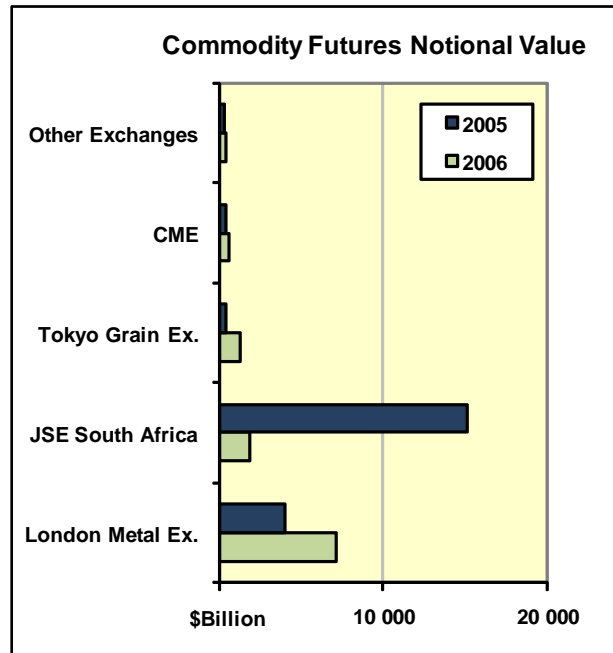
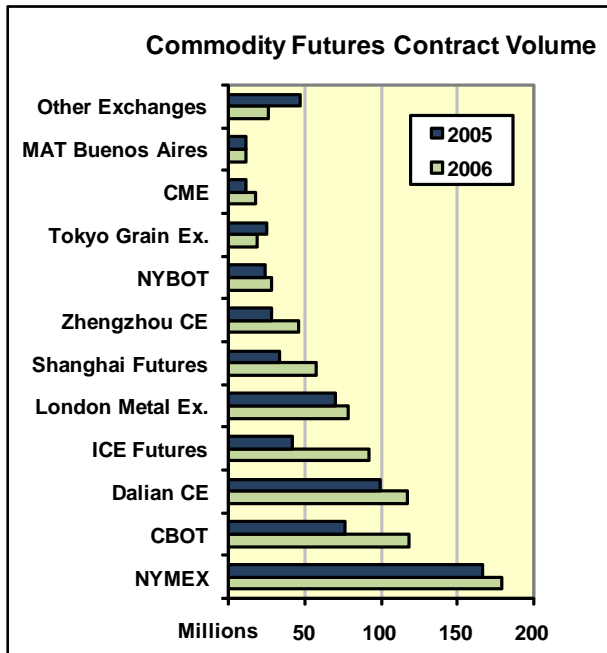






*a) Commodity Futures*







## CONCLUDING REMARKS

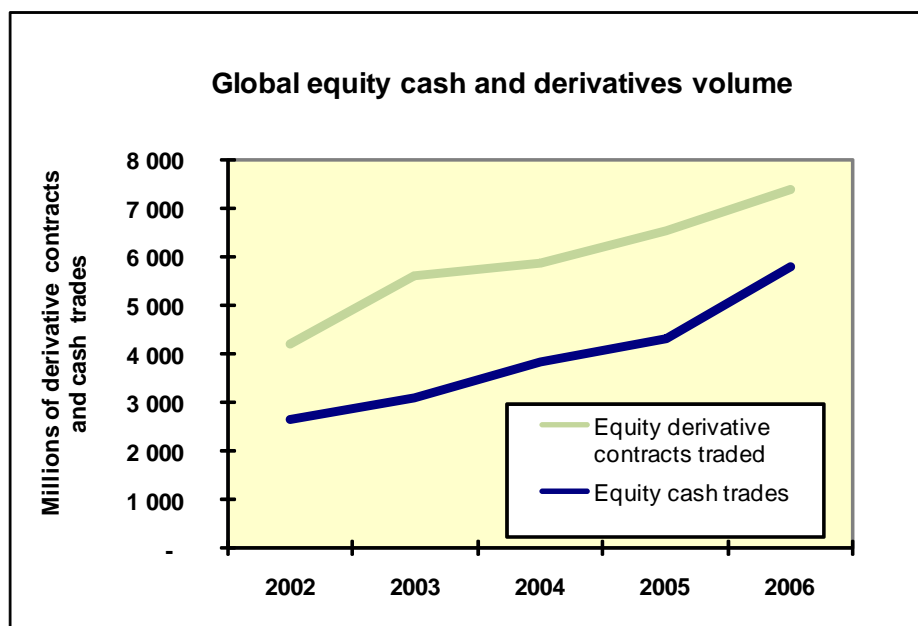
2006 has been a brilliant year for all segments of derivatives trading.

	<i>Stock</i>	<i>Stock index</i>	<i>STIR</i>	<i>LTIR</i>	<i>Currency</i>	<i>Commodities</i>
<b>Options</b>	+15%	+2%	+39%	+16%	+30%	+36%
<b>Futures</b>	+100%	+32%	+39%	+12%	+39%	+24%

**Equity products, which are the most important segment of global derivative markets for the number of traded contracts, continued to grow.**

Two major findings should however be highlighted concerning equity derivatives in 2006:

- A confirmation that stock futures meet the need of a growing number of market participants. This market, which was still a fledgling in 2004, has now gained a significant share of derivatives trading. Trading volumes in stock futures represented more than 10% of stock options trading volumes, and newcomers from all regions, except North America, are expanding the use of these products.
- Trading of index products is still gaining in popularity. Index options are an apparent exception, but this is due to the relative decline of the KOSPI 200 options. Excluding the KOSPI 200 options, index option volumes increased 30%. This development occurred in a period of changing volatility over the year. Stock futures trades increased 32%. Indexes are even expanding on the segment of individual equity options such as QQQ options which traded on three US markets and which appear three times in the list of the 20 most actively traded equity options in the world.





In 2006, cash equity markets trading grew significantly more rapidly than the trading of equity derivatives markets.

**Short term interest rate products were fuelled by uncertainty over the monetary policy of Central banks. More specifically, two successes are worth noting in 2006:**

- The Euro Dollar options traded on the CME saw their trading volumes increasing by more than 50%.
- Mexder appeared as a new major player for short term interest rate products with a 20% share of global markets, with CME and Euronext.liffe being the two leading exchanges.

**The growth of long term interest rate derivatives was again strong in 2006, although relatively slower than other derivatives.**

**Currency derivatives remain a relatively small segment of organised derivatives markets but the important growth observed in 2005 continued on the same trend in 2006.**

Finally, **commodity derivatives increased extremely fast as a growing number of investors are willing to get the benefits of an asset class which offers high returns and which has no correlation** with stocks and bonds. Crude oil contracts on the energy side, Aluminium on the metal side and Corn on the agricultural side benefited the most from the convergence of speculators with “fundamental” market participants.

After this brilliant year, the outlook for 2007 appears to be less certain. During the first quarter of 2007, the growth rate remained strong on the biggest American stock options markets for which data is available and on the Hong Kong Exchanges & Clearing in Asia. But it was low or even negative in biggest European markets.

A severe fall was observed both on American and European markets in April 2007. Trading volumes in stock index and interest rate derivatives fell sharply in the US. The low volatility of interest rates and stocks, and the good predictability of the US monetary policy of the FED are quoted as the main reasons for this decrease of activity. The fall ranges between 29% and 37% on the CBOT and the CME, depending on the products. In Europe, trading decreased 30% on stock index options and 50% on stock index futures in April 2007. Bond options and futures volumes decreased 20% and 50% respectively.

Energy derivatives are also declining on ICE Futures (-5% in April) while conversely, commodity derivatives are traded intensively with agricultural derivatives surging 23% on the NYBOT and 36% on the CBOT.

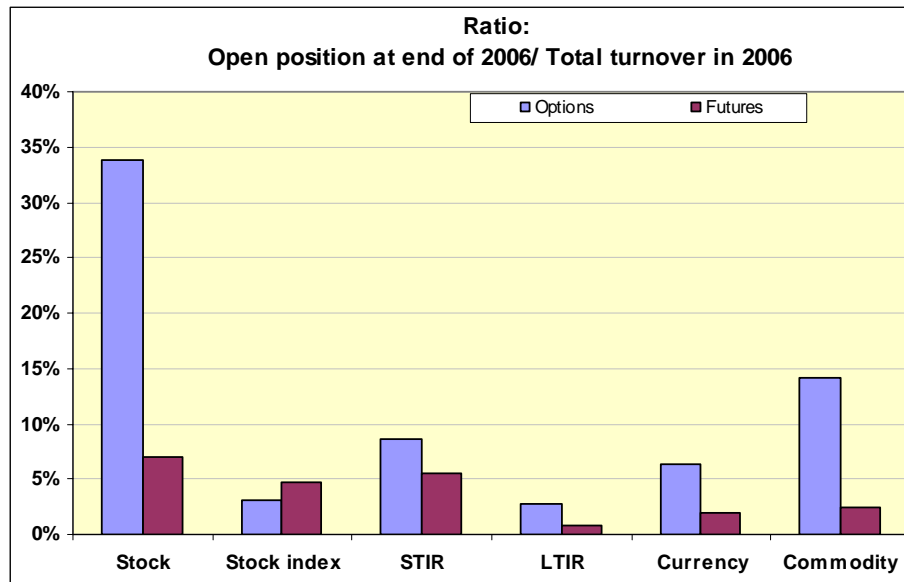


Several structural factors converged to stimulate the growth of derivatives trading in the world in recent years:

- Investors are more and more aware of the benefits of derivatives in risk control. Not only hedge funds, but also plain vanilla investment funds increasingly use derivatives to control risks and increase their performance. Regulation follows this trend and regulatory arbitrary barriers tend to disappear
- The number of trades is multiplied by the growing “Direct market access” and algorithmic trading, both on cash markets and derivatives markets.

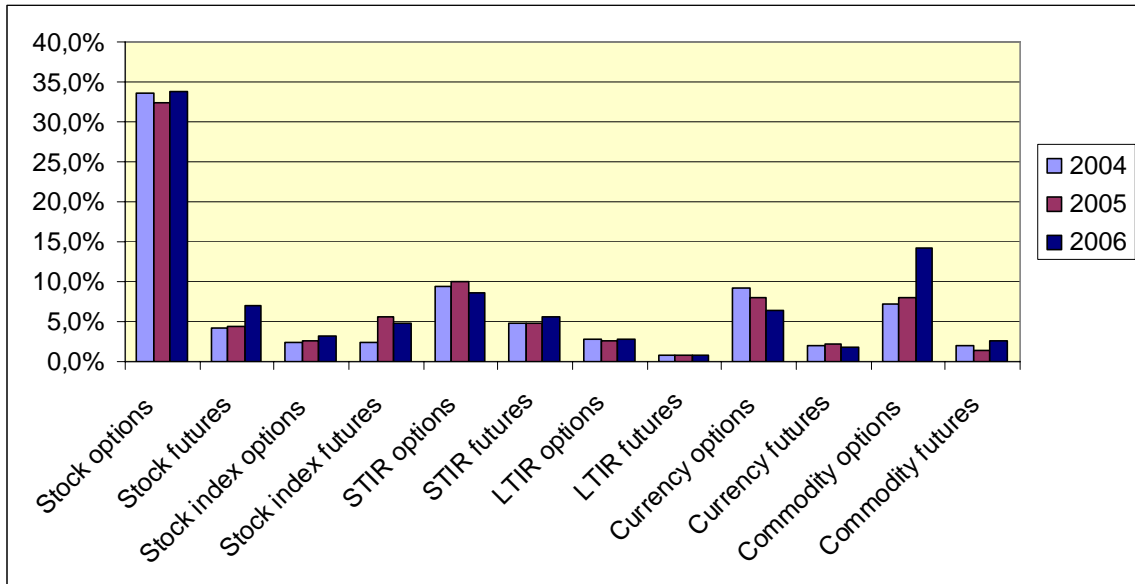
But the growth of arbitrage and algorithmic trading might make trading volumes on derivative markets more volatile, as shown by the high velocity of trading. For instance intra-day trading increases the turnover without impact on open positions at the end of the day. An interesting ratio reports open positions at the end of the year to total turnover volumes during the year. The lower this ratio, the higher is the velocity of trading in a product.

**The ratio open positions/turnover of a majority of products is within a band of 5-10%.** Stock options and Commodity options are the main exceptions, with an open position at the end of the year of almost 14% and 34% of total turnover during the year. More generally, the ratio of open position to turnover is lower for futures than for options of all types of products, except stock index products. Algorithmic trading is more intense in futures than in options.

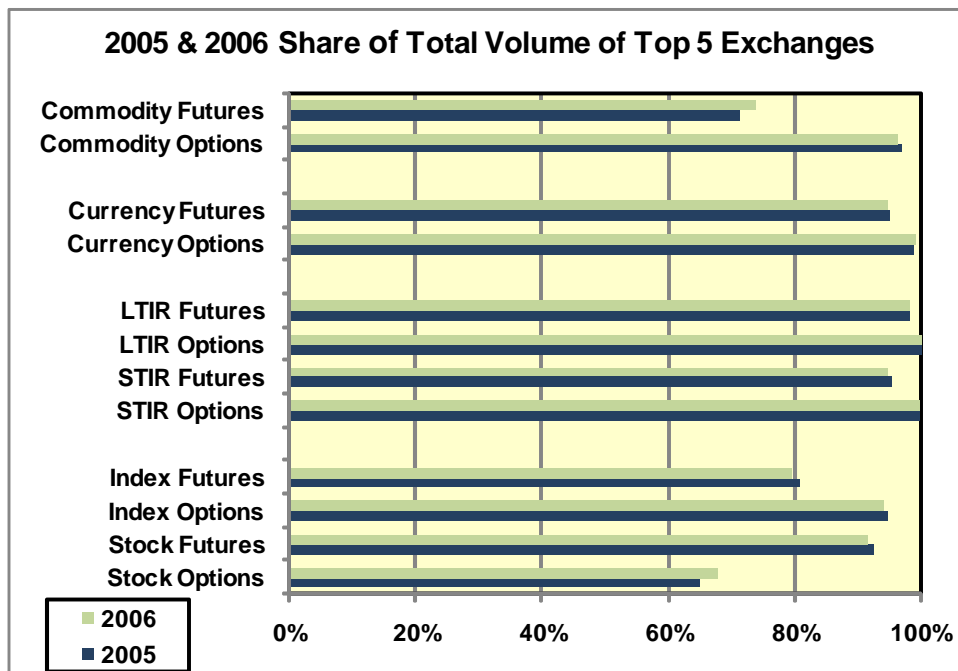




It is worth noting that, despite the sharp increase of trading in 2005 and 2006, the ratio open positions/turnover did not diminish significantly for any product.



Finally, the **concentration** of derivatives business did not change in 2006. Interest rate and currency markets are still the most concentrated.





## **WORLD FEDERATION OF EXCHANGES**

Tel : (33.1) 58 62 54 00

Fax : (33.1) 58 62 50 48

E-mail : [secretariat@world-exchanges.org](mailto:secretariat@world-exchanges.org)