

# **DERIVATIVES MARKET TRANSACTION SURVEY 2003/04**

**(Amended on 28 December 2005)**



**Hong Kong Exchanges and Clearing Limited**

**Research & Planning**

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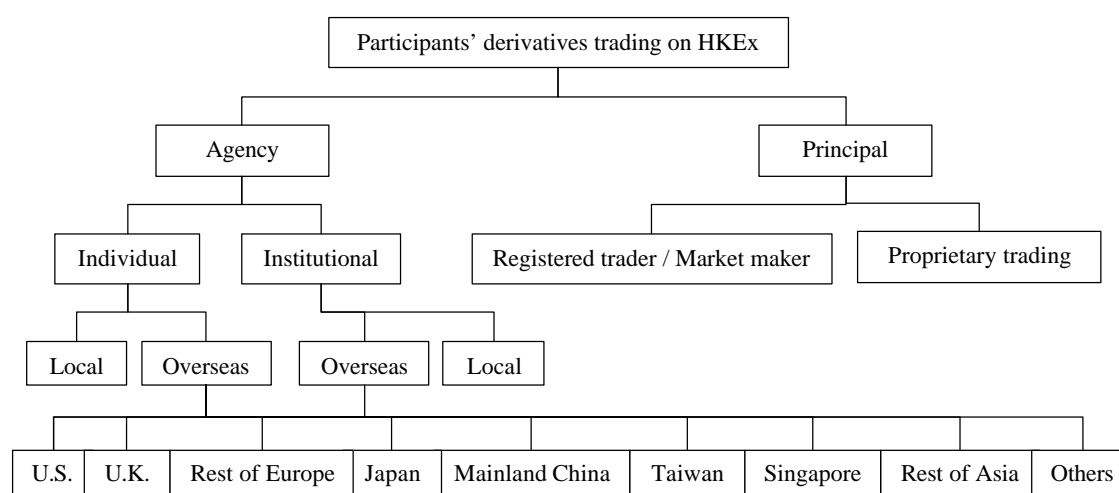
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## 1. INTRODUCTION

Hong Kong Exchanges and Clearing Limited (HKEx) has conducted the Derivatives Market Transaction Survey (DMTS) annually since 2001 (formerly by Hong Kong Futures Exchange on its market since 1994). The main objective of the survey is to track trading composition by investor type and by trading purpose in HKEx’s derivatives market.

The survey provides key information on the relative contribution to the overall market turnover and to each major product by the main investor types — local and overseas, retail and institutional, Exchange Participants’ (EPs’) own trading (see classification chart below). Online trading statistics in the overall derivatives market have been obtained since the 2001/02 survey. Comparison of the findings with those of the past surveys is performed to reveal any changes in trading pattern.

**Classification of Exchange Participants’ derivatives trading on the HKEx**



The survey questionnaires were mailed to all Futures and Stock Options EPs in the target population.<sup>1</sup> Out of the 152 questionnaires sent out, 143 completed questionnaires were received, representing an overall response rate of 94%. The responded sample represented 99% in total contract volume of the target population. (See Appendix 1.)

The survey covers transactions during July 2003 to June 2004<sup>2</sup> in the major HKEx futures and options products, namely Hang Seng Index futures (HSI futures), Hang Seng Index options (HSI options), Mini-HSI futures, H-shares Index futures (HHI futures, launched on 8 December 2003) and stock options. They together contributed 99.3% of the total turnover volume of HKEx derivatives market during the study period. “Market turnover” in this report refers to the total turnover volume of the products under study.

<sup>1</sup> The target population consists of all the trading participants excluding those that ceased their operations during the study period. (See Appendix 3 for survey methodology.)

<sup>2</sup> Referred to as the year 2003/04 throughout the report; the same convention is used for the past surveys.

Other derivative products which contributed less than 1% in aggregate of total derivatives volume of HKEx during the same period were excluded. These products were MSCI China Free Index futures, Dow Jones Industrial Average futures, HIBOR futures, Three-Year Exchange Fund Note futures, stock futures, Mini-Hang Seng Index options and H-shares Index options.

In 2003/04, market turnover (products under study only) increased 44% to 17.8 million contracts from 2002/03. The contribution to market turnover was dominated by HSI futures (45%), followed by stock options (30%). (*Figure 1*)

For analysis purpose, the contract volume for each transaction type in the survey was estimated (referred to as the “implied contract volume”) based on the above actual contract volume for each product and computed from the percentage share of the contract volume for that transaction type as obtained from the survey.

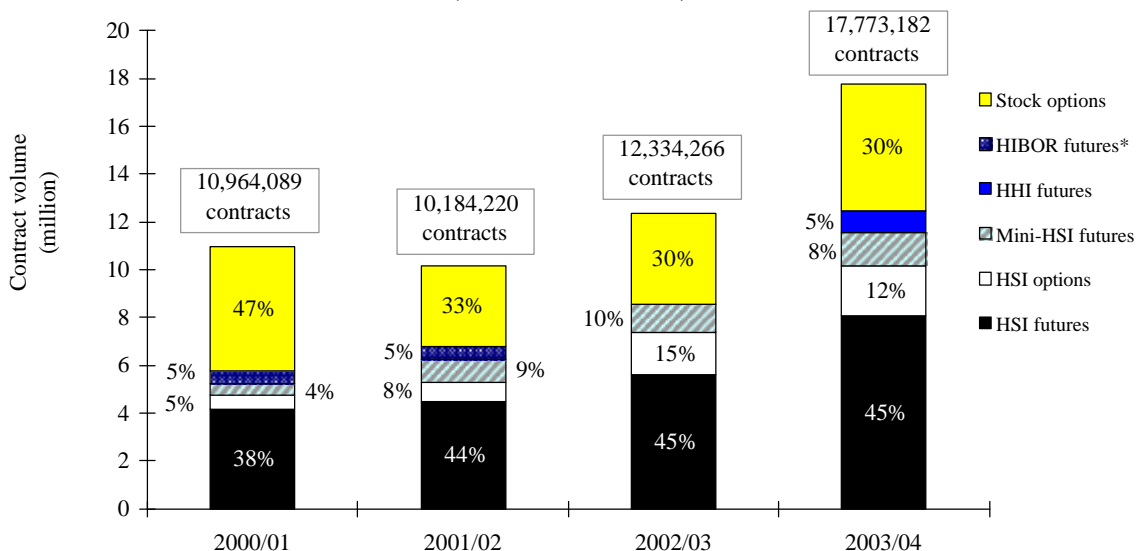
## 2. KEY FINDINGS

- (1) Overall, pure trading remained the main transaction purpose of derivatives trading. It accounted for 54% of total market turnover in 2003/04, an increase from 48% in 2002/03. The proportion of turnover for hedging was 32% in 2003/04, down significantly from 42% in 2002/03. Arbitrage turnover accounted for 14% in the overall market in 2003/04, up from 10% in 2002/03.
- (2) Overall, the trading distribution by investor type in the HKEx’s derivatives market in 2003/04 was almost unchanged from 2002/03 -- the three main pillars being retail investors (31% in 2003/04), institutional investors (31%) and EP principal trading (38%). The breakdown by local and overseas retail investors and local institutional investors (29%, 2% and 10% respectively) was also unchanged from 2002/03.
- (3) The trading distribution by investor type differed by product with the dominating investor type in each product remaining unchanged from 2002/03. Overseas institutional investors and local retail investors were of equal importance to HSI futures (each contributing about 35% of product turnover); both local and overseas institutional investors were major contributors to turnover in HSI options (about 24% each); local retail investors were the dominant participants in Mini-HSI futures (contributing 80% of product turnover); HHI futures had a trading composition by investor type similar to that of HSI futures; and stock options turnover was dominated by EP principal trading (79%).
- (4) Overall, overseas investors contributed 23% of total market turnover (compared to 25% in 2002/03); 90% of the overseas investor trading came from institutions.
- (5) In terms of implied contract volume, trading from overseas investors increased by 36% from 2002/03, compared to an increase of 44% in the overall market turnover.
- (6) Investors from UK and US were two major contributors in overseas investor trading, each contributing 26% of the total overseas investor trading in 2003/04.

- (7) The contribution from Asian investors was significant -- 33% of overseas investor trading, compared to the contribution from all European (including UK) investors (36%). For trading from Asian investors, the majority came from Singapore (18%), followed by Mainland China (10%).
- (8) Online trading contributed 18% of retail investor trading (or 5% of total market turnover) in 2003/04, slightly higher than the level in 2002/03 (16% of retail investor trading and 5% of total market turnover).

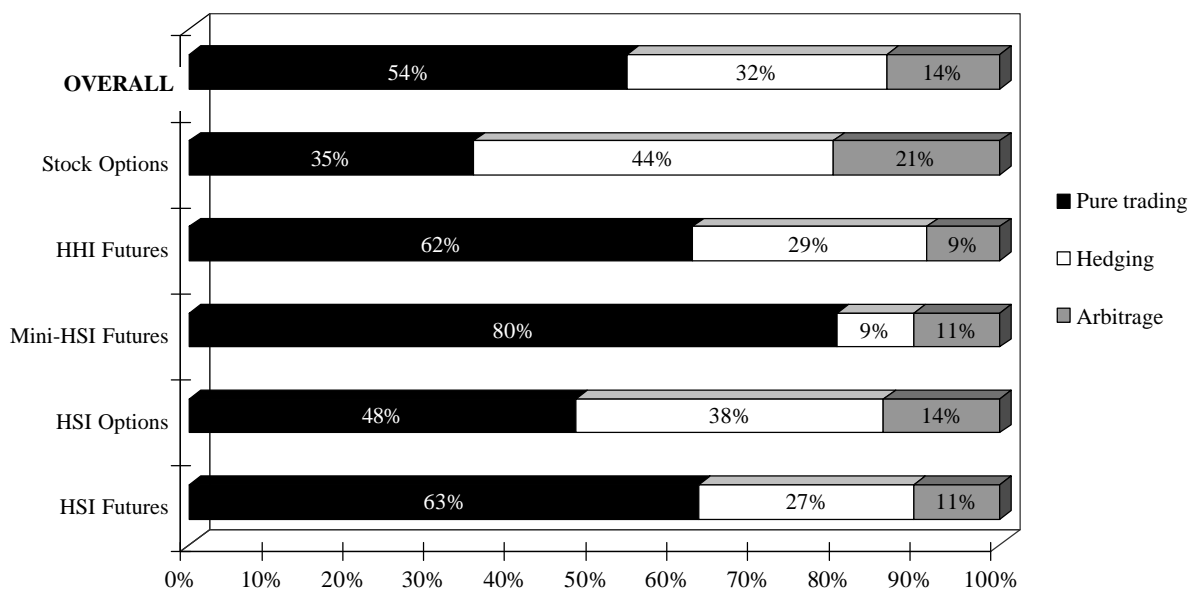
**3. FIGURES AND TABLES**

**Figure 1. Contract volume and percentage of total by product (2000/01 – 2003/04)**



\* Product included in 2000/01 and 2001/02 surveys but excluded in subsequent surveys.

**Figure 2. Transaction purposes for overall market and each product (Jul 2003 – Jun 2004)**



Note: Numbers may not add up to 100% due to rounding.

**Table 1. Transaction purposes for overall market and each product (2000/01 – 2003/04)**

Product	Purpose	Percentage contribution <sup>(4)</sup>				Y-o-Y change in implied contract volume <sup>(3)</sup> 2003/04
		2000/01	2001/02	2002/03	2003/04	
HSI Futures	Pure trading	77.9	68.0	61.5	<b>62.8</b>	46.9%
	Hedging	8.5	23.4	28.2	<b>26.6</b>	35.6%
	Arbitrage	13.5	8.7	10.3	<b>10.6</b>	47.9%
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>43.8%</b>
HSI Options	Pure trading	66.1	40.9	43.1	<b>47.6</b>	29.7%
	Hedging	16.1	45.7	45.3	<b>38.1</b>	-1.3%
	Arbitrage	17.8	13.4	11.6	<b>14.3</b>	45.0%
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>17.4%</b>
Mini-HSI Futures	Pure trading	72.8	74.3	78.1	<b>79.9</b>	21.3%
	Hedging	2.1	10.2	3.6	<b>9.4</b>	210.5%
	Arbitrage	25.1	15.5	18.3	<b>10.6</b>	-31.1%
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>18.5%</b>
HHI Futures	Pure trading	-	-	-	<b>62.1</b>	-
	Hedging	-	-	-	<b>28.9</b>	-
	Arbitrage	-	-	-	<b>9.0</b>	-
	<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>100.0</b>	<b>-</b>
Stock Options	Pure trading	n.a.	n.a.	24.9	<b>35.0</b>	98.5%
	Hedging	n.a.	n.a.	67.7	<b>44.4</b>	-7.2%
	Pure trading & hedging <sup>(2)</sup>	90.4	84.6	92.6	<b>79.4</b>	21.2%
	Arbitrage	9.6	15.4	7.4	<b>20.6</b>	293.5%
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>41.3%</b>
<b>Overall <sup>(1)</sup></b>	<b>Pure trading</b>	n.a.	n.a.	47.9	<b>54.0</b>	62.4%
	<b>Hedging</b>	n.a.	n.a.	41.9	<b>32.0</b>	10.2%
	<b>Pure trading &amp; hedging <sup>(2)</sup></b>	87.6	88.2	89.7	<b>86.0</b>	38.2%
	<b>Arbitrage</b>	12.4	11.8	10.3	<b>14.0</b>	95.4%
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>44.1%</b>

n.a.: Not available

- : Not applicable

Notes:

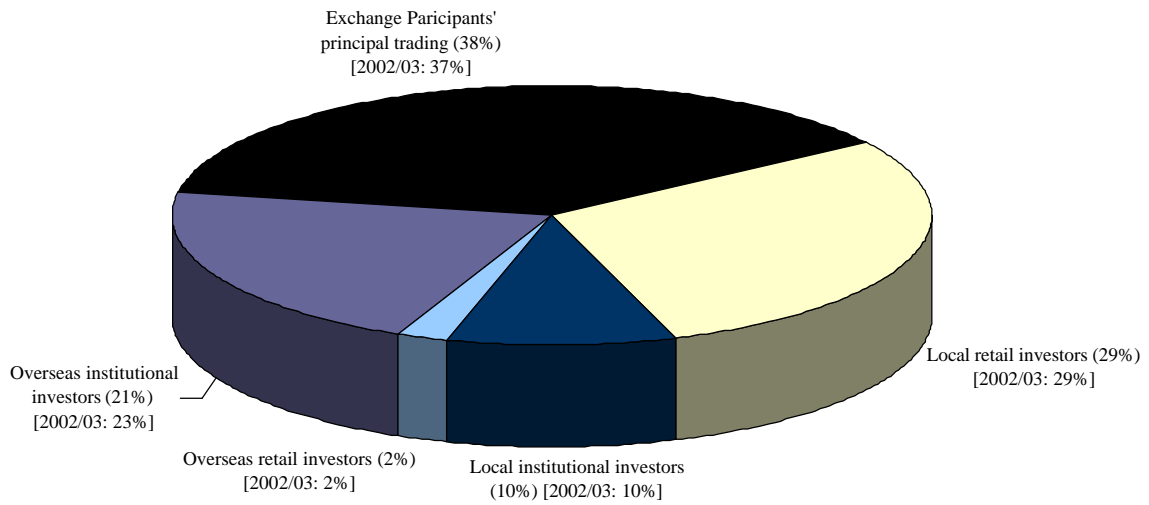
(1) The overall figures for 2000/01 and 2001/02 included HIBOR futures.

(2) In 2000/01 and 2001/02 surveys, since a major Stock Options Exchange Participant was unable to provide the breakdown between pure trading and hedging, an aggregate figure is presented.

(3) See glossary for the definition of implied contract volume. The total figure of each product used is the actual contract volume for that product, based on which the implied contract volume by trading purpose is computed.

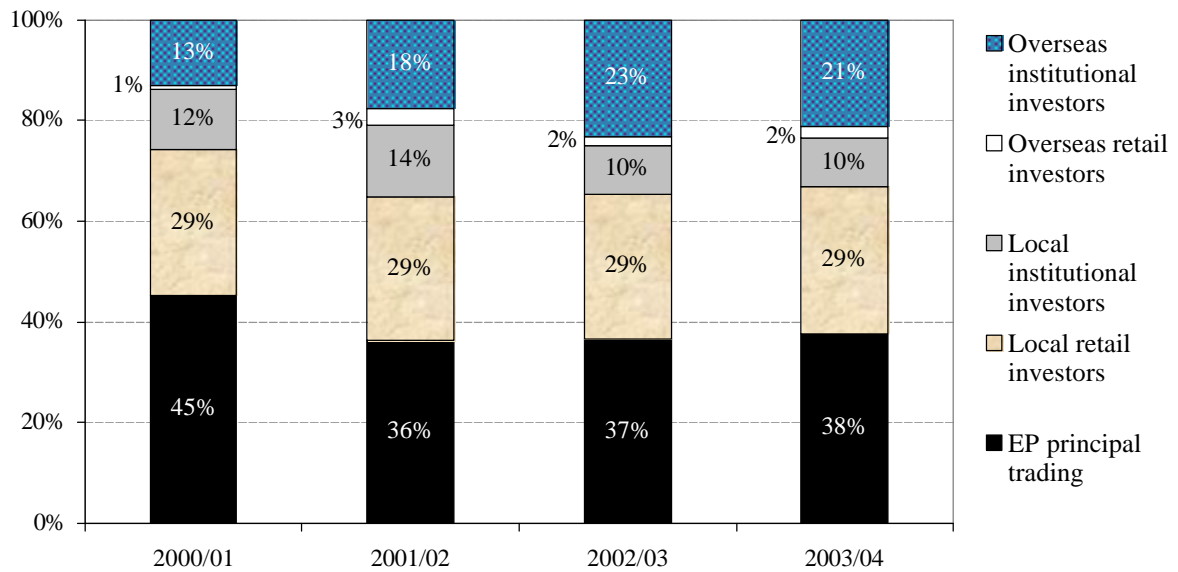
(4) Numbers may not add up to 100% due to rounding.

**Figure 3. Distribution of market trading by investor type (Jul 2003 – Jun 2004)**



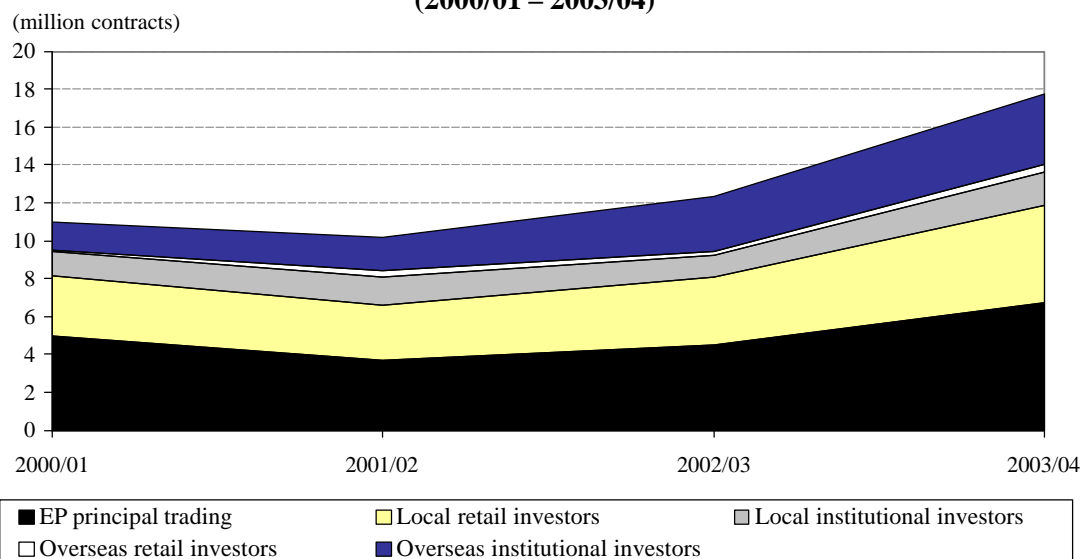
Notes: (1) Numbers may not add up to 100% due to rounding.  
 (2) Exchange Participants' principal trading included trading as registered traders/market makers and proprietary trading.

**Figure 4. Distribution of trading by investor type for overall market (2000/01 – 2003/04)**



Note: Numbers may not add up to 100% due to rounding.

**Figure 5. Implied contract volume by investor type  
(2000/01 – 2003/04)**



**Table 2. Year-on-year % change in implied contract volume  
by type of trade in the overall market over the years**

Type of investor	Change in implied contract volume <sup>(2)</sup>		
	2001/02	2002/03	2003/04
Principal trading <sup>(3)</sup>	-25.8%	22.2%	<b>48.7%</b>
Registered traders/market makers	n.a.	n.a.	<b>46.7%</b>
Proprietary trading	n.a.	n.a.	<b>53.0%</b>
Local investors	-2.1%	8.7%	<b>45.1%</b>
Retail investors	-7.7%	21.9%	<b>45.3%</b>
Institutional investors	11.2%	-17.7%	<b>44.6%</b>
Overseas investors	39.5%	44.8%	<b>35.7%</b>
Retail investors	272.6%	-40.7%	<b>108.2%</b>
Institutional investors	24.9%	60.8%	<b>30.7%</b>
<b>Total<sup>(1)</sup></b>	-7.1%	21.1%	<b>44.1%</b>

n.a.: Not available

Notes:

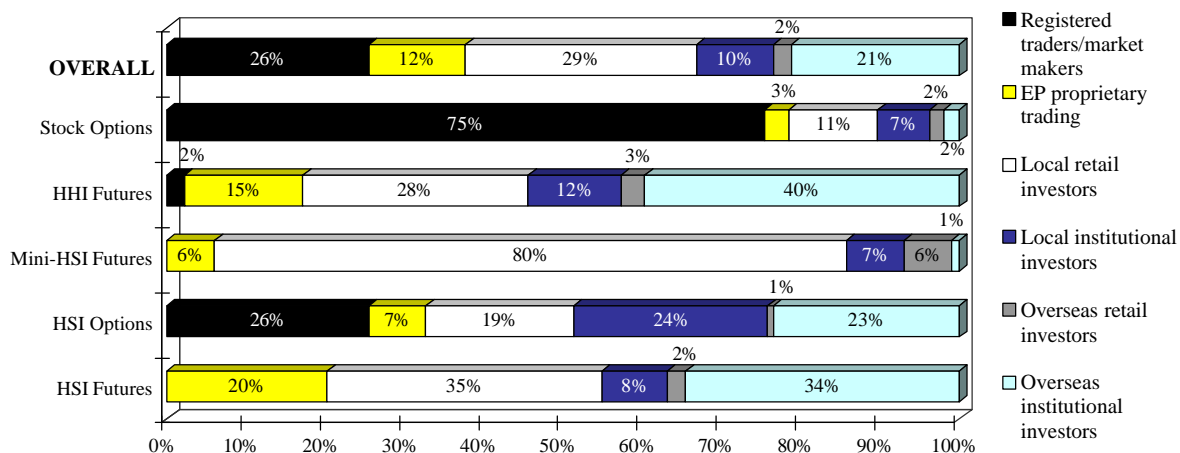
(1) The overall figures for 2000/01 and 2001/02 included HIBOR futures.

(2) See glossary for the definition of implied contract volume. The total figure of each product used is the actual contract volume for that product based on which the implied contract volume by investor type is computed.

(3) Include trading of registered traders/market makers and proprietary trading.



**Figure 6. Distribution of trading by investor type for each product and overall market (Jul 2003 – Jun 2004)**



Notes:

- (1) Trading of registered traders/market makers and proprietary trading are included in EP principal trading.
- (2) Numbers may not add up to 100% due to rounding.

**Table 3. Distribution of trading by investor type (2000/01 – 2003/04)**

Type of investor	Percentage contribution <sup>(3)</sup>				Y-o-Y % change in implied contract volume <sup>(5)</sup> 2003/04
	2000/01	2001/02	2002/03	2003/04	
<b>HSI Futures</b>					
Registered traders	-	-	-	-	-
Proprietary trading	6.8	12.2	15.7	<b>20.2</b>	84.9%
Local investors	68.8	55.1	43.7	<b>42.9</b>	41.3%
Retail	56.4	41.8	35.6	<b>34.7</b>	40.1%
Institutional	12.4	13.3	8.0	<b>8.2</b>	46.7%
Overseas investors	24.4	32.7	40.6	<b>36.9</b>	30.6%
Retail	1.3	3.8	1.9	<b>2.4</b>	82.3%
Institutional	23.1	28.9	38.7	<b>34.5</b>	28.1%
Total	100.0	100.0	100.0	<b>100.0</b>	43.8%
<b>HSI Options</b>					
Principal trading <sup>(2)</sup>	20.6	25.6	28.2	<b>32.7</b>	36.1%
Registered traders	19.3	23.4	23.3	<b>25.5</b>	28.6%
Proprietary trading <sup>(4)</sup>	1.3	2.2	4.9	<b>7.2</b>	71.7%
Local investors	68.2	59.3	48.1	<b>43.2</b>	5.5%
Retail	38.0	28.6	21.3	<b>18.7</b>	3.4%
Institutional	30.2	30.7	26.8	<b>24.5</b>	7.3%
Overseas investors	11.2	15.1	23.8	<b>24.1</b>	19.2%
Retail	0.5	2.7	0.6	<b>0.7</b>	54.1%
Institutional	10.8	12.4	23.2	<b>23.4</b>	18.4%
Total	100.0	100.0	100.0	<b>100.0</b>	17.4%
<b>Mini-HSI Futures</b>					
Registered traders	-	-	-	-	-
Proprietary trading	5.4	17.6	18.7	<b>6.1</b>	-61.6%
Local investors	92.2	66.0	76.1	<b>87.1</b>	35.6%
Retail	87.6	63.7	73.9	<b>79.7</b>	27.9%
Institutional	4.5	2.3	2.3	<b>7.3</b>	285.4%
Overseas investors	2.4	16.4	5.2	<b>6.9</b>	57.8%
Retail	2.2	15.7	4.5	<b>6.0</b>	59.5%
Institutional	0.2	0.6	0.7	<b>0.9</b>	47.2%
Total	100.0	100.0	100.0	<b>100.0</b>	18.5%
<b>HFI Futures</b>					
Principal trading <sup>(2)</sup>	-	-	-	<b>17.2</b>	-
Registered traders	-	-	-	<b>2.2</b>	-
Proprietary trading	-	-	-	<b>15.0</b>	-
Local investors	-	-	-	<b>40.2</b>	-
Retail	-	-	-	<b>28.5</b>	-
Institutional	-	-	-	<b>11.7</b>	-
Overseas investors	-	-	-	<b>42.7</b>	-
Retail	-	-	-	<b>3.0</b>	-
Institutional	-	-	-	<b>39.7</b>	-
Total	-	-	-	<b>100.0</b>	-
<b>Stock Options</b>					
Principal trading <sup>(2)</sup>	83.1	74.8	72.8	<b>78.6</b>	52.5%
Market makers	n.a.	n.a.	65.8	<b>75.5</b>	62.0%
Proprietary trading	n.a.	n.a.	7.0	<b>3.1</b>	-37.1%
Local investors	12.2	19.1	17.1	<b>17.8</b>	47.1%
Retail	5.3	9.4	11.0	<b>11.2</b>	43.7%
Institutional	6.8	9.7	6.1	<b>6.6</b>	53.4%
Overseas investors	4.7	6.1	10.1	<b>3.7</b>	-48.8%
Retail investors	0.5	0.4	1.0	<b>1.8</b>	162.5%
Institutional investors	4.2	5.7	9.1	<b>1.9</b>	-71.0%
Total	100.0	100.0	100.0	<b>100.0</b>	41.3%
<b>Overall <sup>(1)</sup></b>					
Principal trading <sup>(2)</sup>	45.4	36.2	36.6	<b>37.7</b>	48.7%
Registered traders/market makers <sup>(4)</sup>	n.a.	n.a.	25.1	<b>25.5</b>	46.7%
Proprietary trading <sup>(4)</sup>	n.a.	n.a.	11.5	<b>12.2</b>	53.0%
Local investors	40.8	43.0	38.6	<b>38.9</b>	45.1%
Retail investors	28.9	28.7	28.9	<b>29.1</b>	45.3%
Institutional investors	11.9	14.3	9.7	<b>9.7</b>	44.6%
Overseas investors	13.8	20.8	24.9	<b>23.4</b>	35.7%
Retail investors	0.8	3.3	1.6	<b>2.3</b>	108.2%
Institutional investors	13.0	17.5	23.3	<b>21.1</b>	30.7%
Total	100.0	100.0	100.0	<b>100.0</b>	44.1%

n.a.: Not available

- : Not applicable

Notes:

(1) The overall figures for 2000/01 and 2001/02 included HIBOR futures.

(2) Include trading of registered traders/market makers and proprietary trading.

(3) Numbers may not add up to 100% due to rounding.

(4) Figures originally presented in the 2002/03 report have been revised. In the 2002/03 survey, one EP had erroneously reported its registered-trader trading in HSI options as proprietary trading. That was corrected in this report.

(5) See glossary for the definition of implied contract volume. The total figure of each product used is the actual contract volume for that product, based on which the implied contract volume by investor type is computed.

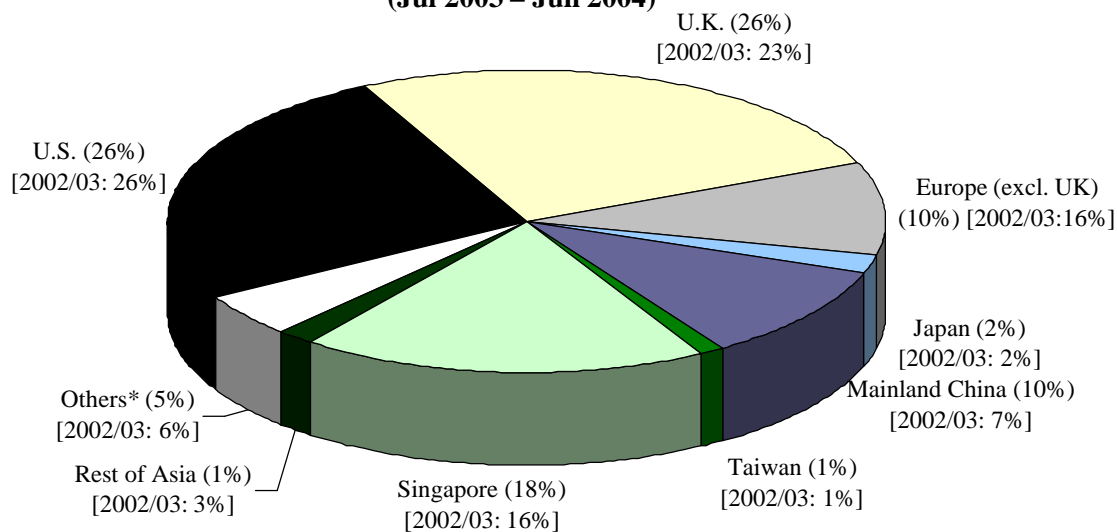
**Table 4. Business composition of Exchange Participants by type of trade (%)**  
(Breakdown by different types of trade)

	2000/01 Overall	2001/02 Overall	2002/03 Overall	2003/04 Overall	2003/04				
					HSI Futures	HSI Options	Mini-HSI Futures	HHI Futures	Stock Options
<b>All Trading</b>									
<b>Principal<sup>#</sup></b>	45.4	36.2	36.6	<b>37.7</b>	20.2	32.7	6.0	17.2	78.6
<b>Agency</b>	54.6	63.8	63.4	<b>62.3</b>	79.8	67.3	94.0	82.8	21.4
	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<b>Agency Trading</b>									
<b>Local</b>	74.7	67.4	60.8	<b>62.4</b>	53.8	64.2	92.7	48.5	82.9
<b>Overseas</b>	25.3	32.6	39.2	<b>37.6</b>	46.2	35.8	7.3	51.5	17.1
	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<b>Agency Trading</b>									
<b>Retail</b>	54.3	50.2	48.1	<b>50.5</b>	46.5	28.9	91.2	38.0	60.6
<b>Institutional</b>	45.7	49.8	51.9	<b>49.5</b>	53.5	71.1	8.8	62.0	39.4
	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<b>Retail Investor Trading</b>									
<b>Local</b>	97.2	89.7	94.7	<b>92.6</b>	93.7	96.2	93.0	90.5	86.2
<b>Overseas</b>	2.8	10.3	5.3	<b>7.4</b>	6.3	3.8	7.0	9.5	13.8
	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<b>Institutional Investor Trading</b>									
<b>Local</b>	47.8	44.9	29.4	<b>31.6</b>	19.2	51.2	89.2	22.8	77.8
<b>Overseas</b>	52.2	55.1	70.6	<b>68.4</b>	80.8	48.8	10.8	77.2	22.2
	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<b>Local Investor Trading</b>									
<b>Retail</b>	70.8	66.8	74.9	<b>75.0</b>	80.9	43.3	91.6	70.8	63.0
<b>Institutional</b>	29.2	33.2	25.1	<b>25.0</b>	19.1	56.7	8.4	29.2	37.0
	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<b>Overseas Investor Trading</b>									
<b>Retail</b>	5.9	15.8	6.5	<b>9.9</b>	6.4	3.1	87.1	7.0	48.9
<b>Institutional</b>	94.1	84.2	93.5	<b>90.1</b>	93.6	96.9	12.9	93.0	51.1
	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0

<sup>#</sup> Include registered traders' trading or market making and proprietary trading.

Note: Numbers may not add up to 100% due to rounding.

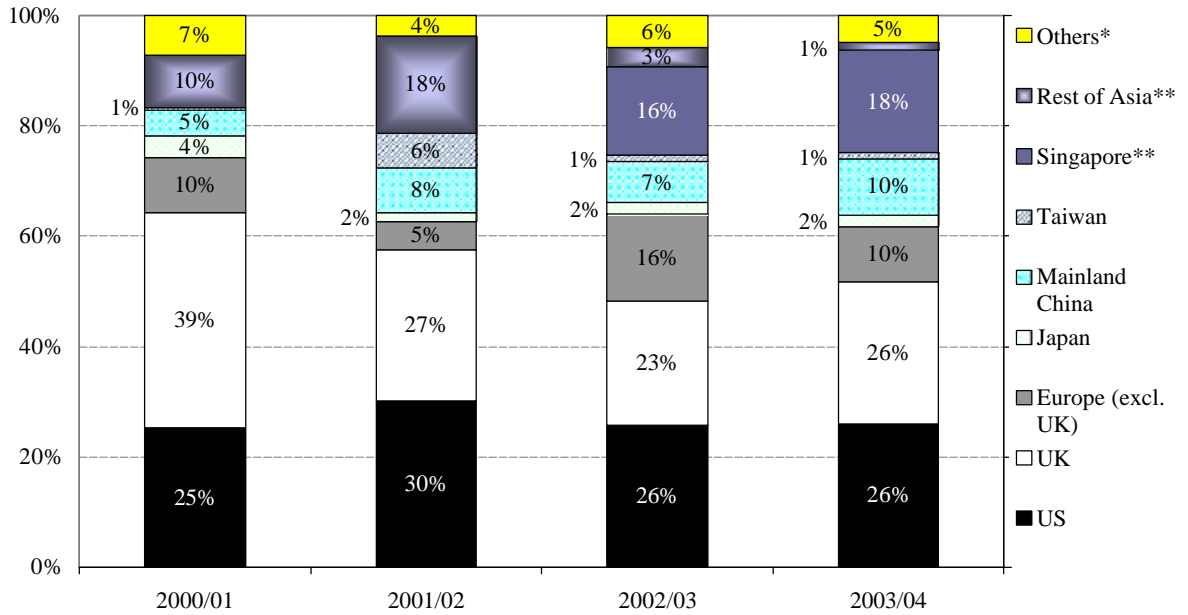
**Figure 7. Distribution of overseas investor trading by origin**  
(Jul 2003 – Jun 2004)



\* Other origins include Australia, British Virgin Islands, Canada in 2003/04.

Note: Numbers may not add up to 100% due to rounding.

**Figure 8. Distribution of overseas investor trading by origin over the years (2000/01 – 2003/04)**



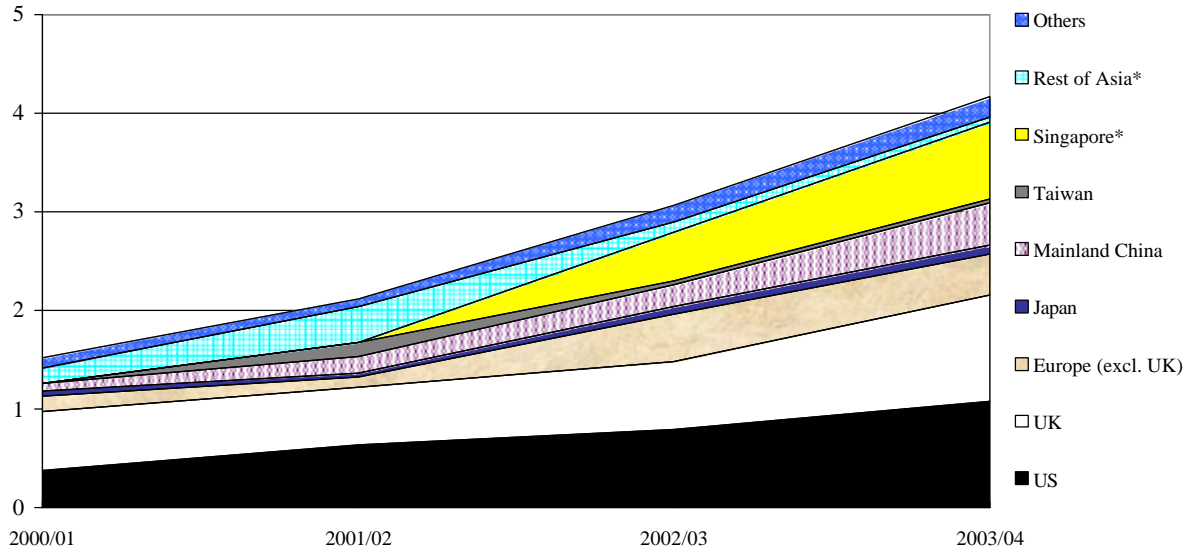
\* Other origins include Australia, British Virgin Islands, Canada in 2003/04.

\*\* For surveys before 2002/03, Singapore was included in the Rest of Asia.

Note: Numbers may not add up to 100% due to rounding.

**Figure 9. Implied contract volume of overseas investor trading by origin**

(million contracts)



\* For surveys before 2002/03, Singapore was included in the Rest of Asia.

**Table 5. Year-on-year % change in implied contract volume over the years**

Origin	Change in implied contract volume <sup>(3)</sup>		
	2001/02	2002/03	2003/04
US	66.7%	23.1%	<b>36.9%</b>
UK	-2.0%	19.2%	<b>56.1%</b>
Europe (excl UK)	-28.4%	344.2%	<b>-14.3%</b>
Japan	-46.3%	118.0%	<b>23.8%</b>
Mainland	145.3%	27.0%	<b>91.4%</b>
Taiwan	1722.1%	-69.9%	<b>20.1%</b>
Singapore <sup>(2)</sup>	-	-	<b>56.1%</b>
Rest of Asia <sup>(2)</sup>	155.3%	-71.2%	<b>-42.1%</b>
Others	-27.6%	123.9%	<b>15.5%</b>
<b>Total<sup>(1)</sup></b>	<b>39.5%</b>	<b>44.8%</b>	<b>35.7%</b>

- : Not applicable

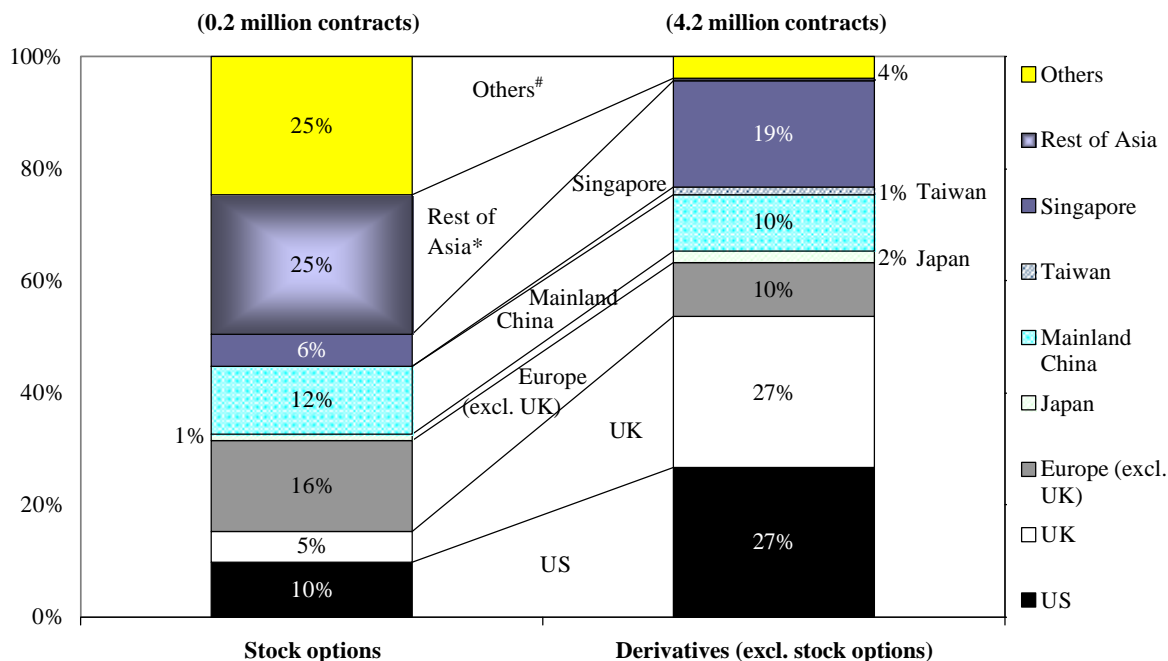
Notes:

(1) The overall figures for 2000/01 and 2001/02 included HIBOR futures.

(2) Singapore was included in the Rest of Asia for surveys before 2002/03.

(3) See glossary for the definition of implied contract volume. The total figure is the actual total market turnover multiplied by the percentage contribution of overseas investor trading as obtained from the survey.

**Figure 10. Distribution of overseas investor trading by origin by market segment (2003/04)**



( ) : Implied contract volume of overseas investor trading in the market segment.

\* "Rest of Asia" origin for stock options refers to Macau, Malaysia and Indonesia.

# "Others" origin for stock options refers to Australia.

Notes: 1. Figures less than 0.5% were not shown in the chart.

2. Numbers may not add up to 100% due to rounding.

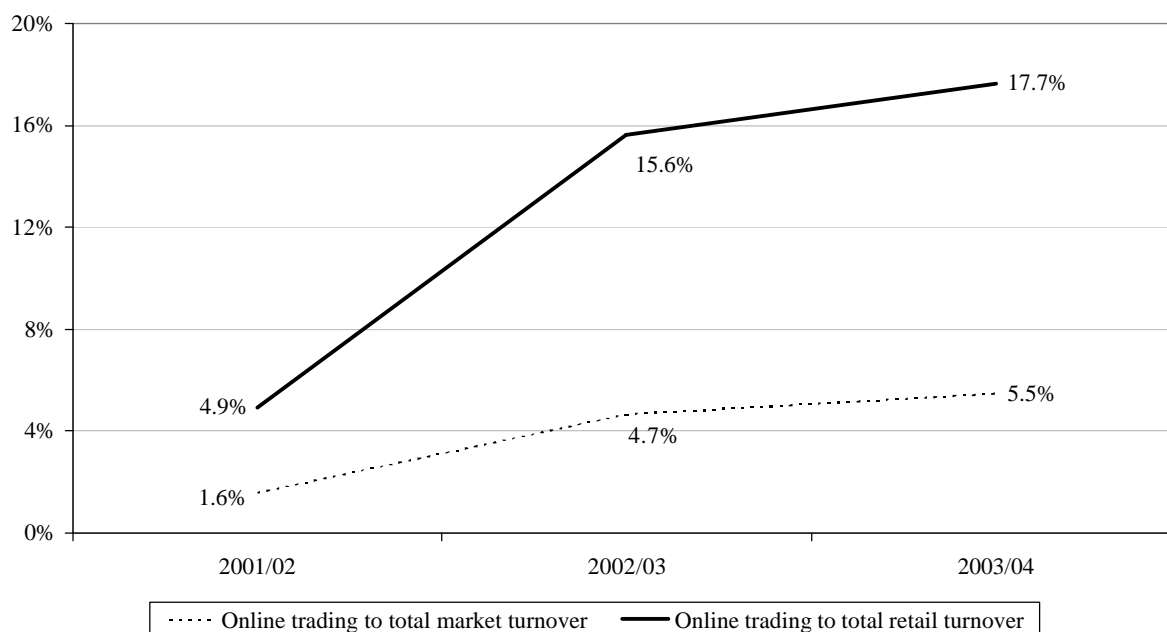
**Table 6. Statistics on retail online trading (2001/02 – 2003/04)**

	2001/02	2002/03	2003/04
Number of responding EPs having online trading (online brokers)	7	11	21
Percentage of responding EPs as online brokers (%)	5%	8%	15%
Online trading to total market turnover <sup>(1)</sup> (%)	1.58%	4.66%	5.48%
Online trading to total agency turnover (%)	2.48%	7.51%	8.92%
Online trading to total retail turnover (%)	4.94%	15.62%	17.66%
Online trading to total turnover of online brokers (%)	19.31%	31.04%	24.52%
Number of online brokers requiring manual order re-input for online trading	1	1	0
% of online brokers	14%	9%	0%
Percentage of online trading requiring manual order re-input <sup>(2)</sup>	0.72%	0.29%	0%

Notes:

- (1) Market turnover refers to the total turnover in number of contracts of products under study in the respective year's survey, which contributed in aggregate over 99% of the total turnover of all products in the respective survey periods.
- (2) Calculated in terms of implied online trading volume as reported by responding EPs which indicated the need for manual re-input as a percentage of total implied online trading volume of all responding EPs. Implied online trading volume is the reported percentage of retail investor trading as online trading multiplied by the EP's retail turnover volume. The retail turnover volume of an EP is in turn calculated by multiplying the reported percentage of total turnover as retail trading by the EP's total turnover during the study period.

**Figure 11. Online trading to total market and retail turnover (2001/02 – 2003/04)**



## **GLOSSARY**

### **Hedging**

Utilisation of futures/options to reduce or eliminate the market risk of a portfolio by compensating for the effect of price fluctuations of an underlying asset.

### **Pure trading**

Trading for potential profit in anticipation of a price movement in either the short or long term, but not for hedging or arbitrage purpose.

### **Arbitrage**

Trading to take riskless or near riskless profit from price differentials in related markets.

### **Principal trading**

Trading on the participant firm's own account, whether as a market maker or not.

### **Agency trading**

Trading on behalf of the participant firm's clients, including client trading channelled from the firm's parent or sister companies.

### **EP Registered Trader/market maker trading (Principal trading as market makers)**

Trading on Registered Trader (RT)/market maker account as a market maker serving for that product only, including client Registered Traders but excluding the trading in that product using the EP's RT accounts for other products.

### **EP proprietary trading (Principal trading in proprietary account)**

Trading on the participant firm's own account but not as a market maker.

### **Individual clients**

Clients who trade on their personal account.

### **Institutional clients**

Clients who are not individual clients.

### **Local clients**

Individual clients residing in Hong Kong or institutional clients operating in Hong Kong as the source of funds.

### **Overseas clients**

Individual clients residing outside Hong Kong or institutional clients operating outside Hong Kong overseas as the source of funds.

### **Online trading**

Trading originating from orders entered directly by clients and channelled to the brokers via electronic media (e.g. Internet). This would include client orders routed to the HKEx trading system automatically on a straight-through basis and client orders received via electronic media but having to be manually re-input into the HKEx trading system.

### **Implied contract volume**

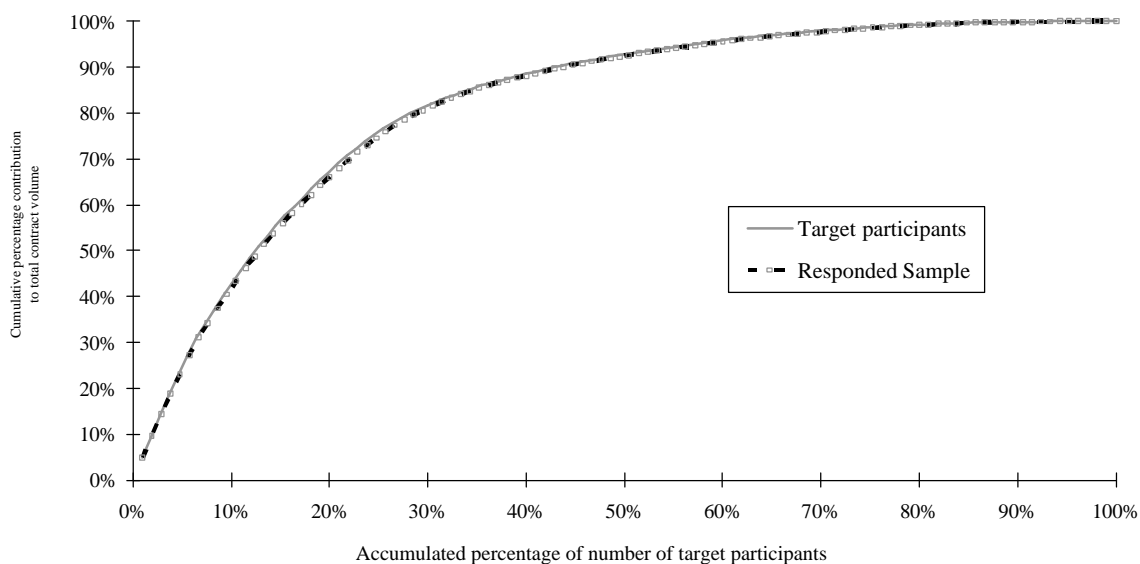
The number of contracts traded by a particular investor type in a particular product type (or the overall market) is calculated by multiplying the percentage contribution of that type of trade to the product turnover (or the market turnover) as obtained from the survey by the actual turnover (number contracts traded) of that product (or the aggregate turnover of all products under study) during the study period.

**APPENDIX 1. RESPONSE RATE**

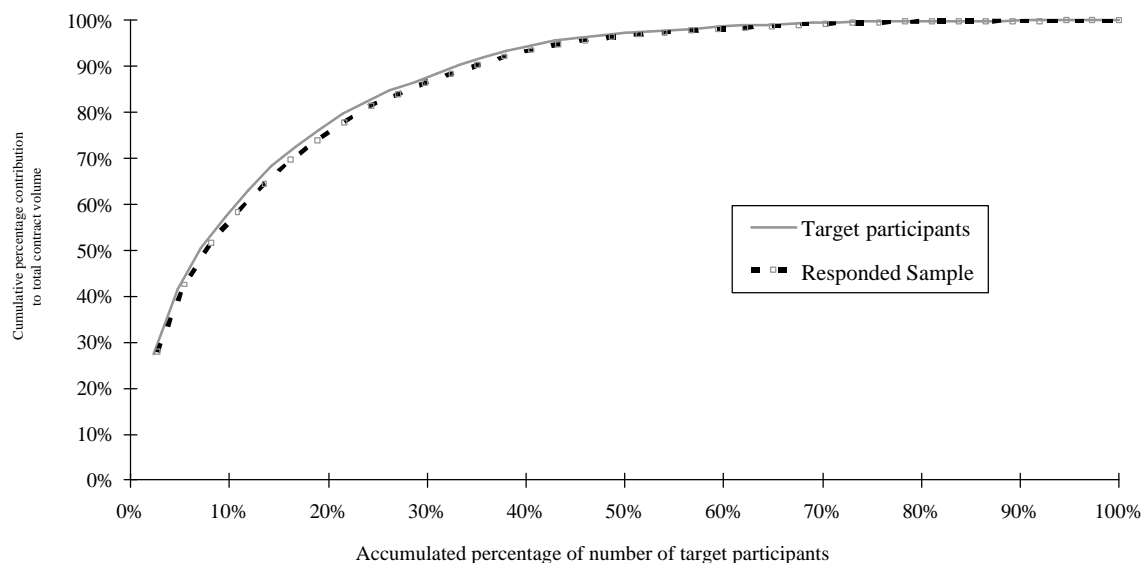
Exchange Participants	Target population	Responded participants	Response Rate	% share of turnover in target population
Futures EPs	110	105	95.5%	98.8%
Stock Options EPs	42	38	90.5%	97.9%
All Participants	152	143	94.1%	98.6%

**APPENDIX 2. REPRESENTATIVENESS OF THE RESPONDED SAMPLE RELATIVE TO TARGET RESPONDENTS**

**(a) Futures Exchange Participants (Jul 2003 – Jun 2004)**



**(b) Stock Options Exchange Participants (Jul 2003 – Jun 2004)**





## **APPENDIX 3. SURVEY METHODOLOGY**

### **1. Target population**

Exchange participation in the HKEx derivatives market consists of Futures Exchange Participants (FEPs) and Stock Options Exchange Participants (SOEPs). The target population of the survey included all FEPs and SOEPs who had trading during the study period, excluding those who had ceased to be trading participants before the start of fieldwork.

The target respondents were all corporations.

### **2. Methodology**

- (1) The survey consisted of two sub-surveys with two separate questionnaires, targeting the FEPs and the SOEPs respectively. The questionnaire addressed to SOEPs covered stock options only and that to FEPs covered major derivative products other than stock options.
- (2) The study period or survey period is from July 2003 to June 2004.
- (3) Products under study were HSI futures, HSI options, Mini-HSI futures, H-shares Index futures (HHI futures) and stock options.
- (4) The survey was by mailed questionnaires. The respective target respondents were requested to provide an estimated percentage breakdown of their contract volume for each of the product under study during the study period in accordance with the prescribed classification. Respondents of FEPs were reminded that their answers should be based on their execution turnover.
- (5) Close telephone follow-up was made to ensure a high response rate, especially for the participant firms which were top-ranked in the target population by contract volume.
- (6) Each participant firm's answers in percentage terms were weighted by its actual contract volume during the study period obtained internally to arrive at the relative contribution of each type of trading to the total volume of a particular product and of the whole market.

### **3. Limitations**

- (1) In providing the breakdown of total contract volume by the type of trade, EPs might only provide their best estimates instead of hard data. Reliability of results is subject to the closeness of their estimates to the actual figures.
- (2) For agency trading, EPs usually would not know the purpose of trading and would tend to regard such transactions as "pure trading". One EP could not provide the answer for the question on trading purposes. Such non-responses were ignored in the analysis of trading purpose.
- (3) EPs might not know the true origins of all their client orders. For instance, an EP might classify transactions for a local institution as such when in fact the orders originated from overseas and were placed through that local institution, or vice versa. As a result, the findings may deviate from the true picture.

- (4) The number of derivatives EPs was relatively small, especially for SOEPs. Their degree of participation in the different derivative products varied a lot. The trading pattern of the different derivative products was also very different. Therefore, the influence of EPs with significant contribution to a product's trading on the survey results could be quite high. The non-response of such EPs would reduce the reliability of the survey findings. However, the impact is not expected to be serious because of the high response rate and the high representativeness of the responded sample to the target population (see Appendix 1 and 2).
- (5) There are two sets of statistics on FEPs' contract volume — execution statistics, which record volume when the trades are executed, and registration statistics, which are adjusted for post-trades<sup>3</sup>. The total contract volume for a FEP and the proportion as registered trader's trading under execution statistics may differ from that under registration statistics. In this survey, execution statistics were used for analysis as in the past surveys. Even with the help of a reminder, some FEPs still answered the questionnaire based on their registration statistics which differed from their execution statistics. For such cases, telephone follow-up was made for clarification and adjustments were made as far as possible but the figure after adjustment might still not reflect the true picture. Nevertheless, such cases were few.

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<sup>3</sup> *Post-trades are trades being transferred from one broker account to another broker account or from registered trader's account to non-registered trader's account before clearing, no matter whether the accounts are under the same FEP firm.*