

Research & Planning

Derivatives Market Transaction Survey  
2004/05

**December 2005**



**Hong Kong Exchanges and Clearing Limited**  
**香港交易及結算所有限公司**

# CONTENTS

---

	<b>Page</b>
1. Introduction.....	1
2. Key findings.....	3
3. Transaction purposes.....	4
4. Distribution of trading by investor type .....	6
4.1 Overall pattern of trading.....	6
4.2 Trading by product .....	8
5. Distribution of overseas investor trading by origin .....	12
5.1 Overall pattern.....	12
5.2 By market segment.....	13
6. Retail online trading.....	16
Glossary .....	18
Appendix 1. Response rate .....	19
Appendix 2. Representativeness of the responded sample relative to target respondents.	20
Appendix 3. Survey methodology .....	21

---

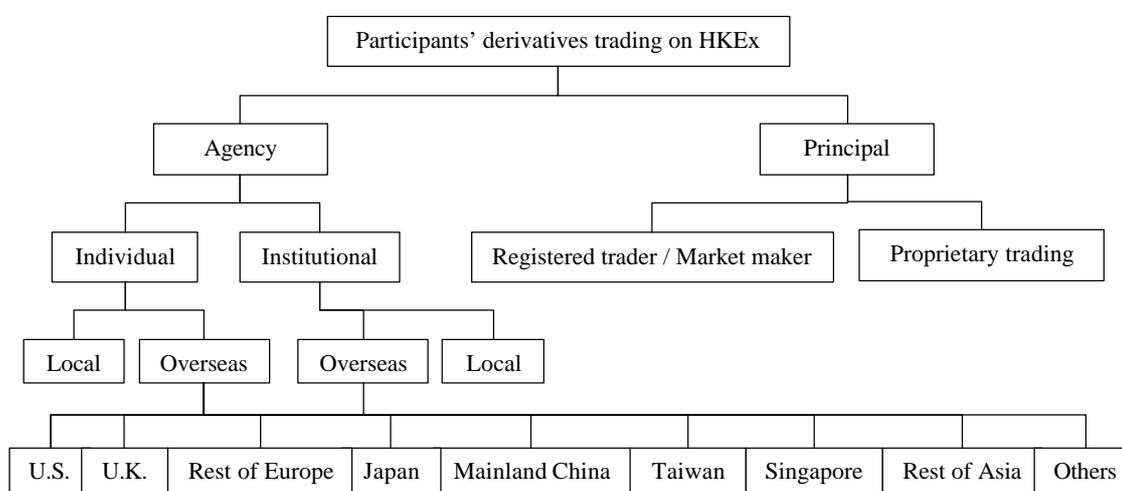
# 1. INTRODUCTION

---

Hong Kong Exchanges and Clearing Limited (HKEx) has conducted the Derivatives Market Transaction Survey (DMTS) annually since 1994 (by Hong Kong Futures Exchange on its market prior to 2001). 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). Retail 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 HKEx



The survey questionnaires were mailed to all Futures and Stock Options EPs in the target population<sup>1</sup>. Out of the 156 questionnaires sent out, 144 completed questionnaires were received, representing an overall response rate of 92%. The responded sample presented 99% in total contract volume of the target population. (See Appendix 1)

The survey covers transactions during July 2004 to June 2005<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) and stock options. They together contributed 99% 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.

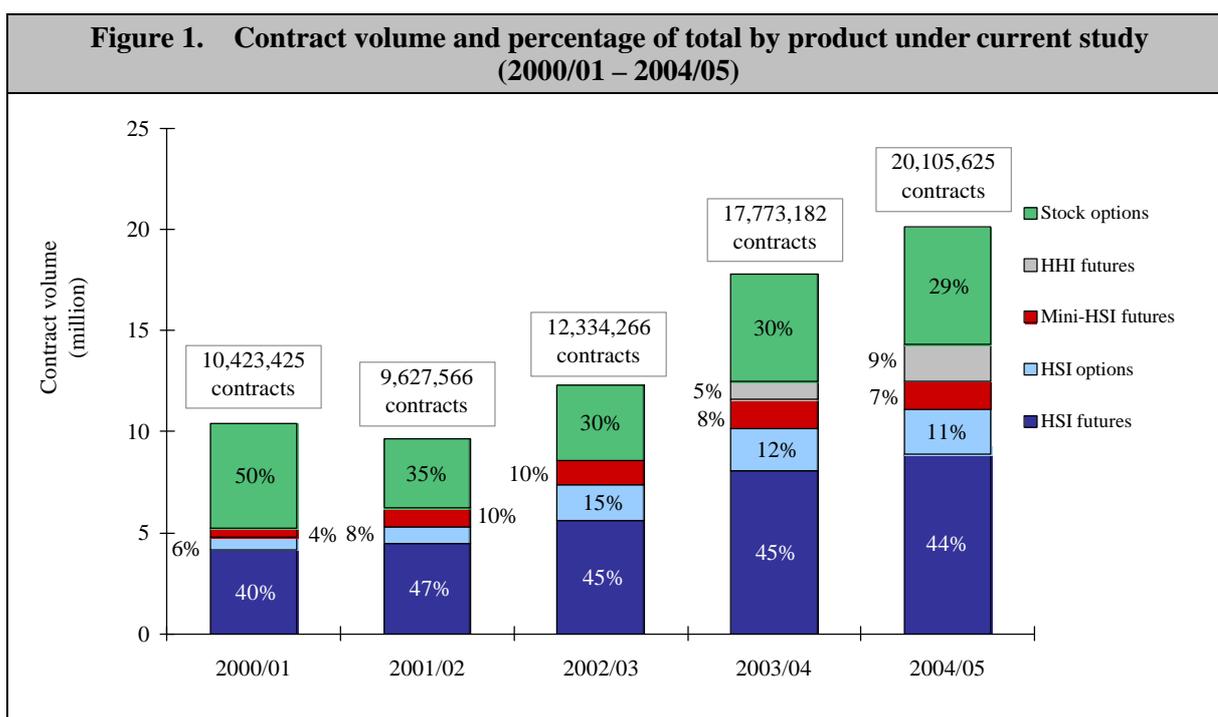
---

<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 2004/05 throughout the report; the same conversion is used for the past surveys.

Other derivative products which individually contributed less than 1% of total derivatives turnover of HKEx during the same period were excluded. These products were FTSE/Xinhua China 25 Index futures and options, Dow Jones Industrial Average futures, HIBOR futures, Three-year Exchange Fund Note futures, stock futures, Mini-HSI options and HHI options.

In 2004/05, market turnover (products under study only) increased 13% to 20.1 million contracts from 2003/04. All products under study except the Mini-HSI futures had an increase in turnover in 2004/05 compared to 2003/04. The contribution to market turnover was again dominated by HSI futures (44%) and stock options (29%). (Figure 1)



For analysis purpose, the contract volume for each transaction type in the survey was estimated (referred to as the “implied contract volume<sup>3</sup>”) based on the 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.

<sup>3</sup> See glossary for the definition of implied contract volume.

---

## 2. KEY FINDINGS

---

- Overall, pure trading remained the main transaction purpose of derivatives trading. It accounted for half of the total market turnover in 2004/05, slightly down from 54% in 2003/04. The proportion of turnover for hedging was 36% in 2004/05, an increase from 32% in 2003/04. Arbitrage turnover accounted for 14% of the overall market in 2004/05 and was the same as in 2003/04.
- In 2004/05, institutional investors marginally overtook EP principal trading for the first time as the largest contributor to market turnover volume in HKEx's derivatives market — 36% for institutional investor trading (vs 31% in 2003/04) and 35% for EP principal trading (vs 38% in 2003/04).
- The contribution from overseas investors was 29% (26% from institutions), the highest in the past 5 years. The contribution of local retail investor trading and local institutional investor trading was 26% and 10% respectively.
- The trading distribution by investor type differed by product. Overseas institutional investors were the major contributor to trading in HSI futures (41%) and HHI futures (49%). For HSI options, the contributions from overseas institutional investors (27%), local retail and institutions (21% each) were significant. For Mini-HSI futures, local retail investors continued to be the dominant participant type (contributing 67% of product turnover). The majority of turnover in stock options market was EP principal trading (77%).
- The contribution from European (excluding UK) investors increased significantly from 10% of overseas investor trading in 2003/04 to 28% in 2004/05 and became the largest contributor to overseas investor trading. It was followed by trading from the US (26%) and the UK (24%).
- Retail online trading contributed 23.5% of total retail investor trading in 2004/05, an increase from 17.7% in 2003/04. Its contribution to total market turnover was 6.5%, compared to 5.5% in 2003/04.

---

### 3. TRANSACTION PURPOSES

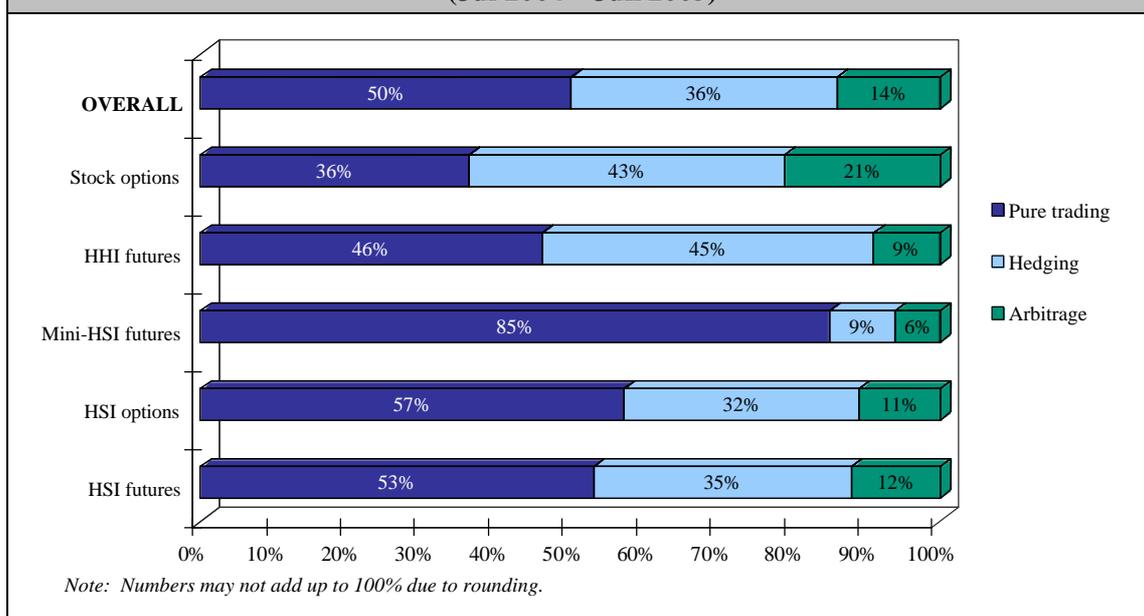
---

EPs may not always know their clients' transaction purposes and would incline to consider their client transactions as pure trading. As a result, the percentage share of pure trading as a transaction purpose may be over-estimated.

- **Overall**, pure trading remained the main transaction purpose of derivatives trading. It accounted for half of the total market turnover in 2004/05, slightly down from 54% in 2003/04. The proportion of turnover for hedging was 36% in 2004/05, an increase from 32% in 2003/04. Arbitrage turnover accounted for 14% of the overall market in 2004/05 and was the same as in 2003/04.
- The main transaction purpose for **HSI futures** was pure trading, representing 53% of the product's total contract volume. However, the proportion decreased significantly from 63% in 2003/04 and was the lowest since 2000/01. In terms of implied contract volume, pure trading decreased by 7% over 2003/04 despite a 10% increase in the product's total volume. The proportion of turnover for hedging was 35%, up from 27% in 2003/04 and was the highest since 2000/01. The proportion of arbitrage for HSI futures was 12% in 2004/05, compared to the 11% in 2003/04.
- The proportion of pure trading for **HSI options** rose continuously in the past four years — from 41% in 2001/02 to 57% in 2004/05. The proportions for hedging and arbitrage were 32% and 11% respectively.
- The main transaction purpose for **Mini-HSI futures** was pure trading (85% of the total product volume, an increase from 80% in 2003/04). The proportion increased over the past four years and is the highest in 2004/05 since the product was first launched in 2000/01. The proportion of turnover for arbitrage further decreased to 6% in 2004/05, from 18% in 2002/03 and 11% in 2003/04. In terms of implied contract volume, arbitrage volume decreased by 43% from 2003/04 compared to a decrease of 1% in the product's total volume.
- For **HHI futures**, pure trading and hedging were similarly dominant as transaction purposes, representing 46% and 45% of the product's total volume in 2004/05. However, when compared with the proportions in 2003/04, the proportion for pure trading decreased significantly from 62% while that for hedging increased significantly from 29%. In terms of implied contract volume, hedging volume increased by 2 times from 2003/04. Arbitrage turnover remained at 9%.
- The pattern of transaction purpose for **stock options** in 2004/05 was similar to that in 2003/04 — 36% for pure trading, 43% for hedging and 21% for arbitrage.

(See Figure 2 and Table 1)

**Figure 2. Transaction purposes for overall derivatives market and each product (Jul 2004 – Jun 2005)**



**Table 1. Transaction purposes for overall market and each product (2000/01 – 204/05)**

Product	Purpose	Percentage contribution <sup>(4)</sup>					Implied contract volume <sup>(3)</sup> 2004/05	
		2000/01	2001/02	2002/03	2003/04 <sup>(5)</sup>	2004/05	No. of contracts	Y-o-Y change
HSI futures <sup>(5)</sup>	Pure trading	77.9	68.0	61.5	62.8	<b>53.2</b>	4,718,294	-6.8%
	Hedging	8.5	23.4	28.2	26.6	<b>34.9</b>	3,096,054	44.5%
	Arbitrage	13.5	8.7	10.3	10.6	<b>11.9</b>	1,060,531	24.2%
	Total	100.0	100.0	100.0	100.0	<b>100.0</b>	8,874,878	10.1%
HSI options	Pure trading	66.1	40.9	43.1	47.6	<b>57.3</b>	1,277,582	27.6%
	Hedging	16.1	45.7	45.3	38.1	<b>31.8</b>	709,430	-11.5%
	Arbitrage	17.8	13.4	11.6	14.3	<b>10.9</b>	242,700	-19.5%
	Total	100.0	100.0	100.0	100.0	<b>100.0</b>	2,229,712	6.0%
Mini-HSI futures <sup>(5)</sup>	Pure trading	72.8	74.3	78.1	79.9	<b>85.0</b>	1,189,967	5.5%
	Hedging	2.1	10.2	3.6	9.4	<b>8.9</b>	124,369	-6.6%
	Arbitrage	25.1	15.5	18.3	10.6	<b>6.1</b>	85,150	-43.3%
	Total	100.0	100.0	100.0	100.0	<b>100.0</b>	1,399,485	-0.9%
HHI futures	Pure trading	-	-	-	62.1	<b>46.2</b>	829,295	48.3%
	Hedging	-	-	-	28.9	<b>44.9</b>	804,815	209.2%
	Arbitrage	-	-	-	9.0	<b>8.9</b>	160,329	96.8%
	Total	-	-	-	100.0	<b>100.0</b>	1,794,438	99.1%
Stock options	Pure trading	n.a.	n.a.	24.9	35.0	<b>36.3</b>	2,107,379	13.8%
	Hedging	n.a.	n.a.	67.7	44.4	<b>42.7</b>	2,478,555	5.4%
	Pure trading & hedging <sup>(2)</sup>	90.4	84.6	92.6	79.4	<b>79.0</b>	4,585,935	9.1%
	Arbitrage	9.6	15.4	7.4	20.6	<b>21.0</b>	1,221,177	12.0%
	Total	100.0	100.0	100.0	100.0	<b>100.0</b>	5,807,112	9.7%
Overall <sup>(1),(5)</sup>	Pure trading	n.a.	n.a.	47.9	54.0	<b>50.1</b>	10,082,054	5.1%
	Hedging	n.a.	n.a.	41.9	32.0	<b>36.0</b>	7,234,626	27.0%
	Pure trading & hedging <sup>(2)</sup>	87.6	88.2	89.7	86.0	<b>86.1</b>	17,316,679	13.3%
	Arbitrage	12.4	11.8	10.3	14.0	<b>13.9</b>	2,788,946	12.3%
	Total	100.0	100.0	100.0	100.0	<b>100.0</b>	20,105,625	13.1%

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.

(5) Figures originally presented in the 2003/04 survey have been amended.

---

## 4. DISTRIBUTION OF TRADING BY INVESTOR TYPE

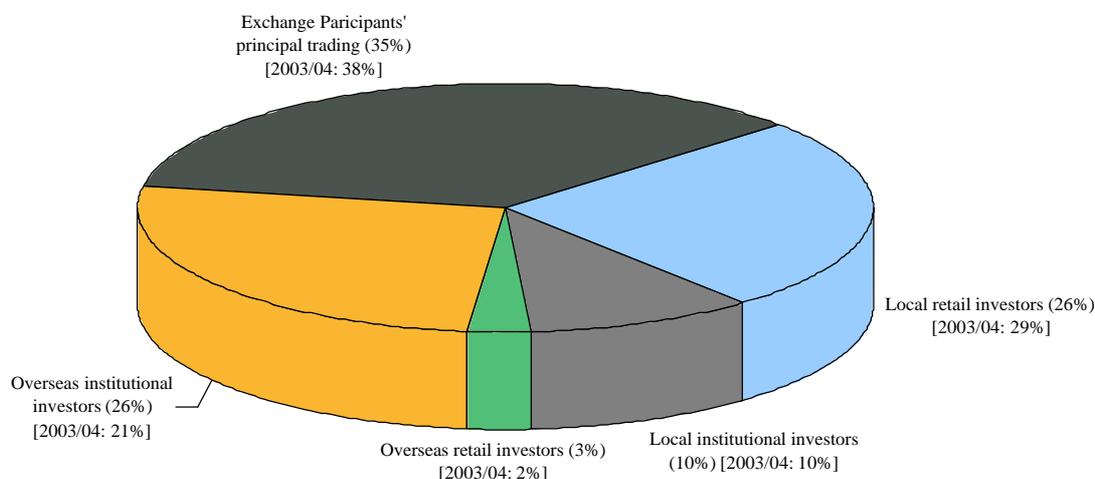
---

### 4.1 Overall pattern of trading

(Tables 2 – 4, Figures 3 – 6)

- In 2004/05, institutional investors marginally overtook EP principal trading for the first time to be the largest contributor to market turnover volume in HKEx's derivatives market — 36% for institutional investor trading (vs 31% in 2003/04) and 35% for EP principal trading (vs 38% in 2003/04). The contribution of retail investor trading dropped slightly from 31% in 2003/04 to 28% in 2004/05.
- Local investor trading, including retail and institutional, was significant — 36% of total market volume in 2004/05 (vs 39% in 2003/04).
- The contribution from overseas investors was 29%, an increase from 23% in 2003/04 and was the highest in the past 5 years. Overseas investor trading was dominated by institutions; their contribution rose to a level comparable with local retail investors — 26%, also the highest in the past 5 years.
- For the past three years, the contribution from local institutional investors remained unchanged, accounting for 10% of total market turnover.
- For EP principal trading, the contribution from market making (registered-trader trading for Futures EPs and market-maker trading for stock options) decreased from 26% in 2003/04 to 24% in 2004/05. The contribution from proprietary trading was 12% in 2004/05, the same level since 2002/03.
- In terms of implied contract volume, all types of trading increased in number of contracts from 2003/04, but trading from local retail investors declined slightly by 0.3%.

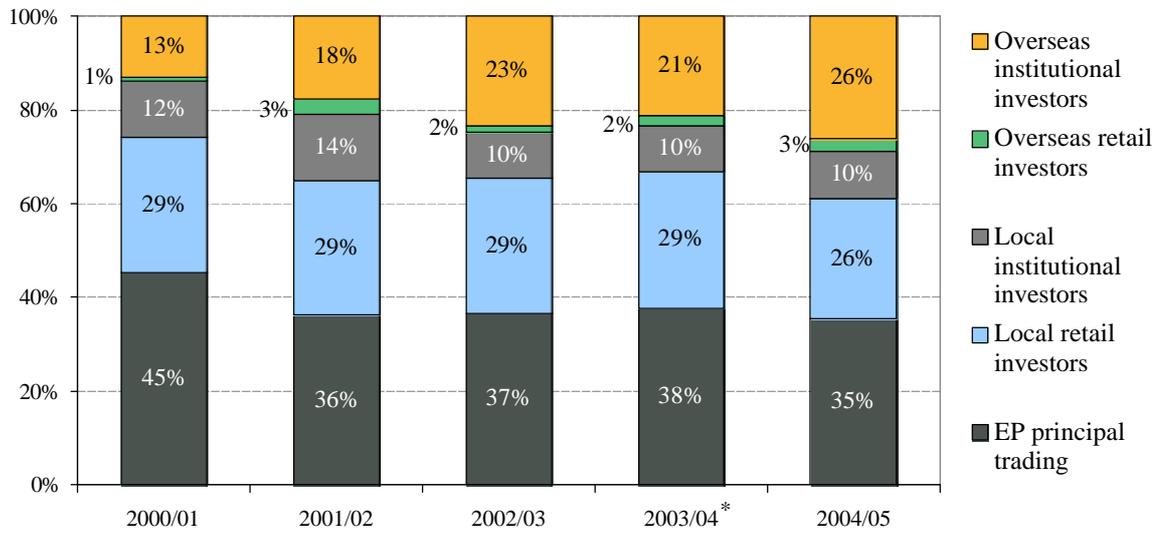
**Figure 3. Distribution of derivatives market trading by investor type  
(Jul 2004 – Jun 2005)**



Notes: (1) Numbers may not add up to 100% due to rounding.

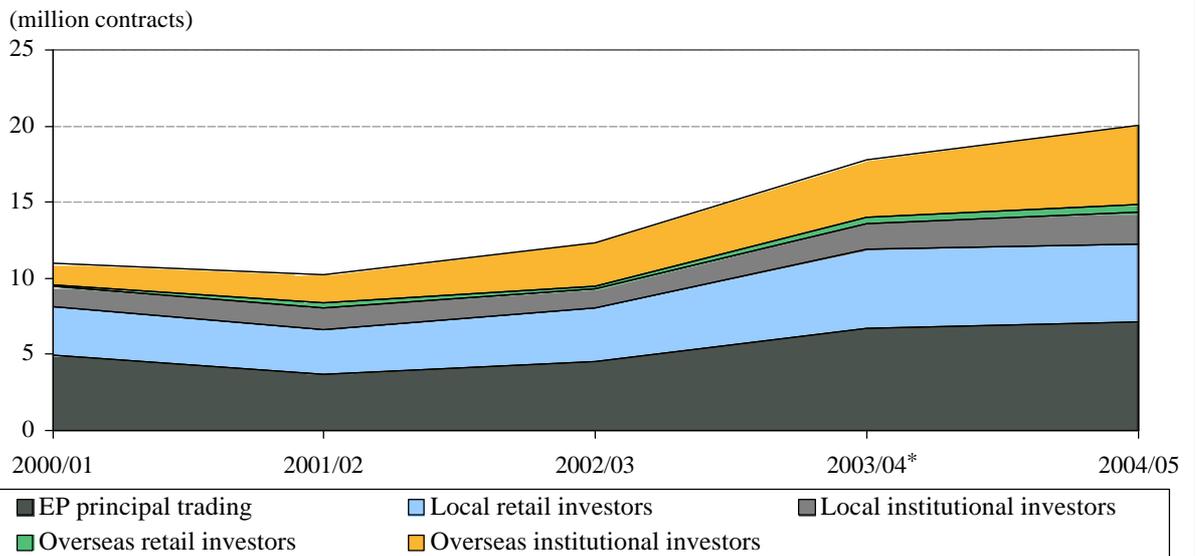
(2) Exchange Participants' principal trading comprised trading as registered traders/market makers and proprietary trading.

**Figure 4. Distribution of derivatives trading by investor type of overall market (2000/01 – 2004/05)**



\* Figures originally presented in the 2003/04 survey have been amended.  
 Note: Numbers may not add up to 100% due to rounding.

**Figure 5. Implied contract volume of derivatives by investor type (2000/01 – 2004/05)**



\* Figures originally presented in the 2003/04 survey have been amended.

<b>Table 2. Year-on-year % change in implied contract volume by type of trade in the overall derivatives market over the years (2000/01 – 2004/05)</b>				
<b>Type of investor</b>	<b>Change in implied contract volume <sup>(3)</sup></b>			
	<b>2001/02</b>	<b>2002/03</b>	<b>2003/04<sup>(4)</sup></b>	<b>2004/05</b>
<b>Principal trading <sup>(2)</sup></b>	-25.8%	22.2%	48.7%	<b>6.2%</b>
<b>Registered traders/market makers</b>	n.a.	n.a.	46.7%	<b>5.6%</b>
<b>Proprietary trading</b>	n.a.	n.a.	53.0%	<b>7.4%</b>
<b>Local investors</b>	-2.1%	8.7%	45.1%	<b>4.1%</b>
<b>Retail investors</b>	-7.7%	21.9%	45.3%	<b>-0.3%</b>
<b>Institutional investors</b>	11.2%	-17.7%	44.6%	<b>17.3%</b>
<b>Overseas investors</b>	39.5%	44.8%	35.7%	<b>39.3%</b>
<b>Retail investors</b>	272.6%	-40.7%	108.2%	<b>28.5%</b>
<b>Institutional investors</b>	24.9%	60.8%	30.7%	<b>40.5%</b>
<b>Total <sup>(1)</sup></b>	-7.1%	21.1%	44.1%	<b>13.1%</b>
<i>n.a.: Not available</i>				
<i>Notes:</i>				
<i>(1) The overall figures for 2000/01 and 2001/02 included HIBOR futures.</i>				
<i>(2) Comprises trading of registered traders/market makers and proprietary trading.</i>				
<i>(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 investor type is computed.</i>				
<i>(4) Figures originally presented in the 2003/04 survey have been amended.</i>				

## 4.2 Trading by product

(Table 3 and Figure 6)

- **HSI futures:** In 2004/05, overseas institutional investors (41% of turnover, an increase from 34% in 2003/04) were the major participant type, followed by local retail investors (30%, a decrease from 35% in 2003/04). EP principal trading was 17%, a decrease from 20% in 2003/04. Overseas retail investor trading remained small, accounting for 3% of the product volume. In terms of implied contract volume, trading from local institutional investors, overseas retail and overseas institutional investors all increased by more than 30% from 2003/04, but local retail investor trading decreased by 6%.
- **HSI options:** Overseas institutional investors became the largest contributor to HSI options volume in 2004/05 — their contribution grew over the past years from 11% in 2000/01 to 27% in 2004/05, surpassing the significant contributions from local institutions (21%) and registered traders (23%) for the first time. Nevertheless, local investors' contribution was also significant, accounting for 42% which was equally shared by retail and institutional investors.

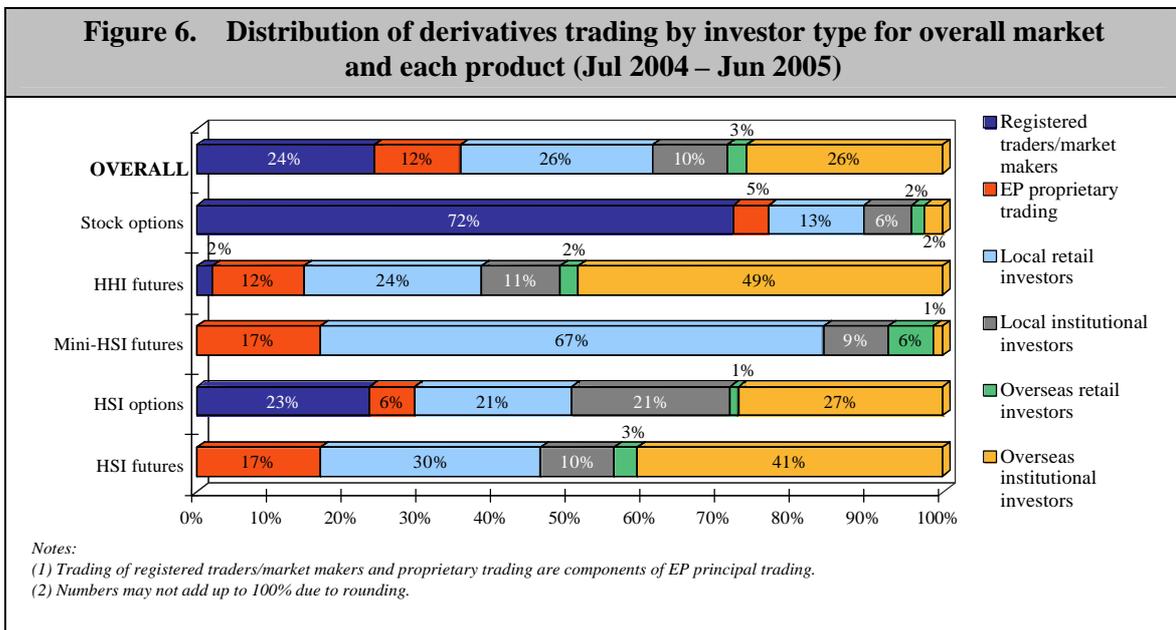
EP principal trading contributed about 29% of HSI options volume in 2004/05 (down from 33% in 2003/04) — 23% from market making (vs 26% in 2003/04) and 6% from proprietary trading (vs 7% in 2003/04). In terms of implied contract volume, contracts from EP principal trading decreased 5% from 2003/04 (with proprietary trading dropping 11%).

- **Mini-HSI futures:** Local retail investors continued to be the dominant participant type although their contribution decreased from 80% in 2003/04 to 67% in 2004/05. The contribution from EP proprietary trading increased significantly from 6% in 2003/04 to 17% in 2004/05 but still lower than the 19% in 2002/03.

In terms of implied contract volume, EP proprietary trading grew 1.7 times from a small base in 2003/04. On the contrary, implied contract volume of local investor trading dropped 13% over 2003/04.

- **HFI futures:** Overseas institutional investors were the major participant, accounting for 49% of the product's total volume in 2004/05 (up from 40% in 2003/04). The contribution from all other investor types decreased from 2003/04. However, in terms of implied contract volume, all types of investor trading saw an increase in contract volume from 2003/04.
- **Stock options:** Unlike other derivative products for which agency trading dominated, the majority of turnover in the stock options market was EP principal trading, which accounted for 77% of the product's total volume in 2004/05 (similar to the 79% in 2003/04). Local investors' contribution was 19% in 2004/05 (compared to 18% in 2003/04) — 13% by retail and 6% by institutions. Overseas retail and institutional investors contributed an aggregate of 4% of stock options volume.

In terms of absolute implied contract volume, all types of investor trading saw an increase in contract volume from 2003/04.



**Table 3. Distribution of derivatives trading by investor type (2000/01 – 2004/05)**

Type of investor	Percentage contribution <sup>(3)</sup>					Implied contract volume <sup>(4)</sup> 2004/05	
	2000/01	2001/02	2002/03	2003/04 <sup>(5)</sup>	2004/05	No. of contracts	Y-o-Y change
<b>HSI futures <sup>(5)</sup></b>							
Registered traders	-	-	-	-	-	-	-
Proprietary trading	6.8	12.2	15.7	20.2	<b>16.6</b>	1,472,658	-9.7%
Local investors	68.8	55.1	43.7	42.9	<b>39.4</b>	3,494,388	1.0%
Retail	56.4	41.8	35.6	34.7	<b>29.5</b>	2,621,377	-6.3%
Institutional	12.4	13.3	8.0	8.2	<b>9.8</b>	873,011	32.2%
Overseas investors	24.4	32.7	40.6	36.9	<b>44.0</b>	3,907,832	31.5%
Retail	1.3	3.8	1.9	2.4	<b>3.2</b>	281,958	48.8%
Institutional	23.1	28.9	38.7	34.5	<b>40.9</b>	3,625,875	30.4%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>8,874,878</b>	<b>10.1%</b>
<b>HSI options</b>							
Principal trading <sup>(2)</sup>	20.6	25.6	28.2	32.7	<b>29.2</b>	651,835	-5.2%
Registered traders	19.3	23.4	23.3	25.5	<b>23.2</b>	517,251	-3.7%
Proprietary trading	1.3	2.2	4.9	7.2	<b>6.0</b>	134,583	-10.8%
Local investors	68.2	59.3	48.1	43.2	<b>42.2</b>	941,297	3.6%
Retail	38.0	28.6	21.3	18.7	<b>21.1</b>	470,926	19.6%
Institutional	30.2	30.7	26.8	24.5	<b>21.1</b>	470,371	-8.7%
Overseas investors	11.2	15.1	23.8	24.1	<b>28.5</b>	636,581	25.4%
Retail	0.5	2.7	0.6	0.7	<b>1.2</b>	26,518	69.4%
Institutional	10.8	12.4	23.2	23.4	<b>27.4</b>	610,062	24.0%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>2,229,712</b>	<b>6.0%</b>
<b>Mini-HSI futures <sup>(5)</sup></b>							
Registered traders	-	-	-	-	-	-	-
Proprietary trading	5.4	17.6	18.7	6.1	<b>16.6</b>	232,264	171.9%
Local investors	92.2	66.0	76.1	87.1	<b>76.2</b>	1,066,191	-13.3%
Retail	87.6	63.7	73.9	79.7	<b>67.5</b>	944,552	-16.1%
Institutional	4.5	2.3	2.3	7.3	<b>8.7</b>	121,639	17.4%
Overseas investors	2.4	16.4	5.2	6.9	<b>7.2</b>	101,030	3.9%
Retail	2.2	15.7	4.5	6.0	<b>5.9</b>	83,210	-1.8%
Institutional	0.2	0.6	0.7	0.9	<b>1.3</b>	17,820	41.8%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>1,399,485</b>	<b>-0.9%</b>
<b>HFI futures</b>							
Principal trading <sup>(2)</sup>	-	-	-	17.2	<b>14.4</b>	259,101	67.6%
Registered traders	-	-	-	2.2	<b>2.1</b>	37,406	87.8%
Proprietary trading	-	-	-	15.0	<b>12.4</b>	221,695	64.6%
Local investors	-	-	-	40.2	<b>34.3</b>	615,635	70.0%
Retail	-	-	-	28.5	<b>23.8</b>	426,902	66.5%
Institutional	-	-	-	11.7	<b>10.5</b>	188,733	78.7%
Overseas investors	-	-	-	42.7	<b>51.3</b>	919,702	139.2%
Retail	-	-	-	3.0	<b>2.4</b>	43,554	62.2%
Institutional	-	-	-	39.7	<b>48.8</b>	876,149	145.0%
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>100.0</b>	<b>100.0</b>	<b>1,794,438</b>	<b>99.1%</b>
<b>Stock options</b>							
Principal trading <sup>(2)</sup>	83.1	74.8	72.8	78.6	<b>76.8</b>	4,458,259	7.2%
Market makers	n.a.	n.a.	65.8	75.5	<b>71.9</b>	4,178,111	4.6%
Proprietary trading	n.a.	n.a.	7.0	3.1	<b>4.8</b>	280,149	69.9%
Local investors	12.2	19.1	17.1	17.8	<b>19.1</b>	1,109,260	18.0%
Retail	5.3	9.4	11.0	11.2	<b>12.6</b>	733,153	23.8%
Institutional	6.8	9.7	6.1	6.6	<b>6.5</b>	376,107	8.2%
Overseas investors	4.7	6.1	10.1	3.7	<b>4.1</b>	239,593	23.5%
Retail investors	0.5	0.4	1.0	1.8	<b>1.7</b>	97,390	2.7%
Institutional investors	4.2	5.7	9.1	1.9	<b>2.4</b>	142,202	43.4%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>5,807,112</b>	<b>9.7%</b>
<b>Overall <sup>(1), (5)</sup></b>							
Principal trading <sup>(2)</sup>	45.4	36.2	36.6	37.7	<b>35.4</b>	7,121,472	6.2%
Registered traders/market makers	n.a.	n.a.	25.1	25.5	<b>23.8</b>	4,789,493	5.6%
Proprietary trading	n.a.	n.a.	11.5	12.2	<b>11.6</b>	2,331,979	7.4%
Local investors	40.8	43.0	38.6	38.9	<b>35.8</b>	7,188,956	4.1%
Retail investors	28.9	28.7	28.9	29.1	<b>25.7</b>	5,160,684	-0.3%
Institutional investors	11.9	14.3	9.7	9.7	<b>10.1</b>	2,028,272	17.3%
Overseas investors	13.8	20.8	24.9	23.4	<b>28.8</b>	5,795,197	39.3%
Retail investors	0.8	3.3	1.6	2.3	<b>2.6</b>	529,748	28.5%
Institutional investors	13.0	17.5	23.3	21.1	<b>26.2</b>	5,265,449	40.5%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>20,105,625</b>	<b>13.1%</b>

n.a.: Not available

- : Not applicable

Notes:

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

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

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

(4) 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.

(5) Figures originally presented in the 2003/04 survey have been amended.

<b>Table 4. Business composition of Exchange Participants in derivatives by trade type (%)</b>										
	2000/01 Overall	2001/02 Overall	2002/03 Overall	2003/04 Overall*	2004/05 Overall	2004/05				
						HSI futures	HSI options	Mini-HSI futures	HHI futures	Stock options
<i>All trading</i>										
<b>Principal<sup>#</sup></b>	45.4	36.2	36.6	37.7	<b>35.4</b>	16.6	29.2	16.6	14.4	76.8
<b>Agency</b>	54.6	63.8	63.4	62.3	<b>64.6</b>	83.4	70.8	83.4	85.6	23.2
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<i>Agency trading</i>										
<b>Local</b>	74.7	67.4	60.8	62.4	<b>55.4</b>	47.2	59.7	91.3	40.1	82.2
<b>Overseas</b>	25.3	32.6	39.2	37.6	<b>44.6</b>	52.8	40.3	8.7	59.9	17.8
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<i>Agency trading</i>										
<b>Retail</b>	54.3	50.2	48.1	50.5	<b>43.8</b>	39.2	31.5	88.1	30.6	61.6
<b>Institutional</b>	45.7	49.8	51.9	49.5	<b>56.2</b>	60.8	68.5	11.9	69.4	38.4
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<i>Retail investor trading</i>										
<b>Local</b>	97.2	89.7	94.7	92.6	<b>90.7</b>	90.3	94.7	91.9	90.7	88.3
<b>Overseas</b>	2.8	10.3	5.3	7.4	<b>9.3</b>	9.7	5.3	8.1	9.3	11.7
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<i>Institutional investor trading</i>										
<b>Local</b>	47.8	44.9	29.4	31.6	<b>27.8</b>	19.4	43.5	87.2	17.7	72.6
<b>Overseas</b>	52.2	55.1	70.6	68.4	<b>72.2</b>	80.6	56.5	12.8	82.3	27.4
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<i>Local investor trading</i>										
<b>Retail</b>	70.8	66.8	74.9	75.0	<b>71.8</b>	75.0	50.0	88.6	69.3	66.1
<b>Institutional</b>	29.2	33.2	25.1	25.0	<b>28.2</b>	25.0	50.0	11.4	30.7	33.9
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0
<i>Overseas investor trading</i>										
<b>Retail</b>	5.9	15.8	6.5	9.9	<b>9.1</b>	7.2	4.2	82.4	4.7	40.6
<b>Institutional</b>	94.1	84.2	93.5	90.1	<b>90.9</b>	92.8	95.8	17.6	95.3	59.4
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0

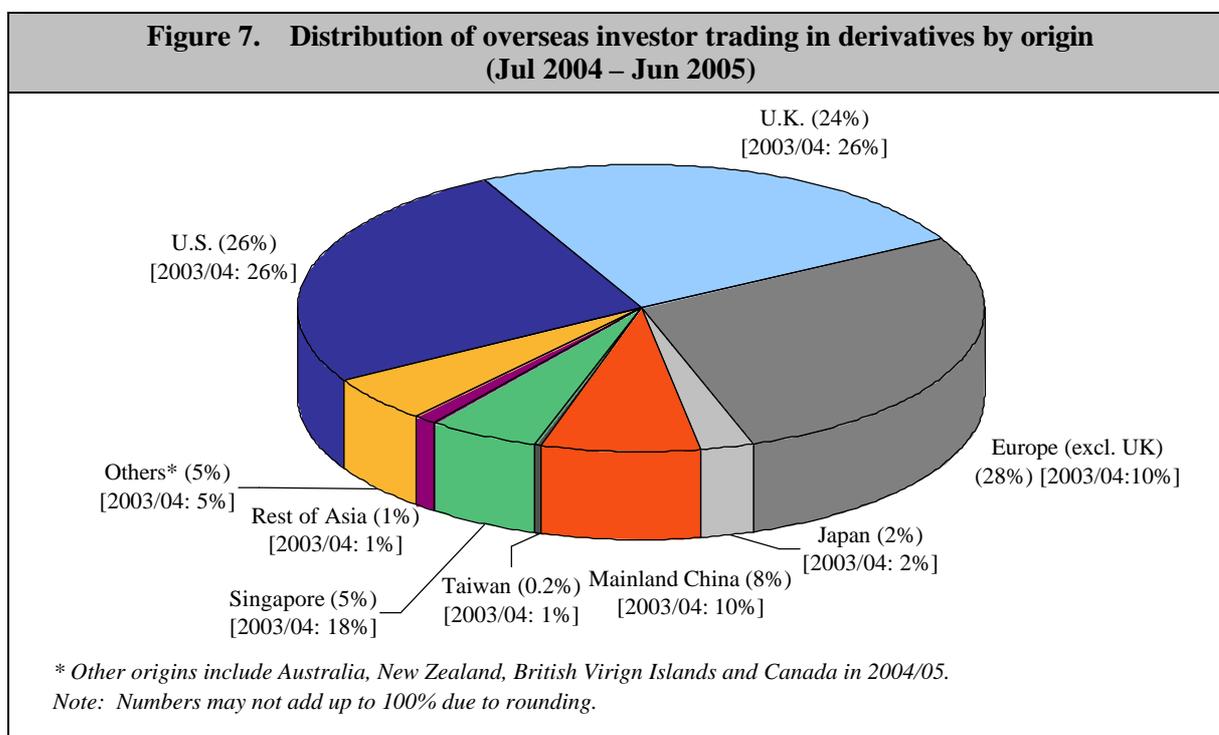
<sup>#</sup> Comprises registered traders' trading or market making and proprietary trading.  
<sup>\*</sup> Figures originally presented in the 2003/04 survey have been amended.  
Note: Numbers may not add up to 100% due to rounding.

## 5. DISTRIBUTION OF OVERSEAS INVESTOR TRADING BY ORIGIN

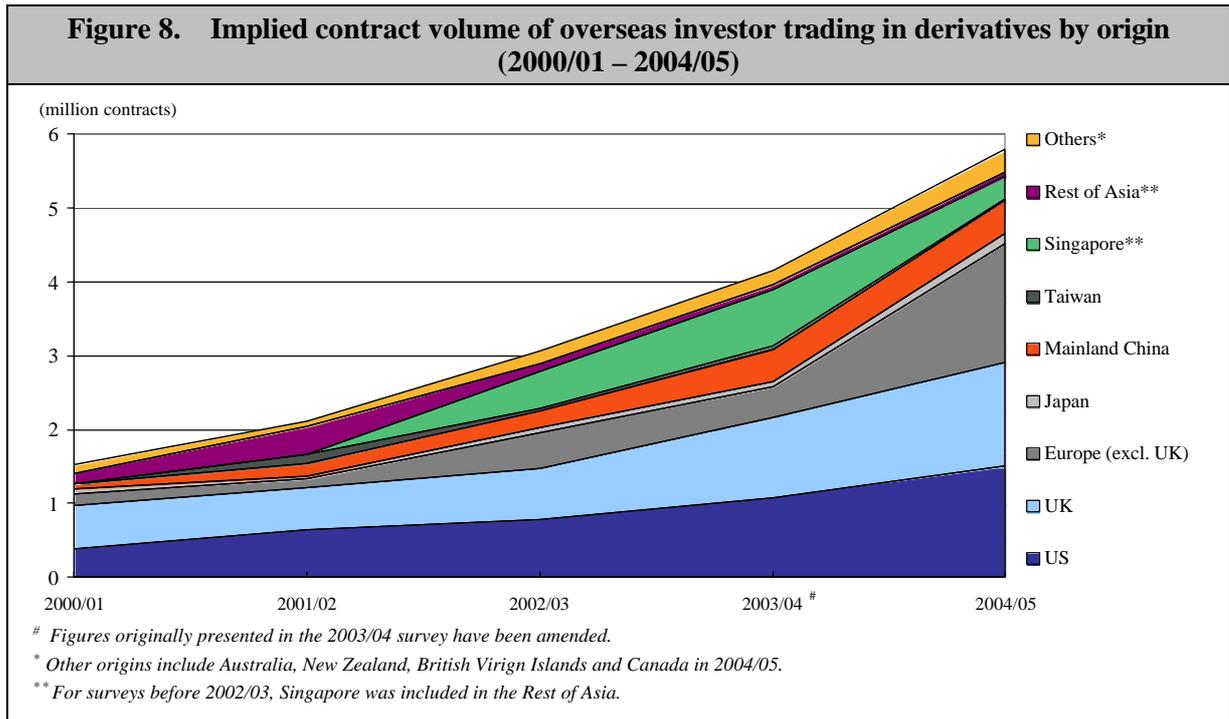
### 5.1 Overall pattern

(Table 5 and Figures 7 – 8)

- In 2004/05, overseas investors' contribution was 29% of total market turnover. About 91% of the overseas investor trading came from institutional investors.
- The contribution from European (excluding UK) investors increased significantly from 10% of overseas investor trading in 2003/04 to 28% in 2004/05<sup>4</sup> and became the largest contributor to overseas investor trading. In terms of implied contract volume, trading from European (excluding UK) investors increased by 2.9 times from 2003/04.
- Investors from the US and the UK were two other major contributors to overseas investor trading, contributing 26% and 24% respectively of overseas investor trading in 2004/05 (compared to 26% for both origins in 2003/04.). In terms of implied contract volume, trading from investors in the US and the UK saw a growth of 40% and 30% respectively over 2003/04.
- The aggregate contribution from Asian investors (Mainland China, Singapore, Japan, Taiwan and the rest of Asia) was 17% of overseas investor trading in 2004/05, down from 33% in 2003/04. In terms of implied contract volume, trading from Mainland China investors increased by 6% (in spite of their contribution to overseas investor trading from 10% in 2003/04 to 8% in 2004/05); trading from Taiwan and Singapore investors decreased 61%-70% in contract volume from 2003/04 (albeit that Taiwan's base was very small).



<sup>4</sup> A FEP with significant turnover contribution reported a major client base change from Singapore to Europe (excl. UK). The contribution from European (excl. UK) investors came through 18 EPs (14 FEPs and 4 SOEPs) and it was dominated by four FEPs whose trading accounted for 80% of all European (excl. UK) investor trading.



## 5.2 By market segment

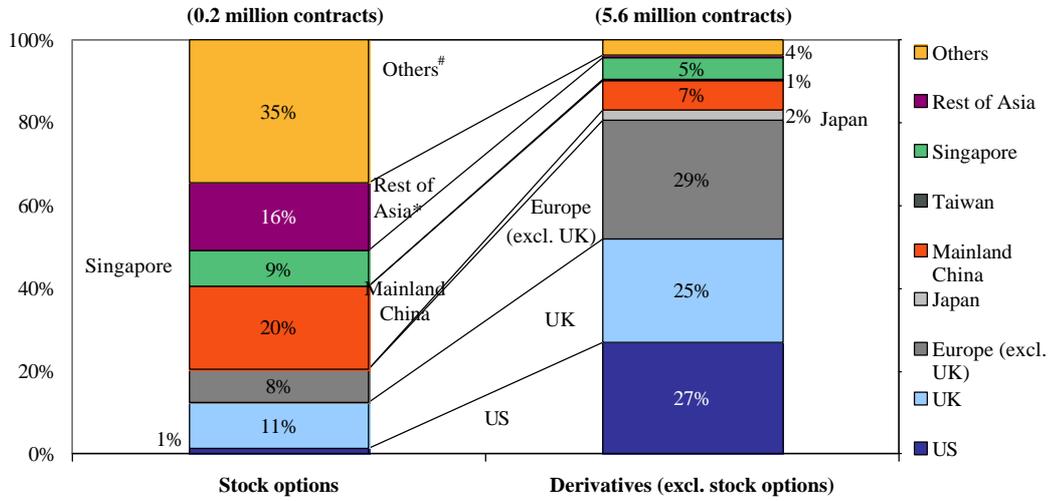
(Table 5 and Figure 9)

FEPs service the HKEx's derivatives market for the trading of futures and options (excluding stock options) while SOEPs service the stock options market only. The distribution of overseas investor trading by origin for these two markets was very different (Figure 9). Since the actual turnover of stock options contributed only 29% of total turnover in 2004/05 (Figure 1) in the derivatives market and only 4% of stock options turnover came from overseas investors (compared to 39% for other derivatives), the pattern of total overseas investor trading by origin in the overall market was dominated by the pattern of derivatives excluding stock options.

- For derivatives (excluding stock options), the major overseas contributors were European (excluding UK), US and UK investors. They together contributed 81% of total overseas investor trading in 2004/05.
- For stock options, the major contributors to overseas investor trading were investors from Australia, New Zealand and British Virgin Islands (specified in the "Others" origin by SOEPs respondents). They together contributed 35% of total overseas investor trading. Japan and Taiwan investors did not have volume contribution to stock options in 2004/05.
- In terms of implied contract volume, stock options trading from the UK and Mainland China increased by 148% and 104% respectively over 2003/04.

<b>Table 5. Distribution of overseas investor trading in derivatives by origin (2000/01 – 2004/05)</b>							
<b>Overall Market</b>							
Origin	Percentage contribution <sup>(4)</sup>					Implied contract volume <sup>(6)</sup> 2004/05	
	2000/01	2001/02	2002/03	2003/04 <sup>(5)</sup>	2004/05	No. of contracts	Y-o-Y change
US	25.3	30.2	25.7	25.9	25.9	1,503,271	39.6%
UK	39.1	27.4	22.6	26.0	24.3	1,409,871	30.4%
Europe (excl UK)	10.0	5.1	15.8	10.0	27.9	1,614,030	289.8%
Japan	3.9	1.5	2.3	2.1	2.3	133,955	55.5%
Mainland China	4.7	8.2	7.2	10.2	7.8	449,280	5.9%
Taiwan	0.5	6.3	1.3	1.2	0.2	14,461	-70.0%
Singapore <sup>(2)</sup>	n.a.	n.a.	16.1	18.5	5.2	303,062	-60.6%
Rest of Asia <sup>(2)</sup>	9.6	17.5	3.5	1.5	1.2	68,430	10.4%
Others	7.0	3.6	5.6	4.8	5.2	298,837	50.2%
<b>Total<sup>(1)</sup></b>	100.0	100.0	100.0	100.0	100.0	5,795,197	39.3%
<b>Total futures and HSI options</b>							
Origin	Percentage contribution <sup>(4)</sup>					Implied contract volume <sup>(6)</sup> 2004/05	
	2000/01	2001/02	2002/03	2003/04 <sup>(5)</sup>	2004/05	No. of contracts	Y-o-Y change
US	29.1	32.6	28.9	26.7	27.0	1,508,264	42.8%
UK	39.9	25.4	25.1	27.0	24.9	1,390,777	30.1%
Europe (excl UK)	9.6	3.3	12.4	9.6	28.7	1,603,336	319.8%
Japan	4.2	1.7	2.6	2.1	2.4	134,689	60.4%
Mainland China	5.2	9.1	7.8	10.1	7.2	402,560	0.6%
Taiwan	0.6	6.8	1.5	1.2	0.3	14,540	-69.7%
Singapore <sup>(2)</sup>	n.a.	n.a.	16.2	19.1	5.1	283,590	-62.6%
Rest of Asia <sup>(2)</sup>	9.1	17.4	3.1	0.4	0.5	29,312	110.2%
Others	2.3	3.7	2.4	3.8	3.9	215,743	42.9%
<b>Total<sup>(1)</sup></b>	100.0	100.0	100.0	100.0	100.0	5,582,810	40.9%
<b>Stock options</b>							
Origin	Percentage contribution <sup>(4)</sup>					Implied contract volume <sup>(6)</sup> 2004/05	
	2000/01	2001/02	2002/03	2003/04	2004/05	No. of contracts	Y-o-Y change
US	5.7	9.1	5.6	9.9	1.3	3,183	-83.4%
UK	34.8	44.8	7.4	5.5	11.0	26,320	147.5%
Europe (excl UK)	12.3	21.0	36.4	16.3	8.0	19,173	-39.2%
Japan	2.3	0.0	0.0	1.0	0.0	0	-100.0%
Mainland China	1.9	0.8	3.7	12.2	20.1	48,266	103.6%
Taiwan	0.0	2.4	0.0	0.0	0.0	0	-100.0%
Singapore <sup>(2)</sup>	n.a.	n.a.	15.4	5.7	8.7	20,739	86.3%
Rest of Asia <sup>(2)</sup>	12.1	19.2	6.0	24.8	16.2	38,758	-19.4%
Others <sup>(3)</sup>	30.9	2.6	25.4	24.7	34.7	83,155	73.8%
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	239,593	23.5%
n.a.: Not available							
Note:							
(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) Others origin refers to Australia, New Zealand, British Virgin Islands.							
(4) Numbers may not add up to 100% due to rounding.							
(5) Figures originally presented in the 2003/04 survey have been amended.							
(6) See glossary for the definition of implied contract volume. The total figure is the actual total contract volume, multiplied by the percentage contribution of overseas investor trading by origin.							

**Figure 9. Distribution of overseas investor trading in derivatives by origin by market segment (Jul 2004 – Jun 2005)**



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

\* "Rest of Asia" origin refers to Macau, Korea, Malaysia, Thailand, Phillipines and Indonesia.

# "Others" origin refers to Australia, New Zealand, British Virgin Islands for stock options and include Canada for futures & options.

Notes: 1. Origins with contribution of less than 0.5% are not shown in the chart.

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

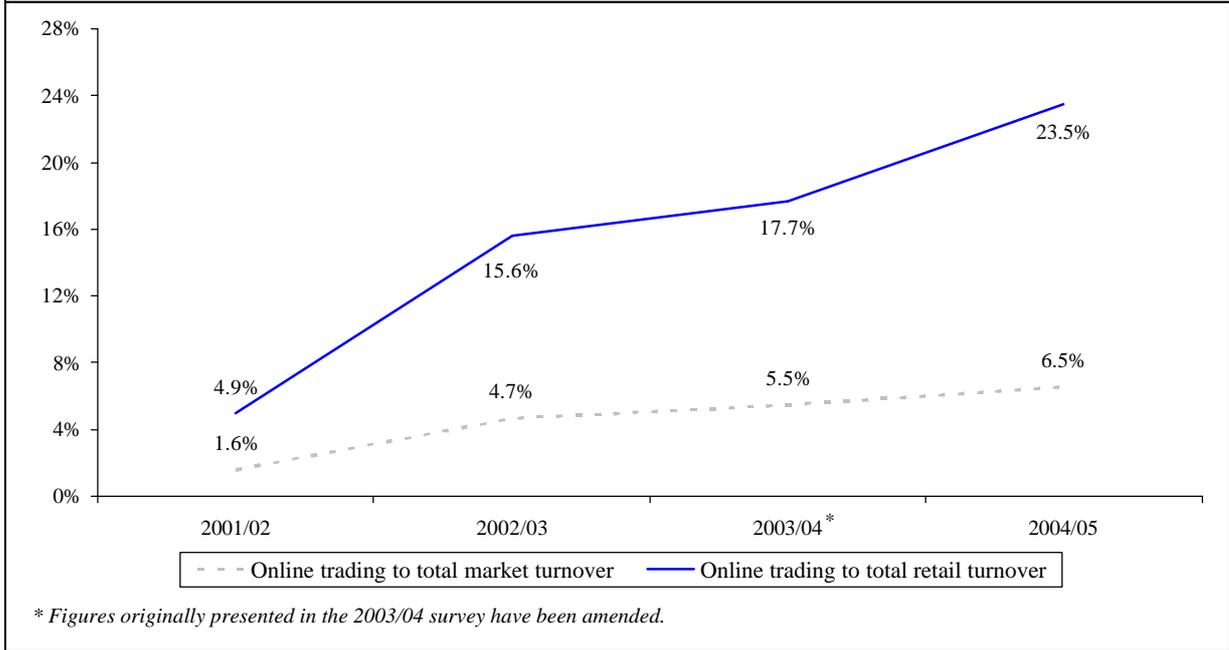
## 6. RETAIL ONLINE TRADING

- Retail online trading contributed 23.5% of total retail investor trading in 2004/05, an increase from 17.7% in 2003/04. Its contribution to total market turnover was 6.5%, compared to 5.5% in 2003/04.
- A total of 31 or 22% of responding EPs offered online trading service to retail investors (referred to as “online brokers”). All of them recorded retail online trading. The number of online brokers was larger than the 21 or 15% of responding EPs who recorded retail online trading in 2003/04<sup>5</sup>.
- Retail online trading accounted for 27% of the total turnover of online brokers, up from 25% in 2003/04.
- All responding EPs having retail online trading claimed that no manual re-input was required for online orders received.

<b>Table 6. Statistics on retail online trading in derivatives (2001/02 – 2004/05)</b>				
<b>Online brokers<sup>(1)</sup></b>	<b>2001/02</b>	<b>2002/03</b>	<b>2003/04</b>	<b>2004/05</b>
Total number of online brokers	7	11	21	<b>31</b>
- As % of all responding EPs (%)	5%	8%	15%	<b>22%</b>
Number of online brokers requiring manual order re-input for online trading	1	1	0	<b>0</b>
- As % of all online brokers (%)	14%	9%	0%	<b>0%</b>
<b>Online trading</b>	<b>2001/02</b>	<b>2002/03</b>	<b>2003/04<sup>(4)</sup></b>	<b>2004/05</b>
Total implied contract volume	276,786	1,090,283	1,941,128	<b>2,633,008</b>
- As % of total market turnover <sup>(2)</sup> (%)	1.6%	4.7%	5.5%	<b>6.5%</b>
- As % of total agency turnover (%)	2.5%	7.5%	8.9%	<b>10.3%</b>
- As % of total retail turnover (%)	4.9%	15.6%	17.7%	<b>23.5%</b>
- As % of total turnover of online brokers (%)	19.3%	31.0%	24.5%	<b>26.6%</b>
Percentage of online trading requiring manual order re-input <sup>(3)</sup> (%)	0.7%	0.3%	0%	<b>0%</b>
<i>Notes:</i>				
<i>(1) "Online brokers" refers to EPs offering online trading service to retail clients in the 2004/05 survey but refers to EPs recording retail online trading in the previous surveys.</i>				
<i>(2) 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 99% or over of the total turnover of all products in the respective survey periods.</i>				
<i>(3) 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.</i>				
<i>(4) Figures originally presented in the 2003/04 survey have been amended.</i>				

<sup>5</sup> In the 2003/04 survey, respondents were asked to give the proportion of retail online trading, if any, but not whether they offered online trading service to retail clients. There might be cases where an EP provided the service but no online trading was recorded.

**Figure 10. Retail online trading to total derivatives market volume and retail turnover volume (2001/02 – 2004/05)**



---

# GLOSSARY

---

<b><i>Hedging:</i></b>	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.
<b><i>Pure trading:</i></b>	Trading for potential profit in anticipation of a price movement in either the short or long term, but not for hedging or arbitrage purpose.
<b><i>Arbitrage:</i></b>	Trading to take riskless or near riskless profit from price differentials in related markets.
<b><i>Principal trading:</i></b>	Trading on the participant firm's own account, whether as a market maker or not, i.e. comprising EP registered trader/market maker trading and proprietary trading.
<b><i>Agency trading:</i></b>	Trading on behalf of the participant firm's clients, including client trading channelled from the firm's parent or sister companies.
<b><i>EP Registered Trader/ market maker trading:</i></b>	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.
<b><i>EP proprietary trading:</i></b>	Trading on the participant firm's own account but not as a market maker.
<b><i>Individual clients:</i></b>	Clients who trade on their personal account.
<b><i>Institutional clients:</i></b>	Clients who are not individual clients.
<b><i>Local clients:</i></b>	Individual clients residing in Hong Kong or institutional clients operating in Hong Kong      Hong Kong as the source of funds.
<b><i>Online brokers:</i></b>	EPs who offer online trading service to individual clients.
<b><i>Overseas clients:</i></b>	Individual clients residing outside Hong Kong or institutional clients operating outside Hong Kong      overseas as the source of funds.
<b><i>Retail online trading:</i></b>	Trading originating from orders entered directly by individual 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.
<b><i>Implied contract volume:</i></b>	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

---

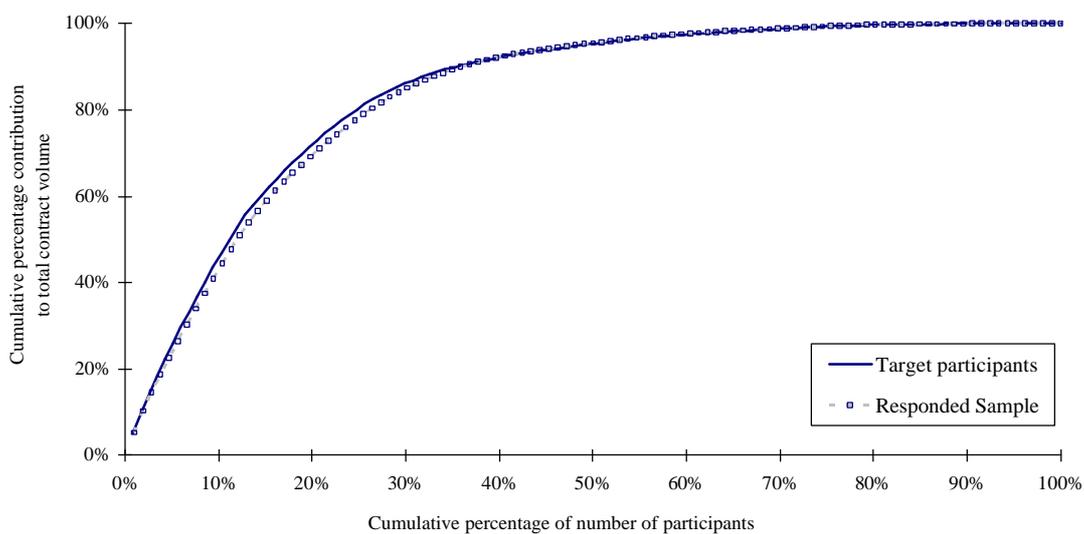
<b>Exchange Participants</b>	<b>Target population</b>	<b>Responded participants</b>	<b>Response Rate</b>	<b>% share of turnover in target population</b>
<b>Futures EPs</b>	117	106	90.6%	98.0%
<b>Stock Options EPs</b>	39	38	97.4%	99.9%
<b>All Participants</b>	156	144	92.3%	98.6%

---

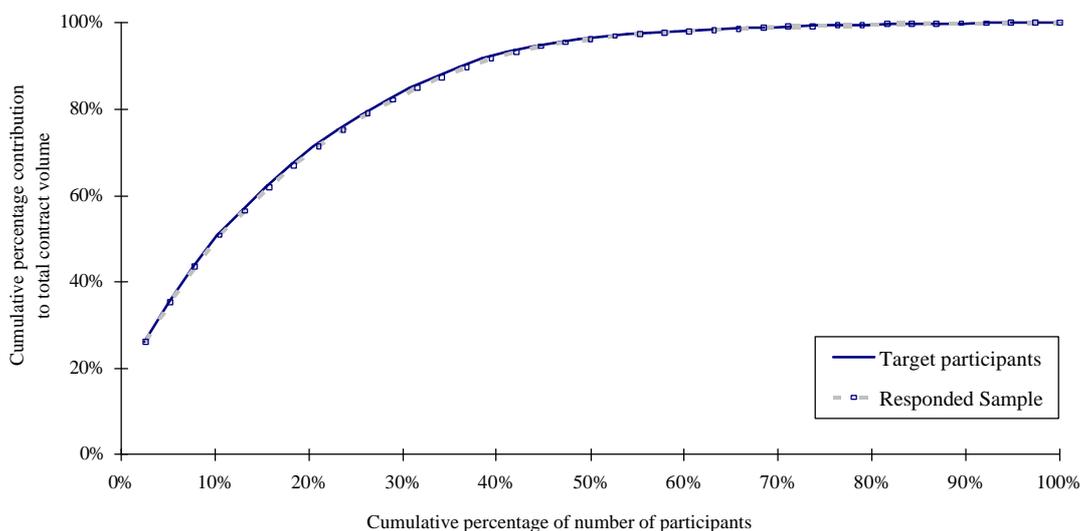
## APPENDIX 2. REPRESENTATIVENESS OF THE RESPONDED SAMPLE RELATIVE TO TARGET RESPONDENTS

---

(a) Futures Exchange Participants (Jul 2004 – Jun 2005)



(b) Stock Options Exchange Participants (Jul 2004 – Jun 2005)



---

## 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 in July 2005.

The target respondents were all corporations.

### (2) Methodology

- 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.
- The study period or survey period is from July 2004 to June 2005.
- Products under study were HSI futures, HSI options, Mini-HSI futures, H-shares Index futures (HHI futures) and stock options.
- The survey was done by mailed questionnaires. The 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 were reminded that their answers should be based on their execution turnover.
- 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.
- 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

- 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.
- For agency trading, EPs usually would not know the purpose of trading and would tend to regard such transactions as "pure trading". Four EPs in the 2004/05 survey could not provide the answer for the question on trading purposes. They were excluded in the analysis of turnover by trading purposes.
- 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.

- 
- The number of derivatives EPs was relatively small, especially for SOEPs. Their degree of participation in the different derivative products varied greatly. The trading pattern of the different derivative products was also very different. Therefore, the non-response of particular 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).
  - 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>6</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 questions 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 are few.

---

<sup>6</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.*