

DERIVATIVES MARKET TRANSACTION SURVEY 2002/03

(Amended on 9 December 2004)



Hong Kong Exchanges and Clearing Limited

Research & Planning

CONTENTS

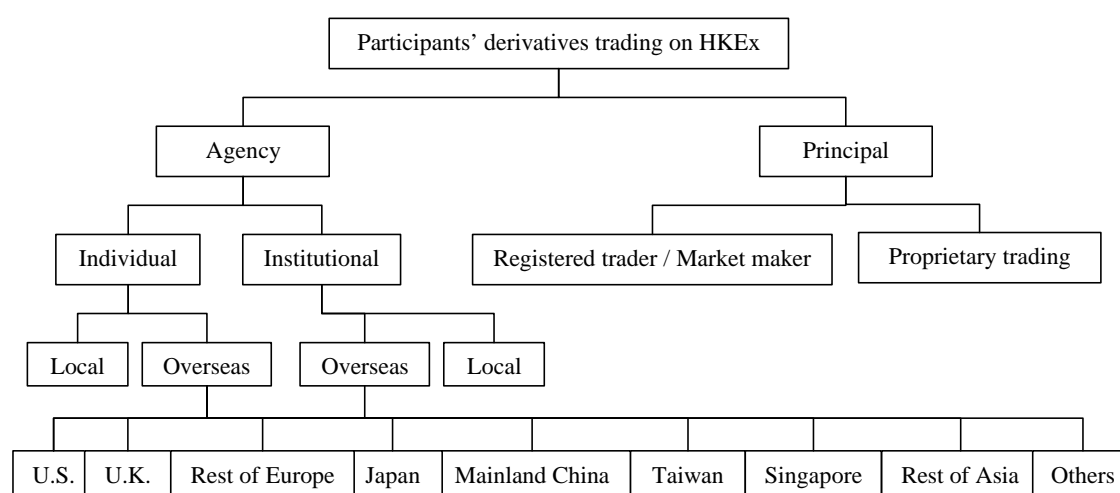
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1. INTRODUCTION

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 purpose of the survey is to track the trading composition by investor type and by trading purpose of the derivatives market HKEx operates.

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, as well as Exchange Participants' (EPs') own trading (see classification chart below). Comparison of the findings with those of the past surveys is performed to reveal any changes in trading pattern¹. Online trading statistics have been obtained since the 2001/02 survey.

Classification of Exchange Participants' derivatives trading on the HKEx



The survey covers transactions in the major HKEx futures and options products, namely Hang Seng Index futures (HSI futures), Hang Seng Index options (HSI options), Mini-HSI futures and stock options during July 2002 to June 2003 (referred to as the year 2002/03 throughout the report). The other derivative products² on HKEx contributed less than 1% in aggregate of total contract volume in the derivatives market during the study period; they were excluded in this survey.

The total turnover of the products under study constituted 99.5% of the aggregate turnover of all derivative products on HKEx during the study period. “Market turnover” mentioned in this paper refers to the total contract turnover of the products under study. The

¹ Certain figures previously published in the 2000/01 survey have been revised in this report to correct a data analysis error in the 2000/01 report. The 2000/01 and 2001/02 reports are accordingly reissued in summary form with the revised data.

² The excluded products were MSCI China Free Index futures, Dow Jones Industrial Average futures, HIBOR futures, Three-Year Exchange Fund Note Futures, stock futures and Mini-Hang Seng Index Options. HIBOR futures, which were included in previous surveys, had a significant drop in contract volume after the consolidation of contract size of 5:1 in May 2002.

percentage contribution by product was 45% by HSI futures, 30% by stock options, 15% by HSI options and 10% by Mini-HSI futures.

Questionnaires were mailed to all Futures and Stock Options EPs in the target population.³ Out of the 158 questionnaires sent out, 146 completed questionnaires were received, representing an overall response rate of 92%. The responded sample represented 98% in total contract volume of the target population (*see Appendix 1*).

2. KEY FINDINGS OF THE SURVEY

- (1) Overall, pure trading and hedging remained the main purposes of derivatives trading, accounting for 48% and 42% of total contract volume respectively. The proportion of transactions for arbitrage was 10%, down from 12% in 2001/02 and 2000/01.
- (2) Overall, the derivatives market received similar levels of support from three groups — retail investors (30% of market turnover), institutional investors (33%) and EPs' principal trading (37%). This pattern is similar to that obtained in 2001/02. However, by product the pattern was different. For stock options, EP's principal trading had a dominant share (73%); for other products, the majority of transactions (over 70%) were agency trading.
- (3) In the agency trading, local investors contributed more than overseas investors for each product; retail investors (local and overseas) contributed more than institutional investors (local and overseas) only for the Mini-HSI futures.
- (4) The contribution of local retail investors to product turnover was the highest for Mini-HSI futures (74%), followed by HSI futures (36%) and HSI options (21%).
- (5) The contribution of overseas institutional investors was the highest for HSI futures (39%) followed by HSI options (23%).
- (6) Overall, overseas investors contributed 25% of total contract volume (23% from overseas institutional investors), up from 21% in 2001/02.
- (7) In terms of *absolute implied contract volume*³, trading from overseas investors (mainly the institutional investors) increased by 45% from 2001/02.
- (8) US investors remained the major contributor in overseas agency trading, contributing 26% of overseas agency trading, following by UK investors (23%). Meanwhile, the aggregate contribution from Asian investors was significant — 29% of the overseas agency trading, the majority coming from Singapore (16%).
- (9) Online trading⁴ contributed 16% of retail investors' trading (or 5% of total market turnover), a significant increase from 5% (or 2% of total market turnover) in 2001/02.

³ The target population consists of all the trading participants excluding those that ceased their operations during the study period. (*See Appendix 3*)

⁴ See glossary for definition.

3. TRANSACTION PURPOSES (Figure 1 & Table 1)

EPs are not totally certain of their clients' transaction purpose, they would probably incline to regard their client transactions as pure trading. Therefore, the percentage share of pure trading may be over-estimated.

- Overall, pure trading and hedging remained the main purposes of derivatives trading, accounting for 48% and 42% of total contract volume. The proportion of transactions for arbitrage was 10%, further down from 12% in 2001/02 and 2000/01. In particular, the proportion of stock options trading for arbitrage decreased by more than half from 15% in 2001/02 to 7% in 2002/03.
- A large majority of transactions in futures products, i.e. HSI futures and Mini-HSI futures, were pure trading, registering 62% and 78% of their respective contract volume. Note that this might partially be due to the high proportion of agency trading in these products (see section 4) and the EPs' possible uncertainty as to their clients' transaction purposes. On the other hand, pure trading constituted relatively lower percentages of transactions on options products, i.e. HSI options and stock options (43% and 25% respectively).
- Compared to other products, a relatively high proportion of transactions on HSI options and stock options were for hedging 45% and 68% of their respective contract volume.
- Compared to other products, a higher proportion of transactions on Mini-HSI futures were for arbitrage 18% compared to less than 12% for other products. The proportion increased from 15% in 2001/02, but was still below the 25% in 2000/01. On the other hand, the proportion of Mini-HSI futures transactions for hedging decreased to less than 4% from 10% in 2001/02.

Figure 1. Transaction purposes for overall market and each product (Jul 2002 - Jun 2003)

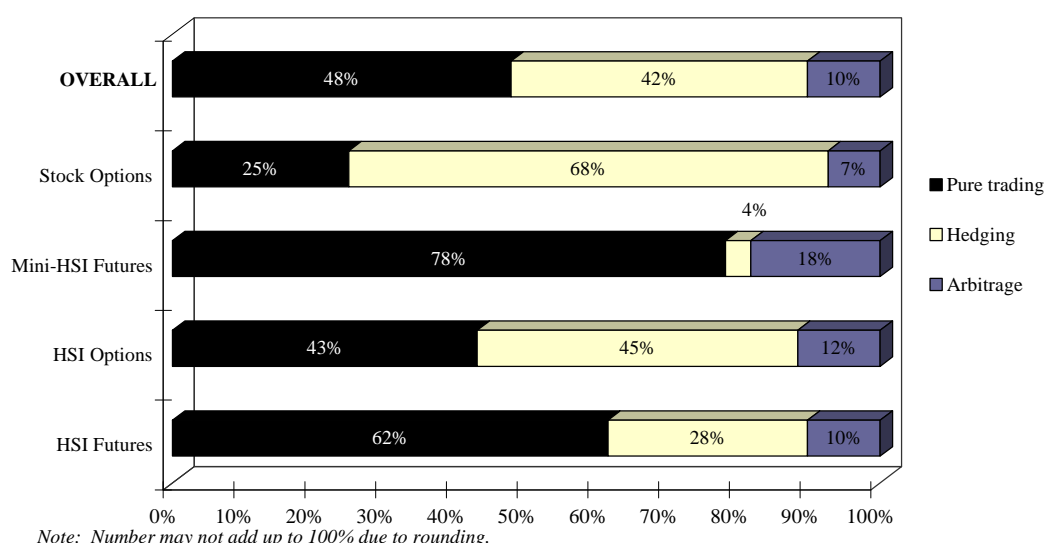


Table 1. Transaction purposes for overall market and each product (2000/01 - 2002/03)

Product	Purpose	2000/01**	2001/02	2002/03
HSI Futures	Pure trading	77.9	68.0	61.5
	Hedging	8.5	23.4	28.2
	Arbitrage	13.5	8.7	10.3
	Total	100.0	100.0	100.0
HSI Options	Pure trading	66.1	40.9	43.1
	Hedging	16.1	45.7	45.3
	Arbitrage	17.8	13.4	11.6
	Total	100.0	100.0	100.0
Mini-HSI Futures	Pure trading	72.8	74.3	78.1
	Hedging	2.1	10.2	3.6
	Arbitrage	25.1	15.5	18.3
	Total	100.0	100.0	100.0
HIBOR Futures	Pure trading	73.6	86.5	***
	Hedging	12.6	8.3	***
	Arbitrage	13.8	5.2	***
	Total	100.0	100.0	***
Total futures & HSI options	Pure trading	75.8	67.5	59.5
	Hedging	9.2	22.8	28.7
	Arbitrage	15.0	9.7	11.7
	Total	100.0	100.0	100.0
Stock Options	Pure trading	n.a.	n.a.	24.9
	Hedging	n.a.	n.a.	67.7
	Pure trading & hedging*	90.4	84.6	92.6
	Arbitrage	9.6	15.4	7.4
	Total	100.0	100.0	100.0
Overall	Pure trading	n.a.	n.a.	47.9
	Hedging	n.a.	n.a.	41.9
	Pure trading & hedging*	87.6	88.2	89.7
	Arbitrage	12.4	11.8	10.3
	Total	100.0	100.0	100.0

n.a.: Not available

***: Excluded in the 2002/03 survey due to low volume contribution.

* 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.

** Figures for the overall market for 2000/01 survey have been revised.

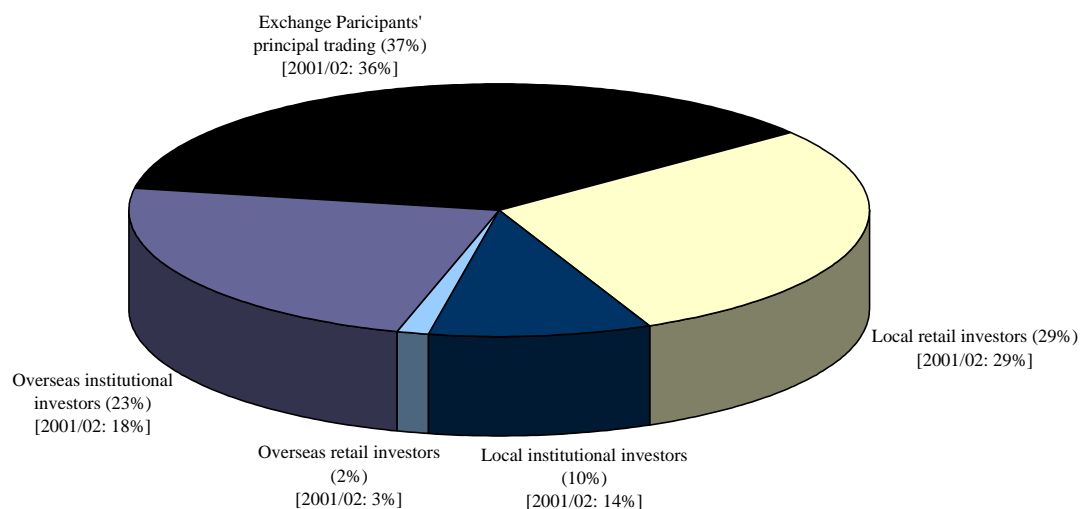
Note: Numbers may not add up to 100% due to rounding.

4. DISTRIBUTION OF TRADING BY INVESTOR TYPE (Figures 2-4, Tables 2 & 3)

4.1 Overall pattern

- Overall, the derivatives market had threefold support for its trading transactions almost equally shared by retail investors (30%), institutional investors (33%) and EPs' principal trading (37%). This pattern is similar to the one obtained in 2001/02.
- In terms of *absolute implied contract volume*, the three types of trade in number of contracts — trading from retail investors, trading from institutional investors and EP's principal trading — all increased in 2002/03 from 2001/02.
- By specific investor type, EPs' principal trading and local retail investors were the major contributors to market turnover, sharing in aggregate 65% of the total contract volume in 2002/03 (37% and 29% respectively), similar to the findings in 2001/02.
- The contribution of local investors decreased to 39% in 2002/03 from 43% in 2001/02. The decrease was mainly caused by the decrease in the contribution from local institutional investors (10% in 2002/03 vs 14% in 2001/02). Nevertheless, in terms of *absolute implied contract volume*, trading in number of contracts from all local investors increased 9% in 2002/03 from 2001/02 — an increase of 22% from local retail investors but a decrease of 18% from local institutional investors.
- Overseas investors' contribution was 25% (23% from institutional investors) in 2002/03, up from 21% in 2001/02.
- In terms of *absolute implied contract volume*, trading in number of contracts from overseas investors (mainly institutional investors) increased 45% in 2002/03 from 2001/02.

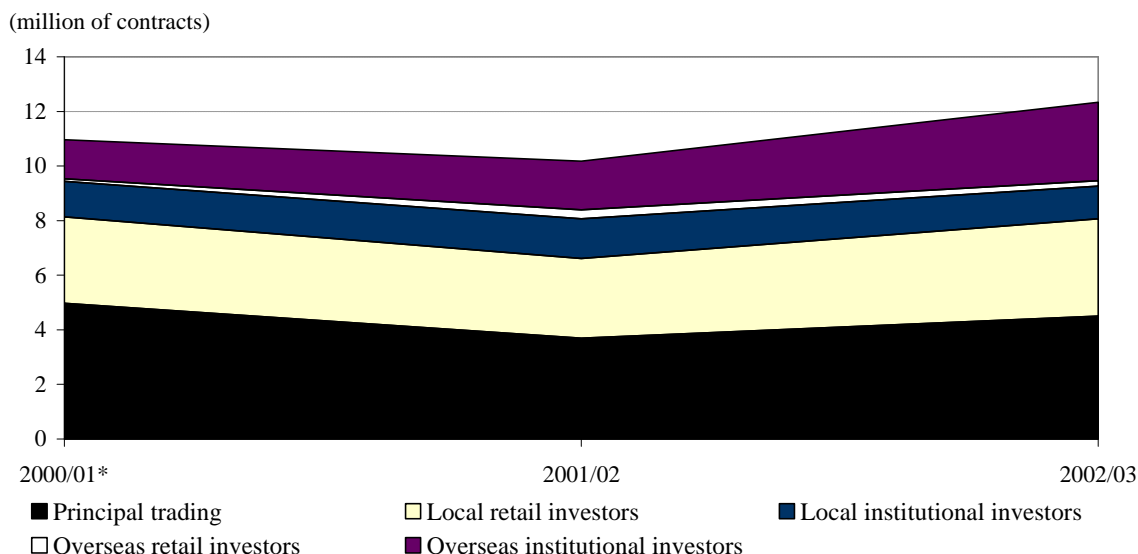
Figure 2. Distribution of market trading by investor type (Jul 2002 - Jun 2003)



Note: (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 3. Implied contract volume by investor type
(2000/01 - 2002/03)



* Figures for the overall market for 2000/01 survey have been revised.

Note: See glossary for the definition of implied contract volume.

4.2 By product

- HSI futures:** Overseas institutional investors were the major contributors, their contribution was 39% in 2002/03, up significantly from 23% in 2000/01 and 29% in 2001/02. Local retail investors were also important, sharing 36% of the product's contract volume, although this was down from 42% in 2001/02 and 56% in 2000/01. The contribution from local institutional investors dropped from 13% in 2001/02 to 8% in 2002/03. Proprietary trading was 16% in 2002/03, compared to 12% in 2001/02 and 7% in 2000/01. Among the agency trading only, local investors contributed more than overseas investors (52% vs 48% of all agency trading) and institutional investors contributed more than retail investors (56% vs 44%).

In terms of *absolute implied contract volume*, EPs' proprietary trading and trading from overseas institutional investors had significant growth from 2001/02 — 60% and 67% respectively.

- HSI options:** Transactions came mainly from local investors, but the proportion contracted to 48% of the product's contract volume in 2002/03, from 59% in 2001/02 and 68% in 2000/01. The contribution from overseas investors continued to increase to 24% in 2002/03, from 15% in 2001/02 and 11% in 2000/01. The contribution of proprietary trading to the product's total volume increased from 2% in 2001/02 to 5% in 2002/03 while the contribution of registered traders' trading was 23%, unchanged from 2001/02. Among the agency trading only, institutional investors (including local and overseas) contributed more than retail investors (70% vs 30% of all agency trading).

In terms of *absolute implied contract volume*, all types of trade (except overseas retail investors) had significant growth in number of contracts from 2001/02 — in particular, EPs’ proprietary trading grew 4 times from a relatively small base, trading from overseas institutional investors grew 3 times and trading from local institutional investors almost doubled.

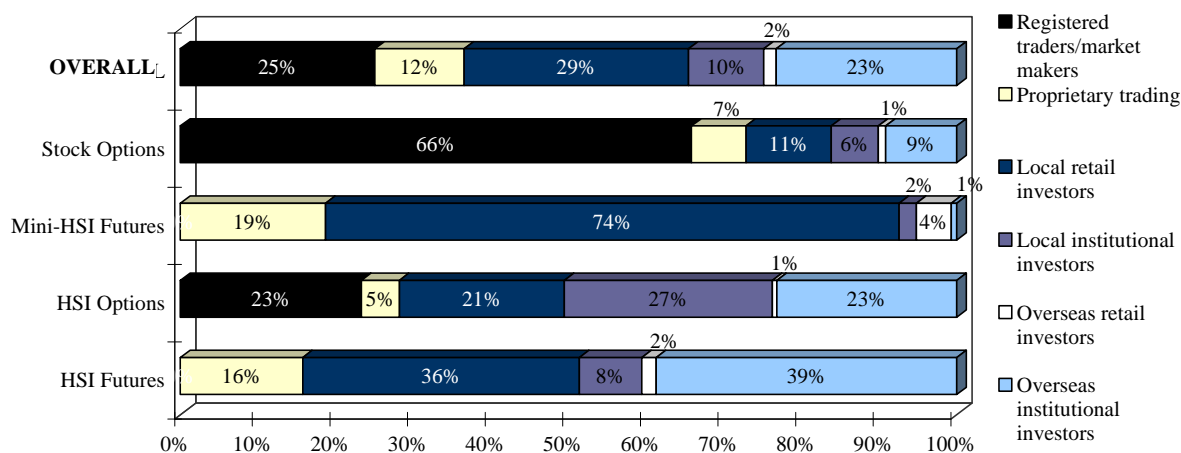
- **Mini-HSI futures:** The contribution from local retail investors increased from 64% in 2001/02 to 74% in 2002/03, but still below the 88% in 2000/01 when it was first introduced. Meanwhile, the contribution from overseas investors shrank to 5% in 2002/03 from 16% in 2001/02 but above the 2% in 2000/01. The contribution of EPs’ proprietary trading was 19% in 2002/03, similar as in 2001/02. Among the agency trading only, local investors contributed much more than overseas investors (94% vs 6% of all agency trading) and retail investors contributed much more than institutional investors (96% vs 4%).

In terms of *absolute implied contract volume*, trading in number of contracts from overseas retail investors dropped by 64% from 2001/02; this was largely offset by a 49% growth in trading from local retail investors and 36% in EPs’ proprietary trading.

- **Stock options:** Unlike other products for which the majority of transactions were agency trading, EPs’ principal trading dominated stock options (73%, compared to 75% in 2001/02). The contribution from local investors decreased slightly from 19% in 2001/02 to 17% in 2002/03 while that from overseas investors (mainly institutional investors) increased from 6% to 10%. Nevertheless, in the agency trading, local investors contributed more than overseas investors (63% vs 37% of all agency trading) and institutional investors contributed more than retail investors (56% vs 44%).

In terms of *absolute implied contract volume*, trading in number of contracts from overseas institutional investors increased by 77% from 2001/02 but trading from local institutional investors decreased by 31%; trading from local and overseas retail investors increased by 29% and 139% respectively. (Note that the contract volume of overseas retail investors had a very small base.)

**Figure 4. Distribution of trading by investor type
For each product and overall market (Jul 2002 – Jun2003)**



Notes:

(1) Trading of registered traders/market makers and proprietary trading are included in EPs’ principal trading.

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

Table 2. Distribution of trading by investor type (%) (2000/01 – 2002/03)

Type of investors	Percentage contribution ⁽⁵⁾			Y-o-Y % change in implied contract volume ⁽³⁾ 2002/03
	2000/01 ⁽⁶⁾	2001/02	2002/03	
HSI Futures				
Registered traders	-	-	-	-
Proprietary trading ⁽²⁾	6.8	12.2	15.7	60.4%
Local investors	68.8	55.1	43.7	-1.5%
Retail	56.4	41.8	35.6	5.9%
Institutional	12.4	13.3	8.0	-24.9%
Overseas investors	24.4	32.7	40.6	54.4%
Retail	1.3	3.8	1.9	-39.0%
Institutional	23.1	28.9	38.7	66.6%
Total	100.0	100.0	100.0	24.3%
HSI Options				
Registered traders ⁽⁷⁾	19.3	23.4	23.3	125.5%
Proprietary trading ⁽⁷⁾	1.3	2.2	4.9	403.5%
Local investors	68.2	59.3	48.1	83.3%
Retail	38.0	28.6	21.3	68.1%
Institutional	30.2	30.7	26.8	97.5%
Overseas investors	11.2	15.1	23.8	255.5%
Retail	0.5	2.7	0.6	-53.4%
Institutional	10.8	12.4	23.2	324.1%
Total	100.0	100.0	100.0	126.2%
Mini-HSI Futures				
Registered traders	-	-	-	-
Proprietary trading ⁽²⁾	5.4	17.6	18.7	36.4%
Local investors	92.2	66.0	76.1	48.2%
Retail	87.6	63.7	73.9	49.1%
Institutional	4.5	2.3	2.3	23.7%
Overseas investors	2.4	16.4	5.2	-59.3%
Retail	2.2	15.7	4.5	-63.6%
Institutional	0.2	0.6	0.7	49.5%
Total	100.0	100.0	100.0	28.5%
Stock Options				
Principal trading ⁽⁴⁾	83.1	74.8	72.8	7.3%
Market makers	n.a.	n.a.	65.8	n.a.
Proprietary trading	n.a.	n.a.	7.0	n.a.
Local investors	12.2	19.1	17.1	-1.4%
Retail	5.3	9.4	11.0	28.9%
Institutional	6.8	9.7	6.1	-30.9%
Overseas investors	4.7	6.1	10.1	81.5%
Retail investors	0.5	0.4	1.0	138.6%
Institutional investors	4.2	5.7	9.1	77.1%
Total	100.0	100.0	100.0	10.2%
Overall ^{(1),(6)}				
Principal trading ⁽⁴⁾	45.4	36.2	36.6	22.2%
Registered traders/market makers ⁽⁷⁾	n.a.	n.a.	25.1	n.a.
Proprietary trading ⁽⁷⁾	n.a.	n.a.	11.5	n.a.
Local investors	40.8	43.0	38.6	8.7%
Retail investors	28.9	28.7	28.9	21.9%
Institutional investors	11.9	14.3	9.7	-17.7%
Overseas investors	13.8	20.8	24.9	44.8%
Retail investors	0.8	3.3	1.6	-40.7%
Institutional investors	13.0	17.5	23.3	60.8%
Total	100.0	100.0	100.0	21.1%

n.a. Not available

'-': Not applicable

***: Excluded in the survey due to low volume contribution.

Note:

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

(2) Figures originally included in the 2000/01 and 2001/02 reports have been adjusted. In these two surveys, a certain proportion of transactions in mini-HSI futures were reported erroneously by survey respondents as transactions by "registered traders" and classified as such in the original survey reports. In the present report, those transactions have been correctly classified as "proprietary trading".

(3) See glossary for the definition of implied contract volume. The total figure of each product is the actual contract volume for that product.

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

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

(6) Figures for the overall market for 2000/01 survey have been revised.

(7) Figures for 2002/03 were amended from the previously published version to correct the erroneous reporting by one EP of its registered-trader trading in HSI options as proprietary trading.

Table 3. Business composition of Exchange participants by type of trade (%)
(breakdown by different types of trade)

	2000/01** Overall	2001/02 Overall	2002/03 Overall	2002/03			
				HSI Futures	HSI Options	Mini-HSI Futures	Stock Options
<i>All Trading</i>							
Principal[#]	45.4	36.2	36.6	15.7	28.2	18.7	72.8
Agency	54.6	63.8	63.4	84.3	71.8	81.3	27.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Agency Trading</i>							
Local	74.7	67.4	60.8	51.8	66.9	93.6	62.8
Overseas	25.3	32.6	39.2	48.2	33.1	6.4	37.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Agency Trading</i>							
Retail	54.3	50.2	48.1	44.5	30.4	96.3	44.0
Institutional	45.7	49.8	51.9	55.5	69.6	3.7	56.0
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Retail Investor Trading</i>							
Local	97.2	89.7	94.7	95.1	97.4	94.3	91.9
Overseas	2.8	10.3	5.3	4.9	2.6	5.7	8.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Institutional Investor Trading</i>							
Local	47.8	44.9	29.4	17.2	53.6	75.9	39.8
Overseas	52.2	55.1	70.6	82.8	46.4	24.1	60.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Local Investor Trading</i>							
Retail	70.8	66.8	74.9	81.6	44.2	97.0	64.5
Institutional	29.2	33.2	25.1	18.4	55.8	3.0	35.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Overseas Investor Trading</i>							
Retail	5.9	15.8	6.5	4.6	2.4	86.2	9.5
Institutional	94.1	84.2	93.5	95.4	97.6	13.8	90.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[#] Include registered traders' trading or market making and proprietary trading.

** Figures for the overall market for 2000/01 survey have been revised.

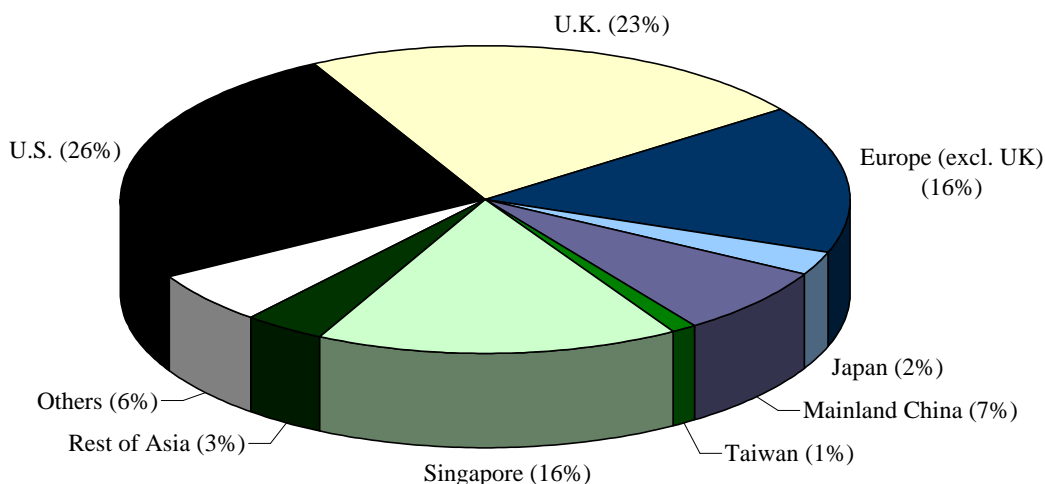
Note: Numbers may not add up to 100% due to rounding.

5. DISTRIBUTION OF OVERSEAS AGENCY TRADING BY ORIGIN (Figures 5 & 6)

Overseas investors' contribution was 25% of total contract volume (23% from overseas institutional investors), up from 21% in 2001/02.

- US investors remained the major contributors in overseas agency trading. However, their contribution dropped from 30% in 2001/02 to 26% in 2002/03.
- The contribution of UK investors continued to drop — from 39% in 2000/01 and 27% in 2001/02 to 23% in 2002/03. Meanwhile, the contribution from European investors (excluding UK) tripled from 5% in 2001/02 to 16% in 2002/03⁶.
- The aggregate contribution from Asian investors (including Mainland China, Japan, Taiwan, Singapore and the rest of Asia) was significant, though decreasing to 29% of total overseas agency trading from 34% in 2001/02 but still higher than 19% in 2000/01. Singapore was included as a designated origin for the first time in the 2002/03 survey. It was found that Singapore investors were the largest Asian contributors (16%)⁷, followed by Mainland China investors (7%). The contribution from Taiwan investors dropped to 1% from 6% in 2001/02 and that from Japanese investors remained low at 2%.

**Figure 5. Distribution of overseas agency trading by origin
(Jul 2002 - Jun 2003)**



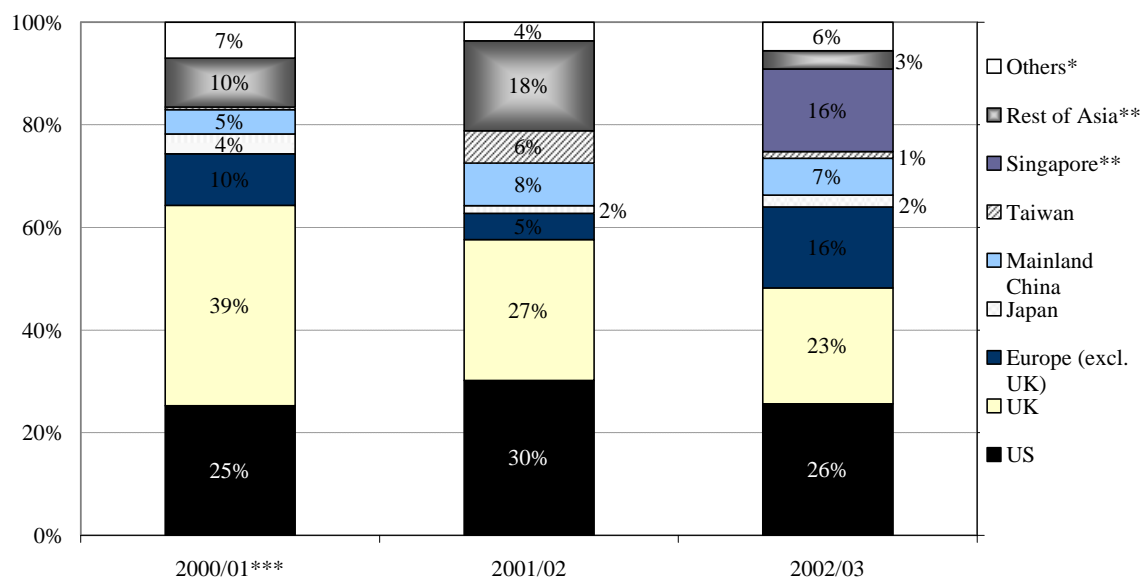
* Other origins include Australia, British Virgin Islands, Canada and Cayman Islands.

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

⁶ The contribution from European (excluding UK) investors came through 26 EPs, three EPs contributed 56% of all European investor agency trading.

⁷ The contribution from Singapore investors came through 24 EPs and the contribution was dominated by one EP whose trading constituted 48% of all Singaporean investor agency trading.

Figure 6. Distribution of overseas agency trading by origin (2000/01 - 2002/03)



* Other origins include Australia, British Virgin Islands, Canada and Cayman Islands.
 ** For surveys before 2002/03, Singapore was included in the rest of Asia. In 2002/03, Singapore was a separate origin to solicit feedback.
 *** Figures for the overall market for 2000/01 survey have been revised.
 Note: Numbers may not add up to 100% due to rounding.

6. ONLINE TRADING (Table 4)

- Online trading contributed 16% of retail investors’ trading (or 5% of total market turnover) in 2002/03, an increase from 5% (or 2% of total market turnover) in 2001/02.
- In 2002/03, 8% of survey respondents (or 11 EPs) claimed that part of their retail transactions were channelled online, increased from 5% (or 7 EPs) in 2001/02.
- Among the 11 responding EPs having online trading (referred to as “online brokers”), only one (or 9%) claimed that manual re-input is required for online orders received, compared with one (or 14%) of all online brokers in 2001/02.

Table 4. Statistics on retail online trading (2001/2002 - 2002/2003)

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

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 agency 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.*

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.

Principal trading in registered trader's account or as market maker

Trading on the participant firm's own account as a market maker.

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 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

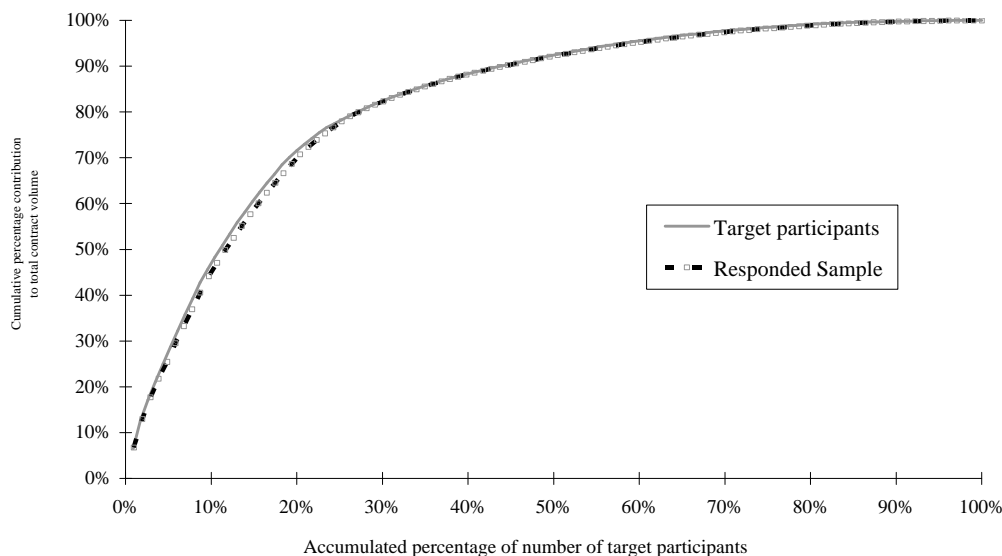
The number of contracts traded by a particular investor type in a particular product type (or the overall market) is calculated by multiplying the percentage contribution of that type of trade to the product turnover (or the market turnover) as obtained from the survey by the actual turnover (number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

APPENDIX 1. RESPONSE RATE

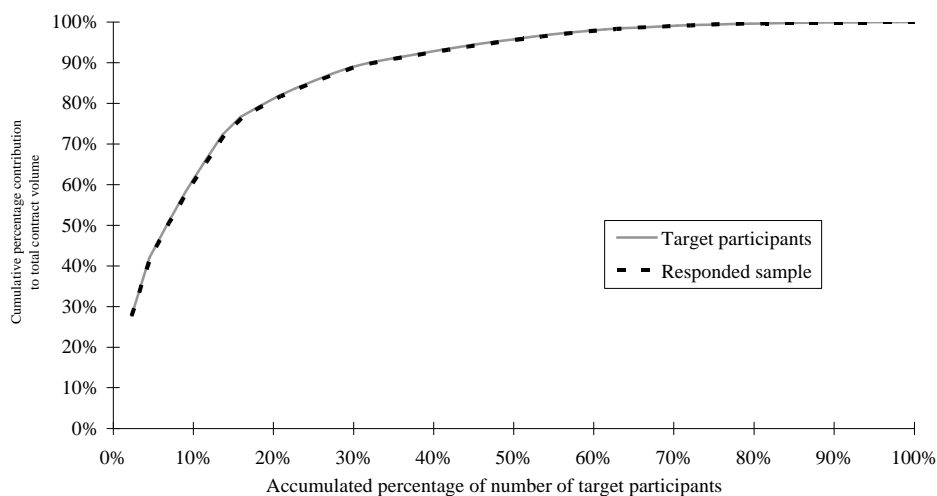
Exchange Participants	Target population	Responded participants	Response Rate	% share of turnover in target population
Futures EPs	114	103	90.35%	96.77%
Stock Options EPs	44	43	97.73%	99.89%
All Participants	158	146	92.41%	97.77%

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

(a) Futures Exchange Participants (Jul 2002 – Jun 2003)



(b) Stock Options Exchange Participants (Jul 2002 – Jun 2003)



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 at the FEPs and the SOEPs respectively.
- (2) The study period or survey period is from July 2002 to June 2003.
- (3) Products under study are: HSI futures, HSI options, Mini-HSI futures and stock options.
- (4) The survey questionnaires were mailed to the respective target populations who 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 and information on online trading. Consolidated trading composition from participant firms which have affiliate or sister companies to deal with their investor clientele was obtained as far as possible.
- (5) Close telephone follow-up was made to ensure a high response rate.
- (6) Each participant firm's answers in percentage terms were weighted by its actual contract volume obtained internally to arrive at the relative contribution of each type of trading to total volume.

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".
- (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) An EP that traded as registered trader in a product might not fulfill all the requirements of a registered trader, i.e. responding to quote requests or providing continuous quotes to not less than 70% of the trades, within a pre-defined bid/offer range. The registered trader's trading of that EP would not be regarded as such in HKEx's record. The reported figure of trading as registered trader for that EP in the survey might therefore be inconsistent with the HKEx's records. Clarification or adjustment was made as far as possible for such cases.
- (6) 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-trades⁸. 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. Some FEPs answered the questionnaire based on their registration statistics which differed from their execution statistics. For such cases adjustments were made as far as possible but the figure after adjustment might still not reflect the true picture. Nevertheless, such cases were few.

⁸ *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.*