

DERIVATIVES MARKET TRANSACTION SURVEY 2001/02

(Amended on 16 December 2003)



Hong Kong Exchanges and Clearing Limited

Research & Planning

CONTENT

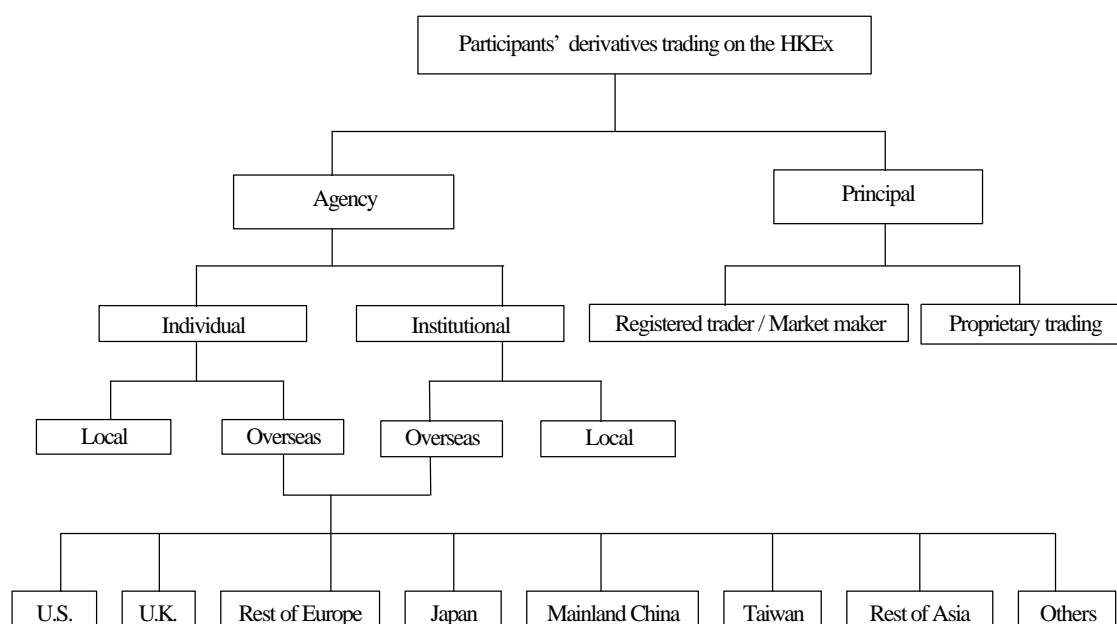
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1. INTRODUCTION

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

The survey provides key information on the relative contribution to the overall market turnover and to each major product (in number of contracts), among different types of investors — 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 made to reveal any changes in trading pattern¹. Online trading statistics were obtained for the first time by the present survey.

Classification of Exchange Participants' derivatives trading on the HKEx



The survey covers the major HKEx futures and options products, namely Hang Seng Index futures (HSI futures), Hang Seng Index options (HSI options), Mini-HSI futures, HIBOR futures and stock options (which are included since the 2000/01 Survey). The other derivative products² on HKEx contributed less than 0.2% each, or 0.3% in aggregate, of total contract volume in the derivatives market. They were excluded in this survey.

¹ Certain figures previously published in the 2000/01 survey report 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 These products included MSCI China Free Index futures, Dow Jones Industrial Average futures, stock futures, International stock futures and options, 3-year Exchange Fund Note futures, and other delisted products — Hang Seng 100 futures and options, Hang Sang Properties Sub-index futures and options and Hang Seng China-Affiliated Corporations (Red Chip) Index futures and options, which ceased to trade after July 2001 expiration, and Rolling Forex futures which ceased to trade since 21 May 2002.

The transactions of the Futures and Stock Options Exchange Participants (EPs) from July 2001 to June 2002 (referred to as the year 2001/02 throughout the report) are covered in the survey. Questionnaires were mailed to all participants in the target population.³ Out of the 160 questionnaires sent out, 135 duly completed questionnaires were received, representing an overall response rate of 84%. The responded sample represented 86% in total contract volume of the target population (see Appendix 1).

2. KEY FINDINGS OF THE SURVEY

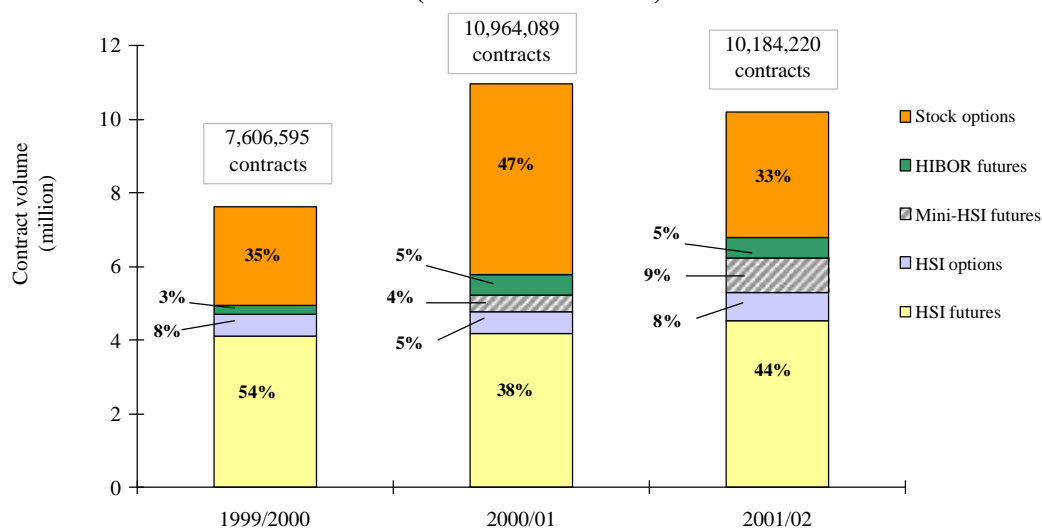
- Over two-thirds of transactions in futures products were pure trading. However, the proportion of transactions in HSI products for hedging purpose increased significantly in 2001/02, especially for HSI options. (*Figure 2 & Table 1*)
- Overall, derivatives market transactions were shared almost equally by retail investors (32%), institutional investors (32%) and EPs' principal trading (36%). The relative contribution by EPs' principal trading declined from 45% in 2000/01. (*Figure 3*)
- The proportion of principal trading for stock options transactions (75%), though down from 83% in 2000/01, was still much higher than that for other products (15%). (*Figure 4 & Table 2*)
- The relative contribution from overseas investors, whether retail or institutional, increased significantly for the HSI products, though local investors remained the dominant players. Notably, overseas retail investors contributed 16% to Mini-HSI futures transactions. (*Table 2*)
- Overall, the contribution of overseas agency trading increased from 14% in 2000/01 to 21% in 2001/02. (*Figure 3 & Table 2*)
- The contribution from the UK dropped significantly from 39% in 2000/01 to 27% of total overseas agency trading in 2001/02 so that the US became the most significant overseas contributor to derivatives transactions. However, the US contribution (30%) still fell short of the aggregate contribution from Asian origins (34%). (*Figure 5*)
- Online trading⁴ contributed 5% of total retail turnover or 2% of total market turnover. (*Table 4*)

³ The target population consists of all the trading participants excluding those that ceased their operations during the study period and those reported to have newly entered the business and had little track record during the study period. (See Appendix 3)

⁴ See glossary for definition.

3. FIGURES AND TABLES

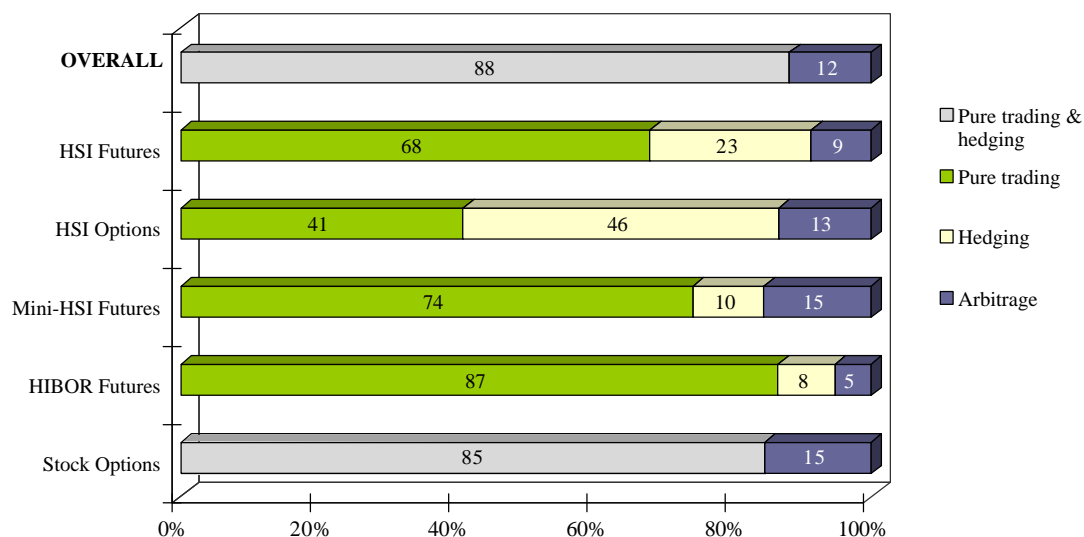
Figure 1. Contract volume and percentage share by product (1999/2000 - 2001/02)



Notes:

- (1) Derivative products not covered in the survey are excluded.
- (2) Mini-HSI futures were introduced in October 2000.
- (3) Numbers may not add up to 100% due to rounding.

Figure 2. Transaction purposes for each product (Jul 2001 - Jun 2002)



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

Table 1. Transaction purposes for each product (1999/2000 - 2001/02)

Product	Purpose	1999/2000	2000/01**	2001/02
HSI Futures	Pure trading	78.0	77.9	68.0
	Hedging	15.4	8.5	23.4
	Arbitrage	6.6	13.5	8.7
	Total	100.0	100.0	100.0
HSI Options	Pure trading	54.7	66.1	40.9
	Hedging	28.4	16.1	45.7
	Arbitrage	16.8	17.8	13.4
	Total	100.0	100.0	100.0
Mini-HSI Futures	Pure trading	-	72.8	74.3
	Hedging	-	2.1	10.2
	Arbitrage	-	25.1	15.5
	Total	n.a.	100.0	100.0
HIBOR Futures	Pure trading	72.3	73.6	86.5
	Hedging	3.9	12.6	8.3
	Arbitrage	23.7	13.8	5.2
	Total	100.0	100.0	100.0
Total futures & HSI options	Pure trading	75.0	75.8	67.5
	Hedging	17.4	9.2	22.8
	Arbitrage	7.7	15.0	9.7
	Total	100.0	100.0	100.0
Stock Options	Pure trading & hedging*	n.a.	90.4	84.6
	Arbitrage	n.a.	9.6	15.4
	Total	n.a.	100.0	100.0
Overall (incl. stock options)	Pure trading & hedging*	n.a.	87.6	88.2
	Arbitrage	n.a.	12.4	11.8
	Total	n.a.	100.0	100.0

!/: Not applicable

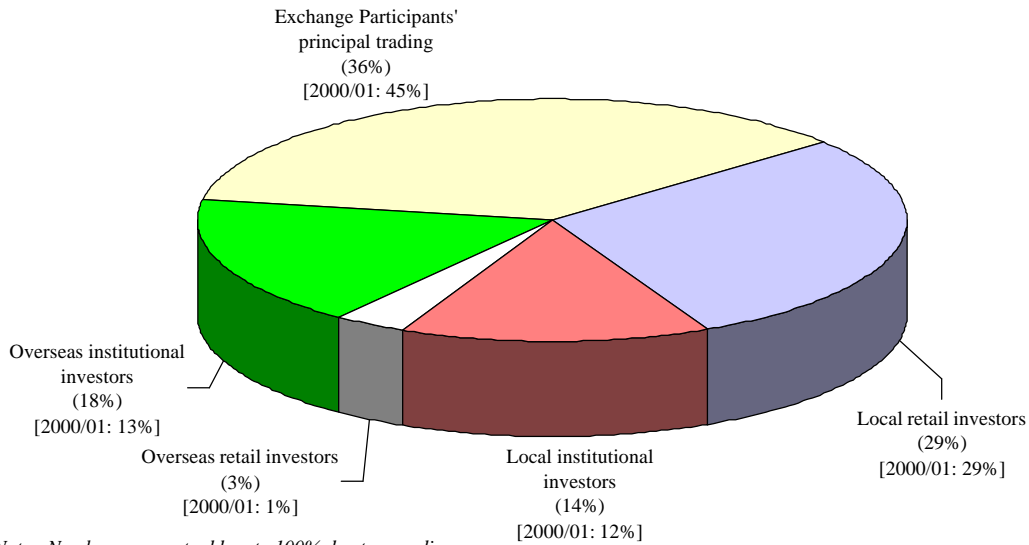
n.a.: Not available

* Since a major Stock Options Exchange Participant is unable to provide the breakdown between pure trading and hedging, an aggregate figure is presented. Nevertheless, when that Participant is excluded, percentage shares of pure trading, hedging and arbitrage for stock options are 51%, 29% and 20% respectively; and for overall total are 62%, 25% and 13% respectively.

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

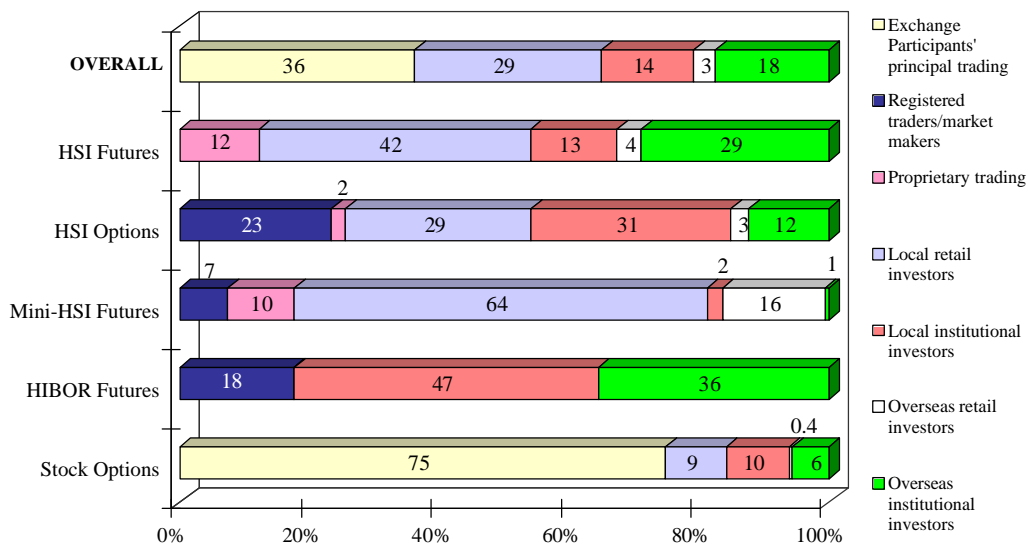
Note: Numbers may not add up to 100% due to rounding.

Figure 3. Distribution of trading by type of investors (Jul 2001 - Jun 2002)



Note: Numbers may not add up to 100% due to rounding.
 * Figures for the overall market for 2000/01 survey have been revised.

Figure 4. Distribution of trading by type of investors (Jul 2001 - Jun 2002)



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

Notes:

- (1) Principal trading comprises trading of registered traders/market makers and proprietary trading.
- (2) Since a major SOEP was unable to provide the distribution of trading by market making and proprietary trading, an aggregate figure of principal trading is used for "Stock Options" and "Overall".
- (3) Numbers may not add up to 100% due to rounding.

Table 2. Distribution of trading by type of investors (%) (1999/2000 - 2001/02)

Product	Type of investors	1999/2000	2000/01**	2001/02
HSI Futures	Registered traders	-	-	-
	Proprietary trading	6.0	6.8	12.2
	Local investors	70.1	68.8	55.1
	Retail	46.6	56.4	41.8
	Institutional	23.5	12.4	13.3
	Overseas investors	24.0	24.4	32.7
	Retail	1.4	1.3	3.8
	Institutional	22.5	23.1	28.9
	Total	100.0	100.0	100.0
HSI Options	Registered traders	28.9	19.3	23.4
	Proprietary trading	1.4	1.3	2.2
	Local investors	38.0	68.2	59.3
	Retail	21.8	38.0	28.6
	Institutional	16.1	30.2	30.7
	Overseas investors	31.7	11.2	15.1
	Retail	0.7	0.5	2.7
	Institutional	31.1	10.8	12.4
	Total	100.0	100.0	100.0
Mini-HSI Futures*	Registered traders	-	-	-
	Proprietary trading	-	5.4	17.6
	Local investors	-	92.2	66.0
	Retail	-	87.6	63.7
	Institutional	-	4.5	2.3
	Overseas investors	-	2.4	16.4
	Retail	-	2.2	15.7
	Institutional	-	0.2	0.6
	Total	-	100.0	100.0
HIBOR Futures	Registered traders	30.9	20.7	17.6
	Proprietary trading	0.0	0.1	0.0
	Local investors	29.9	42.0	46.9
	Retail	0.1	0.0	0.1
	Institutional	29.8	41.9	46.8
	Overseas investors	39.2	37.3	35.5
	Retail	0.0	0.0	0.0
	Institutional	39.2	37.3	35.5
	Total	100.0	100.0	100.0
Total futures & HSI options	Registered traders	5.0	4.2	4.2
	Proprietary trading	5.1	5.4	10.7
	Local investors	64.2	67.8	56.2
	Retail	41.3	51.1	39.4
	Institutional	23.0	16.7	16.8
	Overseas investors	25.7	22.5	28.9
	Retail	1.3	1.2	4.8
	Institutional	24.4	21.4	24.1
	Total	100.0	100.0	100.0
Stock Options	Principal trading [#]	n.a.	83.1	74.8
	Local investors	n.a.	12.2	19.1
	Retail	n.a.	5.3	9.4
	Institutional	n.a.	6.8	9.7
	Overseas investors	n.a.	4.7	6.1
	Retail investors	n.a.	0.5	0.4
	Institutional investors	n.a.	4.2	5.7
		Total	n.a.	100.0
Overall (incl. stock options)	Principal trading[#]	n.a.	45.4	36.2
	Local investors	n.a.	40.8	43.0
	Retail investors	n.a.	28.9	28.7
	Institutional investors	n.a.	11.9	14.3
	Overseas investors	n.a.	13.8	20.8
	Retail investors	n.a.	0.8	3.3
	Institutional investors	n.a.	13.0	17.5
		Total	n.a.	100.0

'-': Not applicable

n.a.: Not available

[#] Include trading of registered traders/market makers and proprietary trading.

* 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".

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

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

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

	1999/2000* Overall	2000/01** Overall	2001/02 Overall	2001/02				
				HSI Futures	HSI Options	Mini-HSI Futures	HIBOR Futures	Stock Options
<i>All Trading</i>								
Principal[#]	10.1	45.4	36.2	12.2	25.6	17.6	17.6	74.8
Agency	89.9	54.6	63.8	87.8	74.4	82.4	82.4	25.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Agency Trading</i>								
Local	71.4	74.7	67.4	62.8	79.7	80.1	56.9	75.6
Overseas	28.6	25.3	32.6	37.2	20.3	19.9	43.1	24.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Agency Trading</i>								
Retail	47.3	54.3	50.2	52.0	42.1	96.4	0.1	39.1
Institutional	52.7	45.7	49.8	48.0	57.9	3.6	99.9	60.9
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Retail Investor Trading</i>								
Local	97.0	97.2	89.7	91.7	91.2	80.2	100.0	95.5
Overseas	3.0	2.8	10.3	8.3	8.8	19.8	0.0	4.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Institutional Investor Trading</i>								
Local	48.5	47.8	44.9	31.5	71.3	79.2	56.9	62.9
Overseas	51.5	52.2	55.1	68.5	28.7	20.8	43.1	37.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Local Investor Trading</i>								
Retail	64.2	70.8	66.8	75.9	48.2	96.4	0.2	49.3
Institutional	35.8	29.2	33.2	24.1	51.8	3.6	99.8	50.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Overseas Investor Trading</i>								
Retail	5.0	5.9	15.8	11.6	18.2	96.2	0.0	7.3
Institutional	95.0	94.1	84.2	88.4	81.8	3.8	100.0	92.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

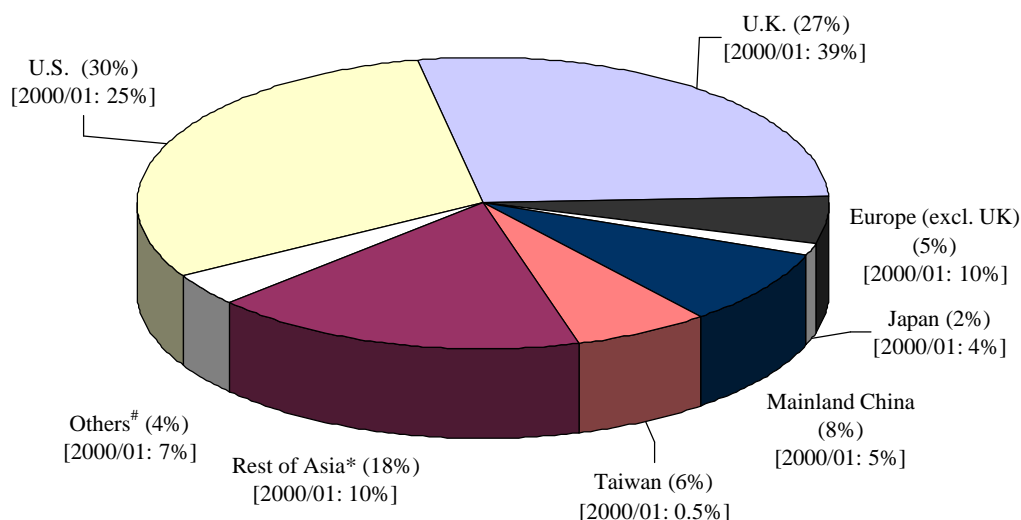
* Excluding stock options.

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

Include registered traders' trading (for HKFE futures and options) or market making (for stock options) and proprietary trading.

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

Figure 5. Distribution of overseas agency trading by origin (Jul 2001 - Jun 2002)



* Rest of Asia include Macau and Singapore.

Other origins include Australia, British Virign Islands, Canada and Cayman Islands.

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

Figures for 2000/01 survey have been revised.

Table 4. Statistics on retail online trading (Jul 2001 - Jun 2002)

Number of responding EPs having online trading (online brokers)	7
Percentage of responding Exchange Participants as online brokers (%)	5%
Online trading to total market turnover ⁽¹⁾ (%)	1.58%
Online trading to total agency turnover (%)	2.48%
Online trading to total retail turnover (%)	4.94%
Online trading to total turnover of online brokers (%)	19.31%
Number of online brokers requiring manual order re-input for online trading	1
% of online brokers	14%
Percentage of online trading requiring manual order re-input ⁽²⁾	0.72%

Notes:

(1) Market turnover refers to the total turnover in number of contracts of products under study in the survey only, i.e. HSI futures, HSI options, Mini-HSI futures, HIBOR futures and stock options, which contributed 99.7% of total turnover of all products on HKEx during the survey period.

(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.

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

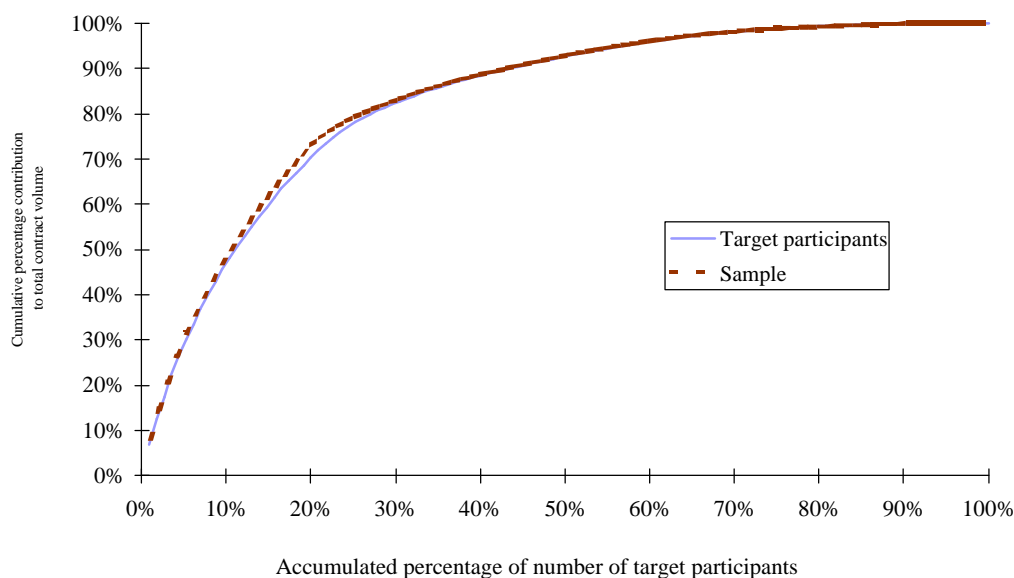
Trading originating from orders entered directly by clients and channelled to the brokers via electronic media (e.g. Internet and mobile phone). This would include client orders routed to the HKEx trading system automatically on a straight-through basis and client orders received via electronic media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

APPENDIX 1. RESPONSE RATE

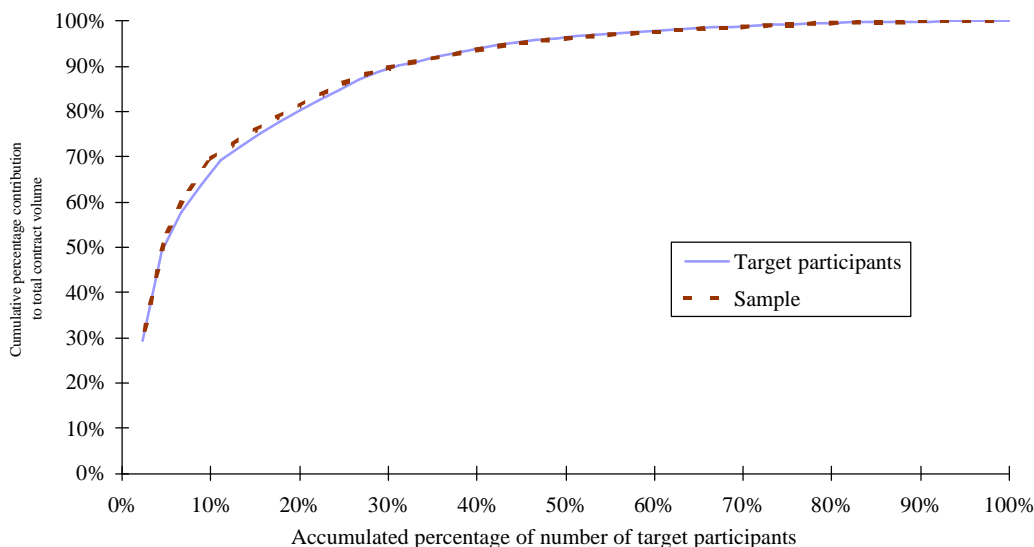
Exchange Participants	Target population	Responded participants	Response Rate	% share of turnover in target population
Futures EPs	115	95	82.61%	83.66%
Stock Options EPs	45	40	88.89%	91.86%
All Participants	160	135	84.38%	86.41%

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

(a) Futures Exchange Participants (Jul 2001 – Jun 2002)



(b) Stock Options Exchange Participants (Jul 2001 – Jun 2002)



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 the following:

- Those who had ceased to be trading participants before the start of fieldwork as they may not feel obliged to fill in the questionnaire or they could not be contacted;
- Those who reported to have little trading record in the study period because of being new entrants to the market.

The target respondents were all corporations with no individual persons as EP.

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 2001 to June 2002.
- (3) Products under study are: HSI futures, HSI options, Mini-HSI futures, HIBOR 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 those trading 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 were originated from overseas and 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 in the survey results could be quite high. The non-response of such EPs would reduce the reliability of the survey findings. Such situation is expected to be not serious because of the high response rate and the high representativeness of the responded sample to the target population (see Appendix 1 and 2).