

Research & Policy

DERIVATIVES MARKET
TRANSACTION SURVEY 2012/13

November 2013



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

CONTENTS

	Page
Executive summary	1
1. Introduction	5
2. Transaction purposes	8
3. Distribution of trading by investor type	11
3.1 Overall pattern	11
3.2 Trading by product	15
4. Distribution of overseas investor trading by origin	20
4.1 Overall pattern	20
4.2 Trading by market segment	23
5. Retail online trading	27
Glossary	29
Appendix 1. Response rate	30
Appendix 2. Representativeness of the responded sample relative to target respondents.	31
Appendix 3. Contract size and notional value of products under study	32
Appendix 4. Survey methodology	33

EXECUTIVE SUMMARY

The Derivatives Market Transaction Survey (DMTS) has been conducted annually since 1994 (by Hong Kong Futures Exchange on its market prior to 2001). The objectives are to track the trading composition by investor type and by trading purpose, as well as the market share of retail online trading, in HKEx's derivatives market which comprises predominantly financial futures and options contracts (excluding the commodity derivatives market operated by the London Metal Exchange, now part of the HKEx Group). The 2012/13 survey covers Hang Seng Index (HSI) futures, HSI options, Mini-HSI futures, Mini-HSI options (covered in the survey for the first time), H-shares Index (HHI) futures, HHI options, Mini-HHI futures and stock options. These products together accounted for 99% of the total turnover of the HKEx derivatives market during the study period July 2012 to June 2013 (referred to as 2012/13). The overall response rate was 93% and the respondents contributed 98% of the total turnover in products under study during the study period.

The market turnover volume (ie the total turnover of products under study) in 2012/13 decreased by 7% over the previous year¹. The decrease in market turnover mainly reflected a decrease of 14% in the aggregate turnover volume of HSI products (compared to an increase of 18% in HHI regular contracts' aggregate turnover volume) and a decrease of 12% in stock options turnover volume. The contribution of stock options declined to 48% of the total market volume, still a majority share albeit only 3% in notional value terms.

The key findings of the trading composition of the overall market and by product segment are summarised below.

Trading by transaction purpose (See section 2)

- (1) *Pure trading* and *hedging* were the two main transaction purposes of derivatives trading in 2012/13. Each purpose contributed 45% of total market turnover. *Arbitrage* turnover accounted for 10% of the overall market turnover in 2012/13.
- (2) Pure trading was the key transaction purpose for trading in all mini-contracts, HSI futures and options and stock options while hedging accounted for the majority of trading in HHI regular futures and options. Arbitrage was less common (ranging from 2%-16%) for the trading in each of the products under study.
- (3) The proportion of hedging continued to increase (since 2010/11) for all futures products while a growing trend for the proportion of pure trading in stock options turnover volume, along with an increase in retail participation in stock options trading, was observed over the past five years.

Trading by investor type (See section 3)

- (4) In 2012/13, the HKEx derivatives market turnover was almost equally shared by EP principal trading (mostly market maker trading) and agency (investor) trading, similar to the pattern since 2009/10. Among investors, overseas institutional investors contributed the biggest market share (24%), followed by local retail investors (18%). Local institutional investors and overseas retail investors had relatively small contribution (5% and 3% respectively).

¹ If the turnover volume of Mini-HSI options, which were not included in products under study in the DMTS2011/12, was included in the reference year of 2011/12, the year-on-year percentage change in the products' turnover in 2012/13 was a decrease of 8%.

-
- (5) The contribution from *overseas investors* was 27%, the highest level since 2004/05, albeit their trading in contract volume terms decreased by 1% from 2011/12. The contribution from *local investors* was 23%, with a year-on-year decrease of 12% in contract volume terms. A more significant decline was recorded for *local institutional investor trading volume* (-30%), albeit from a small base.
 - (6) Over the past decade, the *overall derivatives market trading* recorded a CAGR of 24% — driven mainly by the growth in *EP principal trading volume* (CAGR of 28%) and in *overseas investor trading volume* (CAGR of 26%).
 - (7) *Overseas investors (predominantly institutional)* were significant contributors to trading in regular index futures. *Local retail investors* were significant contributors to trading in mini-futures. However, their contribution to Mini-HSI futures decreased for two consecutive years. Trading in options products was dominated by *EP principal trading* (mainly market making).

Trading by overseas investors by origin (See section 4)

- (8) Among overseas investors, *UK investors* and *Continental European investors* were the two largest contributor groups (28% and 27% respectively of total overseas investor trading and 8% and 7% respectively of total market volume in 2012/13). *US investors* ranked third (18% of overseas investor trading and 5% of total market volume). Almost all trading from these origins came from institutional investors (over 95%).
- (9) The majority of the contribution from Asian investors came from *Mainland China* and *Singapore* — 10% and 8% respectively of overseas investor trading, or 3% and 2% respectively of total market volume. Trading from Singapore was predominantly institutional (at least 87%) while the majority of trading from the Mainland was from retail investors (at least 68%).
- (10) Over the past decade, overseas investor trading from *Continental Europe* grew at a CAGR of 41%, higher than that from the UK (27%), the US (22%) or the Mainland (26%).
- (11) *For stock options*, the largest overseas contributors were UK investors (44% of the product's overseas investor trading) while the largest overseas contributors *for index futures and options* were Continental European investors (30% of the index products' overseas investor trading).
- (12) Compared to other origins, *Mainland investors* had the largest proportion of their total trading volume devoted to stock options (30%) while *US investors* had the largest proportion of their total trading volume devoted to index futures and options (98%).

Retail online trading (See section 5)

- (13) Retail online trading as a proportion of total retail investor trading continued to grow, reaching 70% in 2012/13 from 63% in 2011/12. Its contribution to total market turnover was 15% in 2012/13, compared to 13% in 2011/12.

Product performance (See sections 2-4)

- (14) For **HSI futures**, the contribution of local retail investor trading continuously *decreased* while the contribution of overseas institutional investor trading continuously *increased* over the past five years to the lowest (21%) and the highest (49%) levels respectively in 2012/13. Associated with this change was the increase in the proportion of trading for hedging purposes over the years to a record level (40%) in 2012/13, with a corresponding decrease over the years in pure trading to a relatively low level of 46% in 2012/13 (vs 54% in 2008/09 and 60% in 2010/11).
- (15) **HHI futures** recorded a year-on-year volume increase of 10% in 2012/13, one of only two products under study recording a volume increase in the year. As with HSI futures, the contribution of local retail investor trading showed a *downward* trend while the contribution of overseas institutional investor trading showed an *upward* trend over the past five years, reaching a record low of 7% and a record high of 58% respectively. Associated with this change was a downward trend in the proportion of trading volume for pure trading purposes, reaching a record low of 31% in 2012/13 and the rising proportion of trading volume for hedging purposes to reach a record high of 53% in 2012/13.
- (16) **Mini-HSI futures**, designed for small retail investors, experienced a decline in local retail investor trading over the years to a record low of 44% in 2012/13. The contribution of overseas institutional investor trading had a more or less upward trend to reach a record high of 21%, their trading volume experiencing a year-on-year increase of 1% compared to a decrease of 25% in the product's trading volume in the period. Along with the increase in overseas institutional investor trading, the proportion of trading for hedging purposes rose to a record high of 35%.
- (17) **Mini-HHI futures**, which were tracked by the survey for the last three study periods only, had trading still dominated by local retail investors (49% in 2012/13) and supported by EP proprietary trading (37%). The proportion of trading volume for pure trading purposes remained high (55% in 2012/13) and so was the proportion for hedging purposes (41%).
- (18) For **HSI options**, the main contributor was market maker trading over the past five years (about 40% or more). The contribution of local retail investor trading was larger than that of overseas institutional investor trading over the same period (23% vs 18% in 2012/13).
- (19) **HHI options** recorded a notable year-on-year volume increase of 43% compared to a decrease of 7% in total derivatives market turnover. This was due mainly to a 130% increase in EP proprietary trading. Alongside the volume increase was the increase in trading volume for pure trading purposes (+84%) and for arbitrage (+53%). The contribution of market maker trading in HHI options was the lowest (29% in 2012/13) among all options products under study, comparable to the contribution of overseas institutional investor trading in the product (28%).

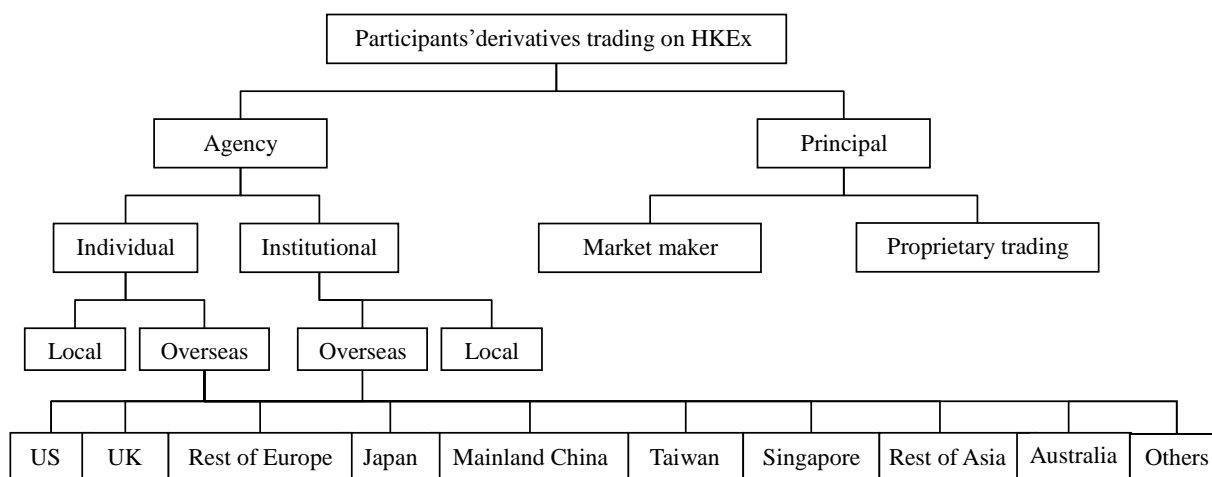
-
- (20) For *stock options*, market maker trading remained at around two-thirds of the products' trading volume in the past four years, a level substantially lower than before. The contribution of local retail investor trading reached a new high of 17% in 2012/13 albeit at a similar level to 2010/11. The proportion of trading volume for pure trading grew over the past five years to reach that of hedging (45%). Overseas investor trading in stock options came mainly from UK and other parts of Europe. Notably, Mainland investors showed strong trading interests in stock options but their contribution fluctuated over time. Conversely, US investors had little participation in Hong Kong stock options, perhaps due to their interests being served largely by their domestic stock options market.

1. INTRODUCTION

The Derivatives Market Transaction Survey (DMTS) has been conducted 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 which comprises predominantly financial futures and options contracts (excluding the commodity derivatives market operated by the London Metal Exchange, now part of the HKEx Group).

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, and 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. The findings are compared with those of the past surveys to reveal any changes in trading pattern.

Classification of Exchange Participants’ derivatives trading on HKEx



The survey questionnaires were mailed to all Futures EPs (FEPs) and Stock Options EPs (SOEPs) in the target population². Out of the 246 questionnaires sent out, 228 completed questionnaires were returned, representing an overall response rate of 93%. The responded sample represented 98% in total contract volume of the target population in the products under study. (See Appendix 1.)

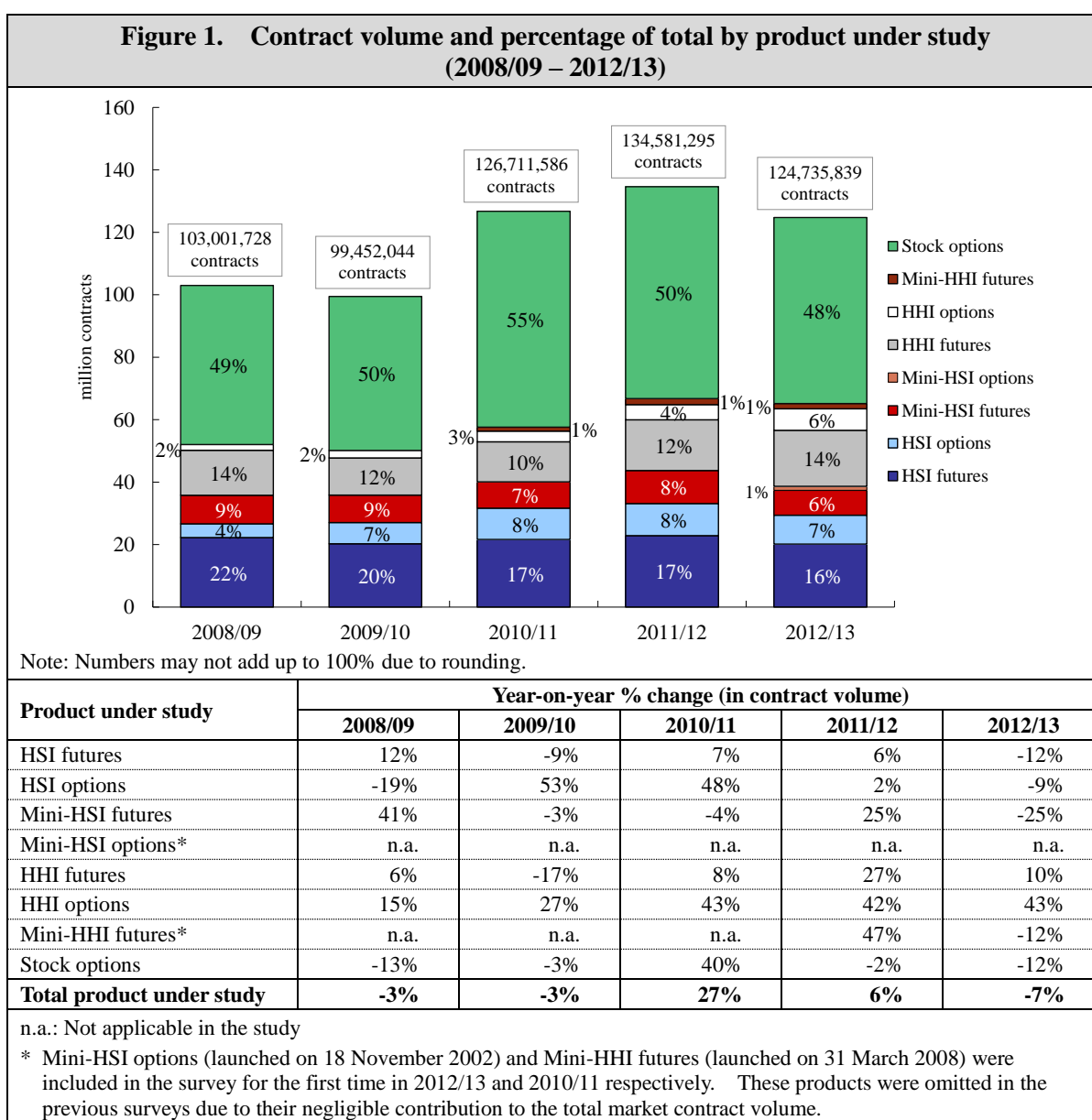
The survey covers transactions during July 2012 to June 2013³ in the major HKEx futures and options products, namely Hang Seng Index (HSI) futures, HSI options, Mini-HSI futures, Mini-HSI options (launched on 18 November 2002 and covered in the survey for the first time), H-shares Index (HHI) futures, HHI options, Mini-HHI futures and stock options. These together contributed 99% of the total turnover volume of the HKEx derivatives market during the study period. “Market turnover” (or “market volume”) in this report refers to the total contract volume of the products under study.

² The target population consists of all the EPs which had conducted trading business during the study period excluding those that ceased their operations before the start of the fieldwork. (See Appendix 4 for survey methodology.)

³ Referred to as the year 2012/13 throughout the report; the same convention is used for the past surveys.

Other derivative products which individually contributed less than 1% of HKEx's total derivatives turnover during the same period were excluded. These products were dividend futures, HSI Volatility Index futures, BRICS futures⁴, HIBOR futures, Three-year Exchange Fund Note futures, stock futures, gold futures, RMB currency futures (launched on 17 September 2012) and flexible index (HSI and HHI) options.

In 2012/13, market turnover (products under study only) was 125 million contracts, down 7% from 135 million contracts in 2011/12. The decrease in market turnover mainly reflected a decrease of 14% in the aggregate turnover volume of HSI products (HSI futures: -12%, HSI options: -9% and Mini-HSI futures: -25%) and a decrease of 12% in stock options turnover volume. Nevertheless, the downward trend was partly offset by an increase of 18% in the aggregate volume of HHI regular contracts (HHI futures: +10% and HHI options: +43%). Stock options remained the dominant contributor to derivatives market turnover (48%, compared to 50% in 2011/12). (See Figure 1.)



⁴ These are Brazil's IBOVESPA futures, Russia's MICEX index futures, India's S&P BSE SENSEX Index futures and South Africa's FTSE/JSE Top 40 futures launched under the BRICS Exchange Alliance.

Due to the dominance of the stock options market segment by contract volume, the overall trading composition of the HKEx derivatives market would be largely influenced by that of stock options, which is very different from that of index futures and options (see Section 3). It should be noted that the products under study differ greatly in size. Compared to index futures and options, stock options have much smaller size and notional value per contract. Although turnover of stock options by contract volume was large, stock options contracts in total had only a 3% share of notional trading value during the study period (see Appendix 3).

In view of this, detailed breakdowns by stock options/index futures and options are provided to assist in more detailed interpretation.

For analysis purposes, the contract volume for each type of trade in the survey was estimated (referred to as the “implied contract volume⁵”) based on the actual contract volume for each product and computed from the percentage share of the contract volume for that trade type as obtained from the survey. The relative contribution of each trade type to market volume was computed taking into account of the relative contribution by product type in the actual market turnover (see Appendix 4 for the methodology).

Sections 2 to 5 describe the findings in detail. The findings are subject to the limitations set out in Appendix 4.

⁵ See glossary for the definition of implied contract volume.

2. TRANSACTION PURPOSES

Overall, *pure trading*⁶ and *hedging* were the two main transaction purposes of derivatives trading in 2012/13. The contribution of each of these purposes was similarly high — 45% of total market turnover for both (compared to 42% and 46% respectively in 2011/12). *Arbitrage* turnover accounted for 10% of the overall market turnover in 2012/13, compared to 12% in 2011/12.

In 2012/13, *pure trading* accounted for the majority of trading in all mini-contracts — Mini-HSI options (73%), Mini-HSI futures (56%) and Mini-HHI futures (55%) — and also in HSI options (54%). Pure trading also accounted for a major proportion of trading in stock options (47%) and HSI futures (46%). Notably, a growing trend for the proportion of pure trading in stock options turnover volume was observed, from 28% in 2008/09 to 47% in 2012/13. This came along with a growing trend in retail participation in stock options trading (see Section 3.2 below).

On the other hand, *hedging* accounted for the majority of trading in the regular HHI products — HHI futures (53% in 2012/13, up from 49% in 2011/12) and HHI options (61%, down from 68% in 2011/12). It also accounted for a considerable proportion of trading in stock options and HSI options (45% and 36% respectively), and for Mini-HSI options though to a lesser extent (25%). Notably, the proportion of hedging continued to increase (since 2010/11) for all futures products.

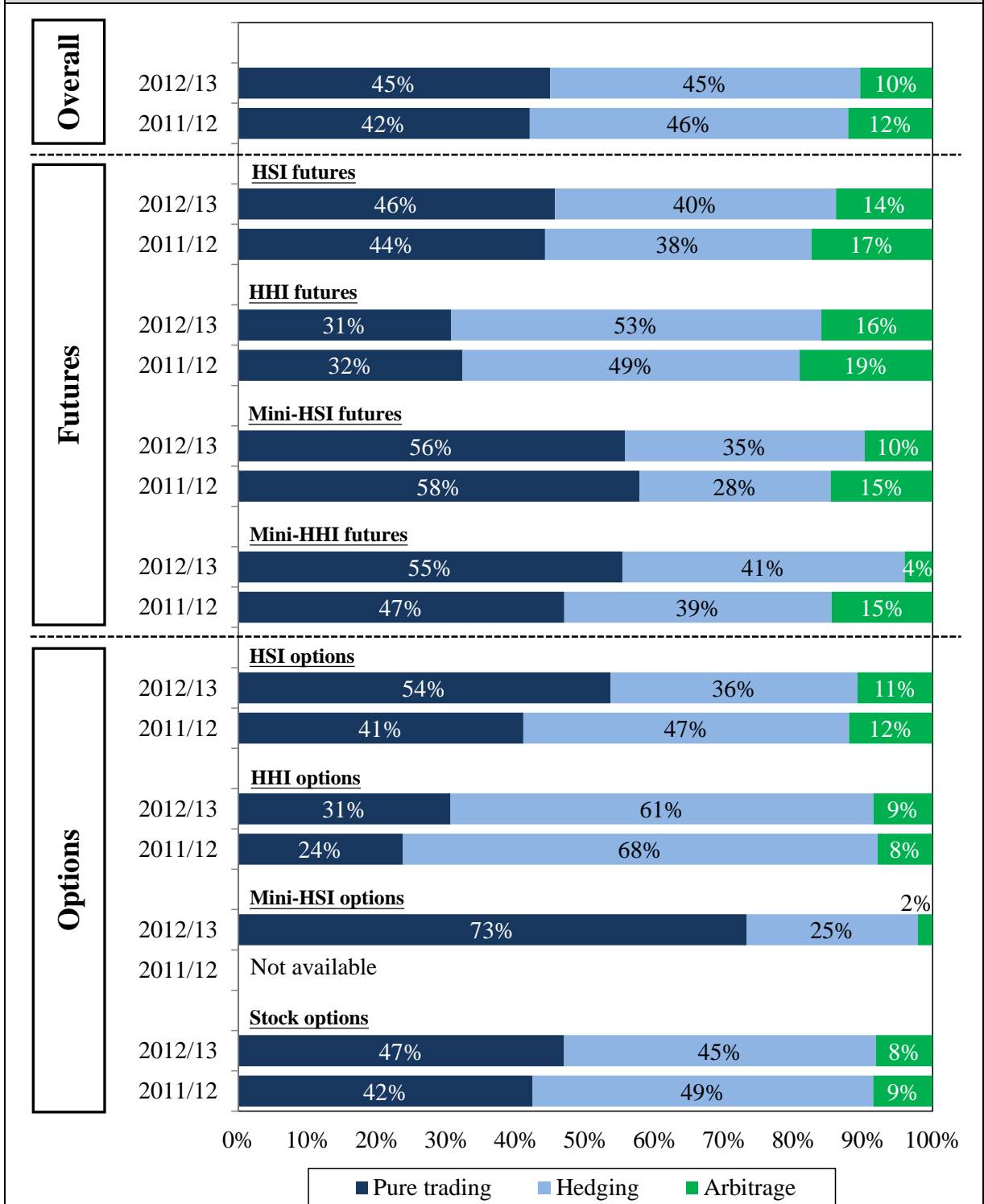
The proportion of *arbitrage* in each of the products under study remained low (ranging from 2% to 16%) in 2012/13. The proportion was the highest for trading in HHI futures (16%, compared to 19% in 2011/12) and the lowest for trading in Mini-HSI options (2%). In 2012/13, a decrease in the proportion of arbitrage was observed across all index futures after a significant surge in 2011/12. For each of the options products (excluding Mini-HSI options which were covered in the survey in 2012/13 for the first time), the proportion of arbitrage remained at a similar level to that in 2011/12.

In *number of contracts*, there was a significant drop in total market trading for arbitrage (-20%) in 2012/13, compared to the decrease of 7% in overall derivatives trading. In fact, a decrease in the contract volume for arbitrage was observed for each of the products under study except HHI options, which recorded a 53% increase in contract volume for arbitrage. Despite a 10% decrease in total market trading for hedging in 2012/13, an increase in contract volume for hedging was observed for the regular HHI products — HHI futures (+21%), HHI options (+27%) — in contrast to a decrease across all other products under study. Albeit little change in total market turnover for pure trading (-0.8%) was observed in 2012/13, a significant increase in the contract volume for pure trading was observed for HHI options trading (+84%), compared to the 43% increase in the product's volume.

(See Figure 2 and Table 1.)

⁶ EPs may not 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.

Figure 2. Distribution of derivatives market trading volume by transaction purpose for overall market and each product (2012/13 vs 2011/12)



Notes:

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

(2) Mini-HSI options were included in the survey for the first time in 2012/13. The product was launched on 18 November 2002 and was omitted in the previous surveys due to its negligible contribution to the total market contract volume.

Table 1. Distribution of derivatives market trading volume by transaction purpose for overall market and each product (2008/09 – 2012/13)								
Product	Purpose	Percentage contribution ⁽¹⁾					Implied contract volume ⁽²⁾	
		2008/09	2009/10	2010/11	2011/12	2012/13	No. of contracts	Y-o-Y change
HSI futures	Pure trading	54.3	55.5	60.4	44.2	45.6	9,187,238	-9.1%
	Hedging	32.0	32.6	26.8	38.4	40.5	8,156,311	-7.0%
	Arbitrage	13.6	11.9	12.8	17.5	13.9	2,802,969	-29.9%
	Total	100.0	100.0	100.0	100.0	100.0	20,146,519	-11.9%
HHI futures	Pure trading	43.7	37.8	50.8	32.3	30.6	5,478,674	4.4%
	Hedging	40.8	43.9	37.1	48.5	53.3	9,548,763	21.0%
	Arbitrage	15.5	18.3	12.2	19.2	16.0	2,871,693	-7.9%
	Total	100.0	100.0	100.0	100.0	100.0	17,899,130	10.1%
Mini-HSI futures	Pure trading	76.9	63.9	71.6	57.8	55.7	4,432,661	-27.5%
	Hedging	16.9	25.6	20.5	27.5	34.5	2,749,394	-5.6%
	Arbitrage	6.2	10.4	7.8	14.7	9.8	779,318	-49.9%
	Total	100.0	100.0	100.0	100.0	100.0	7,961,373	-24.8%
Mini-HHI futures ⁽³⁾	Pure trading	n.a.	n.a.	63.6	46.9	55.3	936,487	3.2%
	Hedging	n.a.	n.a.	31.2	38.5	40.6	688,091	-7.6%
	Arbitrage	n.a.	n.a.	5.2	14.6	4.0	68,528	-75.6%
	Total	n.a.	n.a.	100.0	100.0	100.0	1,693,106	-12.4%
HSI options	Pure trading	47.9	38.1	39.6	41.1	53.6	4,968,595	18.3%
	Hedging	39.2	44.6	38.6	46.9	35.6	3,300,755	-31.3%
	Arbitrage	12.9	17.3	21.8	12.0	10.8	1,002,762	-18.6%
	Total	100.0	100.0	100.0	100.0	100.0	9,272,112	-9.4%
HHI options	Pure trading	58.4	30.3	23.6	23.7	30.5	2,107,973	83.7%
	Hedging	34.0	56.1	60.1	68.4	60.9	4,205,756	27.0%
	Arbitrage	7.5	13.6	16.3	7.9	8.5	588,431	53.3%
	Total	100.0	100.0	100.0	100.0	100.0	6,902,159	42.5%
Mini-HSI options ⁽³⁾	Pure trading	n.a.	n.a.	n.a.	n.a.	73.2	942,296	n.a.
	Hedging	n.a.	n.a.	n.a.	n.a.	24.7	318,034	n.a.
	Arbitrage	n.a.	n.a.	n.a.	n.a.	2.1	27,405	n.a.
	Total	n.a.	n.a.	n.a.	n.a.	100.0	1,287,735	n.a.
Index futures & options	Pure trading	55.0	49.2	54.2	41.6	43.1	28,053,925	1.2%
	Hedging	32.5	36.8	32.3	42.6	44.5	28,967,103	1.9%
	Arbitrage	12.6	14.0	13.5	15.8	12.5	8,141,106	-23.0%
	Total	100.0	100.0	100.0	100.0	100.0	65,162,134	-2.3%
Stock options	Pure trading	28.1	29.2	35.0	42.4	46.9	27,953,186	-2.8%
	Hedging	50.6	53.6	50.0	49.1	44.9	26,747,128	-19.7%
	Arbitrage	21.3	17.2	15.0	8.6	8.2	4,873,391	-16.0%
	Total	100.0	100.0	100.0	100.0	100.0	59,573,705	-12.2%
Overall market	Pure trading	41.7	39.3	43.7	42.0	44.9	56,007,111	-0.8%
	Hedging	41.5	45.1	42.0	45.9	44.7	55,714,231	-9.8%
	Arbitrage	16.9	15.6	14.3	12.2	10.4	13,014,497	-20.5%
	Total	100.0	100.0	100.0	100.0	100.0	124,735,839	-7.3%
Total contract volume ⁽⁴⁾		103,001,728	99,452,044	126,711,586	134,581,295	124,735,839		
n.a.: Not available								
Notes:								
(1) Numbers may not add up to 100% due to rounding.								
(2) See glossary for the definition of implied contract volume. The total figure of each product used is the actual contract volume for that product, based on which the implied contract volume by trading purpose is computed.								
(3) Mini-HHI futures (launched on 31 March 2008) and Mini-HSI options (launched on 18 November 2002) were included in the survey for the first time in 2010/11 and 2012/13 respectively. These products were omitted in the previous surveys due to their negligible contribution to the total market contract volume.								
(4) Actual total contract volume of all products under study during the study period.								

3. DISTRIBUTION OF TRADING BY INVESTOR TYPE

3.1 Overall pattern

(See Figures 3 – 7.)

In 2012/13, turnover in HKEx's derivatives market was almost equally shared by **EP principal trading** and **agency (investor) trading**, more or less similar to the pattern since 2009/10. The contribution from overseas investors surpassed that of local investors for two consecutive years (27% vs 23%, compared to 26% vs 24% in 2011/12).

EP principal trading accounted for 49% of total derivatives market contract volume (compared to 50% in 2011/12) — 37% from market maker trading (38% in 2011/12) and 13% from EP proprietary trading (12% in 2011/12). Over the past decade, EP principal trading contributed 51% of the cumulative market turnover.

EP principal trading remained dominant in stock option trading (70%, compared to 69% in 2011/12) but contributed only 31% (30% in 2011/12) in index futures and options. As in the past few years, **the majority of EP principal trading came from stock options** — stock options contributed 48% of the total market turnover but its EP principal trading contributed 67% to total EP principal trading in derivatives (70% in 2011/12) and 86% to total market making (88% in 2011/12).

The contribution from **overseas investors** was 27% (24% from institutions) in 2012/13, the highest since 2004/05. Their cumulative market share in the past decade was 24% (21% from institutions). The contribution from **local investors** was 23% (18% from retail and 5% from institutions) in 2012/13 compared to 24% in 2011/12. Over the past decade, local investors contributed a quarter of the cumulative market turnover.

The contribution from **institutional investors** (local and overseas) to total market turnover was 30% in 2012/13, the highest since 2004/05. Their cumulative market share in the past decade was 27%. **Retail investors'** contribution (local and overseas) was 21% in 2012/13, the same as in 2011/12. Their cumulative market share in the past decade was 22%.

In **number of contracts**, EP principal trading decreased by 8% from 2011/12, reflecting mainly the 11% decrease in market maker trading. Local investor trading volume decreased by 12% — a much larger decrease was recorded for local institutional investor trading (-30%) than for local retail investor trading (-4%). Overseas institutional investor trading volume continued its year-on-year growth for the past decade but recorded an increase of less than 1% in 2012/13 while overseas retail investor trading volume decreased by 15% from 2011/12. Overseas investor trading volume in aggregate recorded a decrease of 1%, the first decline in the past decade. Over the past decade, the overall derivatives market trading recorded a compound annual growth rate (CAGR) of 24% — driven mainly by the growth in EP principal trading volume (CAGR of 28%) and in overseas investor trading volume (CAGR of 26%).

**Figure 3. Distribution of derivatives market trading volume by investor type
(Jul 2012 – Jun 2013)**

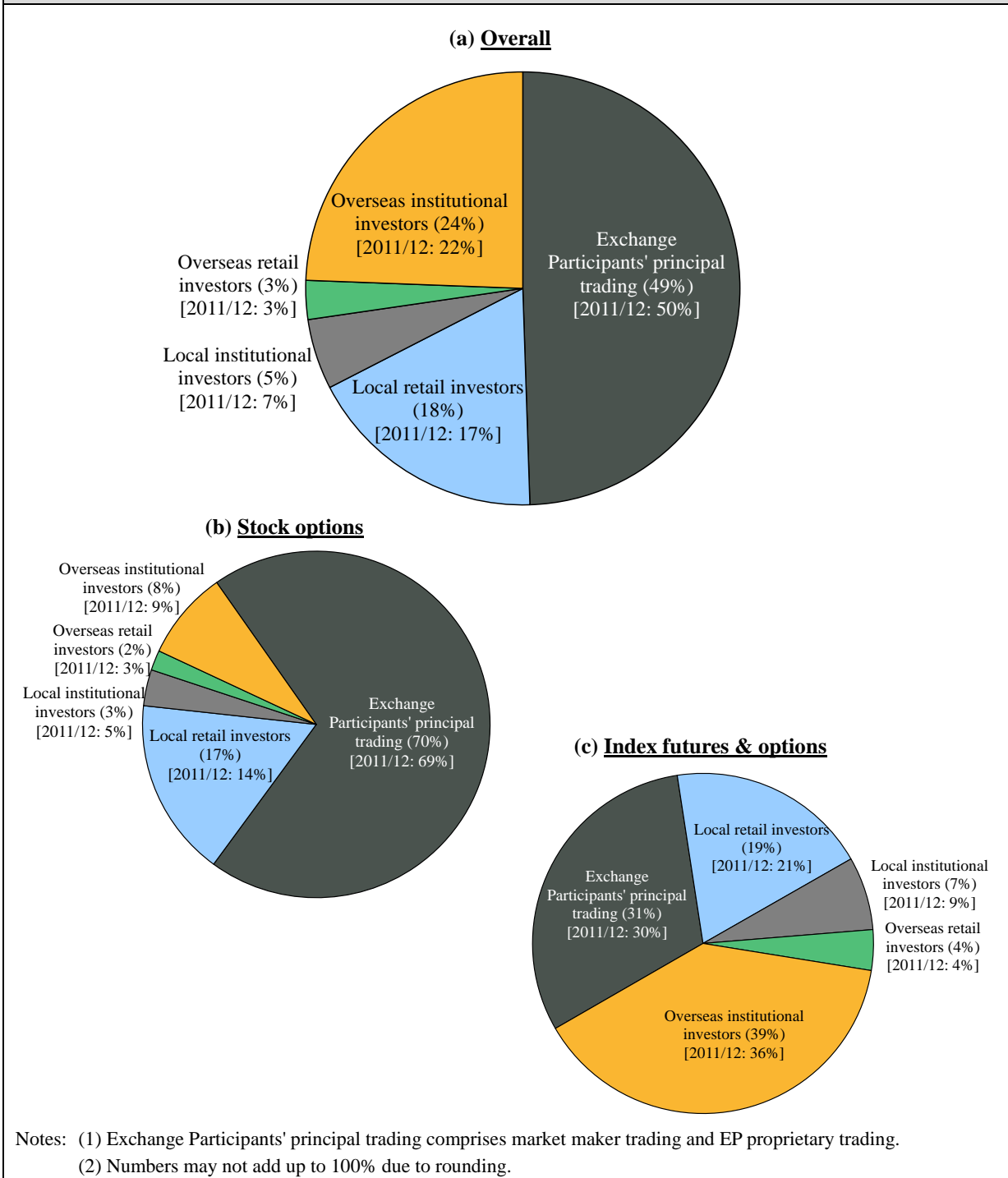
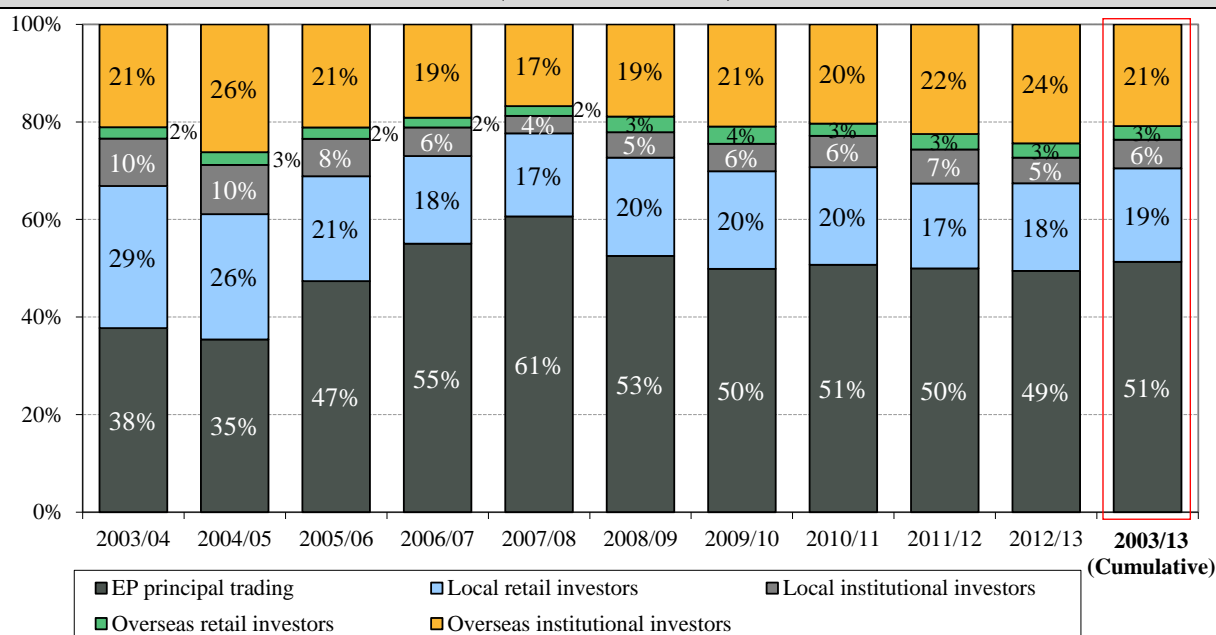
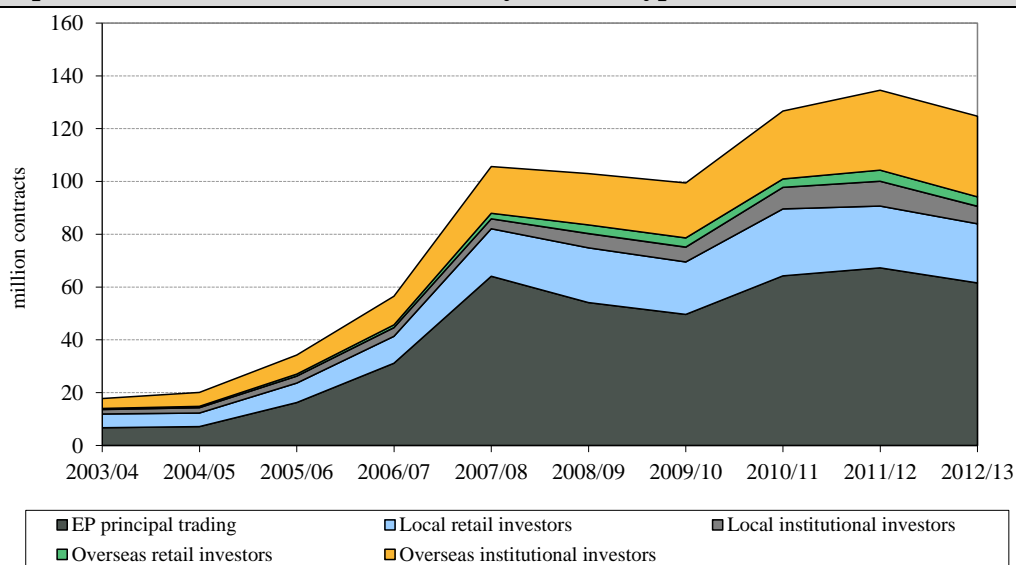


Figure 4. Distribution of derivatives market trading volume by investor type (2003/04 – 2012/13)



Notes: (1) Exchange Participants' principal trading comprises market maker trading and EP proprietary trading.
 (2) Numbers may not add up to 100% due to rounding.

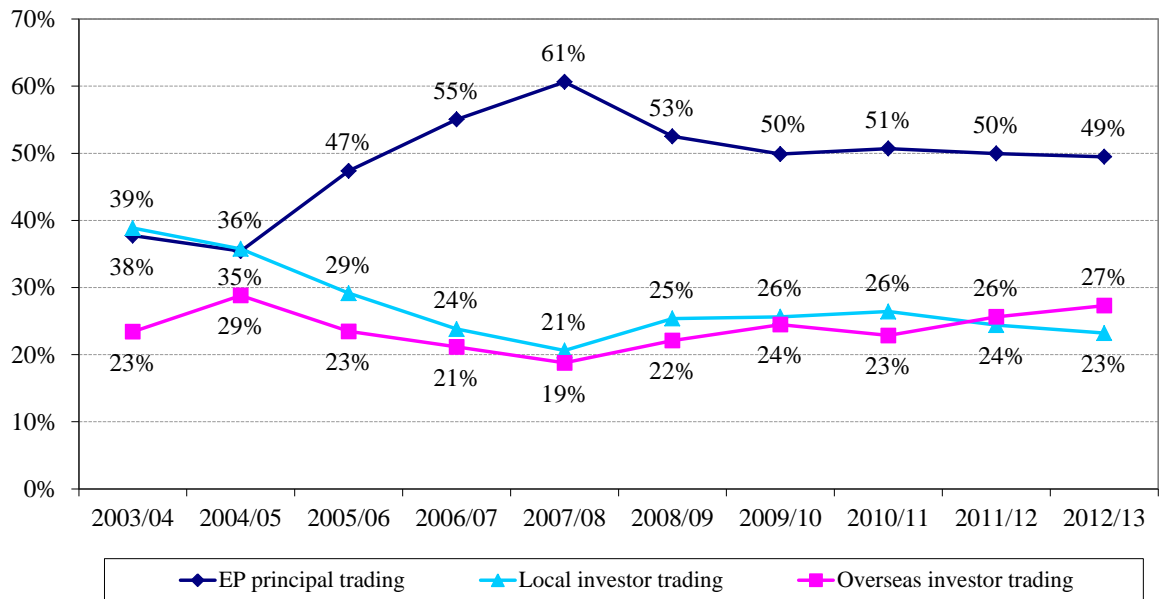
Figure 5. Implied contract volume of derivatives by investor type (2003/04 – 2012/13)



Type of trade	Year-on-year % change										2003/13 CAGR
	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	
EP principal trading	48.70%	6.19%	128.14%	91.57%	105.85%	-15.57%	-8.30%	29.52%	4.66%	-8.22%	27.97%
Market maker	46.72%	5.64%	141.11%	95.95%	128.95%	-20.73%	-12.30%	36.80%	4.96%	-10.98%	29.37%
Proprietary trading	53.01%	7.34%	101.51%	80.79%	44.34%	6.24%	4.31%	10.22%	3.68%	0.99%	24.56%
Local investor trading	45.13%	4.10%	39.07%	34.75%	61.63%	20.05%	-2.47%	31.36%	-1.96%	-11.81%	17.27%
Retail	45.29%	-0.29%	42.66%	38.21%	76.70%	15.52%	-4.12%	27.35%	-7.63%	-4.37%	17.68%
Institutional	44.65%	17.25%	29.95%	25.07%	15.11%	41.53%	3.91%	45.67%	15.73%	-30.33%	15.95%
Overseas investor trading	35.72%	39.27%	38.84%	48.65%	65.84%	14.77%	6.96%	18.98%	19.09%	-1.28%	26.31%
Retail	108.07%	28.55%	52.10%	39.87%	88.65%	56.14%	6.22%	-8.93%	32.26%	-14.67%	27.33%
Institutional	30.72%	40.45%	37.51%	49.63%	63.47%	9.81%	7.08%	23.70%	17.45%	0.60%	26.20%
Retail investor trading	48.59%	1.83%	43.54%	38.38%	77.89%	19.82%	-2.69%	21.89%	-3.14%	-5.95%	18.64%
Institutional investor trading	34.82%	33.12%	35.41%	43.08%	52.19%	15.40%	6.40%	28.35%	17.04%	-6.74%	23.64%
Total	44.10%	13.12%	70.56%	64.93%	86.86%	-2.54%	-3.45%	27.41%	6.21%	-7.32%	24.17%

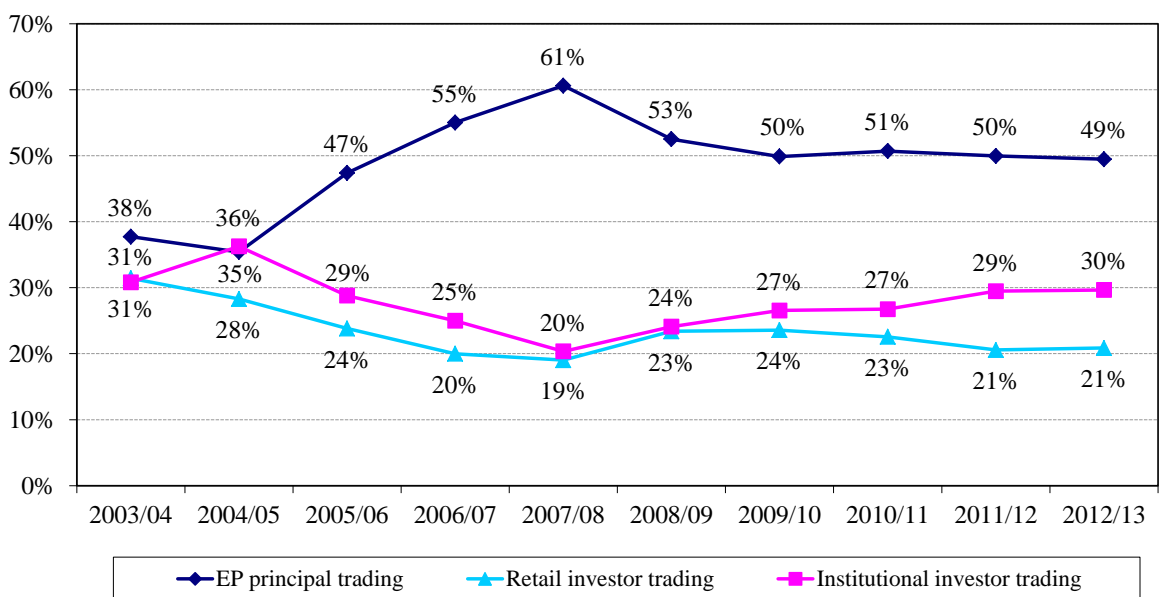
Note: Exchange Participants' principal trading comprises market maker trading and EP proprietary trading.

Figure 6. Distribution of derivatives market trading volume by investor type (local vs overseas) (2003/04 – 2012/13)



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

Figure 7. Distribution of derivatives market trading volume by investor type (retail vs institutional) (2003/04 – 2012/13)



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

3.2 Trading by product

(See Figure 8 and Tables 2 and 3.)

The trading distribution by investor type differed by product type. Key observations are summarised below:

- **Overseas investors (predominantly institutional)** were significant contributors to trading in the regular index futures, especially in HHI futures (60%). Their contribution to HSI futures trading volume reached its highest level in 2012/13 (53%), albeit falling in contract volume terms. Notably, overseas investor trading volume in HHI futures and options increased in 2012/13 while that in other products decreased.
- **Local retail investors** were significant contributors to trading in mini-futures. However, their contribution to Mini-HSI futures decreased for two consecutive years.
- **EP principal trading (mainly market making)** maintained its dominance in the trading of option products. Notably, strong growth was observed in EP proprietary trading volume in HHI options.

The pattern for specific products is described below.

For **HSI futures**, the contribution from overseas institutional investors was the most significant, reaching a record 49% in 2012/13. Local retail investor trading and EP proprietary trading were also significant, contributing respectively 21% and 20% of the product's turnover. However, local retail investors' contribution continued its downtrend in the past few years while EP proprietary trading's contribution fluctuated within narrow range. In **number of contracts**, EP proprietary trading and all types of investor trading except overseas retail investor trading experienced year-on-year decreases. Relatively large decreases were observed in EP proprietary trading (-22%) and local investor trading (-21%), compared to a 12% decrease in the product's volume.

For **HHI futures**, overseas investors remained the major participant type. Their contribution stood at 60% in 2012/13 similar to the past few years, mainly from overseas institutional investors (58%). The contribution from EP proprietary trading was also significant (26%, the same as in 2011/12). Both EP proprietary trading and overseas investor trading recorded a year-on-year growth of 12% in contract volume, compared to a 10% increase in the product's volume. Local investors' contribution was 14% (almost equally split by retail and institutional investors), compared to 16% in 2011/12, with a year-on-year volume decrease of less than 1%.

For **Mini-HSI futures**, local retail investors remained the major participant type, contributing 44% of the product's turnover in 2012/13 (down from 47% in 2011/12). The contribution from EP proprietary trading was also significant (25%, the same as in 2011/12). Overseas investors contributed 29%, mainly from institutions (21%), up from 23% in 2011/12. In terms of contract volume, EP proprietary trading and all types of investor trading experienced year-on-year decreases except overseas institutional investor trading which recorded an increase of 1%. A relatively large drop was observed in local investor trading volume (-35%, retail: -30%; institution: -75%), compared to a year-on-year decrease of 25% in the product's volume.

For *Mini-HHI futures*, local retail investors were the major participant type, contributing 49% of the product's turnover (up from 40% in 2011/12), with a 6% year-on-year growth in contract volume compared to a 12% decrease in the product's volume. The contribution from EP proprietary trading was also significant (37%, down from 42% in 2011/12). Overseas investors contributed 13% of the product's turnover in 2012/13 — 8% from retail and 5% from institutions. In terms of contract volume, significant decreases were observed in local institutional investor trading (from a small base) and overseas institutional investor trading (-77% and -38% respectively).

For *HSI options*, EP principal trading remained the major participant type, contributing 50% of the product's turnover in 2012/13 (compared to 51% in 2011/12) — 42% from market maker trading (down from 46% in 2011/12) and 8% from proprietary trading (up from 5% in 2011/12). In number of contracts, market maker trading decreased by 18% in 2012/13 while EP proprietary trading increased by 35%, resulting in a 13% decrease in overall EP principal trading volume. Local investors' contribution was 30%, compared to 28% in 2011/12. However, their trading volume decreased by 4%, driven by the 31% decrease in local institutional investor trading despite a 10% increase in local retail investor trading. Overseas investors contributed 20% of the product's turnover, mainly from institutions (18%), a pattern similar to that in 2011/12.

For *HHI options*, EP principal trading were the major contributor with 51% of the product's turnover in 2012/13, the highest level in the past five years — 29% from market maker trading (down from 33% in 2011/12) and 22% from proprietary trading (up from 14% in 2011/12). The contribution from overseas institutional investors was also significant (28%, compared to 31% in 2011/12). Significant volume increases were observed in overseas retail investor trading (+154%, from a small base), EP proprietary trading (+130%) and local retail investor trading (+96%, from a relatively small base), compared to the 43% increase in the product's volume.

For *Mini-HSI options* (covered in the survey for the first time), EP principal trading was the dominant contributor with 55% of the product's turnover in 2012/13 — 54% from market maker trading and less than 1% from proprietary trading. As in the case of other mini products, the contribution from local retail investors was also significant — 34% in 2012/13. Overseas retail and institutional investors contributed respectively 7% and 4%. The contribution from local institutional investors was minimal (1%).

For *stock options*, EP principal trading remained the major contributor with 70% of the product's turnover in 2012/13 (a similar level since 2010/11) — 66% from market maker trading (compared to 67% in 2011/12) and 4% from proprietary trading (compared to 2% in 2011/12). Local investors' contribution was 20% (compared to 19% in 2011/12) — 17% from retail (up from 14% in 2011/12) and 3% from institutions (compared to 5% in 2011/12). Overseas investors contributed 10% of the product's turnover, mainly from institutions (8%). In contract terms, a relatively large increase was observed in EP proprietary trading (+32%) while relatively large decreases were observed in local institutional investor trading (-45%) and overseas retail investor trading (-39%), all were from a relatively small base, compared to the 12% decrease in the product's volume.

While overseas institutional investors were dominant contributors to trading in *index futures*, EP principal trading (mainly market making) dominated in *options trading*, whether index or stock options. Overseas institutional investor contribution to index futures trading increased over the years from 34% in 2008/09 to 46% in 2012/13 but contributed not much to stock options (8% in 2012/13 and the highest at 9% in the past decade). On the other hand, local retail investor contribution to index futures had a declining trend from 32% in 2008/09 to 20% in 2012/13 but an increasing trend of contribution to stock options from 10% in 2008/09 to 17% in 2012/13.

**Table 2. Distribution of derivatives trading by investor type
(2008/09 – 2012/13)**

Type of investor	Percentage contribution ⁽¹⁾					Implied contract volume ⁽²⁾ 2012/13	
	2008/09	2009/10	2010/11	2011/12	2012/13	No. of contracts	Y-o-Y change
HSI Futures							
EP proprietary trading	20.0	18.9	21.0	22.3	19.7	3,974,824	-21.9%
Local investors	40.9	36.2	32.0	29.8	26.9	5,419,218	-20.6%
Retail	31.8	30.3	25.0	21.8	20.5	4,134,751	-17.1%
Institutional	9.1	6.0	7.0	8.0	6.4	1,284,467	-30.1%
Overseas investors	39.2	44.9	47.1	47.9	53.4	10,752,476	-1.9%
Retail	4.7	6.1	3.7	3.8	4.8	975,756	11.2%
Institutional	34.5	38.8	43.4	44.1	48.5	9,776,720	-3.0%
Total	100.0	100.0	100.0	100.0	100.0	20,146,519	-11.9%
HFI Futures							
EP proprietary trading	22.3	26.4	23.2	25.9	26.3	4,714,835	12.1%
Local investors	23.9	15.7	17.2	15.7	14.1	2,532,459	-0.5%
Retail	16.9	11.2	9.9	7.3	6.9	1,241,871	4.4%
Institutional	7.0	4.5	7.3	8.3	7.2	1,290,589	-4.8%
Overseas investors	53.8	58.0	59.6	58.5	59.5	10,651,836	12.0%
Retail	4.6	2.4	2.2	2.1	1.7	310,607	-8.4%
Institutional	49.2	55.5	57.4	56.4	57.8	10,341,229	12.8%
Total	100.0	100.0	100.0	100.0	100.0	17,899,130	10.1%
Mini-HSI Futures							
EP proprietary trading	20.5	19.7	21.6	24.8	25.0	1,991,913	-24.2%
Local investors	61.8	52.1	53.3	52.3	45.5	3,623,046	-34.5%
Retail	57.6	46.5	49.0	46.8	43.7	3,478,145	-29.7%
Institutional	4.1	5.6	4.2	5.5	1.8	144,900	-75.2%
Overseas investors	17.7	28.1	25.1	22.9	29.5	2,346,415	-3.2%
Retail	8.7	9.3	7.5	7.5	8.7	690,644	-12.7%
Institutional	9.0	18.9	17.6	15.4	20.8	1,655,771	1.4%
Total	100.0	100.0	100.0	100.0	100.0	7,961,373	-24.8%
Mini-HFI Futures ⁽³⁾							
EP proprietary trading	n.a.	n.a.	31.4	41.8	37.2	629,422	-22.1%
Local investors	n.a.	n.a.	54.5	43.8	49.7	842,139	-0.5%
Retail	n.a.	n.a.	53.1	40.2	48.8	826,461	6.5%
Institutional	n.a.	n.a.	1.4	3.6	0.9	15,679	-77.5%
Overseas investors	n.a.	n.a.	14.2	14.5	13.1	221,545	-20.7%
Retail	n.a.	n.a.	8.1	7.7	8.3	141,123	-5.1%
Institutional	n.a.	n.a.	6.1	6.8	4.7	80,422	-38.5%
Total	n.a.	n.a.	100.0	100.0	100.0	1,693,106	-12.4%
Index futures							
EP proprietary trading	20.8	21.2	22.0	24.6	23.7	11,310,993	-11.2%
Local investors	39.7	33.7	32.4	30.5	26.0	12,416,863	-21.2%
Retail	32.2	28.2	26.0	23.0	20.3	9,681,228	-18.6%
Institutional	7.5	5.5	6.4	7.4	5.7	2,735,635	-28.9%
Overseas investors	39.5	45.1	45.5	44.9	50.3	23,972,272	3.4%
Retail	5.4	5.7	4.1	4.2	4.4	2,118,130	-1.8%
Institutional	34.1	39.4	41.4	40.7	45.8	21,854,142	4.0%
Total	100.0	100.0	100.0	100.0	100.0	47,700,128	-7.7%
HSI Options							
Principal trading ⁽⁴⁾	51.1	47.0	51.8	51.4	49.5	4,593,468	-12.7%
Market makers	42.2	39.0	43.6	46.1	41.6	3,861,685	-18.2%
Proprietary trading	8.8	8.0	8.3	5.3	7.9	731,783	35.2%
Local investors	31.8	34.6	35.0	28.3	30.1	2,786,938	-3.8%
Retail	19.9	22.5	22.7	18.7	22.7	2,103,299	10.2%
Institutional	11.9	12.1	12.3	9.7	7.4	683,639	-30.9%
Overseas investors	17.1	18.4	13.2	20.3	20.4	1,891,707	-8.7%
Retail	2.6	3.0	2.7	2.4	2.7	252,300	1.7%
Institutional	14.6	15.4	10.5	17.8	17.7	1,639,407	-10.2%
Total	100.0	100.0	100.0	100.0	100.0	9,272,112	-9.4%
HFI Options							
Principal trading ⁽⁴⁾	33.9	37.8	44.8	47.2	51.2	3,536,736	54.7%
Market makers	21.6	22.8	28.5	33.4	29.0	2,001,436	23.6%
Proprietary trading	12.3	15.0	16.3	13.8	22.2	1,535,300	130.3%
Local investors	35.1	30.6	30.9	21.9	19.8	1,368,208	29.2%
Retail	14.5	10.3	4.7	2.7	3.7	255,282	96.1%
Institutional	20.5	20.3	26.2	19.2	16.1	1,112,926	19.8%
Overseas investors	31.1	31.6	24.3	30.9	28.9	1,997,215	33.4%
Retail	3.1	2.3	1.0	0.4	0.7	49,792	154.1%
Institutional	27.9	29.2	23.3	30.5	28.2	1,947,423	31.8%
Total	100.0	100.0	100.0	100.0	100.0	6,902,159	42.5%

(to be continued on next page)

**Table 2. Distribution of derivatives trading by investor type
(2008/09 – 2012/13) (cont'd)**

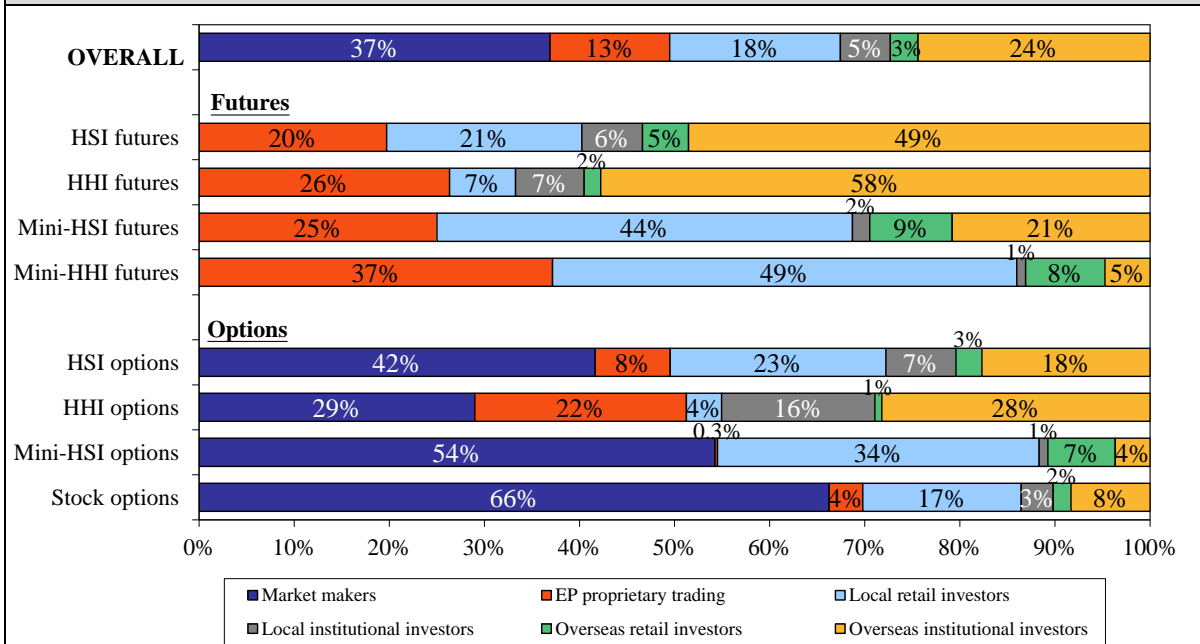
Type of investor	Percentage contribution ⁽¹⁾					Implied contract volume ⁽²⁾ 2012/13	
	2008/09	2009/10	2010/11	2011/12	2012/13	No. of contracts	Y-o-Y change
Mini-HSI Options ⁽³⁾							
Principal trading ⁽⁴⁾	n.a.	n.a.	n.a.	n.a.	54.5	702,005	n.a.
Market makers	n.a.	n.a.	n.a.	n.a.	54.3	698,623	n.a.
Proprietary trading	n.a.	n.a.	n.a.	n.a.	0.3	3,382	n.a.
Local investors	n.a.	n.a.	n.a.	n.a.	34.7	447,335	n.a.
Retail	n.a.	n.a.	n.a.	n.a.	33.8	435,592	n.a.
Institutional	n.a.	n.a.	n.a.	n.a.	0.9	11,743	n.a.
Overseas investors	n.a.	n.a.	n.a.	n.a.	10.7	138,395	n.a.
Retail	n.a.	n.a.	n.a.	n.a.	7.1	91,375	n.a.
Institutional	n.a.	n.a.	n.a.	n.a.	3.7	47,019	n.a.
Total	n.a.	n.a.	n.a.	n.a.	100.0	1,287,735	n.a.
Index options							
Principal trading ⁽⁴⁾	45.9	44.6	50.0	50.1	50.6	8,832,209	17.0%
Market makers	36.1	34.8	39.7	42.1	37.6	6,561,744	3.5%
Proprietary trading	9.9	9.8	10.3	8.0	13.0	2,270,465	87.9%
Local investors	32.8	33.6	33.9	26.2	26.4	4,602,481	16.3%
Retail	18.3	19.4	18.1	13.5	16.0	2,794,173	37.0%
Institutional	14.4	14.2	15.8	12.7	10.4	1,808,308	-5.7%
Overseas investors	21.3	21.8	16.0	23.7	23.1	4,027,316	12.8%
Retail	2.7	2.8	2.3	1.8	2.3	393,467	47.0%
Institutional	18.6	19.0	13.7	21.9	20.8	3,633,849	10.0%
Total	100.0	100.0	100.0	100.0	100.0	17,462,006	15.8%
Index futures & options							
Principal trading ⁽⁴⁾	23.8	25.5	28.6	30.4	30.9	20,143,202	-0.7%
Market makers	4.4	6.4	9.3	9.5	10.1	6,561,744	3.5%
Proprietary trading	19.5	19.2	19.3	20.9	20.8	13,581,459	-2.6%
Local investors	38.9	33.6	32.8	29.5	26.1	17,019,344	-13.6%
Retail	30.5	26.6	24.2	20.9	19.1	12,475,402	-10.5%
Institutional	8.3	7.1	8.6	8.6	7.0	4,543,942	-21.2%
Overseas investors	37.3	40.8	38.7	40.1	43.0	27,999,588	4.7%
Retail	5.1	5.2	3.7	3.6	3.9	2,511,597	3.6%
Institutional	32.2	35.6	35.0	36.4	39.1	25,487,991	4.8%
Total	100.0	100.0	100.0	100.0	100.0	65,162,134	-2.3%
Stock options							
Principal trading ⁽⁴⁾	81.8	74.7	69.2	69.2	69.8	41,574,507	-11.5%
Market makers	76.1	66.6	63.6	66.9	66.3	39,472,544	-13.0%
Proprietary trading	5.7	8.1	5.6	2.3	3.5	2,101,963	32.2%
Local investors	11.6	17.5	21.1	19.4	20.0	11,937,549	-9.1%
Retail	9.6	13.4	16.5	14.0	16.7	9,927,152	4.6%
Institutional	2.0	4.1	4.6	5.4	3.4	2,010,397	-44.8%
Overseas investors	6.6	7.8	9.7	11.4	10.2	6,061,649	-21.9%
Retail investors	1.3	1.9	1.6	2.7	1.9	1,112,774	-39.0%
Institutional investors	5.3	6.0	8.1	8.7	8.3	4,948,875	-16.6%
Total	100.0	100.0	100.0	100.0	100.0	59,573,705	-12.2%
Overall market							
Principal trading ⁽⁴⁾	52.5	49.9	50.7	50.0	49.5	61,717,709	-8.2%
Market makers	39.9	36.2	38.9	38.4	36.9	46,034,288	-11.0%
Proprietary trading	12.6	13.7	11.8	11.5	12.6	15,683,422	1.0%
Local investors	25.4	25.6	26.4	24.4	23.2	28,956,893	-11.8%
Retail investors	20.2	20.0	20.0	17.4	18.0	22,402,554	-4.4%
Institutional investors	5.2	5.6	6.4	7.0	5.3	6,554,339	-30.3%
Overseas investors	22.1	24.5	22.9	25.6	27.3	34,061,237	-1.3%
Retail investors	3.2	3.5	2.5	3.2	2.9	3,624,372	-14.7%
Institutional investors	18.9	20.9	20.3	22.5	24.4	30,436,866	0.6%
Total	100.0	100.0	100.0	100.0	100.0	124,735,839	-7.3%

n.a.: Not available

Notes:

- (1) Numbers may not add up to 100% due to rounding.
- (2) See glossary for the definition of implied contract volume. The total figure of each product used is the actual contract volume for that product, based on which the implied contract volume by investor type is computed.
- (3) Mini-HHI futures (launched on 31 March 2008) and Mini-HSI options (launched on 18 November 2002) were included in the survey for the first time in 2010/11 and 2012/13 respectively. These products were omitted in the previous surveys due to their negligible contribution to the total market contract volume.
- (4) Principal trading comprises market maker trading and EP proprietary trading.

Figure 8. Distribution of derivatives market trading volume by investor type for overall market and each product (Jul 2012 – Jun 2013)



Notes:

- (1) Market maker trading and EP proprietary trading are components of EP principal trading.
- (2) Numbers may not add up to 100% due to rounding.

Table 3. Business composition of Exchange Participants in derivatives by trade type (in volume terms) (%)

	2008/09 Overall	2009/10 Overall	2010/11 Overall	2011/12 Overall	2012/13 Overall	2012/13							
						HSI futures	HSI options	Mini-HSI futures	Mini-HSI options	HHI futures	HHI options	Mini-HHI futures	Stock options
<i>All trading</i>													
Principal[#]	52.5	49.9	50.7	50.0	49.5	19.7	49.5	25.0	54.5	26.3	51.2	37.2	69.8
Agency	47.5	50.1	49.3	50.0	50.5	80.3	50.5	75.0	45.5	73.7	48.8	62.8	30.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Agency trading</i>													
Local	53.5	51.1	53.6	48.8	46.0	33.5	59.6	60.7	76.4	19.2	40.7	79.2	66.3
Overseas	46.5	48.9	46.4	51.2	54.0	66.5	40.4	39.3	23.6	80.8	59.3	20.8	33.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Agency trading</i>													
Retail	49.3	47.0	45.7	41.1	41.3	31.6	50.3	69.8	90.0	11.8	9.1	91.0	61.3
Institutional	50.7	53.0	54.3	58.9	58.7	68.4	49.7	30.2	10.0	88.2	90.9	9.0	38.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Retail investor trading</i>													
Local	86.2	85.0	88.8	84.7	86.1	80.9	89.3	83.4	82.7	80.0	83.7	85.4	89.9
Overseas	13.8	15.0	11.2	15.3	13.9	19.1	10.7	16.6	17.3	20.0	16.3	14.6	10.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Institutional investor trading</i>													
Local	21.6	21.1	24.0	23.7	17.7	11.6	29.4	8.0	20.0	11.1	36.4	16.3	28.9
Overseas	78.4	78.9	76.0	76.3	82.3	88.4	70.6	92.0	80.0	88.9	63.6	83.7	71.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Local investor trading</i>													
Retail	79.5	78.1	75.7	71.3	77.4	76.3	75.5	96.0	97.4	49.0	18.7	98.1	83.2
Institutional	20.5	21.9	24.3	28.7	22.6	23.7	24.5	4.0	2.6	51.0	81.3	1.9	16.8
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Overseas investor trading</i>													
Retail	14.6	14.5	11.1	12.3	10.6	9.1	13.3	29.4	66.0	2.9	2.5	63.7	18.4
Institutional	85.4	85.5	88.9	87.7	89.4	90.9	86.7	70.6	34.0	97.1	97.5	36.3	81.6
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[#] Comprises market maker trading and EP proprietary trading.

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

4. DISTRIBUTION OF OVERSEAS INVESTOR TRADING BY ORIGIN

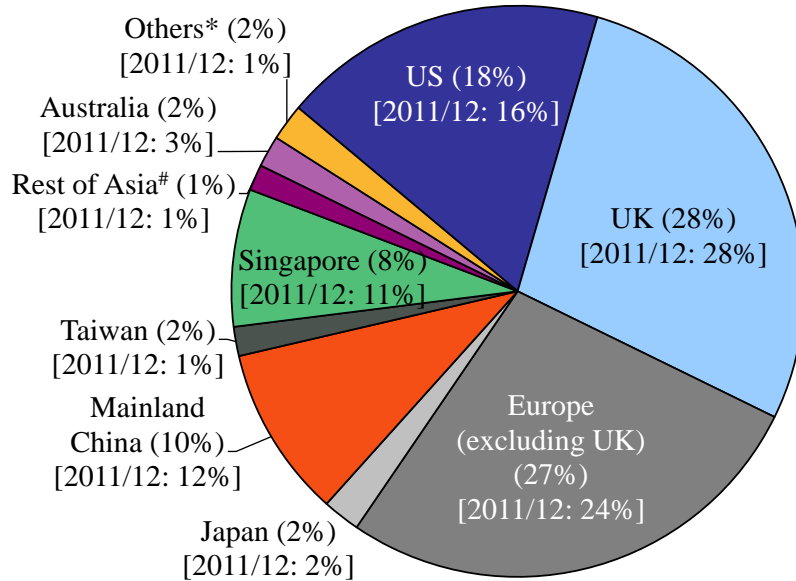
4.1 Overall pattern

Overseas investors in aggregate contributed 27% of total market turnover in 2012/13, and experienced a year-on-year decrease of 1% in contract volume, the first decline in the past decade. *UK investors* and *European (excluding UK) investors* were the two largest contributor groups — 28% and 27% respectively of overseas investor trading in 2012/13 (compared to 28% and 24% respectively in 2011/12), or 8% and 7% respectively of total market turnover (compared to 7% and 6% respectively in 2011/12). *US investors* ranked third — 18% (compared to 16% in 2011/12) or 5% of total market turnover (compared to 4% in 2011/12). In terms of contract volume, both US investor trading and Continental European investor trading recorded a year-on-year volume growth — 16% and 10% respectively in 2012/13 — while UK investor trading volume decreased by 1%. Over the past decade, overseas investor trading from Continental Europe grew at a CAGR of 41%, higher than the CAGRs of investor trading from the UK (27%) and the US (22%).

The aggregate contribution in 2012/13 from *Asian investors* (Mainland China, Singapore, Japan, Taiwan and the Rest of Asia) was 23% of overseas investor trading (further down from 33% in 2010/11 and 28% in 2011/12) or 6% of total market volume (compared to 7% in 2011/12). Their aggregate contract volume decreased by 21%, the first decline since 2004/05. The majority of the Asian contribution came from Mainland China and Singaporean investors — 10% and 8% respectively of overseas investor trading in 2012/13, or 3% and 2% respectively of total market volume. Mainland investor trading volume decreased by 22% in 2012/13, the first decline in the past decade, but attained a CAGR of 26% over the decade. The contract volume of Singaporean investors, another key contributor to Asian investor trading, decreased by 33% in 2012/13 and recorded a CAGR of 15% in the past decade.

(See Figures 9 – 12.)

Figure 9. Distribution of overseas investor trading volume in derivatives by origin (Jul 2012 – Jun 2013)

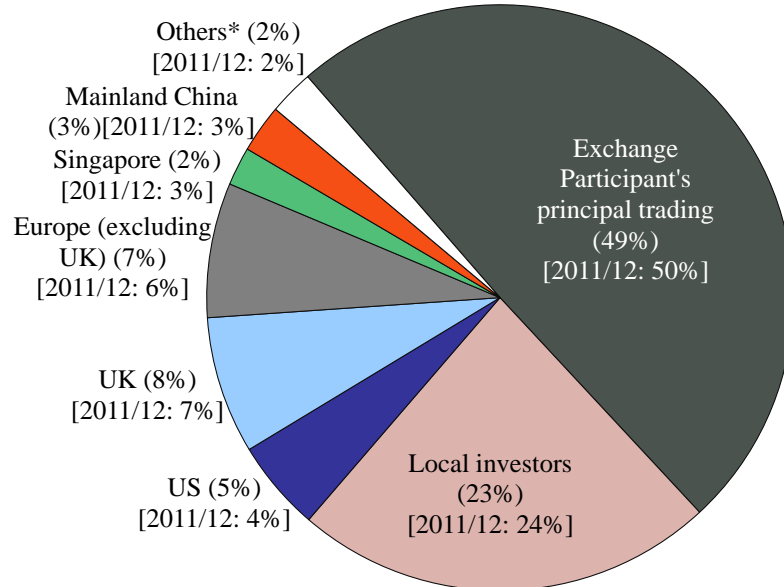


Reported origins in “Rest of Asia” in 2012/13 are India, Indonesia, Macau, Malaysia, Philippines, South Korea and Thailand.

* Reported origins in “Others” in 2012/13 are Africa, Bermuda, British Virgin Islands, Canada, Cayman Islands, Cook Islands, Cyprus, Liberia, Mauritius, Middle East, New Zealand and Samoa.

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

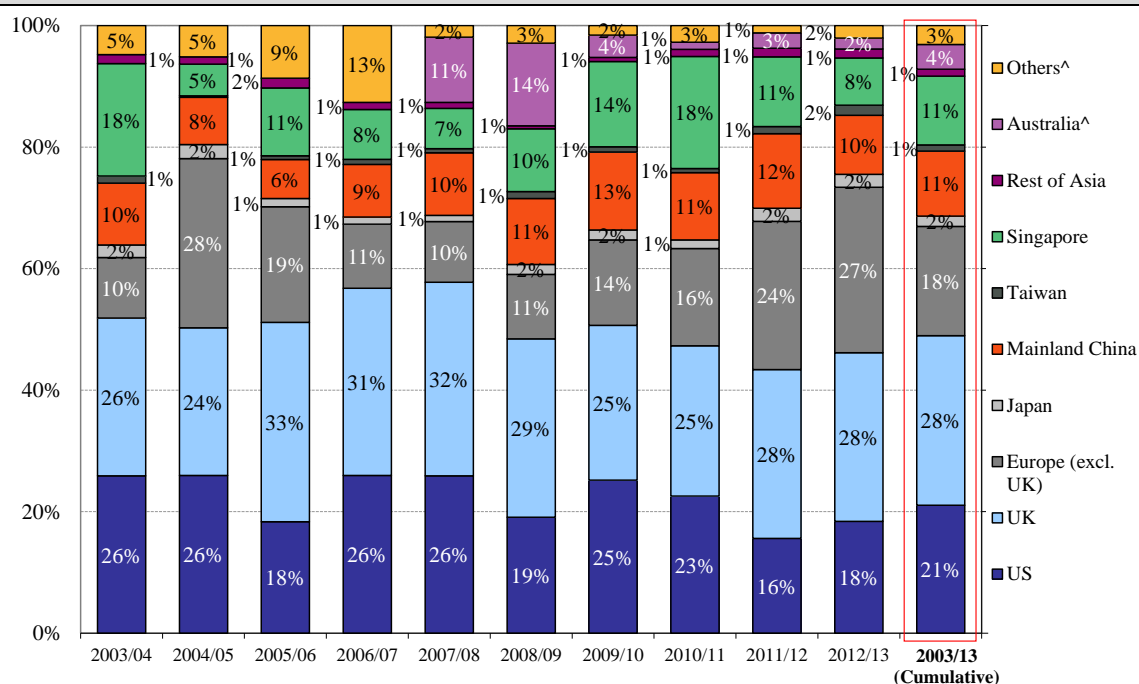
Figure 10. Distribution of derivatives market trading volume by local and overseas origins (Jul 2012 – Jun 2013)



* Others comprise investors from Australia, Japan, Taiwan, Rest of Asia and Rest of the World.

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

Figure 11. Distribution of overseas investor trading volume in derivatives by origin (2003/04 – 2012/13)

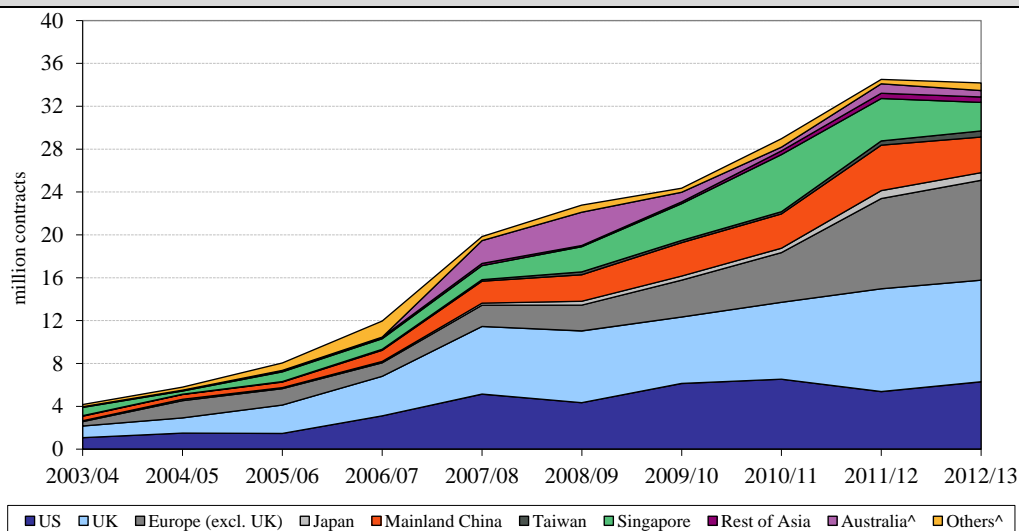


^ For surveys before 2007/08, Australia was included in “Others”.

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

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

Figure 12. Implied contract volume of overseas investor trading in derivatives by origin (2003/04 – 2012/13)



Overseas origin	Year-on-year % change										2003/13 CAGR
	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	
US	36.93%	39.59%	-1.90%	110.60%	65.43%	-15.50%	41.19%	6.61%	-17.74%	16.49%	21.61%
UK & Europe	27.16%	102.25%	37.97%	18.51%	67.89%	9.63%	5.85%	22.53%	52.55%	4.07%	32.44%
UK	56.08%	30.41%	87.33%	39.52%	71.41%	5.88%	-7.22%	15.46%	33.86%	-1.40%	27.25%
Europe (excl. the UK)	-14.31%	289.83%	-5.14%	-17.75%	57.59%	21.58%	42.07%	35.31%	81.42%	10.31%	41.28%
Asia	49.24%	-30.29%	75.63%	41.01%	62.07%	43.19%	31.25%	29.93%	3.51%	-21.17%	21.04%
Japan	23.79%	55.52%	-19.06%	29.61%	43.49%	83.44%	7.39%	4.70%	80.18%	-3.46%	26.67%
Mainland China	91.35%	5.85%	15.33%	100.38%	96.75%	21.18%	26.16%	2.51%	32.45%	-21.90%	25.64%
Taiwan	20.05%	-70.04%	230.00%	109.66%	36.92%	88.74%	-20.30%	-1.99%	97.67%	41.06%	31.39%
Singapore	56.14%	-60.61%	196.62%	9.19%	34.00%	78.66%	45.59%	56.02%	-25.84%	-33.03%	14.74%
Rest of Asia	-42.14%	10.37%	88.40%	8.39%	38.24%	-39.84%	40.38%	109.41%	41.95%	3.52%	26.16%
Australia^	-	-	-	-	-	45.21%	-71.05%	-61.50%	155.83%	-31.42%	-
Others^	15.46%	50.24%	133.24%	116.73%	-75.08%	75.32%	-42.30%	107.40%	-48.36%	72.80%	15.10%
Total	35.72%	39.27%	38.84%	48.65%	65.84%	14.77%	6.96%	18.98%	19.09%	-1.28%	26.31%

- : Not applicable ^ For surveys before 2007/08, Australia was included in “Others”.

Although the survey did not ask for a breakdown by retail/institutional investors for each overseas origin, a minimum proportion of retail/institutional investor trading from each origin could be deduced from EPs' responses. Almost all trading from the US and the UK came from institutional investors (at least 99%) and for Continental Europe as well (at least 96%). Investor trading from Japan, Australia and Singapore was also predominantly from institutional investors (over 80%). In contrast, *at least 68% of Mainland investor trading came from retail investors.* (See Table 4.)

Table 4. Minimum proportion of retail/institutional investor trading from each overseas origin (2012/13)		
Origin	Minimum proportion of the trading coming from	
	Retail investors	Institutional investors
US	~0.0%	98.7%
UK	~0.0%	99.4%
Europe (excl. UK)	1.7%	95.7%
Japan	0.2%	93.2%
Mainland China	68.6%	18.9%
Taiwan	15.9%	68.3%
Singapore	4.0%	87.2%
Australia	0.2%	91.3%

Note: The minimum proportions were deduced figures from the responses. The difference between 100% and the summation of the two figures for an origin represents the proportion of trading from that origin which could come from either retail or institutional investors.

4.2 Trading by market segment

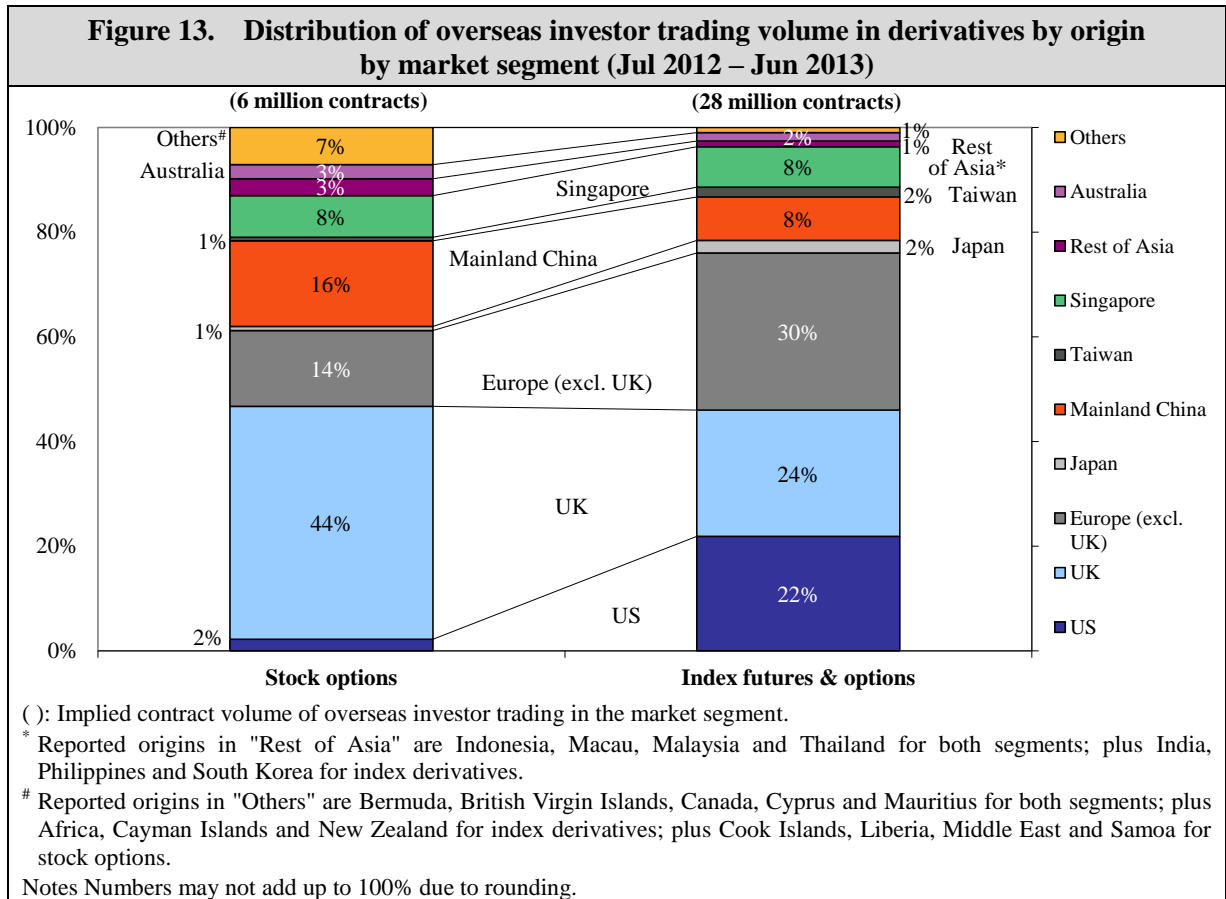
The stock options market segment is served by SOEPs while the market segment in index futures and options is served by FEPs. Overseas investor trading constituted only 10% of stock options trading but 43% of index futures and options trading. The distribution of overseas investor trading by origin for stock options also differed from that of index futures and options.

For *stock options*, the major overseas contributors were investors from the **UK** (44% of the segment's overseas investor trading, compared to 41% in 2011/12). They were followed by investors from **Mainland China** (16%, down from 28% in 2011/12) and Continental Europe (14%, up from 8% in 2011/12). In number of contracts, investor trading from the two major origins suffered year-on-year decrease — 16% decrease in UK investor trading and 54% decrease in Mainland investor trading, compared to the 22% decrease in stock options' total overseas investor trading volume. However, investor trading from Continental Europe increased by 36%.

For *index futures and options*, the major overseas contributors were **Continental European, the UK and US investors** — together contributing 76% of the segment's overseas investor trading (30%, 24% and 22% respectively, similar to the levels in 2011/12). In number of contracts, investor trading from Continental Europe and the UK increased by 8% and 6% respectively, compared to an overall overseas investor trading volume growth of 5% in index products. In comparison, US investor trading volume achieved a much higher growth of 22%.

Notably, Mainland investor trading volume experienced a year-on-year growth of 10% in index products compared to the significant drop in their stock options volume (-54%). Conversely, Singaporean investor trading volume suffered a significant drop of 38% in index derivatives but with a growth of 5% in stock options.

(See Figure 13, Table 5.)



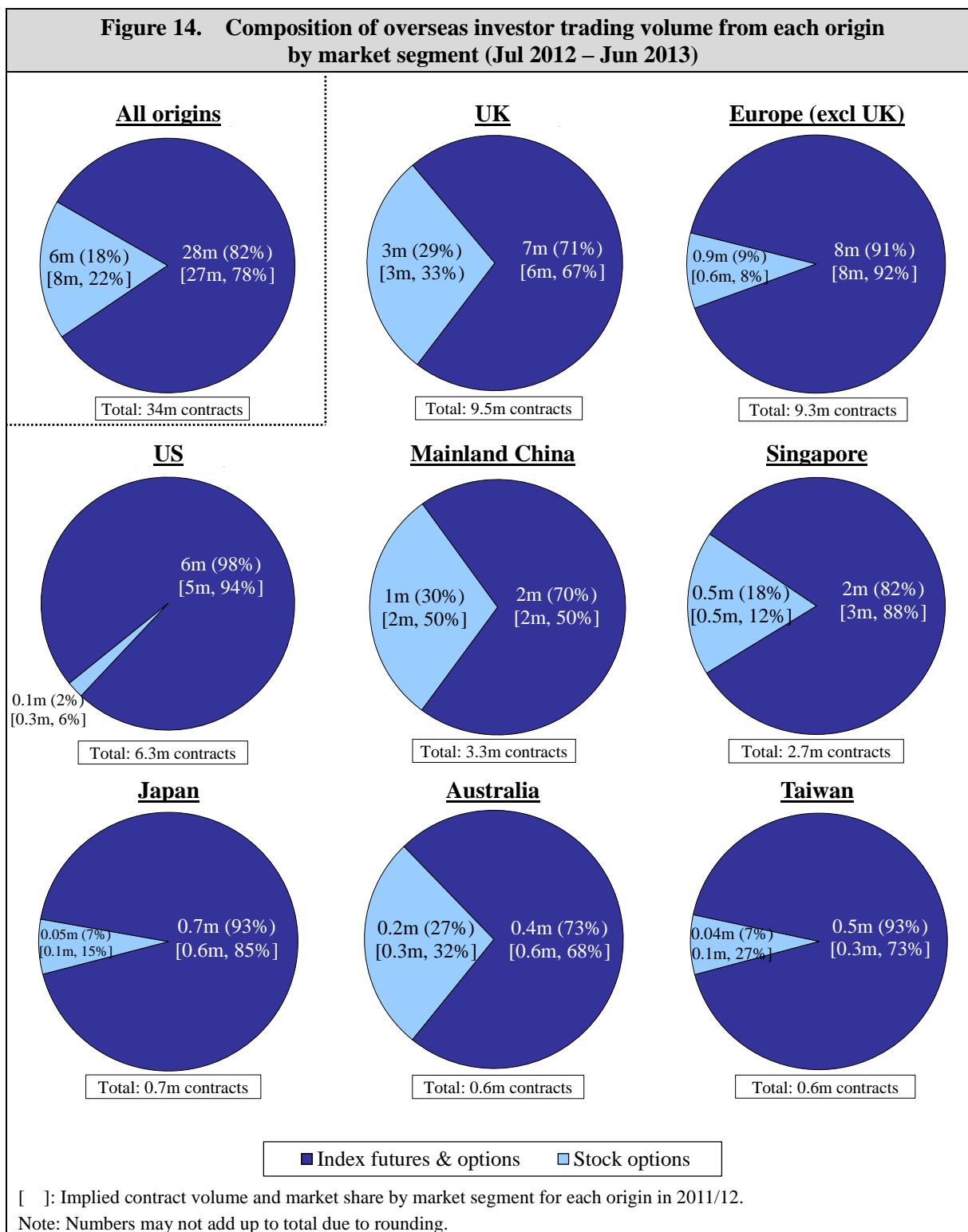
**Table 5. Distribution of overseas investor trading in derivatives by origin
(2008/09 – 2012/13)**

Overall market (All futures and options)							
Origin	Percentage contribution ⁽²⁾					Implied contract volume ⁽¹⁾ (2012/13)	
	2008/09	2009/10	2010/11	2011/12	2012/13	No. of contracts	Y-o-Y change
US	19.1	25.2	22.6	15.6	18.4	6,262,818	16.5%
Europe	40.0	39.6	40.7	52.2	55.0	18,737,295	4.1%
UK	29.4	25.5	24.7	27.8	27.8	9,455,445	-1.4%
Europe (excl. UK)	10.6	14.1	16.0	24.4	27.3	9,281,850	10.3%
Asia	24.5	30.0	32.8	28.5	22.8	7,751,105	-21.2%
Japan	1.6	1.6	1.4	2.2	2.1	723,389	-3.5%
Mainland China	10.9	12.8	11.0	12.3	9.7	3,311,459	-21.9%
Taiwan	1.1	0.8	0.7	1.2	1.7	563,162	41.1%
Singapore	10.3	14.1	18.4	11.5	7.8	2,651,084	-33.0%
Rest of Asia	0.5	0.7	1.2	1.4	1.5	502,012	3.5%
Australia	13.6	3.7	1.2	2.6	1.8	605,081	-31.4%
Others	2.9	1.6	2.7	1.2	2.1	704,939	72.8%
Total⁽¹⁾	100.0	100.0	100.0	100.0	100.0	34,061,237	-1.3%
Index futures and options							
Origin	Percentage contribution ⁽²⁾					Implied contract volume ⁽¹⁾ (2012/13)	
	2008/09	2009/10	2010/11	2011/12	2012/13	No. of contracts	Y-o-Y change
US	21.9	29.2	28.7	18.8	21.9	6,127,291	21.8%
Europe	37.3	36.1	38.2	52.9	54.2	15,163,729	7.2%
UK	27.7	20.4	19.1	23.9	24.1	6,758,686	5.9%
Europe (excl. UK)	9.7	15.8	19.1	29.1	30.0	8,405,044	8.2%
Asia	25.0	30.8	29.8	25.5	21.4	5,991,046	-12.0%
Japan	1.9	1.8	1.6	2.4	2.4	674,000	5.8%
Mainland China	10.7	12.4	9.2	7.9	8.3	2,321,282	10.2%
Taiwan	1.2	0.9	0.7	1.1	1.9	520,934	79.3%
Singapore	11.0	15.3	18.0	13.1	7.7	2,168,474	-38.0%
Rest of Asia	0.3	0.3	0.4	1.0	1.1	306,357	10.7%
Australia	14.4	3.2	1.1	2.2	1.6	442,076	-26.4%
Others	1.4	0.7	2.2	0.6	1.0	275,446	78.6%
Total	100.0	100.0	100.0	100.0	100.0	27,999,588	4.7%
Stock options							
Origin	Percentage contribution ⁽²⁾					Implied contract volume ⁽¹⁾ (2012/13)	
	2008/09	2009/10	2010/11	2011/12	2012/13	No. of contracts	Y-o-Y change
US	2.8	4.1	2.0	4.4	2.2	135,527	-60.7%
Europe	55.3	57.7	49.3	49.7	59.0	3,573,565	-7.3%
UK	39.2	52.6	43.4	41.4	44.5	2,696,759	-16.0%
Europe (excl. UK)	16.0	5.1	5.9	8.3	14.5	876,806	35.8%
Asia	21.5	25.9	42.6	39.0	29.0	1,760,059	-41.8%
Japan	0.0	0.5	1.0	1.4	0.8	49,389	-56.0%
Mainland China	12.0	15.0	17.3	27.5	16.3	990,177	-53.6%
Taiwan	0.8	0.8	0.8	1.4	0.7	42,228	-61.2%
Singapore	6.7	7.2	19.8	5.9	8.0	482,611	4.6%
Rest of Asia	2.0	2.4	3.7	2.7	3.2	195,655	-6.0%
Australia	8.8	6.2	1.5	3.6	2.7	163,006	-42.1%
Others	11.6	6.0	4.6	3.3	7.1	429,493	69.3%
Total	100.0	100.0	100.0	100.0	100.0	6,061,649	-21.9%

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

As shown in Figure 14, *overseas investor trading volume* (in number of contracts) concentrated in index products (82%, compared to 78% in 2011/12) and much less in stock options (18%, compared to 22% in 2011/12). US investors had little trading in stock options (2%) only. Compared to other origins, Mainland investors had the largest proportion of their total trading in the HKEx derivatives market devoted to stock options (30%), albeit less so than in 2011/12 (50%). UK investors and Australian investors also had a significant proportion of their trading devoted to stock options (29% and 27% respectively).

Figure 14. Composition of overseas investor trading volume from each origin by market segment (Jul 2012 – Jun 2013)



5. RETAIL ONLINE TRADING

Retail online trading as a proportion of total retail investor trading continued to grow, reaching 70% in 2012/13 from 63% in 2011/12. Its contribution to total market turnover was 15% in 2012/13, compared to 13% in 2011/12.

For stock options, the contribution of retail online trading to total retail investor trading further grew from 49% in 2011/12 to 58% in 2012/13 (from 8% of total product turnover in 2011/12 to 11% in 2012/13). The **use of online trading** by retail investors was much more prominent for index derivatives — 78% of total retail investor trading in 2012/13 (up from 72% in 2011/12) and 18% of total product turnover in 2012/13 (the same level as in 2011/12).

A total of 112 (up from 105 in 2011/12) or 49% of responding EPs (vs 48% in 2011/12) offered online trading services to retail derivatives investors (referred to as “**online brokers**”). Retail online trading accounted for 51% of online broker’s total turnover in 2012/13 (33% for stock options brokers and 72% for index derivatives brokers), up from 46% in 2011/12.

Figure 15. Market share of retail online trading in derivatives trading (2003/04 – 2012/13)

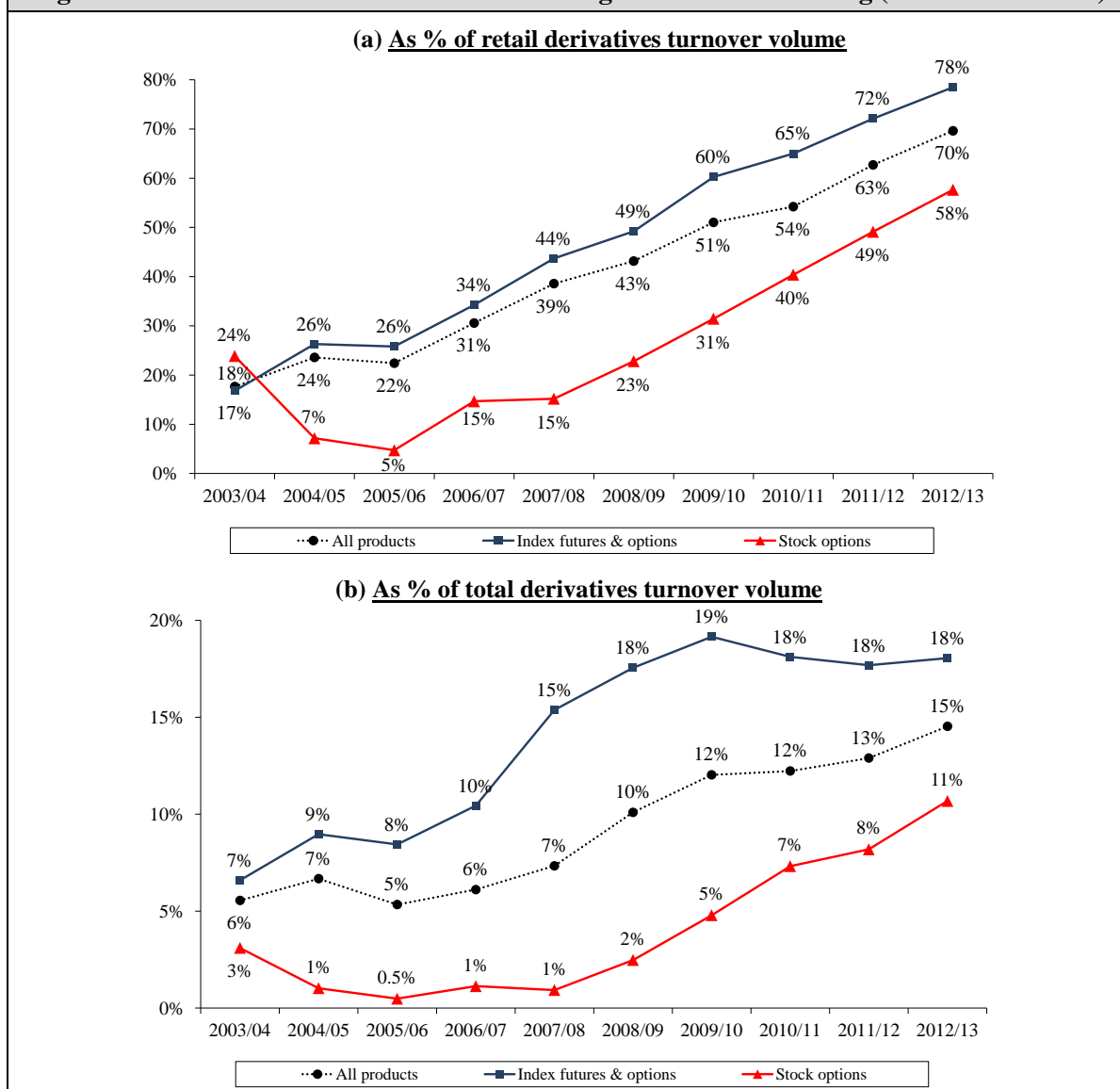


Table 6. Statistics on retail online trading in derivatives (2008/09 – 2012/13)					
Overall market (All futures and options)	2008/09	2009/10	2010/11	2011/12	2012/13
Online brokers⁽¹⁾					
Total number of online brokers	57	78	91	105	112
- As % of all responding EPs (%)	33%	39%	44%	48%	49%
Online trading					
Total implied contract volume (1-sided) ⁽⁵⁾	10,398,020	11,963,260	15,494,200	17,354,525	18,125,661
- As % of total market turnover ⁽³⁾ (%)	10.1%	12.0%	12.2%	12.9%	14.5%
- As % of total agency (investor) trading (%)	21.3%	24.0%	24.8%	25.8%	28.8%
- As % of total retail investor trading (%)	43.2%	51.0%	54.2%	62.7%	69.6%
- As % of total turnover of online brokers (%)	42.6%	54.4%	57.6%	46.3%	50.9%
Index futures and options	2008/09	2009/10	2010/11	2011/12	2012/13
Online brokers⁽¹⁾					
Total number of online brokers	52	69	77	88	90
- As % of all responding EPs (%)	42%	50%	53%	59%	59%
Online trading					
Total implied contract volume (1-sided) ⁽²⁾	9,135,894	9,602,615	10,438,395	11,798,691	11,761,364
- As % of total product turnover ⁽⁴⁾ (%)	17.6%	19.1%	18.1%	17.7%	18.0%
- As % of total product agency (investor) trading (%)	23.0%	25.7%	25.4%	25.4%	26.1%
- As % of total product retail investor trading (%)	49.2%	60.3%	65.0%	72.1%	78.5%
- As % of total product turnover of online brokers (%)	42.5%	55.9%	62.3%	65.6%	72.1%
Stock options	2008/09	2009/10	2010/11	2011/12	2012/13
Online brokers⁽¹⁾					
Total number of online brokers	5	9	14	17	22
- As % of all responding EPs (%)	10%	15%	22%	25%	29%
Online trading					
Total implied contract volume (1-sided) ⁽²⁾	1,262,126	2,360,644	5,055,805	5,555,833	6,364,296
- As % of total product turnover ⁽⁴⁾ (%)	2.5%	4.8%	7.3%	8.2%	10.7%
- As % of total product agency (investor) trading (%)	13.6%	18.9%	23.7%	26.6%	35.4%
- As % of total product retail investor trading (%)	22.8%	31.4%	40.4%	49.1%	57.6%
- As % of total product turnover of online brokers (%)	43.4%	48.8%	49.9%	28.7%	33.2%
Notes:					
(1) "Online brokers" refers to EPs offering online trading service to retail clients.					
(2) The implied contract volume of online trading is calculated by multiplying the percentage share of online trading in the responded sample for that product segment by the total product turnover volume in the market.					
(3) 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 more of the total turnover of all products in the respective survey periods.					
(4) Product turnover refers to the total turnover in number of contracts of the products under study for the product segment in the table.					
(5) The implied contract volume of online trading in the overall market is calculated by adding the implied contract volume of online trading for index futures and options and that for stock options.					

GLOSSARY

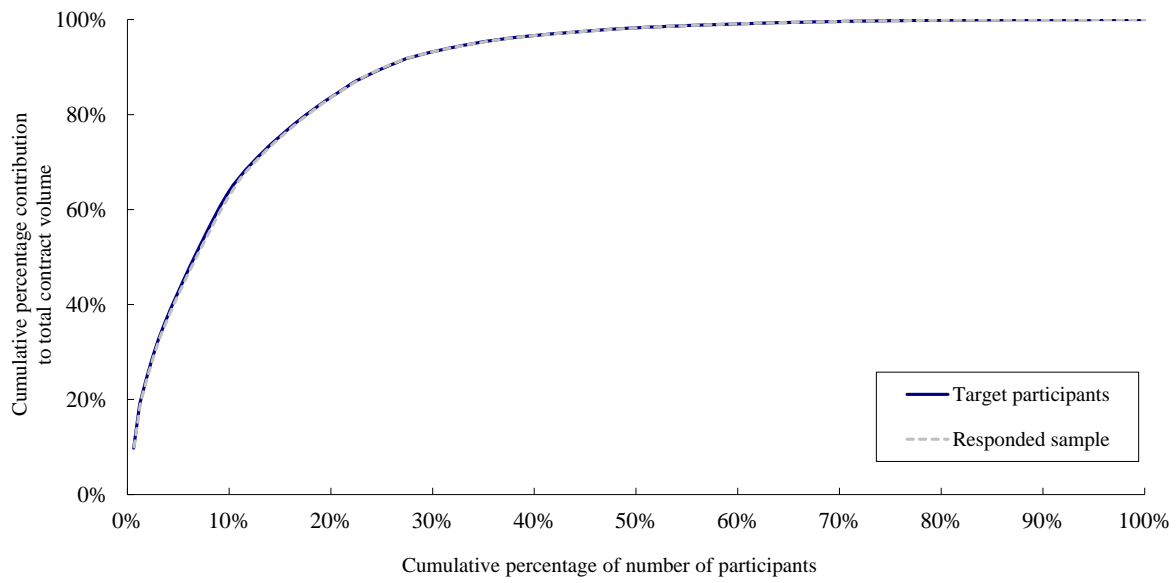
Hedging	Utilisation of futures/options to reduce or eliminate the market risk of a portfolio by compensating for the effect of price fluctuations of an underlying asset.
Pure trading	Trading for potential profit in anticipation of a price movement in either the short or long term, but not for hedging 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, i.e. comprising EP market maker trading and proprietary trading.
Agency trading	Trading on behalf of the participant firm's clients, including client trading channelled from the firm's parent or sister companies.
Market maker trading	Trading as a market maker serving for that product only, including trading by client Registered Traders (RTs) (before 1 February 2007) or corporate entities which have market making arrangement with the EP that has been granted market maker permit in the product (on and after 1 February 2007). Trading in that product using the EP's RT accounts or market making accounts for other products is excluded.
EP proprietary trading	Trading on the participant firm's own account but not as a market maker.
Individual/Retail investors	Investors who trade on their personal account.
Institutional investors	Investors who are not individual/retail investors.
Local investors	Individual/Retail investors residing in Hong Kong or institutional investors operating in Hong Kong — Hong Kong as the source of funds.
Online brokers	EPs who offer online trading service to individual/retail investors.
Overseas investors	Individual/Retail investors residing outside Hong Kong or institutional investors operating outside Hong Kong — overseas as the source of funds.
Retail online trading	Trading originating from orders entered directly by individual/retail investors and channelled to the brokers via electronic media (e.g. the Internet).
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 of contracts traded) of that product (or the aggregate turnover of all products under study) during the study period.
Notional value	The notional value of a derivatives contract is calculated by multiplying the market price of the underlying asset with the contract multiplier (i.e. the dollar amount per index point for index futures and options) or contract size (the number of underlying shares per contract for stock options). The notional value of the turnover in derivatives is the aggregated notional value of the contracts traded.

APPENDIX 1. RESPONSE RATE

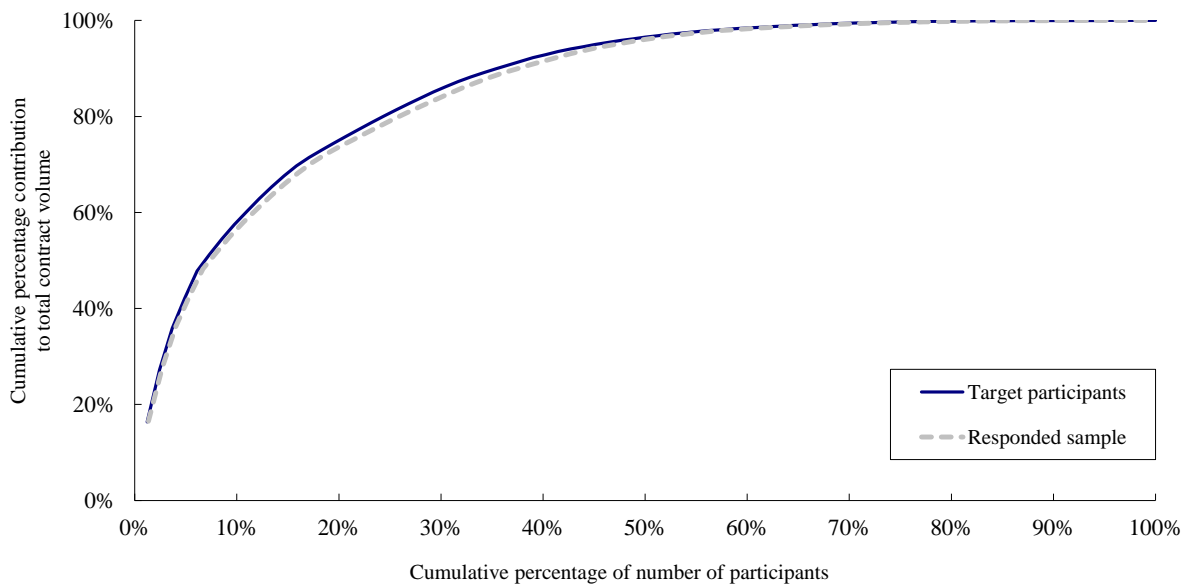
Exchange Participants	Target population	Responded participants	Response rate	% share of turnover in target population
Futures EPs	164	153	93%	98%
Stock Options EPs	82	75	91%	99%
All Participants	246	228	93%	98%

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

(a) Futures Exchange Participants (Jul 2012 – Jun 2013)



(b) Stock Options Exchange Participants (Jul 2012 – Jun 2013)



APPENDIX 3. CONTRACT SIZE AND NOTIONAL VALUE OF PRODUCTS UNDER STUDY

Product	Contract multiplier (HK\$ per index point)	Notional value per contract ⁽¹⁾ (HK\$) (as at 30 June 2013)	Turnover in notional value during the study period	
			(HK\$m)	% of total
HSI futures	50	1,040,165	20,955,694	46.1%
HSI options	50	1,040,165	9,644,522	21.2%
Mini-HSI futures	10	208,033	1,656,228	3.6%
Mini-HSI options	10	208,033	267,891	0.6%
HHI futures	50	465,572	8,333,334	18.3%
HHI options	50	465,572	3,213,452	7.1%
Mini-HHI futures	10	93,114	157,653	0.3%
Stock options	— ⁽²⁾	21,622 ⁽³⁾	1,204,302	2.7%
Overall market			45,433,075	100.0%

Notes:

(1) See glossary for the definition of notional value.

(2) The contract size for a stock options class is usually one board lot of the underlying stock except for seven option classes with contract size more than one board lot; different stocks may have different board lot sizes.

(3) The figure is the simple average of the per-contract notional values of all the stock option classes traded during the study period (ranging from HK\$1,156 to HK\$105,200), based on the stock closing prices as at 30 June 2013 or, if a stock options class was delisted prior to the end of the study period, the stock closing price on the last trading day of the stock options class.

Remark: Notional values are difficult to compile in practice as a calculation of notional values involves the market price of the underlying assets. As the market price of the underlying asset varies, a contract traded at one time may differ in notional value from the same contract traded at another time. For simplicity, the closing price of the underlying asset at a particular period end is used to calculate the notional value during the period.

APPENDIX 4. 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 2013. 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 (ie key index futures and options).
- The study period or survey period is from July 2012 to June 2013.
- Products under study were Hang Seng Index (HSI) futures, HSI options, Mini-HSI futures, Mini-HSI options (launched on 18 November 2002 and covered in the survey for the first time), H-shares Index (HHI) futures, HHI options, mini-HHI futures and stock options. These products together contributed 99.4% of the total volume of the HKEx derivatives market during the study period.
- The survey was conducted by mailed questionnaire. 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 done to ensure a high response rate, especially for Participants which were top-ranked in the target population by contract volume.
- The methodology to arrive at the relative contribution of each type of trade to the total market volume has been improved since 2008/09 by applying a weighting factor by product under study to align the responded sample with the actual market turnover composition by product. Each Participant's answers in percentage terms were first multiplied by its actual contract volume by product during the study period obtained internally to arrive at its volume in each respective trade type for each product, based on which the relative contribution of each trade type (aggregate of all responding Participants) for each product was calculated. The weighting factors by product were then applied to the aggregate trading volume of all responding Participants by trade type in the respective product under study before calculating the relative contribution of each trade type to the total market.

-
- For statistics on online trading, the total reported online trading volume of each product segment — index futures & options and stock options — was first calculated. This was done by aggregating all responding Participants' figures — each was calculated by multiplying the reported online trading percentage with that Participant's actual contract volume in the product segment. The proportion of the total reported online trading volume in the product segment to the responded sample's total trading volume in the product segment was computed (this approach was adopted since the 2008/09 survey rather than using the proportion to the target population's total as in prior surveys). The implied online trading volume was then calculated by multiplying this proportion by the actual market turnover in each of the product segments during the study period. The total implied online trading volume for the market was calculated by summing up the respective figures for the two product segments (which had different response rates from FEPs and SOEPs respectively; in surveys prior to 2009/10, no such weighting was adopted). The corresponding figures for the overall market in previous surveys were revised accordingly. The proportion of online trading volume to a specific trade type (agency or retail agency) was calculated as the ratio of the implied online trading volume to the implied contract volume of that trade type.

(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”. Six FEPs and one SOEP in the 2012/13 survey could not answer the question on trading purposes. They were excluded in the analysis of turnover by trading purpose.
- 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 SOEPs. Their degree of participation in the various derivative products varied greatly. The trading pattern of the various derivative products was also very diverse. Therefore, the non-response of particular EPs would reduce the reliability of the survey findings, especially for a particular trade type or a particular product type or Participant type with a small base. Nevertheless, the error due to non-response should be small because of the high response rate by turnover volume and the responded sample's high representativeness of the target population (see Appendix 1 and 2).
- The estimate of online trading volume in the market is subject to limitations. Firstly, online trading through banks may or may not be reflected in the responses depending on the system connection between the responding EP and the bank through which client orders are routed and the EP's own judgement. Secondly, the offer of online trading by EPs may not have an even distribution within the two target groups of FEPs and SOEPs so that non-responses would generate sampling error even though weighting by target group has been applied. Nevertheless, the second limitation is considered minimal given the high response rate in volume terms.

-
- 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-trades⁷. The total contract volume for a FEP and the proportion as market making under execution statistics may differ from that under registration statistics. Execution statistics were used for the survey.

— END —

⁷ Post-trades are trades being transferred from one broker account to another broker account or from market maker's account to non-market maker's account before clearing, no matter whether the accounts are under the same FEP firm.