Research & Corporate Development

DERIVATIVES MARKET TRANSACTION SURVEY 2010/11

November 2011

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

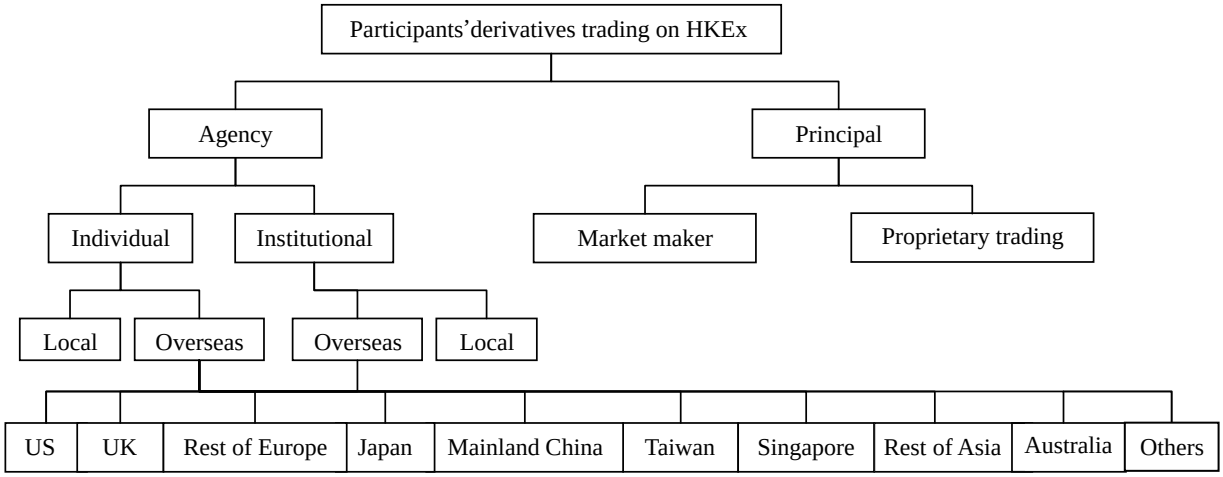
CONTENTS

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 futures and options contracts.

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. Comparison of the findings with those of the past surveys is performed to reveal any changes in trading pattern.

Classification of Exchange Participants' derivatives trading on HKEx



The survey questionnaires were mailed to all Futures EPs (FEPs) and Stock Options EPs (SOEPs) in the target population[1]. Out of the 234 questionnaires sent out, 209 completed questionnaires were returned, representing an overall response rate of 89%. 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 2010 to June 2011[2] in the major HKEx futures and options products, namely Hang Seng Index (HSI) futures, HSI options, Mini-HSI futures, H-shares Index (HHI) futures, HHI options, Mini-HHI futures (launched on 31 March 2008 and covered in the survey for the first time) and stock options. These together contributed over 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 turnover volume of the products under study.

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 (launched on 1 November 2010), HIBOR futures, Three-year Exchange Fund Note futures, stock futures, gold futures, Mini-HSI options, and flexible index (HSI and HHI) options.

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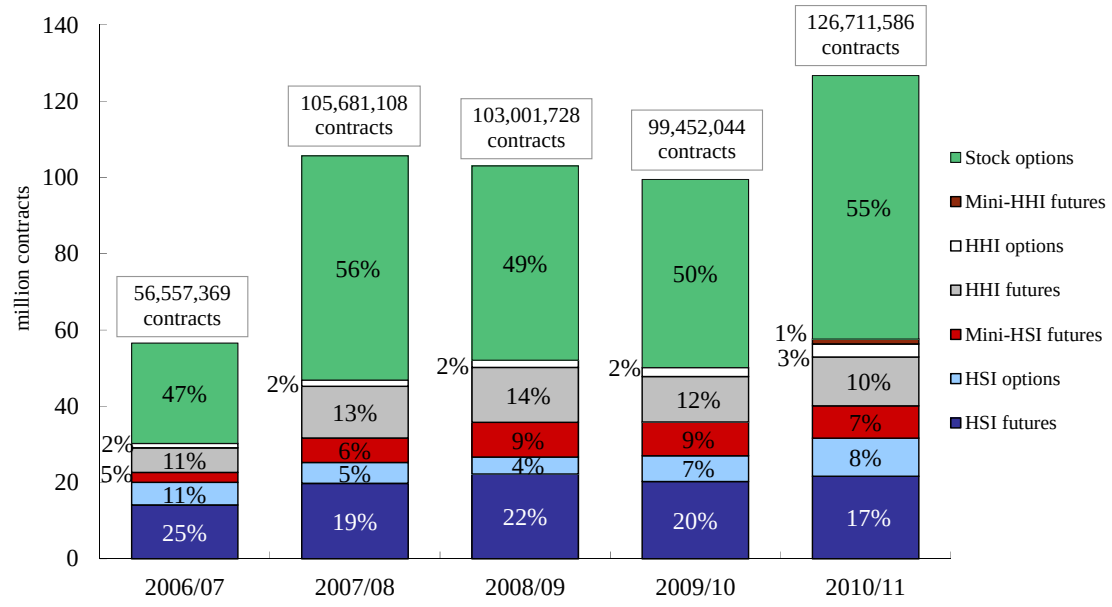
1 The target population consists of all the EPs with trading during the study period excluding those that ceased their operations before the start of the fieldwork. (See Appendix 4 for survey methodology.)

2 Referred to as the year 2010/11 throughout the report; the same convention is used for the past surveys.

In 2010/11, market turnover (products under study only) increased 27% to 127 million contracts from 2009/10. The increase in market turnover mainly reflected a significant volume growth in stock options (40%, from 49 million contracts in 2009/10 to 69 million contracts in 2010/11) and also in HSI options (48%, from 7 million contracts to 10 million contracts). Excluding Mini-HHI futures which was newly included in the survey, other products under study also increased in turnover in 2010/11 compared to 2009/10 (HSI futures: +7%, HHI futures: +8%, HHI Options: +43% from a small base) except Mini-HSI futures (-4%). Stock options remained the dominant contributor to derivatives market turnover (55%, up from 50% in 2009/10). *(See Figure 1.)*

Figure 1. Contract volume and percentage of total by product under study (2006/07 – 2010/11)



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

Due to the dominance of the stock options market segment by contract volume, the overall trading pattern of the HKEx derivatives market would be largely influenced by that of stock options, which is very different from that of other derivative products (see key findings in section 2). 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/other derivative products 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 volume[3]") 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).

[3] See glossary for the definition of implied contract volume.

2. KEY FINDINGS

Trading by transaction purpose (See section 3.1)

(1) Overall, ***pure trading*** and ***hedging*** were the two main transaction purposes of derivatives trading in 2010/11. The contribution of pure trading in 2010/11 was 44% of total market turnover (up from 39% in 2009/10) and that of hedging was 42% (down from 45% in 2009/10). ***Arbitrage*** turnover accounted for 14% of the overall market turnover in 2010/11, compared to 16% in 2009/10.

(2) A significant increase in the proportion of ***pure trading*** in 2010/11 was observed across all futures products under study. The proportion of pure trading was the highest for trading in Mini-HSI futures (72%). This trading purpose was also the most significant for trading in other index futures — Mini-HHI futures (64%), HSI futures (60%) and HHI futures (51%).

(3) The proportion of **hedging** was the highest for trading in HHI options (60%, up from 56% in 2009/10) and it also accounted for half of stock option trading. Its proportion in the trading of HSI options was much lower (39%, down from 45% in 2009/10).

(4) The proportion of ***arbitrage*** was the highest for trading in HSI options (22%, up from 17% in 2009/10); it ranged from 5%-16% for other products under study.

(5) In ***number of contracts***, a year-on-year growth in the contract volume for ***pure trading*** for each of the products under study (excluding Mini-HHI futures which was included in the survey for the first time) was observed, in particular, for stock options (68%), HSI options (54%) and HHI futures (44%). Given the dominance of stock options, the total derivatives market contract volume for pure trading increased by 42% from 2009/10. An increase in the contract volume for ***hedging*** was observed for trading in option products only — HHI options (53%), stock options (31%) and HSI options (28%). Overall trading for hedging purpose increased by 18% from 2009/10. A significant increase in the contract volume for ***arbitrage*** was observed for trading in HSI options (87%) and HHI options (72%). However, overall derivatives trading for arbitrage purpose increased by only 17%.

Trading by investor type (See section 3.2)

(6) In 2010/11, the distribution of overall derivatives market trading by investor type (EP principal trading, local retail/institutional investors and overseas retail/institutional investors) was similar to that in 2009/10.

(7) Turnover in HKEx's derivatives market was almost ***equally shared by EP principal trading*** (comprising market maker trading and EP proprietary trading) ***and agency (investor) trading***. EP principal trading accounted for 51% of total market volume (compared to 50% in 2009/10) — 39% from market maker trading (vs 36% in 2009/10) and 12% from EP proprietary trading (14% in 2009/10). Over the past decade, EP principal trading contributed 51% of the cumulative market turnover.

(8) EP principal trading remained dominant in stock option trading (69%, down from 75% in 2009/10) but contributed only 29% (up from 26% in 2009/10) in other derivatives. ***The majority of EP principal trading came from stock options*** — stock options contributed more than 55% of the total market turnover but its EP principal trading contributed 74% to total EP principal trading in derivatives and 89% of market making.

(9) The contribution from ***institutional investors*** (local and overseas) to total market turnover was 27% in 2010/11, the same as in 2009/10 but higher than the 24% in 2008/09. Their cumulative market share in the past decade was 26%. ***Retail investors***' contribution (local and overseas) was quite steady at 23% in 2010/11, compared to 24% in 2008/09 and 23% in 2008/09. Their cumulative market share in the past decade was 23%.

(10) The contribution from ***overseas investors*** stood at 23% (20% from institutions) in 2010/11 and was comparable to 24% in 2009/10 and 22% in 2008/09. Their cumulative market share in the past decade was 22%. The contribution from ***local investors*** was 26% in 2010/11 (20% from retail and 6% from institutions), similar to the levels in 2009/10 and 2008/09. Over the past decade, local investors contributed 26% of the cumulative market turnover.

(11) The trading distribution by investor type differed ***by product***:

- For ***HSI futures***, the contribution from overseas institutional investors was the most significant and was the highest level in the past five years — 43%, further up from 39% in 2009/10. Local retail investors were also significant but their contribution further decreased to 25% in 2010/11 from 30% in 2009/10 and 32% in 2008/09. The contribution from EP principal trading was quite steady in past few years (21% in 2010/11, compared to a range of 19%-21% between 2007/08 and 2009/10).

- For ***HHI futures***, overseas investors contributed the majority of the product's trading. Their contribution increased continuously in the past few years from 45% in 2006/07 to 60% in 2010/11, mainly from overseas institutional investors (57% in 2010/11).

- For ***Mini-HSI futures***, local retail investors remained the major participant type, contributing 49% of the product's turnover in 2010/11 (compared to 47% in 2009/10). The contribution from overseas institutional investors stood at 18% in 2010/11 after growing steadily from 2% in 2006/07 to 19% in 2009/10.

- For ***Mini-HHI futures***, as in the case of Mini-HSI futures, local retail investors were the dominant participant type, contributing 53% of the product's turnover in 2010/11. The contribution from EP principal trading was also significant — 31% in 2010/11. Overseas retail and institutional investors contributed respectively 8% and 6% of the product's turnover. The contribution from local institutional investors was minimal (1%).

- For ***HHI options***, EP principal trading were the major contributor, contributing 45% of the product's turnover in 2010/11 (further up from 38% in 2009/10) — 28% from market maker trading and 16% from EP proprietary trading. The contribution from local institutional investors and overseas institutional investors were also significant — 26% (up from 20% in 2009/10) and 23% (down from 29% in 2009/10) respectively in 2010/11.

- EP principal trading dominated the turnover of ***stock options*** (69%) and was also the most significant contributor to ***HSI options*** (52%). Local retail investors had become increasingly significant contributors for both products — for stock options, their contribution further grew to 17% in 2010/11, from 10% in 2008/09 and 13% in 2009/10; for HSI options, their contribution stood at 23%, after a gradual increase from 15% in 2006/07.

(12) In summary, ***overseas investors (predominantly institutional)*** were significant contributors to trading in the regular index futures products and much less so in option products. ***Local retail investors*** were the most significant contributors to trading in mini-futures products and had an increasing participation in the option products (mainly in stock options and HSI options).

(13) In ***number of contracts***, a year-on-year volume growth of 30% was observed for EP principal trading, 31% for local investor trading and 19% for overseas investor trading in 2010/11, compared to the 27% increase in the total derivatives market turnover. Particularly strong growth was observed for local institutional investors (46%), albeit their turnover was relatively small. Notably, overseas investor trading volume continued its year-on-year growth for the past ten years.

Trading by overseas investors by origin (See section 3.3)

(14) Among overseas investors, ***UK investors*** were the largest contributor to overseas investor trading (25% in 2010/11, the same as in 2009/10). They were followed by ***US investors*** (23% in 2010/11, down from 25% in 2009/10). The contribution from ***Singaporean investors*** ranked third (18%, up from 14% in 2009/10). The contributions from European (excluding UK) and Mainland China investors were also significant (16% and 11% respectively in 2010/11, compared to 14% and 13% respectively in 2009/10).

(15) The aggregate contribution to overseas investor trading from ***Asian investors*** (Mainland China, Singapore, Japan, Taiwan and the Rest of Asia) continued its growth, reaching 33% in 2010/11 and up from 20% four years ago. The majority of the Asian contribution came from ***Singaporean*** and ***Mainland China*** investors (18% and 11% respectively).

(16) Overseas investor trading from the US, the UK, Continental Europe, Singapore (over 90% for each), Japan (over 87%) and Australia (over 75%) came predominantly from institutional investors. On the contrary, at least ***65% of Mainland investor trading came from retail investors***.[4]

(17) The distribution of ***overseas investor trading by origin for stock options*** was different from that of other derivative product types. US investors contributed only 2% of overseas investor trading for stock options but 23% for other derivatives. UK investors contributed 43% for stock options but 19% for other derivatives.

(18) Notably, the contribution of ***Singaporean investors in stock options' overseas investor trading*** increased significantly from 7% in 2009/10 to 20% in 2010/11[5] and that of ***Mainland investors*** increased slightly from 15% in 2009/10 to 17% in 2010/11, resulting in a significant growth in the contribution from all Asian investors from 26% in 2009/10 to 43% in 2010/11. Nevertheless, overseas investor trading contributed only 10% to total stock options trading but 39% to other derivatives trading; in terms of contracts, overseas investor trading in stock options was about 30% of that in other derivatives.

[4] Although the survey did not ask for a breakdown by retail/institutional investors for each overseas origin, a minimum proportion of retail/institutional investors trading from each origin could be deduced from EPs' responses.

[5] This owed very much to an SOEP which reported significant trading from Singaporean investors in 2010/11 but reported no trading from such investor origin in 2009/10.

(19) ***In terms of contracts***, trading from all the origins under study recorded year-on-year growth, except Taiwan (down 2%) and Australia (down 62%). In particular, trading from Mainland China investors continued its year-on-year growth for the tenth consecutive year, even its overall contribution to overseas investor trading decreased by two percentage points from 2009/10.

Retail online trading (See section 3.4)

(20) ***Retail online trading*** as a proportion of total retail investor trading continued to grow in 2010/11, reaching 54% in 2010/11 from 51% in 2009/10. Its contribution to total market turnover was 12% in 2009/10, similar to the level in 2009/10.

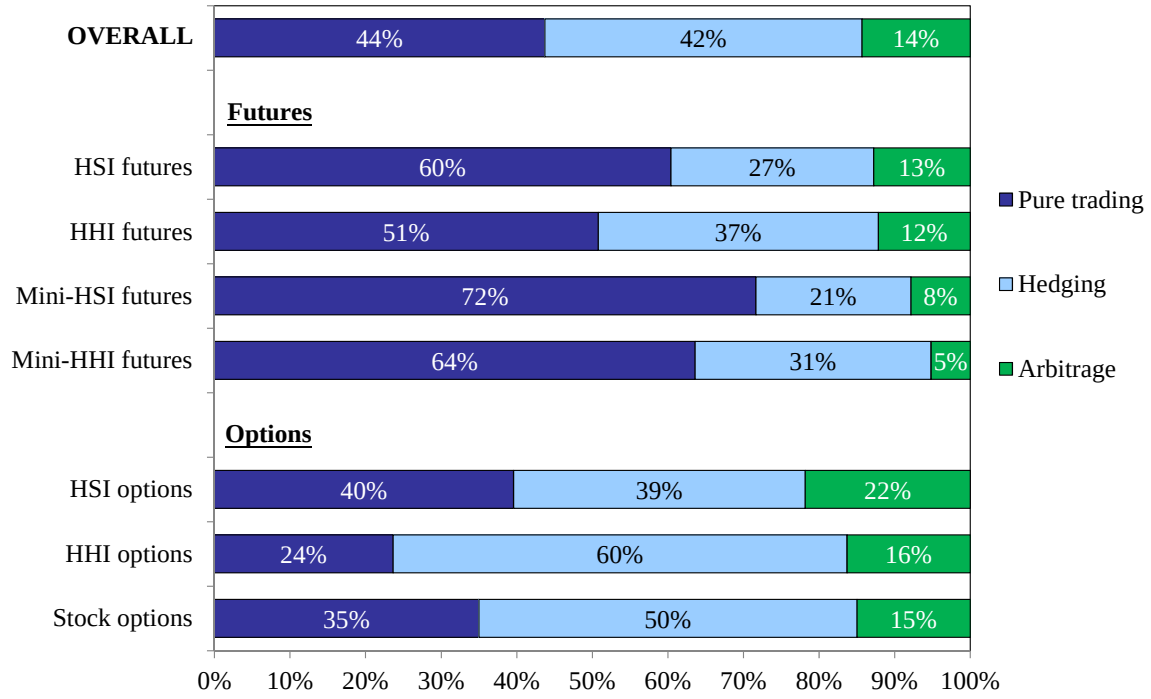
(21) For stock options, the contribution of retail online trading to total retail investor trading grew further from 31% in 2009/10 to 40% in 2010/11 (from 5% of total product turnover in 2009/10 to 7% in 2010/11). The ***use of online trading*** by retail investors was even more prominent for other derivatives — 65% of total retail investor trading in 2010/11 (up from 60% in 2009/10) and 18% of total product turnover in 2010/11 (19% in 2009/10). Moreover, retail investor trading contributed only 18% to total stock options trading but 28% to other derivatives trading.

(22) A total of 91 (up from 78 in 2009/10) or 44% of responding EPs (vs 39% in 2009/10) offered online trading services to retail derivatives investors (referred to as "***online brokers***"). Retail online trading accounted for the majority (58%) of online brokers' total turnover in 2010/11 (50% for stock options brokers and 62% for other derivatives brokers), up from 54% in 2009/10.

3. FIGURES AND TABLES

3.1 Distribution of trading by transaction purpose

Figure 2. Transaction purposes for overall derivatives market and each product (in volume terms) (Jul 2010 – Jun 2011)



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

Table 1. Transaction purposes for overall derivatives market and each product (2006/07 – 2010/11)

Product	Purpose	Percentage contribution [1]					Implied contract volume [2] 2010/11	
		2006/07	2007/08	2008/09	2009/10	2010/11	No. of contracts	Y-o-Y change
HSI futures	Pure trading	49.4	50.9	54.3	55.5	**60.4**	**13,062,678**	16.1%
	Hedging	33.2	36.5	32.0	32.6	**26.8**	**5,799,017**	-12.2%
	Arbitrage	17.4	12.7	13.6	11.9	**12.8**	**2,762,514**	14.8%
	Total	100.0	100.0	100.0	100.0	**100.0**	**21,624,210**	6.7%
HHI futures	Pure trading	53.2	55.2	43.7	37.8	**50.8**	**6,510,177**	44.4%
	Hedging	34.0	32.2	40.8	43.9	**37.1**	**4,750,452**	-9.1%
	Arbitrage	12.9	12.5	15.5	18.3	**12.2**	**1,558,453**	-28.7%
	Total	100.0	100.0	100.0	100.0	**100.0**	**12,819,082**	7.5%
Mini-HSI futures	Pure trading	60.9	78.2	76.9	63.9	**71.6**	**6,043,469**	7.5%
	Hedging	4.9	4.7	16.9	25.6	**20.5**	**1,731,650**	-23.2%
	Arbitrage	34.3	17.0	6.2	10.4	**7.8**	**661,231**	-28.0%
	Total	100.0	100.0	100.0	100.0	**100.0**	**8,436,350**	-4.1%
Mini-HHI futures [3]	Pure trading	-	n.a.	n.a.	n.a.	**63.6**	**835,905**	n.a.
	Hedging	-	n.a.	n.a.	n.a.	**31.2**	**410,108**	n.a.
	Arbitrage	-	n.a.	n.a.	n.a.	**5.2**	**68,141**	n.a.
	Total	-	n.a.	n.a.	n.a.	**100.0**	**1,314,153**	-
HSI options	Pure trading	39.7	39.5	47.9	38.1	**39.6**	**3,967,781**	53.7%
	Hedging	43.2	45.9	39.2	44.6	**38.6**	**3,867,598**	28.0%
	Arbitrage	17.1	14.6	12.9	17.3	**21.8**	**2,189,285**	86.7%
	Total	100.0	100.0	100.0	100.0	**100.0**	**10,024,664**	47.9%
HHI options	Pure trading	55.0	46.2	58.4	30.3	**23.6**	**806,329**	11.6%
	Hedging	28.5	35.9	34.0	56.1	**60.1**	**2,049,055**	53.2%
	Arbitrage	16.5	17.9	7.5	13.6	**16.3**	**556,204**	72.1%
	Total	100.0	100.0	100.0	100.0	**100.0**	**3,411,588**	43.2%
Futures & options (excl. stock	**Pure trading**	49.5	54.7	55.0	49.2	**54.2**	**31,226,338**	26.5%
	Hedging	32.5	31.6	32.5	36.8	**32.3**	**18,607,880**	0.9%
	Arbitrage	18.0	13.7	12.6	14.0	**13.53**	**7,795,829**	11.3%
	Total	100.0	100.0	100.0	100.0	**100.0**	**57,630,047**	14.9%
Stock options	Pure trading	47.6	29.3	28.1	29.2	**35.0**	**24,173,792**	67.8%
	Hedging	28.2	43.8	50.6	53.6	**50.0**	**34,558,722**	30.8%
	Arbitrage	24.2	26.9	21.3	17.2	**15.0**	**10,349,025**	22.2%
	Total	100.0	100.0	100.0	100.0	**100.0**	**69,081,539**	40.1%
Overall market	**Pure trading**	48.7	40.2	41.7	39.3	**43.7**	**55,400,131**	41.7%
	Hedging	30.5	38.6	41.5	45.1	**42.0**	**53,166,602**	18.5%
	Arbitrage	20.8	21.2	16.9	15.6	**14.3**	**18,144,854**	17.2%
	Total	100.0	100.0	100.0	100.0	**100.0**	**126,711,586**	27.4%
Total contract volume [4]		56,557,369	105,681,108	103,001,728	99,452,044	**126,711,586**		

– : Not applicable

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 were included in the survey for the first time in 2010/11. The product was launched on 31 March 2008 and was omitted in previous surveys due to its negligible contribution to the total market contract volume.

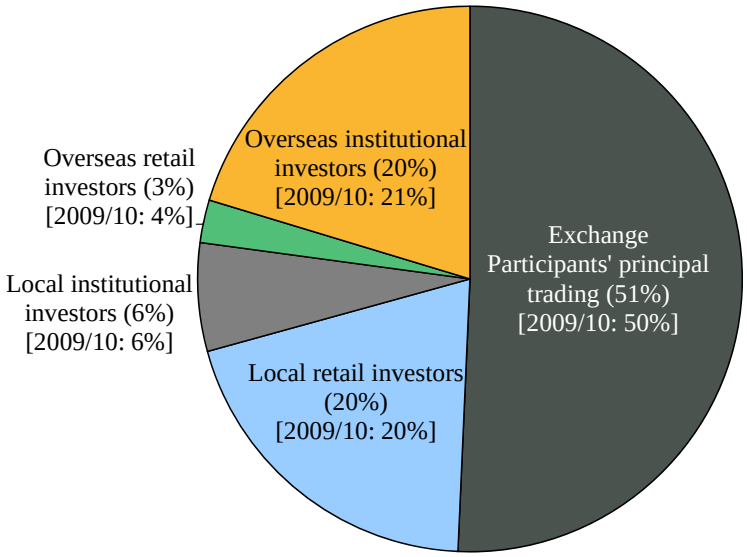
(4) Actual total contract volume of all products under study during the study period.

3.2 Distribution of trading by investor type

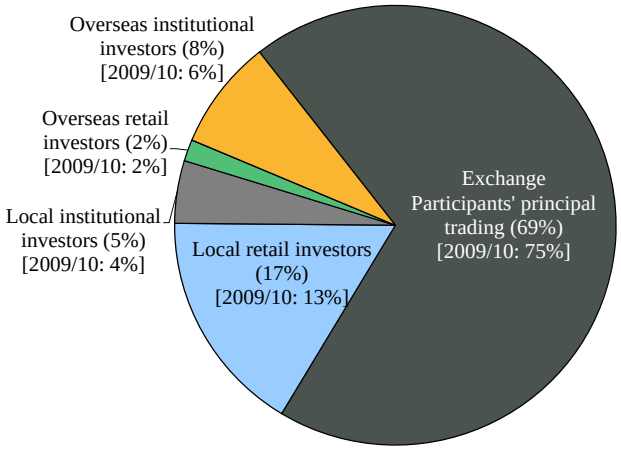
3.2.1 Overall pattern

Figure 3. Distribution of derivatives market trading volume by investor type (Jul 2010 – Jun 2011)

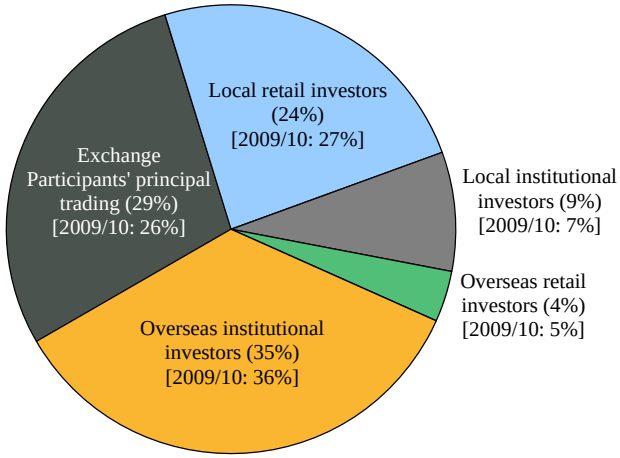
(a) Overall



(b) Stock options

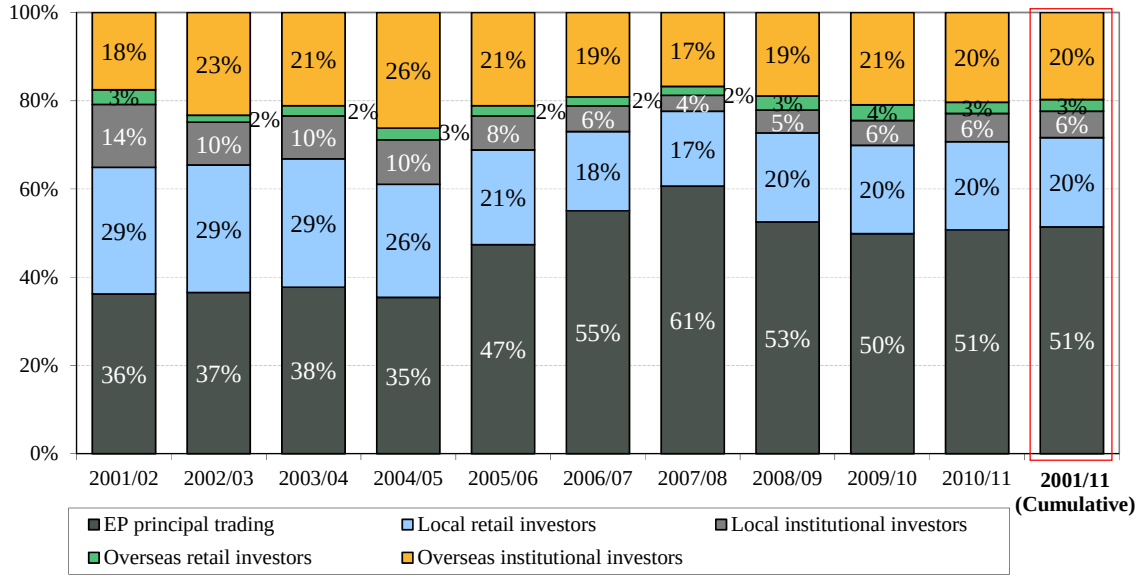


(c) Futures & options (excluding stock options)



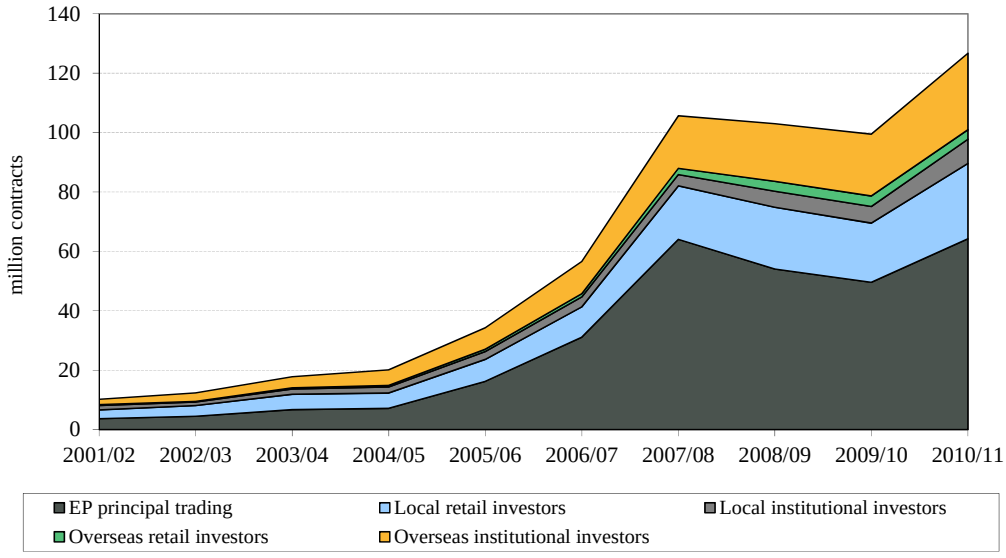
Notes: (1) Exchange Participants' principal trading comprises market maker trading and EP proprietary trading.
(2) Numbers may not add up to 100% due to rounding.

Figure 4. Distribution of derivatives market trading volume by investor type (2001/02 – 2010/11)



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.

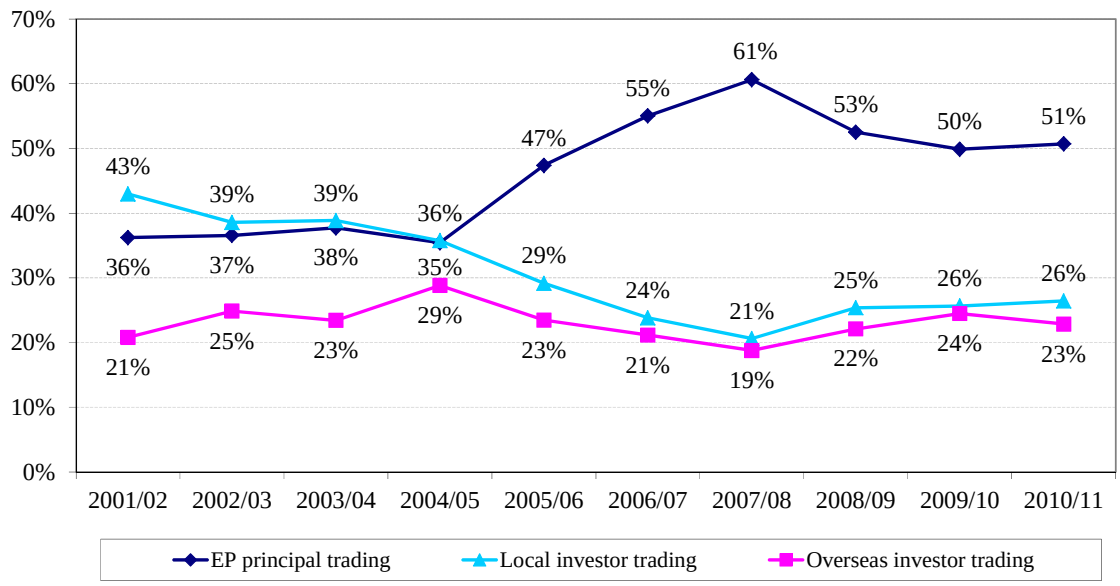
Figure 5. Implied contract volume of derivatives by investor type (2001/02 – 2010/11)



Type of trade	Year-on-year % change									
	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
EP principal trading	-25.82%	22.24%	48.70%	6.19%	128.14%	91.57%	105.85%	-15.57%	-8.30%	29.52%
Market maker	n.a.	n.a.	46.72%	5.64%	141.11%	95.95%	128.95%	-20.73%	-12.30%	36.80%
Proprietary trading	n.a.	n.a.	53.01%	7.34%	101.51%	80.79%	44.34%	6.24%	4.31%	10.22%
Local investor trading	-2.14%	8.71%	45.13%	4.10%	39.07%	34.75%	61.63%	20.05%	-2.47%	31.36%
Retail	-7.66%	21.86%	45.29%	-0.29%	42.66%	38.21%	76.70%	15.52%	-4.12%	27.35%
Institutional	11.21%	-17.72%	44.65%	17.25%	29.95%	25.07%	15.11%	41.53%	3.91%	45.67%
Overseas investor trading	39.52%	44.77%	35.72%	39.27%	38.84%	48.65%	65.84%	14.77%	6.96%	18.98%
Retail	272.57%	-40.70%	108.07%	28.55%	52.10%	39.87%	88.65%	56.14%	6.22%	-8.93%
Institutional	24.89%	60.77%	30.72%	40.45%	37.51%	49.63%	63.47%	9.81%	7.08%	23.70%
Retail investor trading	*0.06%*	*15.44%*	*48.59%*	*1.83%*	*43.54%*	*38.38%*	*77.89%*	*19.82%*	*-2.69%*	*21.89%*
Institutional investor trading	*18.36%*	*25.53%*	*34.82%*	*33.12%*	*35.41%*	*43.08%*	*52.19%*	*15.40%*	*6.40%*	*28.35%*
Total	**-7.11%**	**21.11%**	**44.10%**	**13.12%**	**70.56%**	**64.93%**	**86.86%**	**-2.54%**	**-3.45%**	**27.41%**

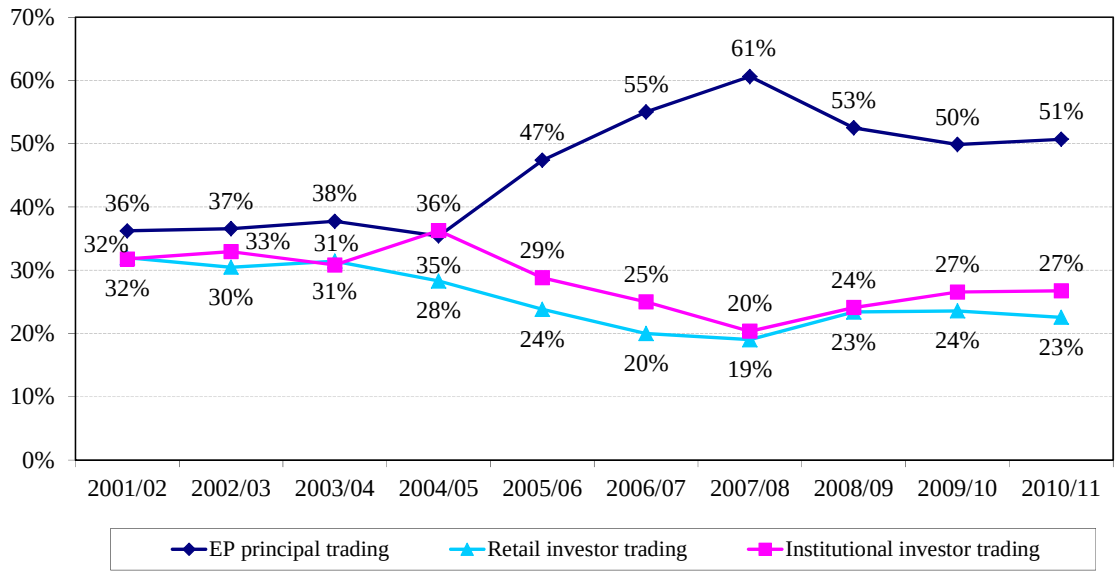
n.a.: Not available
Note: Exchange Participants' principal trading comprises market maker trading and EP proprietary trading.

Figure 6. Distribution of derivatives market trading volume by investor type (local vs overseas) (2001/02 – 2010/11)



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

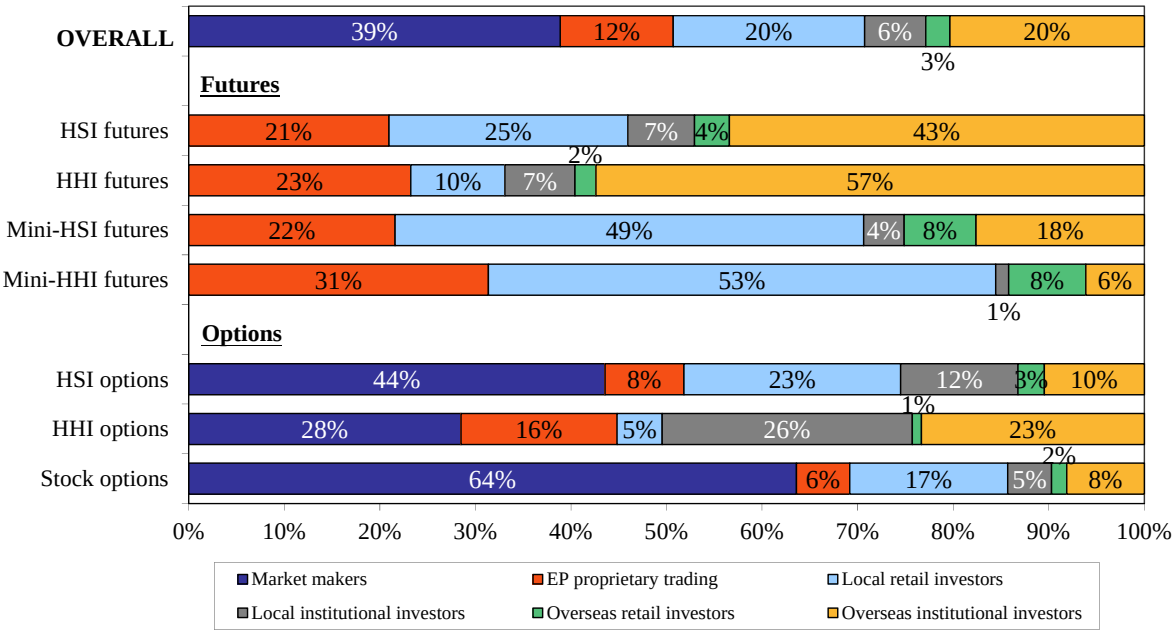
Figure 7. Distribution of derivatives market trading volume by investor type (retail vs institutional) (2001/02 – 2010/11)



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

3.2.2 By product/market segment

Figure 8. Distribution of derivatives market trading volume by investor type for overall market and each product (Jul 2010 – Jun 2011)



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 2. Distribution of derivatives trading by investor type (2006/07 – 2010/11)

Type of investor	Percentage contribution [1]					Implied contract volume [2] 2010/11	
	2006/07	2007/08	2008/09	2009/10	2010/11	No. of contracts	Y-o-Y change
HSI Futures							
Market makers	-	-	-	-	-	-	-
Proprietary trading	23.7	21.0	20.0	18.9	**21.0**	**4,530,400**	**18.4%**
Local investors	37.9	38.3	40.9	36.2	**32.0**	**6,913,986**	**-5.9%**
Retail	29.7	32.2	31.8	30.3	**25.0**	**5,408,551**	**-11.8%**
Institutional	8.2	6.1	9.1	6.0	**7.0**	**1,505,435**	**24.3%**
Overseas investors	38.4	40.7	39.2	44.9	**47.1**	**10,179,824**	**11.9%**
Retail	3.3	4.4	4.7	6.1	**3.7**	**789,548**	**-36.3%**
Institutional	35.1	36.2	34.5	38.8	**43.4**	**9,390,276**	**19.5%**
Total	100.0	100.0	100.0	100.0	**100.0**	**21,624,210**	**6.7%**
HHI Futures							
Principal trading [4]	18.0	17.6	22.3	26.4	**23.2**	**2,979,606**	**-5.3%**
Market makers	-	-	-	-	-	-	-
Proprietary trading	18.0	17.6	22.3	26.4	**23.2**	**2,979,606**	**-5.3%**
Local investors	36.7	30.8	23.9	15.7	**17.2**	**2,203,004**	**18.0%**
Retail	28.3	24.7	16.9	11.2	**9.9**	**1,263,562**	**-5.0%**
Institutional	8.4	6.1	7.0	4.5	**7.3**	**939,442**	**75.0%**
Overseas investors	45.3	51.6	53.8	58.0	**59.6**	**7,636,472**	**10.5%**
Retail	2.4	2.7	4.6	2.4	**2.2**	**278,430**	**-4.6%**
Institutional	42.9	48.9	49.2	55.5	**57.4**	**7,358,042**	**11.2%**
Total	100.0	100.0	100.0	100.0	**100.0**	**12,819,082**	**7.5%**
Mini-HSI Futures							
Market makers	-	-	-	-	-	-	-
Proprietary trading	36.4	29.3	20.5	19.7	**21.6**	**1,821,821**	**5.0%**
Local investors	54.1	60.1	61.8	52.1	**53.3**	**4,495,154**	**-2.0%**
Retail	50.0	58.3	57.6	46.5	**49.0**	**4,136,747**	**1.1%**
Institutional	4.0	1.8	4.1	5.6	**4.2**	**358,407**	**-27.2%**
Overseas investors	9.5	10.7	17.7	28.1	**25.1**	**2,119,374**	**-14.4%**
Retail	7.6	7.3	8.7	9.3	**7.5**	**634,637**	**-22.4%**
Institutional	1.9	3.4	9.0	18.9	**17.6**	**1,484,738**	**-10.5%**
Total	100.0	100.0	100.0	100.0	**100.0**	**8,436,350**	**-4.1%**
Mini-HHI Futures [3]							
Market makers	-	-	-	-	-	-	-
Proprietary trading	-	n.a.	n.a.	n.a.	**31.4**	**412,081**	n.a.
Local investors	-	n.a.	n.a.	n.a.	**54.5**	**715,681**	n.a.
Retail	-	n.a.	n.a.	n.a.	**53.1**	**697,734**	n.a.
Institutional	-	n.a.	n.a.	n.a.	**1.4**	**17,948**	n.a.
Overseas investors	-	n.a.	n.a.	n.a.	**14.2**	**186,391**	n.a.
Retail	-	n.a.	n.a.	n.a.	**8.1**	**105,980**	n.a.
Institutional	-	n.a.	n.a.	n.a.	**6.1**	**80,412**	n.a.
Total	-	n.a.	n.a.	n.a.	**100.0**	**1,314,153**	-
HSI Options							
Principal trading [4]	46.5	56.0	51.1	47.0	**51.8**	**5,195,587**	**63.0%**
Market makers	39.3	47.3	42.2	39.0	**43.6**	**4,366,048**	**65.2%**
Proprietary trading	7.2	8.7	8.8	8.0	**8.3**	**829,539**	**52.5%**
Local investors	28.6	21.2	31.8	34.6	**35.0**	**3,505,374**	**49.5%**
Retail	15.1	16.1	19.9	22.5	**22.7**	**2,273,688**	**48.9%**
Institutional	13.5	5.1	11.9	12.1	**12.3**	**1,231,686**	**50.6%**
Overseas investors	24.9	22.8	17.1	18.4	**13.2**	**1,323,703**	**6.3%**
Retail	1.0	2.6	2.6	3.0	**2.7**	**274,971**	**36.9%**
Institutional	23.9	20.2	14.6	15.4	**10.5**	**1,048,732**	**0.5%**
Total	100.0	100.0	100.0	100.0	**100.0**	**10,024,664**	**47.9%**
HHI Options							
Principal trading [4]	28.0	34.9	33.9	37.8	**44.8**	**1,529,231**	**69.8%**
Market makers	18.8	23.4	21.6	22.8	**28.5**	**971,866**	**79.1%**
Proprietary trading	9.2	11.5	12.3	15.0	**16.3**	**557,365**	**55.7%**
Local investors	28.4	26.5	35.1	30.6	**30.9**	**1,053,755**	**44.3%**
Retail	10.1	13.1	14.5	10.3	**4.7**	**160,941**	**-34.4%**
Institutional	18.3	13.3	20.5	20.3	**26.2**	**892,814**	**84.1%**
Overseas investors	43.6	38.6	31.1	31.6	**24.3**	**828,602**	**10.2%**
Retail	1.1	2.9	3.1	2.3	**1.0**	**32,655**	**-40.9%**
Institutional	42.5	35.8	27.9	29.2	**23.3**	**795,947**	**14.2%**
Total	100.0	100.0	100.0	100.0	**100.0**	**3,411,588**	**43.2%**
Futures & options (excl. stock options)							
Principal trading [4]	28.3	25.7	23.8	25.5	**28.6**	**16,468,725**	**28.7%**
Market makers	8.5	6.2	4.4	6.4	**9.3**	**5,337,914**	**67.5%**
Proprietary trading	19.8	19.4	19.5	19.2	**19.3**	**11,130,811**	**15.9%**
Local investors	36.8	36.8	38.9	33.6	**32.8**	**18,886,955**	**11.9%**
Retail	27.5	31.1	30.5	26.6	**24.2**	**13,941,222**	**4.6%**
Institutional	9.3	5.6	8.3	7.1	**8.6**	**4,945,732**	**39.6%**
Overseas investors	34.9	37.6	37.3	40.8	**38.7**	**22,274,367**	**8.8%**
Retail	3.0	4.1	5.1	5.2	**3.7**	**2,116,220**	**-18.8%**
Institutional	31.9	33.5	32.2	35.6	**35.0**	**20,158,147**	**12.8%**
Total	100.0	100.0	100.0	100.0	**100.0**	**57,630,047**	**14.9%**

(to be continued on next page)

Table 2. Distribution of derivatives trading by investor type (2006/07 – 2010/11) (cont'd)

Type of investor	Percentage contribution [1]					Implied contract volume [2] 2010/11	
	2006/07	2007/08	2008/09	2009/10	2010/11	No. of contracts	Y-o-Y change
Stock options							
Principal trading [4]	86.3	88.6	81.8	74.7	**69.2**	**47,781,625**	**29.8%**
Market makers	76.9	83.2	76.1	66.6	**63.6**	**43,934,207**	**33.8%**
Proprietary trading	9.4	5.4	5.7	8.1	**5.6**	**3,847,418**	**-3.4%**
Local investors	8.6	7.7	11.6	17.5	**21.1**	**14,603,185**	**69.4%**
Retail	6.8	5.7	9.6	13.4	**16.5**	**11,419,592**	**73.4%**
Institutional	1.8	2.0	2.0	4.1	**4.6**	**3,183,593**	**56.3%**
Overseas investors	5.1	3.7	6.6	7.8	**9.7**	**6,696,729**	**73.0%**
Retail investors	0.9	0.4	1.3	1.9	**1.6**	**1,095,009**	**18.9%**
Institutional investors	4.3	3.4	5.3	6.0	**8.1**	**5,601,721**	**90.0%**
Total	100.0	100.0	100.0	100.0	**100.0**	**69,081,539**	**40.1%**
Overall market							
Principal trading [4]	55.0	60.6	52.5	49.9	**50.7**	**64,250,350**	**29.5%**
Market makers	40.0	49.0	39.9	36.2	**38.9**	**49,272,121**	**36.8%**
Proprietary trading	15.0	11.6	12.6	13.7	**11.8**	**14,978,229**	**10.2%**
Local investors	23.8	20.6	25.4	25.6	**26.4**	**33,490,139**	**31.4%**
Retail investors	18.0	17.0	20.2	20.0	**20.0**	**25,360,814**	**27.3%**
Institutional investors	5.8	3.6	5.2	5.6	**6.4**	**8,129,325**	**45.7%**
Overseas investors	21.1	18.8	22.1	24.5	**22.9**	**28,971,097**	**19.0%**
Retail investors	2.0	2.0	3.2	3.5	**2.5**	**3,211,229**	**-8.9%**
Institutional investors	19.2	16.8	18.9	20.9	**20.3**	**25,759,868**	**23.7%**
Total	100.0	100.0	100.0	100.0	**100.0**	**126,711,586**	**27.4%**

– : Not applicable; 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 were included in the survey for the first time in 2010/11. The product was launched on 31 March 2008 and was omitted in previous surveys due to its negligible contribution to the total market contract volume.

(4) Principal trading comprises market maker trading and EP proprietary trading.

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

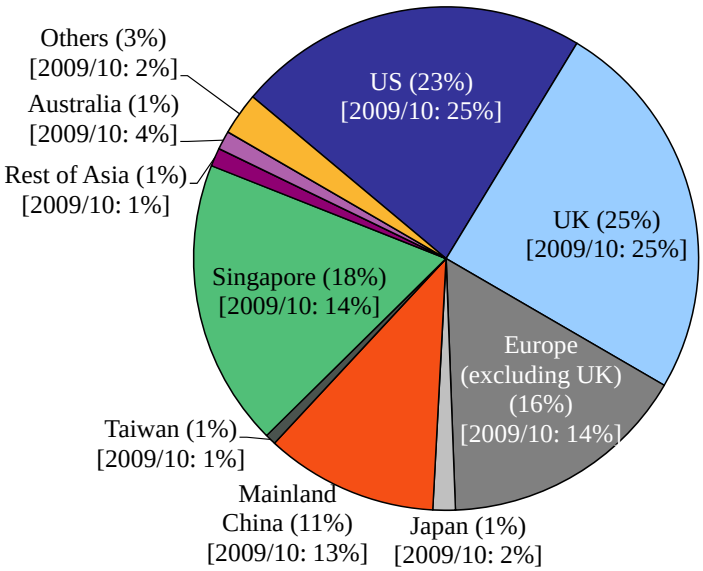
						2010/11						
	2006/07 Overall	2007/08 Overall	2008/09 Overall	2009/10 Overall	2010/11 Overall	HSI futures	HSI options	Mini-HSI futures	HHI futures	HHI options	Mini-HHI futures	Stock options
All trading												
Principal[#]	55.0	60.6	52.5	49.9	**50.7**	21.0	51.8	21.6	23.2	44.8	31.4	69.2
Agency	45.0	39.4	47.5	50.1	**49.3**	79.0	48.2	78.4	76.8	55.2	68.6	30.8
	100.0	100.0	100.0	100.0	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agency trading												
Local	53.0	52.3	53.5	51.1	**53.6**	40.4	72.6	68.0	22.4	56.0	79.3	68.6
Overseas	47.0	47.7	46.5	48.9	**46.4**	59.6	27.4	32.0	77.6	44.0	20.7	31.4
	100.0	100.0	100.0	100.0	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Agency trading												
Retail	44.4	48.3	49.3	47.0	**45.7**	36.3	52.8	72.1	15.7	10.3	89.1	58.8
Institutional	55.6	51.7	50.7	53.0	**54.3**	63.7	47.2	27.9	84.3	89.7	10.9	41.2
	100.0	100.0	100.0	100.0	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Retail investor trading												
Local	90.0	89.4	86.2	85.0	**88.8**	87.3	89.2	86.7	81.9	83.1	86.8	91.3
Overseas	10.0	10.6	13.8	15.0	**11.2**	12.7	10.8	13.3	18.1	16.9	13.2	8.7
	100.0	100.0	100.0	100.0	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Institutional investor trading												
Local	23.3	17.6	21.6	21.1	**24.0**	13.8	54.0	19.4	11.3	52.9	18.2	36.2
Overseas	76.7	82.4	78.4	78.9	**76.0**	86.2	46.0	80.6	88.7	47.1	81.8	63.8
	100.0	100.0	100.0	100.0	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Local investor trading												
Retail	75.5	82.6	79.5	78.1	**75.7**	78.2	64.9	92.0	57.4	15.3	97.5	78.2
Institutional	24.5	17.4	20.5	21.9	**24.3**	21.8	35.1	8.0	42.6	84.7	2.5	21.8
	100.0	100.0	100.0	100.0	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Overseas investor trading												
Retail	9.4	10.7	14.6	14.5	**11.1**	7.8	20.8	29.9	3.6	3.9	56.9	16.4
Institutional	90.6	89.3	85.4	85.5	**88.9**	92.2	79.2	70.1	96.4	96.1	43.1	83.6
	100.0	100.0	100.0	100.0	**100.0**	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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

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

3.3 Distribution of overseas investor trading by origin

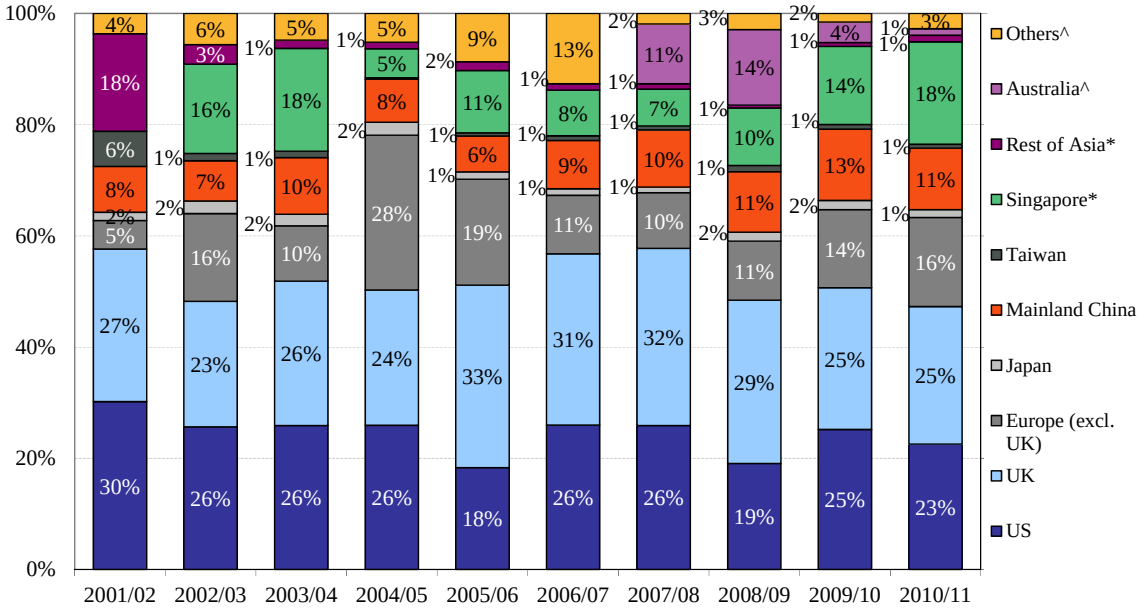
Figure 9. Distribution of overseas investor trading volume in derivatives by origin (Jul 2010 – Jun 2011)



* Reported origins in "Others" in 2010/11 are Africa, Bermuda, British Virgin Islands, Canada, Caribbean, Cayman Islands, Liberia, Middle East, New Zealand and Republic of Seychelles.

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

Figure 10. Distribution of overseas investor trading volume in derivatives by origin (2001/02 – 2010/11)



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

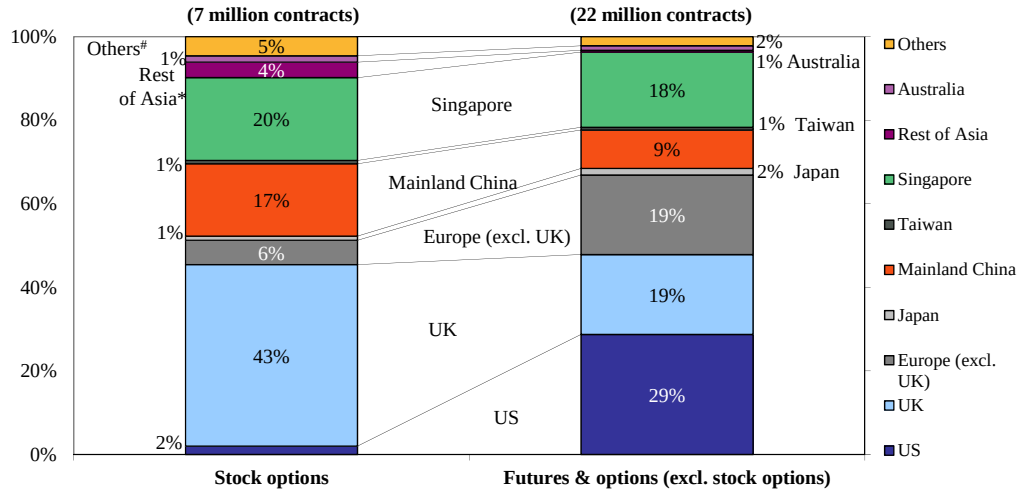
^ For surveys before 2007/08, Australia was included in "Others".

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 11. Distribution of overseas investor trading volume in derivatives by origin by market segment (Jul 2010 – Jun 2011)



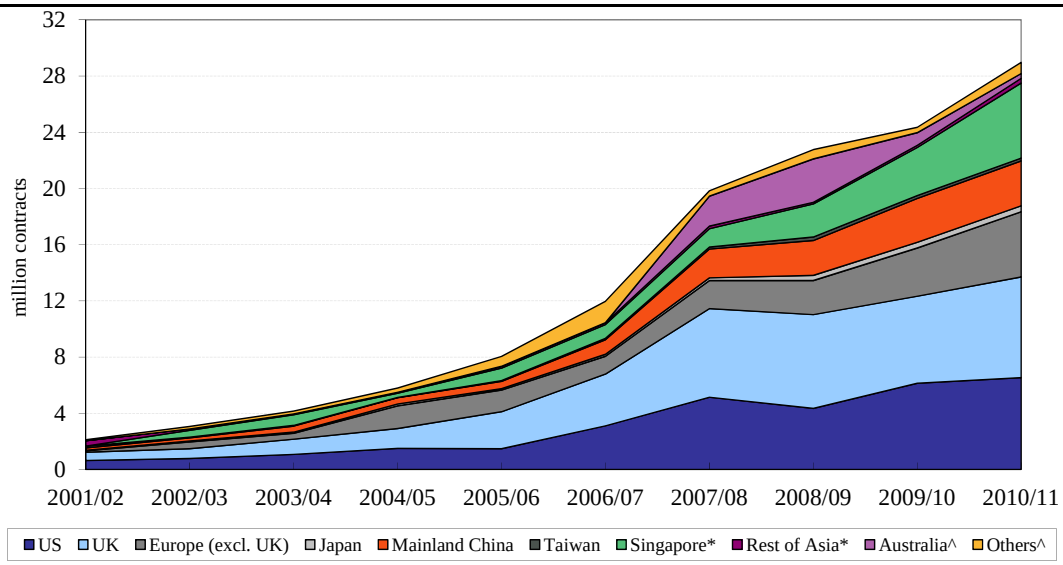
( ): Implied contract volume of overseas investor trading in the market segment.

* Reported origins in "Rest of Asia" are India, Macau, Malaysia and Thailand for both segments; plus South Korea for derivatives excluding stock options; plus Indonesia for stock options.

\# Reported origins in "Others" are British Virgin Islands and New Zealand for both segments; plus Africa, Bermuda, Canada, Caribbean, Cayman Islands, Middle East and Republic of Seychelles for derivatives excluding stock options; plus Liberia for stock options.

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 (2001/02 – 2010/11)



Overseas origin	Year-on-year % change									
	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
US	66.71%	23.07%	36.93%	39.59%	-1.90%	110.60%	65.43%	-15.50%	41.19%	6.61%
UK & Europe	-7.36%	70.40%	27.16%	102.25%	37.97%	18.51%	67.89%	9.63%	5.85%	22.53%
UK	-1.98%	19.16%	56.08%	30.41%	87.33%	39.52%	71.41%	5.88%	-7.22%	15.46%
Europe (excluding the UK)	-28.37%	344.19%	-14.31%	289.83%	-5.14%	-17.75%	57.59%	21.58%	42.07%	35.31%
Asia	151.04%	30.85%	49.24%	-30.29%	75.63%	41.01%	62.07%	43.19%	31.25%	29.93%
Japan	-46.30%	118.01%	23.79%	55.52%	-19.06%	29.61%	43.49%	83.44%	7.39%	4.70%
Mainland China	145.28%	26.99%	91.35%	5.85%	15.33%	100.38%	96.75%	21.18%	26.16%	2.51%
Taiwan	1,722.09%	-69.92%	20.05%	-70.04%	230.00%	109.66%	36.92%	88.74%	-20.30%	-1.99%
Singapore*	-	-	56.14%	-60.61%	196.62%	9.19%	34.00%	78.66%	45.59%	56.02%
Rest of Asia*	155.25%	-71.17%	-42.14%	10.37%	88.40%	8.39%	38.24%	-39.84%	40.38%	109.41%
Australia^	-	-	-	-	-	-	-	45.21%	-71.05%	-61.50%
Others^	-27.60%	123.90%	15.46%	50.24%	133.24%	116.73%	-75.08%	75.32%	-42.30%	107.40%
Total	**39.52%**	**44.77%**	**35.72%**	**39.27%**	**38.84%**	**48.65%**	**65.84%**	**14.77%**	**6.96%**	**18.98%**

- : Not applicable

* For surveys before 2002/03, Singapore was included in "Rest of Asia". ^ For surveys before 2007/08, Australia was included in "Others".

Table 4. Distribution of overseas investor trading in derivatives by origin (2006/07 – 2010/11)

Overall market (All futures and options)

Origin	Percentage contribution [2]					Implied contract volume[1] (2010/11)	
	2006/07	2007/08	2008/09	2009/10	2010/11	No. of contracts	Y-o-Y change
US	26.0	25.9	19.1	25.2	**22.6**	**6,535,231**	**6.6%**
Europe	41.3	41.8	40.0	39.6	**40.7**	**11,802,290**	**22.5%**
UK	30.8	31.8	29.4	25.5	**24.7**	**7,164,097**	**15.5%**
Europe (excl. UK)	10.5	10.0	10.6	14.1	**16.0**	**4,638,193**	**35.3%**
Asia	20.1	19.6	24.5	30.0	**32.8**	**9,498,784**	**29.9%**
Japan	1.2	1.0	1.6	1.6	**1.4**	**415,884**	**4.7%**
Mainland China	8.7	10.3	10.9	12.8	**11.0**	**3,201,287**	**2.5%**
Taiwan	0.8	0.7	1.1	0.8	**0.7**	**201,974**	**-2.0%**
Singapore	8.2	6.6	10.3	14.1	**18.4**	**5,338,001**	**56.0%**
Rest of Asia	1.2	1.0	0.5	0.7	**1.2**	**341,639**	**109.4%**
Australia^	n.a.	10.7	13.6	3.7	**1.2**	**344,865**	**-61.5%**
Others^	12.6	1.9	2.9	1.6	**2.7**	**789,927**	**107.4%**
Total[1]	100.0	100.0	100.0	100.0	**100.0**	**28,971,097**	**19.0%**

Futures and options (excl. stock options)

Origin	Percentage contribution [2]					Implied contract volume[1] (2010/11)	
	2006/07	2007/08	2008/09	2009/10	2010/11	No. of contracts	Y-o-Y change
US	29.0	29.1	21.9	29.2	**28.7**	**6,402,034**	**7.2%**
Europe	41.7	39.2	37.3	36.1	**38.2**	**8,501,016**	**14.9%**
UK	32.3	31.5	27.7	20.4	**19.1**	**4,254,899**	**2.1%**
Europe (excl. UK)	9.4	7.7	9.7	15.8	**19.1**	**4,246,116**	**31.5%**
Asia	20.0	20.5	25.0	30.8	**29.8**	**6,643,136**	**5.3%**
Japan	1.2	1.1	1.9	1.8	**1.6**	**349,640**	**-7.1%**
Mainland China	8.8	11.3	10.7	12.4	**9.2**	**2,041,384**	**-19.7%**
Taiwan	0.8	0.8	1.2	0.9	**0.7**	**148,551**	**-15.5%**
Singapore	8.7	6.7	11.0	15.3	**18.0**	**4,010,667**	**27.6%**
Rest of Asia	0.3	0.5	0.3	0.3	**0.4**	**92,893**	**30.8%**
Australia^	n.a.	10.0	14.4	3.2	**1.1**	**245,444**	**-62.6%**
Others^	9.3	1.2	1.4	0.7	**2.2**	**482,738**	**227.8%**
Total	100.0	100.0	100.0	100.0	**100.0**	**22,274,367**	**8.8%**

Stock options

Origin	Percentage contribution [2]					Implied contract volume[1] (2010/11)	
	2006/07	2007/08	2008/09	2009/10	2010/11	No. of contracts	Y-o-Y change[3]
US	2.0	0.6	2.8	4.1	**2.0**	**133,196**	**-15.1%**
Europe	38.1	62.9	55.3	57.7	**49.3**	**3,301,275**	**47.7%**
UK	19.0	34.6	39.2	52.6	**43.4**	**2,909,198**	**42.9%**
Europe (excl. UK)	19.2	28.3	16.0	5.1	**5.9**	**392,077**	**96.8%**
Asia	21.0	12.8	21.5	25.9	**42.6**	**2,855,649**	**184.4%**
Japan	0.9	0.0	0.0	0.5	**1.0**	**66,244**	**218.8%**
Mainland China	7.5	2.2	12.0	15.0	**17.3**	**1,159,902**	**99.4%**
Taiwan	0.9	0.2	0.8	0.8	**0.8**	**53,423**	**75.9%**
Singapore	4.0	5.7	6.7	7.2	**19.8**	**1,327,334**	**375.5%**
Rest of Asia	7.7	4.7	2.0	2.4	**3.7**	**248,745**	**169.9%**
Australia^	n.a.	16.5	8.8	6.2	**1.5**	**99,421**	**-58.6%**
Others^	38.9	7.1	11.6	6.0	**4.6**	**307,189**	**31.5%**
Total	100.0	100.0	100.0	100.0	**100.0**	**6,696,729**	**73.0%**

n.a.: Not available

- : Not applicable

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

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.

3.4 Retail online trading

Figure 13. Retail online trading to total derivatives market volume and retail turnover volume (2001/02 – 2010/11)

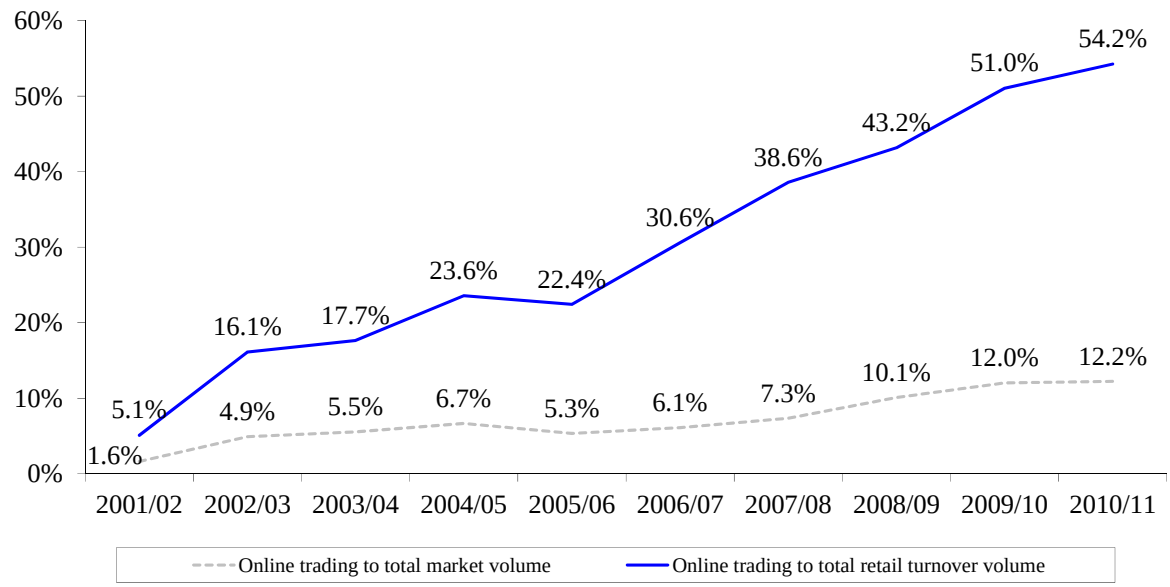


Table 5. Statistics on retail online trading in derivatives (2006/07 - 2010/11)					
Overall market (All futures and options)	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11**
Online brokers[1]					
Total number of online brokers	40	48	57	78	**91**
- As % of all responding EPs (%)	26%	29%	33%	39%	**44%**
Online trading					
Total implied contract volume (1-sided)[5]	3,456,374	7,755,787	10,398,020	11,963,260	**15,494,200**
- As % of total market turnover[3] (%)	6.1%	7.3%	10.1%	12.0%	**12.2%**
- As % of total agency (investor) trading (%)	13.6%	18.6%	21.3%	24.0%	**24.8%**
- As % of total retail investor trading (%)	30.6%	38.6%	43.2%	51.0%	**54.2%**
- As % of total turnover of online brokers (%)	25.8%	36.1%	42.6%	54.4%	**57.6%**
Futures and options (excl. stock options)	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11**
Online brokers[1]					
Total number of online brokers	37	45	52	69	**77**
- As % of all responding EPs (%)	33%	38%	42%	50%	**53%**
Online trading					
Total implied contract volume (1-sided)[2]	3,159,124	7,209,475	9,135,894	9,602,615	**10,438,395**
- As % of total product turnover[4] (%)	10.4%	15.4%	17.6%	19.1%	**18.1%**
- As % of total product agency (investor) trading (%)	14.6%	20.7%	23.0%	25.7%	**25.4%**
- As % of total product retail investor trading (%)	34.3%	43.7%	49.2%	60.3%	**65.0%**
- As % of total product turnover of online brokers (%)	25.7%	36.2%	42.5%	55.9%	**62.3%**
Stock options	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11**
Online brokers[1]					
Total number of online brokers	3	3	5	9	**14**
- As % of all responding EPs (%)	7%	7%	10%	15%	**22%**
Online trading					
Total implied contract volume (1-sided)[2]	297,250	546,312	1,262,126	2,360,644	**5,055,805**
- As % of total product turnover[4] (%)	1.1%	0.9%	2.5%	4.8%	**7.3%**
- As % of total product agency (investor) trading (%)	8.2%	8.1%	13.6%	18.9%	**23.7%**
- As % of total product retail investor trading (%)	14.7%	15.2%	22.8%	31.4%	**40.4%**
- As % of total product turnover of online brokers (%)	26.6%	35.2%	43.4%	48.8%	**49.9%**

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 futures and options (excluding stock options) and that for stock options.

GLOSSARY

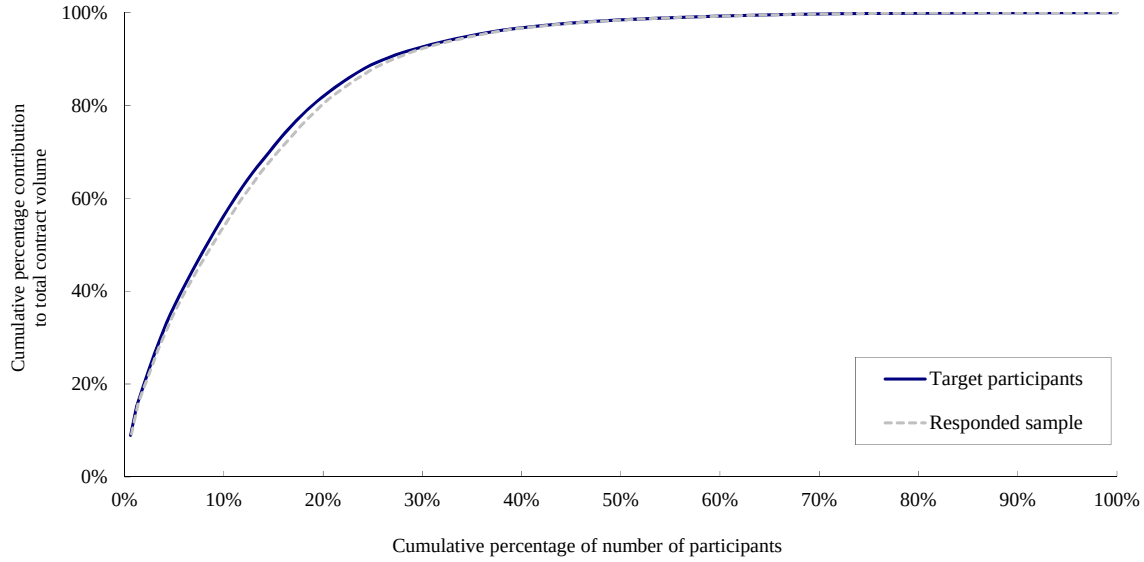
Hedging	Utilisation of futures/options to reduce or eliminate the market risk of a portfolio by compensating for the effect of price fluctuations of an underlying asset.
Pure trading	Trading for potential profit in anticipation of a price movement in either the short or long term, but not for hedging 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

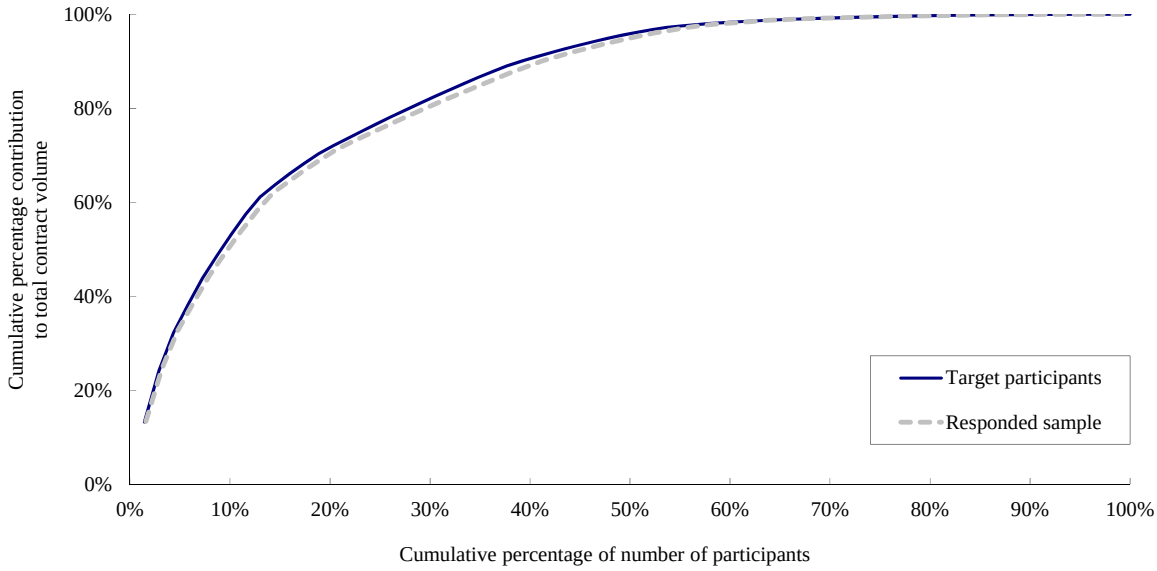
Exchange Participants	Target population	Responded participants	Response rate	% share of turnover in target population
Futures EPs	165	146	88%	97%
Stock Options EPs	69	63	91%	99%
All Participants	234	209	89%	98%

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

(a) Futures Exchange Participants (Jul 2010 – Jun 2011)



(b) Stock Options Exchange Participants (Jul 2010 – Jun 2011)



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

Product	Contract multiplier (HK$ per index point)	Notional value per contract[(1)] (HK$) (as at 30 June 2011)	Turnover in notional value during the study period	
			(HK$m)	% of total
HSI futures	50	1,119,905	24,217,061	49.2%
HSI options	50	1,119,905	11,226,671	22.8%
Mini-HSI futures	10	223,981	1,889,582	3.8%
HHI futures	50	628,834	8,061,075	16.4%
HHI options	50	628,834	2,145,323	4.4%
Mini-HHI futures	10	125,767	165,277	0.3%
Stock options	—[(2)]	25,264[(3)]	1,520,092	3.1%
Overall market			49,225,080	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 five options 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$2,420 to HK$113,800), based on the stock closing prices as at 30 June 2011 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 participantship 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 2011. The target respondents were all corporations.

(2) Methodology

- The survey consisted of two sub-surveys with two separate questionnaires, targeting the FEPs and the SOEPs respectively. The questionnaire addressed to SOEPs covered stock options only and that to FEPs covered major derivative products other than stock options.
- The study period or survey period is from July 2010 to June 2011.
- Products under study were Hang Seng Index (HSI) futures, HSI options, Mini-HSI futures, H-shares Index (HHI) futures, HHI options, mini-HHI futures (launched on 31 March 2008 and covered in the survey for the first time) and stock options. These products together contributed 99.1% of the total volume of the HKEx derivatives market during the study period.
- The survey was done 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 — futures and options (excluding stock 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". Seven FEPs and one SOEP in the 2010/11 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-trades[6]. The total contract volume for a FEP and the proportion as market making under execution statistics may differ from that under registration statistics. In this survey, execution statistics were used for analysis as in the past surveys.

— END —

[6] 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.