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DERIVATIVES MARKET  
TRANSACTION SURVEY 2008/09

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

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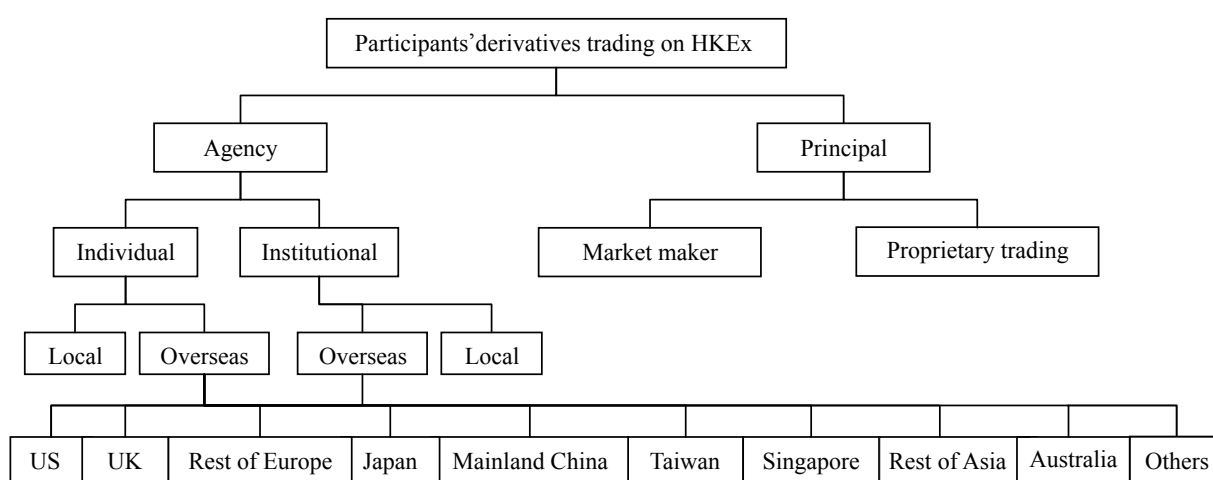
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# 1. INTRODUCTION

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<sup>1</sup>. Out of the 195 questionnaires sent out, 175 completed questionnaires were received, representing an overall response rate of 90%. The responded sample represented 99% in total contract volume of the target population. (See Appendix 1.)

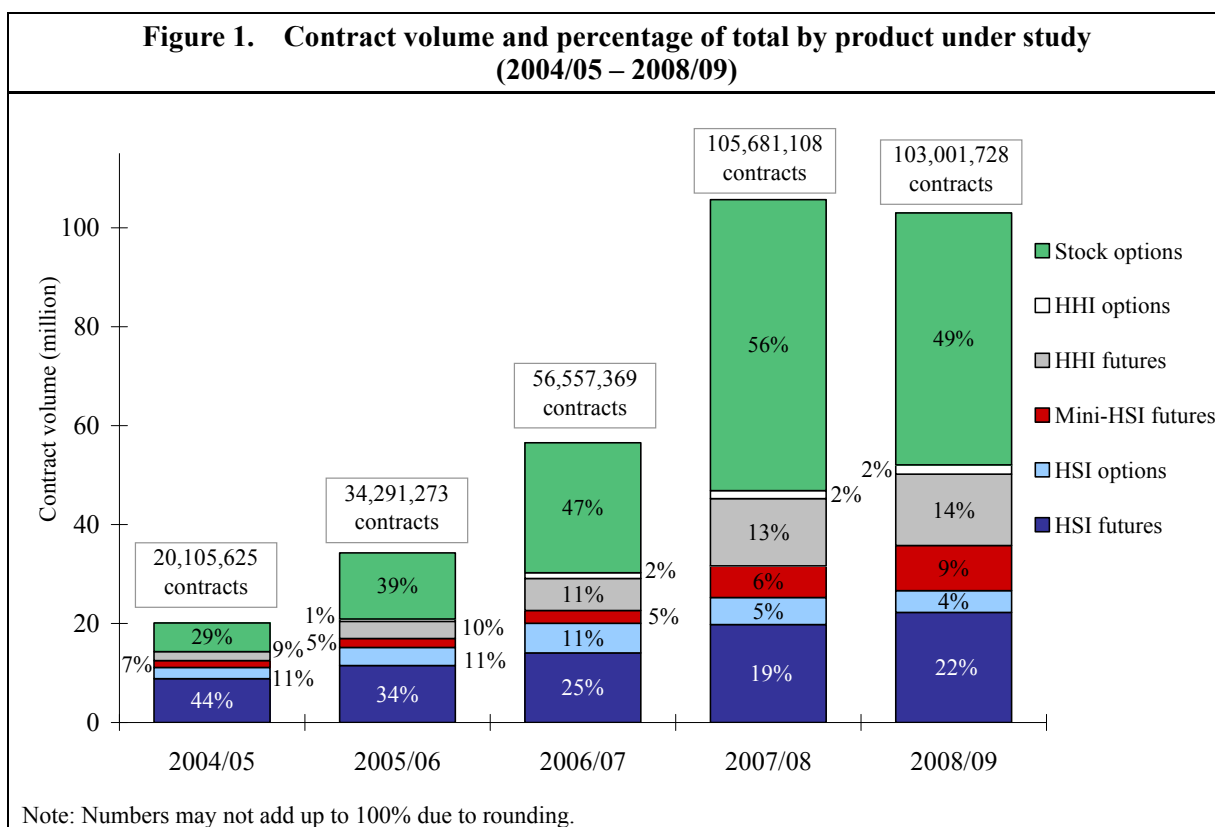
The survey covers transactions during July 2008 to June 2009<sup>2</sup> in the major HKEx futures and options products, namely Hang Seng Index (HSI) futures, HSI options, Mini-HSI futures, H-shares Index (HHI) futures, HHI options and stock options. These together contributed about 99% of the total 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 Mini-HHI futures, Hang Seng China H-Financials Index futures (suspended since 24 December 2008), FTSE/Xinhua China 25 Index futures and options (suspended since 31 and 24 December 2008 respectively), HIBOR futures, Three-year Exchange Fund Note futures, stock futures, gold futures (launched on 20 October 2008), and Mini-HSI options.

<sup>1</sup> 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.)

<sup>2</sup> Referred to as the year 2008/09 throughout the report; the same convention is used for the past surveys.

In 2008/09, market turnover (products under study only) was 103 million contracts, compared to 106 million contracts in 2007/08. The decrease in market turnover mainly reflected a decrease of 13% in stock options turnover volume — from 59 million contracts in 2007/08 to 51 million contracts in 2008/09 — slightly offset by a volume increase in other products under study, except for HSI options. Nevertheless, stock options remained the dominant contributor to derivatives market turnover (49%, down from 56% in 2007/08). The contribution from HHI futures has been growing steadily from 9% in 2004/05 to 14% in 2008/09. (See Figure 1.)



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 has a very different trading pattern 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 purpose, the contract volume for each transaction type in the survey was estimated (referred to as the “implied contract volume<sup>3</sup>”) based on the actual contract volume for each product and computed from the percentage share of the contract volume for that transaction type as obtained from the survey. The methodology for analysis was improved in the 2008/09 study to better reflect the relative contribution by product type in the actual market turnover (see Appendix 4).

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

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## 2. KEY FINDINGS

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### Trading by transaction purpose

- (1) Overall, *pure trading and hedging* remained the two main transaction purposes of derivatives trading in 2008/09. The contribution of each of these purposes in 2008/09 was similarly high — 42% of total market turnover for pure trading and 41% for hedging (compared to 40% and 39% respectively in 2007/08). *Arbitrage* turnover accounted for 17% of the overall market turnover in 2008/09, compared to 21% in 2007/08.
- (2) The proportion of **hedging** and that of **arbitrage** were both the highest for stock option trading (51% and 21% respectively). Hedging was also common for other products under study but less so for Mini-HSI futures (17% for Mini-HSI futures and 32%-41% for each of the other products).
- (3) The proportion of *pure trading* was the highest for trading in Mini-HSI futures (77%); this would be related to the large retail participation in the product (see below). Pure trading was also more common for other index futures and options (ranging from 44%-58%) than for stock options (28%).
- (4) In *number of contracts*, stock option trading for arbitrage decreased significantly by 31% from 2007/08. Given the dominance of stock options, this was the major cause of the year-on-year percentage decrease in total market trading for arbitrage purpose (-23%). On the other hand, a significant increase in the contract volume for hedging was observed for trading in Mini-HSI futures (403% increase from 2007/08)<sup>4</sup> and in HHI futures (+34%). These contributed to the 5% year-on-year increase in total market trading for hedging despite a decrease in hedging volume for the two major products — HSI futures (-1%) and HSI options (-31%).

### Trading by investor type

- (5) In 2008/09, *EP principal trading* (comprising market maker trading and EP proprietary trading) remained the largest contributor to market turnover in HKEx's derivatives market, accounting for 53% of total market volume (down from 61% in 2007/08). The decrease in the contribution from EP principal trading was mainly due to a decrease in the contribution of market maker trading (from 49% in 2007/08 to 40% in 2008/09). The contribution from EP proprietary trading was quite steady at 13% in 2008/09 (12% in 2007/08). The majority of EP principal trading came from stock options (mostly as market making) — stock options contributed almost half of the total market turnover but its EP principal trading contributed 77% to total EP principal trading in derivatives and 94% of market making.
- (6) The drop in the contribution from EP principal trading was accompanied by an increase in the contribution from each *investor type* to total market turnover.

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<sup>4</sup> Such an increase was resulted mainly from a single EP's (who was a major contributor to Mini-HSI futures turnover) reporting of all its Mini-HSI future transactions for such purpose.

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- (7) After decreasing for three consecutive years, the percentage contribution from *institutional investors* (local and overseas) increased from 20% in 2007/08 to 24% in 2008/09. *Retail investors*' contribution (local and overseas) also increased to 23% in 2008/09 from the eight-year-low of 19% in 2007/08.
- (8) The contribution from *overseas investors* was 22% (19% from institutions) in 2008/09, up from 19% in 2007/08 and comparable to 21% in 2006/07 and 23% in 2005/06. The contribution from *local investors* also increased from 21% in 2007/08 to 25% in 2008/09 — 20% from retail and 5% from institutions (compared to 17% and 4% respectively in 2007/08).
- (9) The trading distribution by investor type differed *by product*.
- For *HSI futures*, the contributions from overseas institutional and local retail investors were both significant (34% and 32% respectively). The pattern was similar in the past few years.
  - For *Mini-HSI futures*, local retail investors remained the dominant participant type, contributing 58% of product turnover in 2008/09, same as in 2007/08.
  - For *HHI futures*, overseas investors contributed the majority of the product's trading (54%), mainly from overseas institutional investors (49%), similar to the case in 2007/08.
  - For *HHI options*, EP principal trading and overseas institutional investors were the two major contributors (34% and 28% respectively), albeit the contribution from the latter decreased significantly from 36% in 2007/08. The contribution from local institutional investors was also high (21%) in 2008/09, with a significant increase from 13% in 2007/08.
  - EP principal trading dominated the turnover of both *stock options* and *HSI options* (82% and 51% respectively), same as in 2007/08.
- (10) In *number of contracts*, EP principal trading decreased by 16% in 2008/09, the first decrease since 2002/03, mainly driven by the decrease in market making which was mainly in stock options. All types of investor trading volume increased in 2008/09 — the most significant increase was observed for local institutional investor trading (+42%) and overseas retail investor trading (+56%).

#### **Trading by overseas investors by origin**

- (11) Among overseas investors, *UK investors* remained the largest contributing group to overseas investor trading in 2008/09 (29%, compared to 32% in 2007/08). They were followed by *US investors* whose contribution, however, dropped significantly from 26% in 2007/08 to 19% in 2008/09. The contribution from *Australian investors* ranked third (14%, up from 11% in 2007/08). The contributions from Mainland China, European (excluding UK), and Singaporean investors were also significant (10%-11% in 2008/09).
- (12) The aggregate contribution to overseas investor trading from *Asian investors* (Mainland China, Singapore, Japan, Taiwan and the Rest of Asia) was 24% in 2008/09, up from 20% in 2007/08. The majority of the Asian contribution came from *Mainland China* and *Singaporean* investors (11% and 10% respectively).

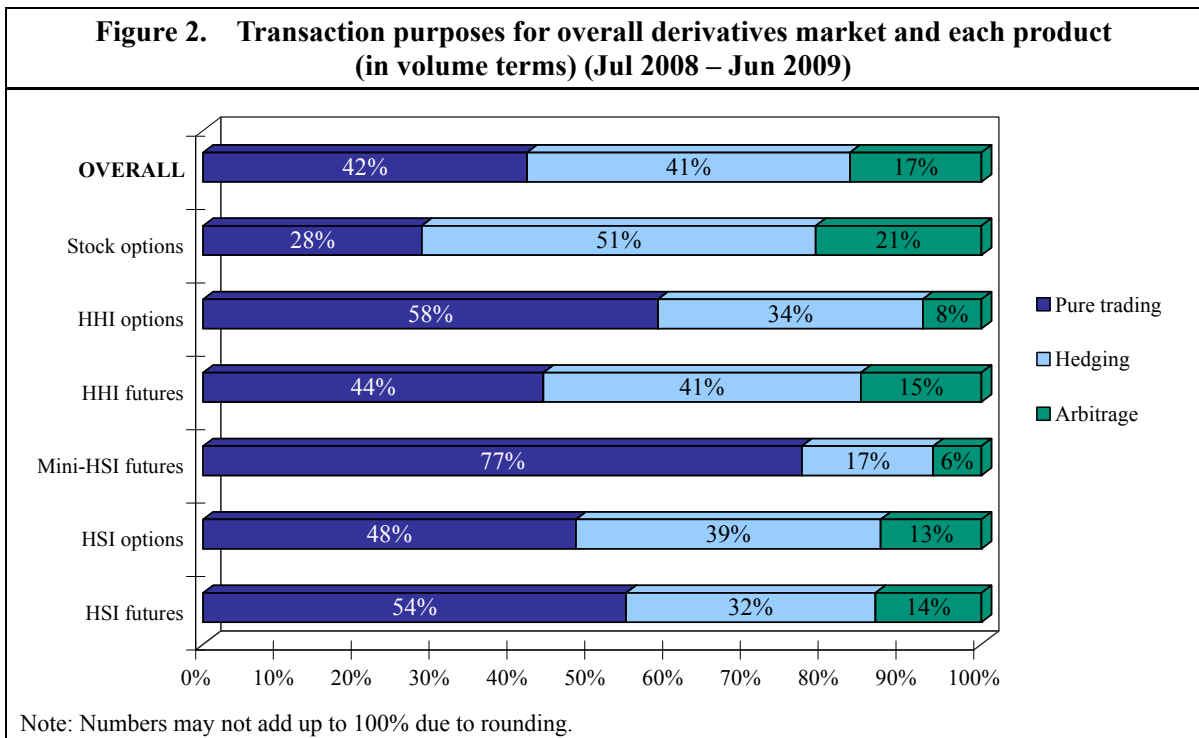
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- (13) The distribution of *overseas investor trading by origin for stock options* was different from that of other derivative product types. US investors contributed only 3% of overseas investor trading for stock options but 22% for other derivatives. UK investors contributed 39% for stock options but 28% for other derivatives. Nevertheless, overseas investor trading contributed only 7% to total stock options trading but 37% to other derivatives trading; in terms of contracts, overseas investor trading in stock options was less than one-fifth that in other derivatives.
- (14) *In terms of contracts*, trading from all the origins under study recorded a year-on-year growth, except US (a decrease of 15%) and the Rest of Asia (i.e. origins other than Mainland China, Singapore, Japan and Taiwan) (-40%). In particular, trading from Mainland China investors continued its year-on-year growth for the eighth consecutive year.

### **Retail online trading**

- (15) *Retail online trading* as a proportion of total retail investor trading continued to grow in 2008/09, reaching 43% in 2008/09 from 39% in 2007/08. Its contribution to total market turnover was 10% in 2008/09, up from 7% in 2007/08.
- (16) For stock options, the contribution of retail online trading to total retail investor trading increased significantly from 15% in 2007/08 to 23% in 2008/09 (from 1% of total product turnover in 2007/08 to 2% in 2008/09). Nevertheless, the *use of online trading* by retail investors was more prominent for other derivatives — 49% of total retail investor trading and 18% of total product turnover in 2008/09 (compared to 44% and 15% respectively in 2007/08). However, retail investor trading contributed only 11% to total stock options trading but 36% to other derivatives trading.
- (17) A total of 57 (vs 48 in 2007/08) or 33% of responding EPs (vs 29% in 2007/08) offered online trading services to retail derivatives investors (referred to as “*online brokers*”). Retail online trading accounted for about 43% of total turnover of the online brokers in 2008/09 (same for both stock options brokers and other derivatives brokers), up from 36% in 2007/08.

### 3. FIGURES AND TABLES

#### 3.1 Distribution of trading by transaction purpose





**Table 1. Transaction purposes for overall derivatives market and each product  
(2004/05 – 2008/09)**

Product	Purpose	Percentage contribution <sup>(2)</sup>					Implied contract volume <sup>(1)</sup> 2008/09	
		2004/05	2005/06	2006/07	2007/08	2008/09	No. of contracts	Y-o-Y change
HSI futures	Pure trading	53.2	51.8	49.4	50.9	54.3	12,088,577	20.1%
	Hedging	34.9	31.1	33.2	36.5	32.0	7,126,610	-1.2%
	Arbitrage	11.9	17.1	17.4	12.7	13.6	3,027,914	20.8%
	<b>Total</b>	100.0	100.0	100.0	100.0	100.0	22,243,101	12.4%
HSI options	Pure trading	57.3	50.7	39.7	39.5	47.9	2,118,670	-1.6%
	Hedging	31.8	37.4	43.2	45.9	39.2	1,732,214	-30.8%
	Arbitrage	10.9	12.0	17.1	14.6	12.9	572,184	-28.3%
	<b>Total</b>	100.0	100.0	100.0	100.0	100.0	4,423,068	-18.9%
Mini-HSI futures	Pure trading	85.0	82.8	60.9	78.2	76.9	7,005,294	39.0%
	Hedging	8.9	9.9	4.9	4.7	16.9	1,535,361	403.3%
	Arbitrage	6.1	7.3	34.3	17.0	6.2	563,275	-48.6%
	<b>Total</b>	100.0	100.0	100.0	100.0	100.0	9,103,930	41.4%
HHI futures	Pure trading	46.2	54.8	53.2	55.2	43.7	6,298,533	-16.0%
	Hedging	44.9	31.7	34.0	32.2	40.8	5,874,942	34.3%
	Arbitrage	8.9	13.5	12.9	12.5	15.5	2,231,399	31.4%
	<b>Total</b>	100.0	100.0	100.0	100.0	100.0	14,404,874	6.2%
HHI options	Pure trading	n.a.	62.4	55.0	46.2	58.4	1,095,331	45.2%
	Hedging	n.a.	28.4	28.5	35.9	34.0	637,729	9.0%
	Arbitrage	n.a.	9.2	16.5	17.9	7.5	141,021	-51.7%
	<b>Total</b>	n.a.	100.0	100.0	100.0	100.0	1,874,081	14.9%
<b>Futures &amp; options (excl. stock options)</b>	<b>Pure trading</b>	56.0	55.0	49.5	54.7	55.0	28,606,406	11.6%
	<b>Hedging</b>	33.2	30.5	32.5	31.6	32.5	16,906,856	14.0%
	<b>Arbitrage</b>	10.8	14.6	18.0	13.7	12.6	6,535,792	2.0%
	<b>Total</b>	100.0	100.0	100.0	100.0	100.0	52,049,054	11.0%
Stock options	Pure trading	36.3	39.8	47.6	29.3	28.1	14,314,623	-16.9%
	Hedging	42.7	35.2	28.2	43.8	50.6	25,794,802	0.2%
	Arbitrage	21.0	24.9	24.2	26.9	21.3	10,843,249	-31.5%
	<b>Total</b>	100.0	100.0	100.0	100.0	100.0	50,952,674	-13.4%
<b>Overall market</b>	<b>Pure trading</b>	50.1	49.1	48.7	40.2	41.7	42,921,029	1.1%
	<b>Hedging</b>	36.0	32.3	30.5	38.6	41.5	42,701,657	4.7%
	<b>Arbitrage</b>	13.9	18.6	20.8	21.2	16.9	17,379,042	-22.6%
	<b>Total</b>	100.0	100.0	100.0	100.0	100.0	103,001,728	-2.5%
<b>Total contract volume <sup>(3)</sup></b>		20,105,625	34,291,273	56,557,369	105,681,108	103,001,728		

n.a.: Not available

Notes:

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

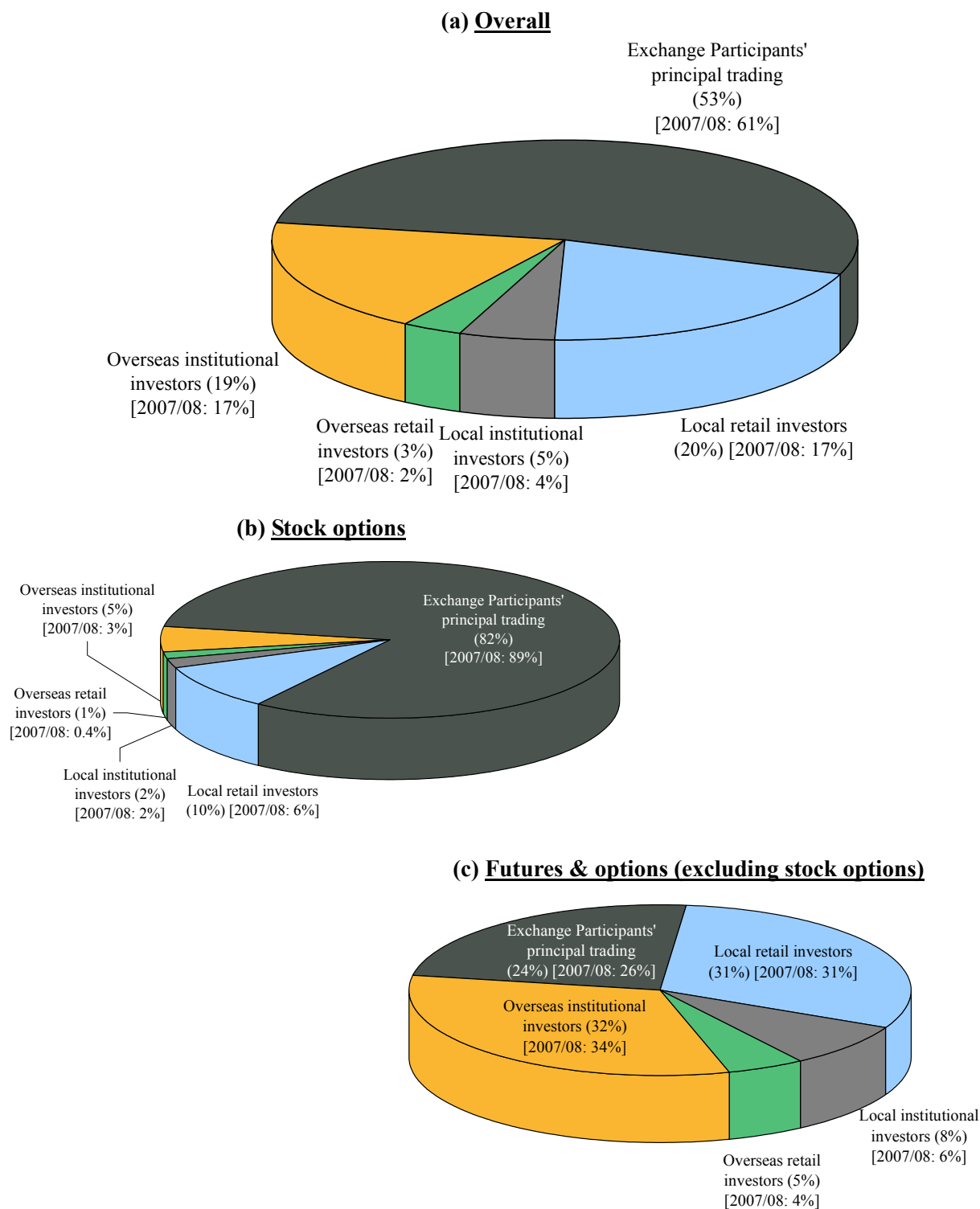
(2) Numbers may not add up to 100% due to rounding.

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

## 3.2 Distribution of trading by investor type

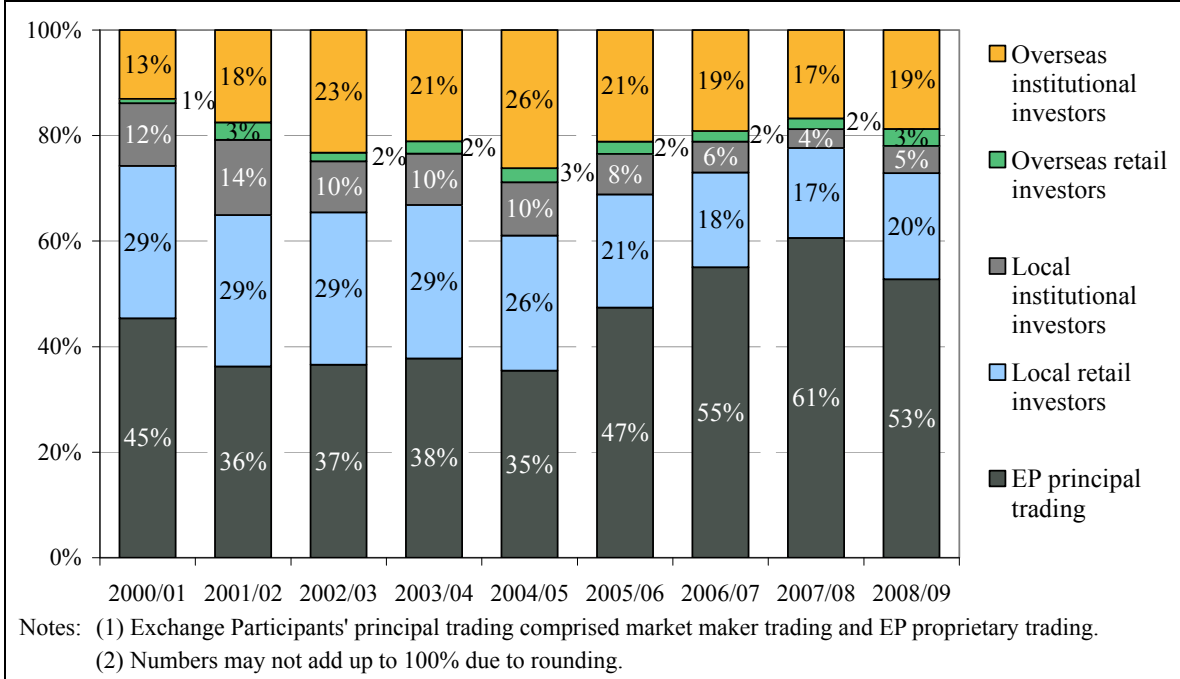
### 3.2.1 Overall pattern

**Figure 3. Distribution of derivatives market trading volume by investor type (Jul 2008 – Jun 2009)**

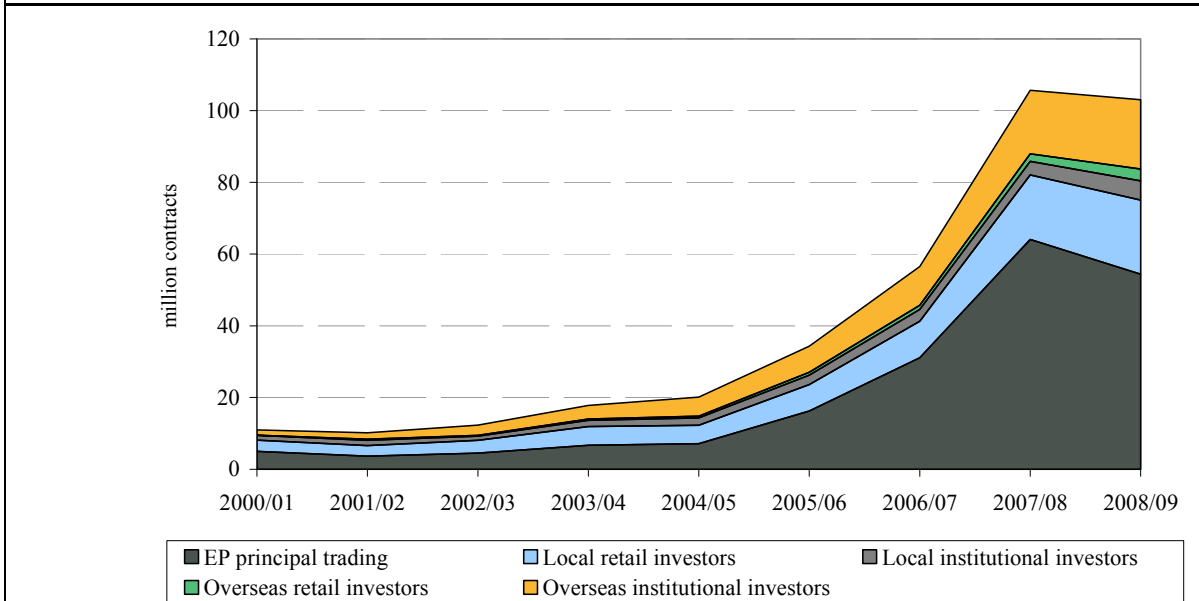


Notes: (1) Exchange Participants' principal trading comprised market maker trading and EP proprietary trading.  
 (2) Numbers may not add up to 100% due to rounding.

**Figure 4. Distribution of derivatives market trading volume by investor type (2000/01 – 2008/09)**



**Figure 5. Implied contract volume of derivatives by investor type (2000/01 – 2008/09)**

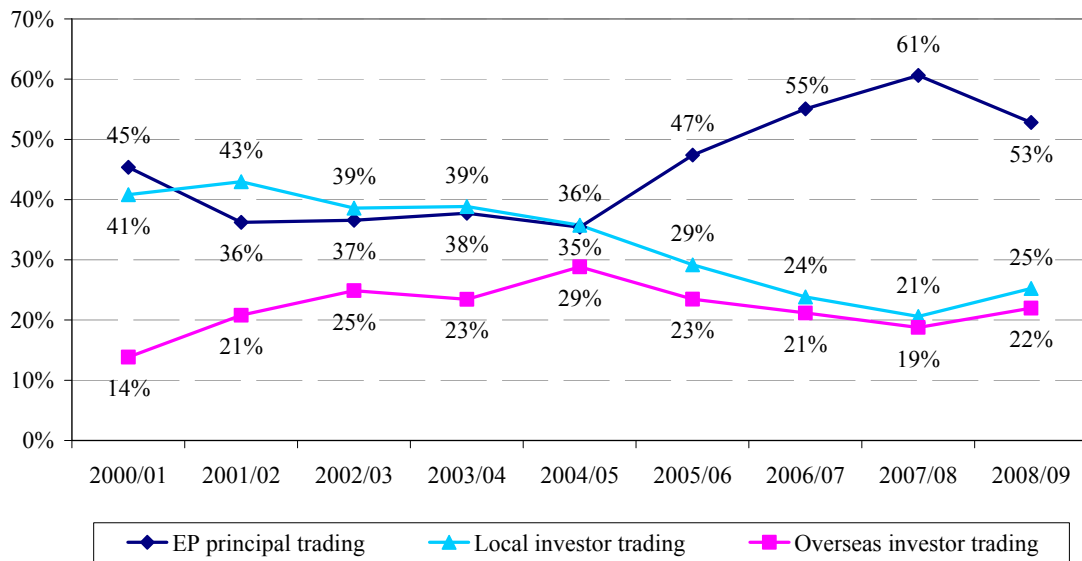


Type of trade	Year-on-year % change							
	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09
EP principal trading	-25.82%	22.24%	48.70%	6.19%	128.14%	91.57%	105.85%	-15.57%
Market maker	n.a.	n.a.	46.72%	5.64%	141.11%	95.95%	128.95%	-20.73%
Proprietary trading	n.a.	n.a.	53.01%	7.34%	101.51%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

n.a.: Not available

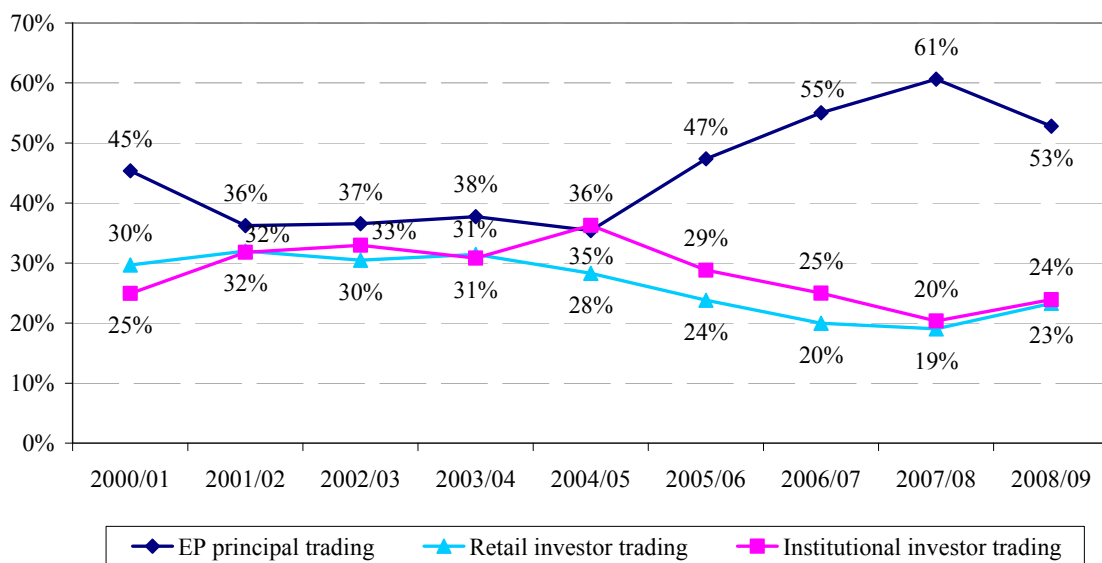
Note: Exchange Participants' principal trading comprised market maker trading and EP proprietary trading.

**Figure 6. Distribution of derivatives market trading volume by investor type (local vs overseas) (2000/01 – 2008/09)**



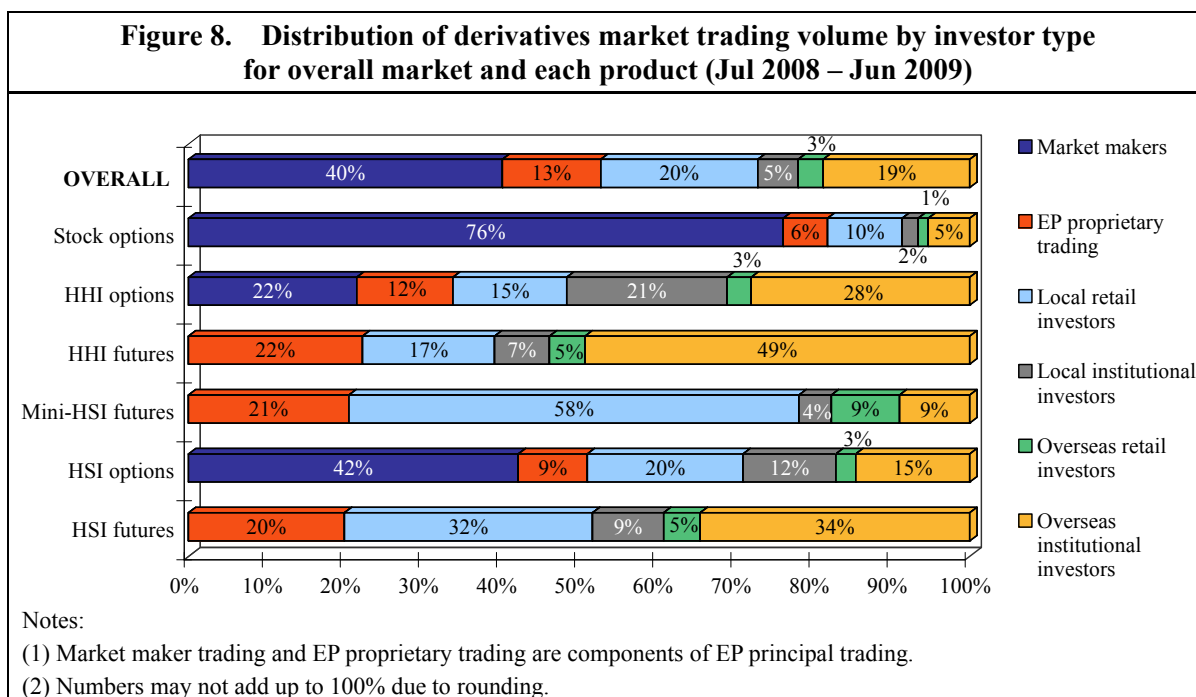
Note: Numbers may not add up to 100% due to rounding.

**Figure 7. Distribution of derivatives market trading volume by investor type (retail vs institutional) (2000/01 – 2008/09)**



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

### 3.2.2 By product/market segment



Type of investor	Percentage contribution <sup>(3)</sup>					Implied contract volume <sup>(4)</sup>	
	2004/05	2005/06	2006/07	2007/08	2008/09	2008/09	
						No. of contracts	Y-o-Y change
<b>HSI Futures</b>							
Market makers	-	-	-	-	-	-	-
Proprietary trading	16.6	21.3	23.7	21.0	20.0	4,439,580	6.6%
Local investors	39.4	37.9	37.9	38.3	40.9	9,092,321	20.0%
Retail	29.5	29.3	29.7	32.2	31.8	7,066,723	11.0%
Institutional	9.8	8.6	8.2	6.1	9.1	2,025,597	67.6%
Overseas investors	44.0	40.8	38.4	40.7	39.2	8,711,201	8.2%
Retail	3.2	2.9	3.3	4.4	4.7	1,037,993	18.4%
Institutional	40.9	38.0	35.1	36.2	34.5	7,673,208	7.0%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>22,243,101</b>	<b>12.4%</b>
<b>HSI Options</b>							
Principal trading <sup>(1)</sup>	29.2	40.5	46.5	56.0	51.1	2,258,155	-26.0%
Market makers	23.2	32.1	39.3	47.3	42.2	1,867,571	-27.6%
Proprietary trading	6.0	8.4	7.2	8.7	8.8	390,584	-17.3%
Local investors	42.2	40.2	28.6	21.2	31.8	1,406,930	21.6%
Retail	21.1	22.0	15.1	16.1	19.9	882,213	0.4%
Institutional	21.1	18.2	13.5	5.1	11.9	524,717	88.4%
Overseas investors	28.5	19.3	24.9	22.8	17.1	757,983	-39.1%
Retail	1.2	2.0	1.0	2.6	2.6	113,390	-18.9%
Institutional	27.4	17.3	23.9	20.2	14.6	644,593	-41.6%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>4,423,068</b>	<b>-18.9%</b>
<b>Mini-HSI Futures</b>							
Market makers	-	-	-	-	-	-	-
Proprietary trading	16.6	32.5	36.4	29.3	20.5	1,869,222	-0.8%
Local investors	76.2	60.5	54.1	60.1	61.8	5,623,059	45.4%
Retail	67.5	56.7	50.0	58.3	57.6	5,245,515	39.8%
Institutional	8.7	3.9	4.0	1.8	4.1	377,545	228.7%
Overseas investors	7.2	7.0	9.5	10.7	17.7	1,611,649	134.6%
Retail	5.9	5.7	7.6	7.3	8.7	793,918	69.1%
Institutional	1.3	1.3	1.9	3.4	9.0	817,731	275.8%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>9,103,930</b>	<b>41.4%</b>
<b>HFI Futures</b>							
Principal trading <sup>(1)</sup>	14.4	15.8	18.0	17.6	22.3	3,210,708	34.5%
Market makers <sup>(2)</sup>	2.1	0.4	-	-	-	-	-
Proprietary trading	12.4	15.4	18.0	17.6	22.3	3,210,708	34.5%
Local investors	34.3	40.5	36.7	30.8	23.9	3,447,168	-17.5%
Retail	23.8	27.7	28.3	24.7	16.9	2,433,339	-27.4%
Institutional	10.5	12.8	8.4	6.1	7.0	1,013,829	22.8%
Overseas investors	51.3	43.7	45.3	51.6	53.8	7,746,998	10.6%
Retail	2.4	2.9	2.4	2.7	4.6	655,640	77.1%
Institutional	48.8	40.8	42.9	48.9	49.2	7,091,357	6.9%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>14,404,874</b>	<b>6.2%</b>
<b>HFI Options</b>							
Principal trading <sup>(1)</sup>	n.a.	25.8	28.0	34.9	33.9	634,716	11.5%
Market makers	n.a.	19.3	18.8	23.4	21.6	403,934	5.9%
Proprietary trading	n.a.	6.5	9.2	11.5	12.3	230,782	22.7%
Local investors	n.a.	44.0	28.4	26.5	35.1	657,386	52.3%
Retail	n.a.	17.9	10.1	13.1	14.5	272,560	27.2%
Institutional	n.a.	26.1	18.3	13.3	20.5	384,825	77.0%
Overseas investors	n.a.	30.2	43.6	38.6	31.1	581,979	-7.7%
Retail	n.a.	1.8	1.1	2.9	3.1	58,324	25.1%
Institutional	n.a.	28.4	42.5	35.8	27.9	523,655	-10.3%
<b>Total</b>	<b>n.a.</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>1,874,081</b>	<b>14.9%</b>
<b>Futures &amp; options (excl. stock options)</b>							
Principal trading <sup>(1)</sup>	18.3	24.8	28.3	25.7	23.8	12,412,381	3.2%
Market makers	3.9	6.2	8.5	6.2	4.4	2,271,505	-22.1%
Proprietary trading	14.4	18.6	19.8	19.4	19.5	10,140,876	11.3%
Local investors	42.6	40.8	36.8	36.8	38.9	20,226,864	17.4%
Retail	31.1	29.8	27.5	31.1	30.5	15,900,351	9.0%
Institutional	11.6	11.0	9.3	5.6	8.3	4,326,513	63.8%
Overseas investors	39.0	34.4	34.9	37.6	37.3	19,409,810	10.2%
Retail	3.0	2.9	3.0	4.1	5.1	2,659,265	39.5%
Institutional	36.0	31.5	31.9	33.5	32.2	16,750,545	6.6%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>52,049,054</b>	<b>11.0%</b>

(to be continued on next page)

**Table 2. Distribution of derivatives trading by investor type (2004/05 – 2008/09) (cont'd)**

Type of investor	Percentage contribution <sup>(3)</sup>					Implied contract volume <sup>(4)</sup>	
	2004/05	2005/06	2006/07	2007/08	2008/09	2008/09 No. of contracts	Y-o-Y change
<b>Stock options</b>							
Principal trading <sup>(1)</sup>	76.8	81.8	86.3	88.6	<b>81.8</b>	41,682,411	-20.0%
Market makers	71.9	75.6	76.9	83.2	<b>76.1</b>	38,795,255	-20.7%
Proprietary trading	4.8	6.2	9.4	5.4	<b>5.7</b>	2,887,157	-8.3%
Local investors	19.1	11.4	8.6	7.7	<b>11.6</b>	5,914,087	30.6%
Retail	12.6	8.8	6.8	5.7	<b>9.6</b>	4,869,741	44.2%
Institutional	6.5	2.6	1.8	2.0	<b>2.0</b>	1,044,346	-9.3%
Overseas investors	4.1	6.8	5.1	3.7	<b>6.6</b>	3,356,175	52.4%
Retail investors	1.7	1.5	0.9	0.4	<b>1.3</b>	660,496	201.9%
Institutional investors	2.4	5.3	4.3	3.4	<b>5.3</b>	2,695,679	35.9%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>50,952,674</b>	<b>-13.4%</b>
<b>Overall market</b>							
Principal trading <sup>(1)</sup>	35.4	47.4	55.0	60.6	<b>52.5</b>	54,094,792	-15.6%
Market makers	23.8	33.7	40.0	49.0	<b>39.9</b>	41,066,760	-20.7%
Proprietary trading	11.6	13.7	15.0	11.6	<b>12.6</b>	13,028,032	6.2%
Local investors	35.8	29.2	23.8	20.6	<b>25.4</b>	26,140,951	20.1%
Retail investors	25.7	21.5	18.0	17.0	<b>20.2</b>	20,770,092	15.5%
Institutional investors	10.1	7.7	5.8	3.6	<b>5.2</b>	5,370,859	41.5%
Overseas investors	28.8	23.5	21.1	18.8	<b>22.1</b>	22,765,985	14.8%
Retail investors	2.6	2.3	2.0	2.0	<b>3.2</b>	3,319,761	56.1%
Institutional investors	26.2	21.1	19.2	16.8	<b>18.9</b>	19,446,224	9.8%
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>103,001,728</b>	<b>-2.5%</b>

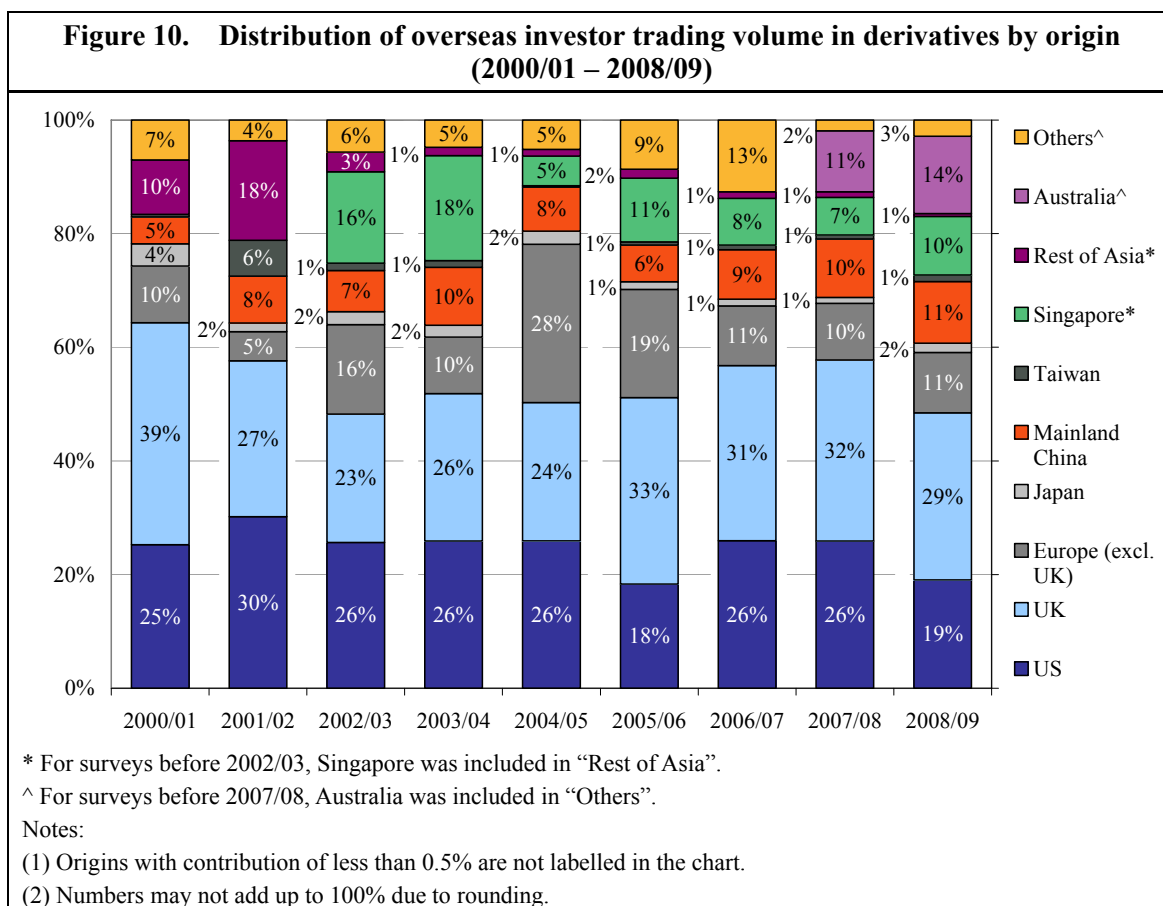
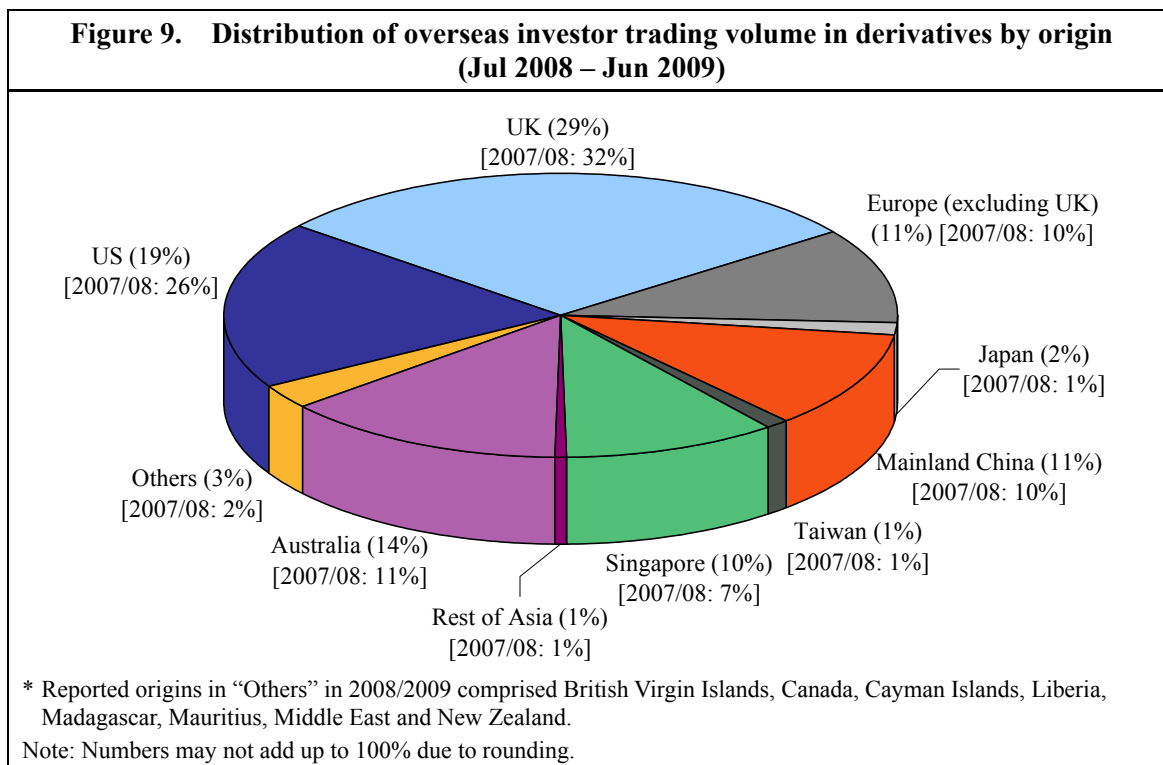
n.a.: Not available - : Not applicable  
Notes:  
(1) Comprised market maker trading and EP proprietary trading.  
(2) Market maker system for HHI futures was lifted on 14 November 2005.  
(3) Numbers may not add up to 100% due to rounding.  
(4) See glossary for the definition of implied contract volume. The total figure of each product used is the actual contract volume for that product, based on which the implied contract volume by investor type is computed. Numbers may not add up to total due to rounding.

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

	2004/05 Overall	2005/06 Overall	2006/07 Overall	2007/08 Overall	2008/09 Overall	2008/09					
						HSI futures	HSI options	Mini-HSI futures	HHI futures	HHI options	Stock options
<b>All trading</b>											
Principal <sup>#</sup>	35.4	47.4	55.0	60.6	<b>52.5</b>	20.0	51.1	20.5	22.3	33.9	81.8
Agency	64.6	52.6	45.0	39.4	<b>47.5</b>	80.0	48.9	79.5	77.7	66.1	18.2
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0	100.0
<b>Agency trading</b>											
Local	55.4	55.4	53.0	52.3	<b>53.5</b>	51.1	65.0	77.7	30.8	53.0	63.8
Overseas	44.6	44.6	47.0	47.7	<b>46.5</b>	48.9	35.0	22.3	69.2	47.0	36.2
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0	100.0
<b>Agency trading</b>											
Retail	43.8	45.3	44.4	48.3	<b>49.3</b>	45.5	46.0	83.5	27.6	26.7	59.7
Institutional	56.2	54.7	55.6	51.7	<b>50.7</b>	54.5	54.0	16.5	72.4	73.3	40.3
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0	100.0
<b>Retail investor trading</b>											
Local	90.7	90.1	90.0	89.4	<b>86.2</b>	87.2	88.6	86.9	78.8	82.4	88.1
Overseas	9.3	9.9	10.0	10.6	<b>13.8</b>	12.8	11.4	13.1	21.2	17.6	11.9
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0	100.0
<b>Institutional investor trading</b>											
Local	27.8	26.7	23.3	17.6	<b>21.6</b>	20.9	44.9	31.6	12.5	42.4	27.9
Overseas	72.2	73.3	76.7	82.4	<b>78.4</b>	79.1	55.1	68.4	87.5	57.6	72.1
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0	100.0
<b>Local investor trading</b>											
Retail	71.8	73.6	75.5	82.6	<b>79.5</b>	77.7	62.7	93.3	70.6	41.5	82.3
Institutional	28.2	26.4	24.5	17.4	<b>20.5</b>	22.3	37.3	6.7	29.4	58.5	17.7
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0	100.0
<b>Overseas investor trading</b>											
Retail	9.1	10.0	9.4	10.7	<b>14.6</b>	11.9	15.0	49.3	8.5	10.0	19.7
Institutional	90.9	90.0	90.6	89.3	<b>85.4</b>	88.1	85.0	50.7	91.5	90.0	80.3
	100.0	100.0	100.0	100.0	<b>100.0</b>	100.0	100.0	100.0	100.0	100.0	100.0

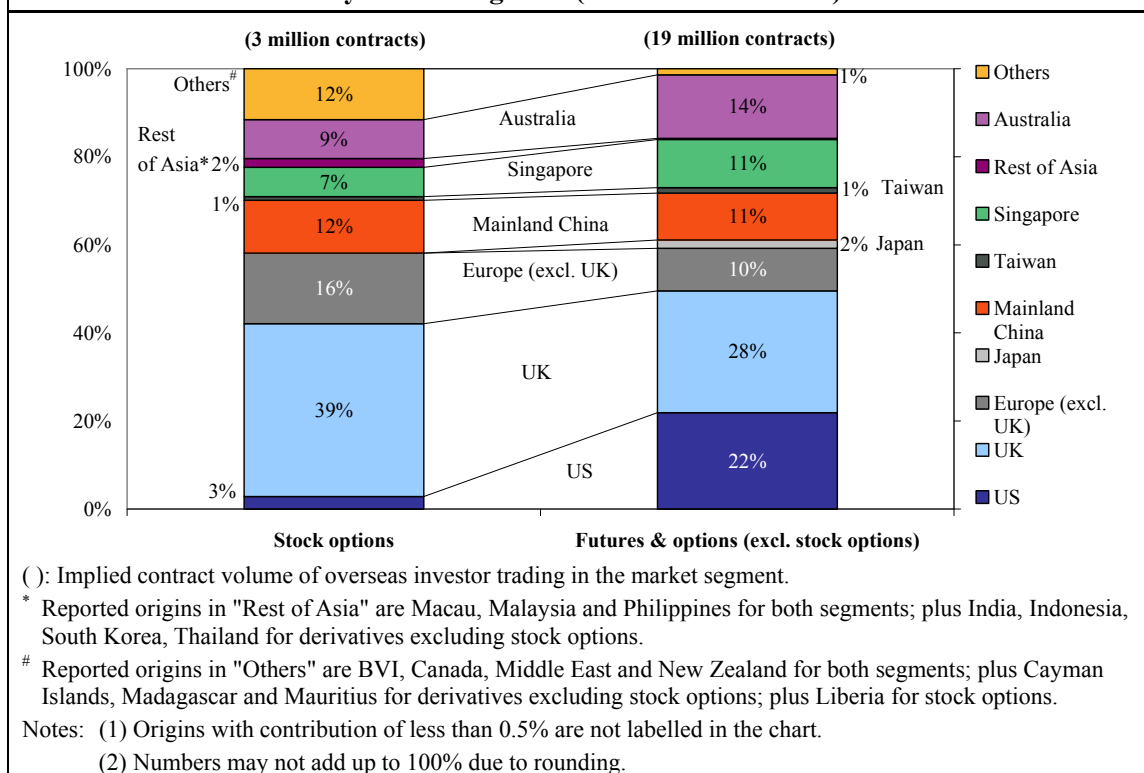
<sup>#</sup> Comprises market maker trading and EP proprietary trading.  
Note: Numbers may not add up to 100% due to rounding.

### 3.3 Distribution of overseas investor trading by origin

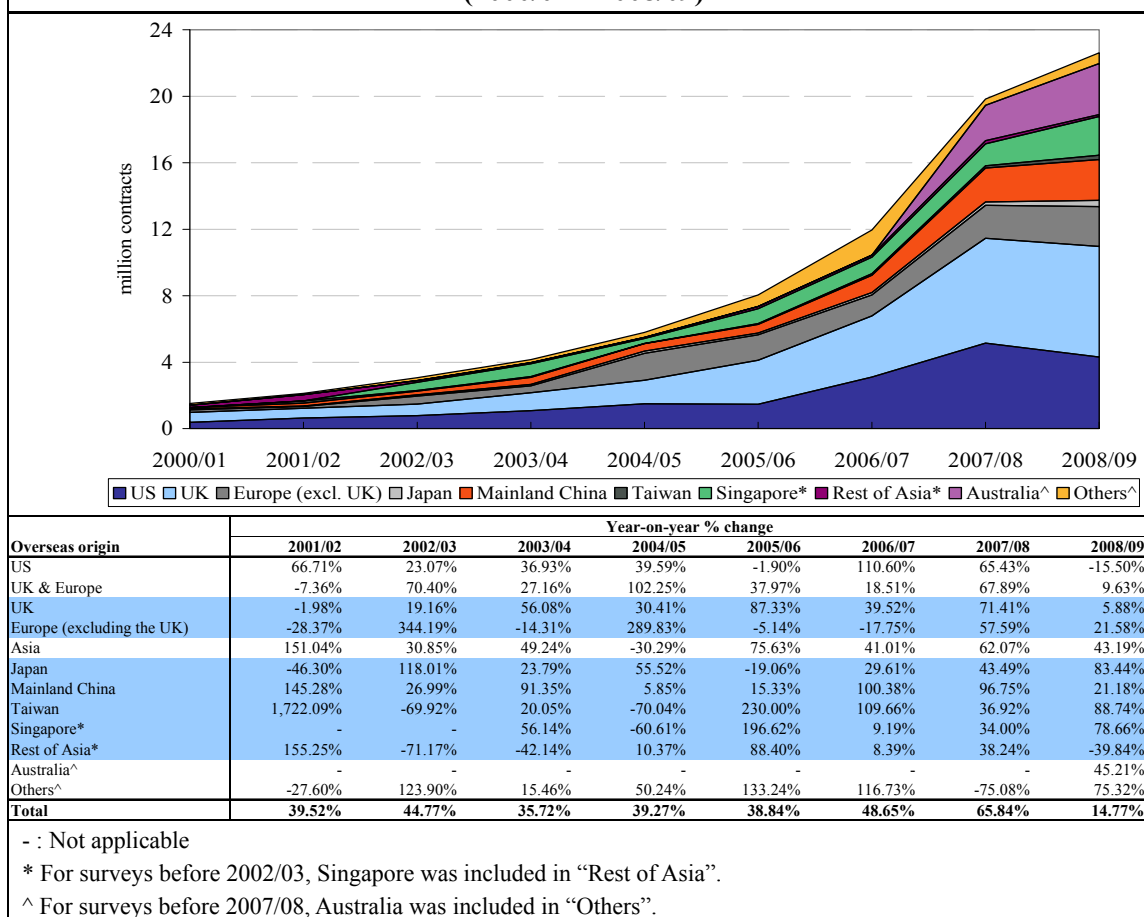




**Figure 11. Distribution of overseas investor trading volume in derivatives by origin by market segment (Jul 2008 – Jun 2009)**



**Figure 12. Implied contract volume of overseas investor trading in derivatives by origin (2000/01 – 2008/09)**



**Table 4. Distribution of overseas investor trading in derivatives by origin  
(2004/05 – 2008/09)**

<b>Overall market (All futures and options)</b>							
Origin	Percentage contribution <sup>(2)</sup>					Implied contract volume <sup>(1)</sup> 2008/09	
	2004/05	2005/06	2006/07	2007/08	2008/09	No. of contracts	Y-o-Y change
US	25.9	18.3	26.0	25.9	19.1	4,341,764	-15.5%
UK	24.3	32.8	30.8	31.8	29.4	6,687,588	5.9%
Europe (excl. UK)	27.9	19.0	10.5	10.0	10.6	2,412,726	21.6%
Japan	2.3	1.3	1.2	1.0	1.6	369,884	83.4%
Mainland China	7.8	6.4	8.7	10.3	10.9	2,475,380	21.2%
Taiwan	0.2	0.6	0.8	0.7	1.1	258,572	88.7%
Singapore	5.2	11.2	8.2	6.6	10.3	2,349,940	78.7%
Rest of Asia	1.2	1.6	1.2	1.0	0.5	116,218	-39.8%
Australia <sup>^</sup>	n.a.	n.a.	n.a.	10.7	13.6	3,093,842	45.2%
Others <sup>^</sup>	5.2	8.7	12.6	1.9	2.9	660,070	75.3%
<b>Total<sup>(1)</sup></b>	100.0	100.0	100.0	100.0	100.0	22,765,985	14.8%
<b>Futures and options (excl. stock options)</b>							
Origin	Percentage contribution <sup>(2)</sup>					Implied contract volume <sup>(1)</sup> 2008/09	
	2004/05	2005/06	2006/07	2007/08	2008/09	No. of contracts	Y-o-Y change
US	27.0	20.1	29.0	29.1	21.9	4,246,184	-17.1%
UK	24.9	35.0	32.3	31.5	27.7	5,371,117	-3.2%
Europe (excl. UK)	28.7	16.8	9.4	7.7	9.7	1,874,535	37.8%
Japan	2.4	1.5	1.2	1.1	1.9	369,270	83.3%
Mainland China	7.2	7.1	8.8	11.3	10.7	2,073,018	4.0%
Taiwan	0.3	0.7	0.8	0.8	1.2	230,621	74.4%
Singapore	5.1	12.0	8.7	6.7	11.0	2,125,525	78.9%
Rest of Asia	0.5	0.3	0.3	0.5	0.3	50,137	-44.6%
Australia <sup>^</sup>	n.a.	n.a.	n.a.	10.0	14.4	2,797,914	58.5%
Others <sup>^</sup>	3.9	6.4	9.3	1.2	1.4	271,488	23.9%
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	19,409,810	10.2%
<b>Stock options</b>							
Origin	Percentage contribution <sup>(2)</sup>					Implied contract volume <sup>(1)</sup> 2008/09	
	2004/05	2005/06	2006/07	2007/08	2008/09	No. of contracts	Y-o-Y change <sup>(3)</sup>
US	1.3	4.5	2.0	0.6	2.8	95,580	590.2%
UK	11.0	15.6	19.0	34.6	39.2	1,316,471	72.7%
Europe (excl. UK)	8.0	36.2	19.2	28.3	16.0	538,192	-13.6%
Japan	0.0	0.0	0.9	0.0	0.02	614	-
Mainland China	20.1	1.4	7.5	2.2	12.0	402,362	739.0%
Taiwan	0.0	0.0	0.9	0.2	0.8	27,951	502.0%
Singapore	8.7	4.4	4.0	5.7	6.7	224,415	77.5%
Rest of Asia	16.2	11.4	7.7	4.7	2.0	66,081	-35.7%
Australia <sup>^</sup>	n.a.	n.a.	n.a.	16.5	8.8	295,928	-18.6%
Others <sup>^</sup>	34.7	26.6	38.9	7.1	11.6	388,582	147.1%
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	3,356,175	52.4%

n.a.: Not available - : Not applicable  
<sup>^</sup> For surveys before 2007/08, Australia was included in "Others".

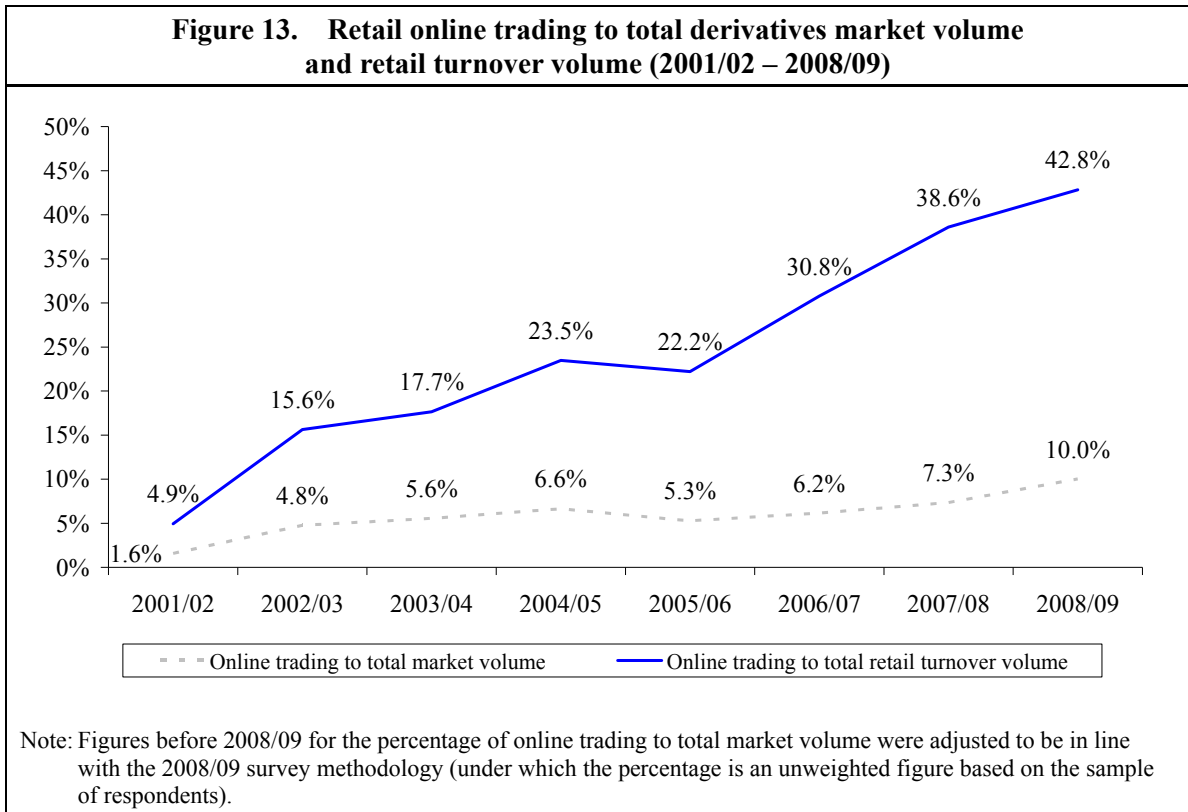
Notes:

(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. Numbers may not add up to total due to rounding.

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

(3) The year-on-year percentage changes in overseas investor trading in stock options from the US, Mainland China and Taiwan were exceptionally high due to: firstly the relatively small base volumes from these origins in 2007/08; and secondly the increased number of responding SOEPs reporting trades from these origins and/or a large increase in volume reported from these origins by SOEPs.

### 3.4 Retail online trading



<b>Table 5. Statistics on retail online trading in derivatives (2004/05 - 2008/09)</b>					
<b>Overall market (All futures and options)</b>	<b>2004/05</b>	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>	<b>2008/09</b>
<b>Online brokers<sup>(1)</sup></b>					
Total number of online brokers	31	33	40	48	57
- As % of all responding EPs (%)	22%	24%	26%	29%	33%
<b>Online trading</b>					
Total implied contract volume (1-sided) <sup>(2)</sup>	1,335,421	1,814,124	3,478,673	7,762,240	10,319,896
- As % of total market turnover <sup>(3,5)</sup> (%)	6.6%	5.3%	6.2%	7.3%	10.0%
- As % of total agency (investor) trading (%)	10.3%	10.1%	13.7%	18.7%	21.1%
- As % of total retail investor trading (%)	23.5%	22.2%	30.8%	38.6%	42.8%
- As % of total turnover of online brokers (%)	26.6%	20.1%	25.8%	36.1%	42.6%
<b>Futures and options (excl. stock options)</b>	<b>2004/05</b>	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>	<b>2008/09</b>
<b>Online brokers<sup>(1)</sup></b>					
Total number of online brokers	30	31	37	45	52
- As % of all responding EPs (%)	28%	30%	33%	38%	42%
<b>Online trading</b>					
Total implied contract volume (1-sided) <sup>(2)</sup>	1,282,119	1,766,201	3,159,124	7,209,475	9,135,894
- As % of total product turnover <sup>(4,5)</sup> (%)	9.0%	8.4%	10.4%	15.4%	17.6%
- As % of total product agency (investor) trading (%)	11.0%	11.2%	14.6%	20.7%	23.0%
- As % of total product retail investor trading (%)	26.3%	25.8%	34.3%	43.7%	49.2%
- As % of total product turnover of online brokers (%)	26.5%	20.6%	25.7%	36.2%	42.5%
<b>Stock options</b>	<b>2004/05</b>	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>	<b>2008/09</b>
<b>Online brokers<sup>(1)</sup></b>					
Total number of online brokers	1	2	3	3	5
- As % of all responding EPs (%)	3%	5%	7%	7%	10%
<b>Online trading</b>					
Total implied contract volume (1-sided) <sup>(2)</sup>	59,489	64,792	297,250	546,312	1,262,126
- As % of total product turnover <sup>(4,5)</sup> (%)	1.0%	0.5%	1.1%	0.9%	2.5%
- As % of total product agency (investor) trading (%)	4.4%	2.7%	8.2%	8.1%	13.6%
- As % of total product retail investor trading (%)	7.2%	4.7%	14.7%	15.2%	22.8%
- As % of total product turnover of online brokers (%)	28.0%	12.2%	26.6%	35.2%	43.4%
Notes:					
(1) "Online brokers" refers to EPs offering online trading service to retail clients since the 2004/05 survey but refers to EPs recording retail online trading in the previous surveys.					
(2) The implied contract volume of online trading is calculated by multiplying the percentage share of online trading in the responded sample by the total market turnover volume (1-sided). Previously reported figures in the past surveys (which are 2-sided volume) have been revised.					
(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 in the table section among the products under study.					
(5) Figures before 2008/09 for the percentage of online trading to total market volume were adjusted to be in line with the 2008/09 survey methodology (under which the percentage is an unweighted figure based on the sample of respondents).					

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# GLOSSARY

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<b>Hedging</b>	Utilisation of futures/options to reduce or eliminate the market risk of a portfolio by compensating for the effect of price fluctuations of an underlying asset.
<b>Pure trading</b>	Trading for potential profit in anticipation of a price movement in either the short or long term, but not for hedging or arbitrage purpose.
<b>Arbitrage</b>	Trading to take riskless or near riskless profit from price differentials in related markets.
<b>Principal trading</b>	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.
<b>Agency trading</b>	Trading on behalf of the participant firm's clients, including client trading channelled from the firm's parent or sister companies.
<b>Market maker trading</b>	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.
<b>EP proprietary trading</b>	Trading on the participant firm's own account but not as a market maker.
<b>Individual/Retail investors</b>	Investors who trade on their personal account.
<b>Institutional investors</b>	Investors who are not individual/retail investors.
<b>Local investors</b>	Individual/Retail investors residing in Hong Kong or institutional investors operating in Hong Kong — Hong Kong as the source of funds.
<b>Online brokers</b>	EPs who offer online trading service to individual/retail investors.
<b>Overseas investors</b>	Individual/Retail investors residing outside Hong Kong or institutional investors operating outside Hong Kong — overseas as the source of funds.
<b>Retail online trading</b>	Trading originating from orders entered directly by individual/retail investors and channelled to the brokers via electronic media (e.g. the Internet).
<b>Implied contract volume</b>	The number of contracts traded by a particular investor type in a particular product type (or the overall market) is calculated by multiplying the percentage contribution of that type of trade to the product turnover (or the market turnover) as obtained from the survey by the actual turnover (number contracts traded) of that product (or the aggregate turnover of all products under study) during the study period.
<b>Notional value</b>	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.

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## APPENDIX 1. RESPONSE RATE

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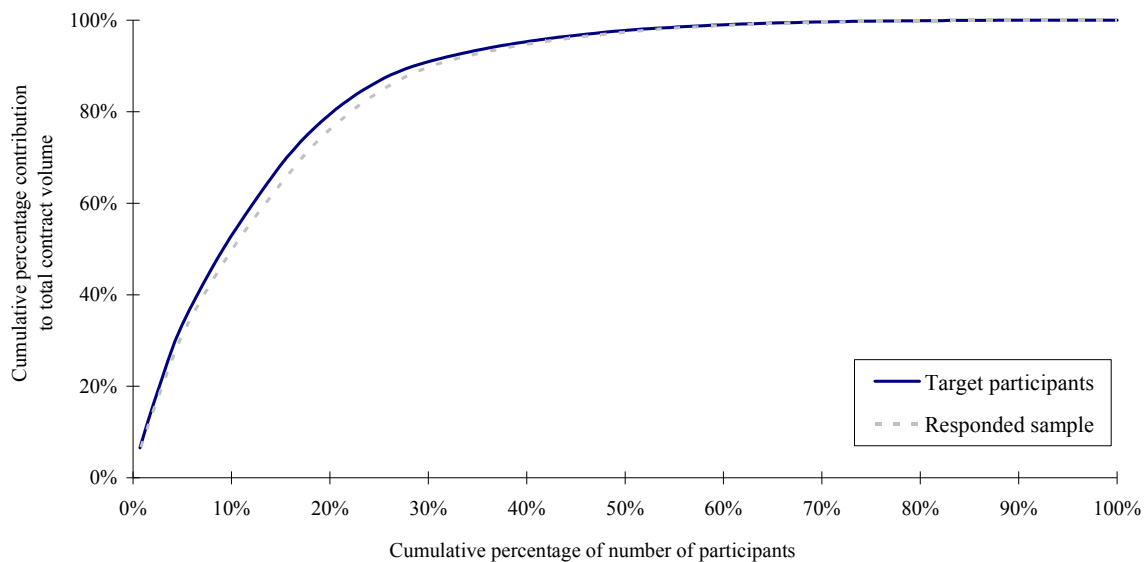
<b>Exchange Participants</b>	<b>Target population</b>	<b>Responded participants</b>	<b>Response rate</b>	<b>% share of turnover in target population</b>
<b>Futures EPs</b>	141	124	87.9%	98.1%
<b>Stock Options EPs</b>	54	51	94.4%	99.7%
<b>All Participants</b>	195	175	89.7%	98.9%

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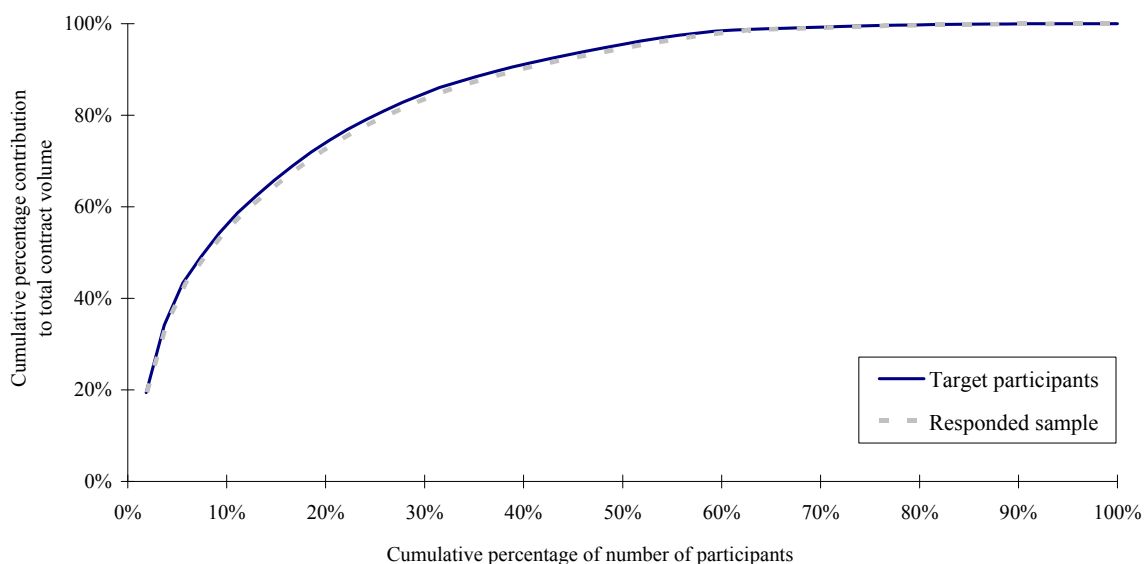
## APPENDIX 2. REPRESENTATIVENESS OF THE RESPONDED SAMPLE RELATIVE TO TARGET RESPONDENTS

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**(a) Futures Exchange Participants (Jul 2008 – Jun 2009)**



**(b) Stock Options Exchange Participants (Jul 2008 – Jun 2009)**



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

Product	Contract multiplier (HK\$ per index point)	Notional value per contract <sup>(1)</sup> (HK\$) (as at 30 June 2009)	Turnover in notional value during the study period	
			(HK\$m)	% of total
HSI futures	50	918,937	20,439,997	56.6%
HSI options	50	918,937	4,064,519	11.3%
Mini-HSI futures	10	183,787	1,673,187	4.6%
HHI futures	50	548,131	7,895,751	21.9%
HHI options	50	548,131	1,027,241	2.8%
Stock options	— <sup>(2)</sup>	18,517 <sup>(3)</sup>	1,000,580	2.8%
Overall market			36,101,275	100.0%
Notes:				
(1) See glossary for the definition of notional value.				
(2) The contract size for a stock options class is one board lot of the underlying stock; 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\$1,045 to HK\$96,800), based on the stock closing prices as at 30 June 2009 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.				



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## APPENDIX 4. SURVEY METHODOLOGY

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### (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 2009. 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 2008 to June 2009.
- Products under study were Hang Seng Index (HSI) futures, HSI options, Mini-HSI futures, H-shares Index (HHI) futures, HHI options and stock options. These products together contributed 98.9% 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.
- In the 2008/09 survey, the methodology to arrive at the relative contribution of each type of trade to the total market volume was improved 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 calculation methodology was also improved in the 2008/09 survey. The proportion of online trading to the total market turnover was estimated as the proportion of total reported online trading volume (the aggregate of all responding Participants' figures, each was calculated by multiplying the reported percentage with the actual contract volume for that Participant) to the total trading volume of the responded sample (rather than to the target population's total as in the past years). The implied online trading volume was then calculated by multiplying this proportion by the actual market turnover during the study period. 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.

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### (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”. Three EPs in the 2008/09 survey could not provide the answer for 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 for 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 for a particular product type and Participant type which has a small base. Nevertheless, the error due to non-response should be small because of the high response rate by turnover volume and the high representativeness of the responded sample to the target population (see Appendix 1 and 2).
- There are two sets of statistics on FEPs’ contract volume — execution statistics, which record volume when the trades are executed, and registration statistics, which are adjusted for post-trades<sup>5</sup>. 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.

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<sup>5</sup> 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.