**Research & Corporate Development** 

# CASH MARKET TRANSACTION SURVEY 2010/11

March 2012



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### **1. INTRODUCTION**

The Cash Market Transaction Survey (CMTS) has been conducted annually since 1991 to study the trading composition of Stock Exchange Participants (EPs). The main objective is to understand the relative contribution of trading value in the HKEx securities market, including the Main Board and the Growth Enterprise Market (GEM), by investor type (see classification chart below). The market share of online trading<sup>1</sup> is also assessed.



#### **Classification of Stock Exchange Participants' trading**

The Cash Market Transaction Survey 2010/11 covered EPs' transactions on both the Main Board and the Growth Enterprise Market for the 12-month period from October 2010 to September 2011.<sup>2</sup>

In October 2011, survey questionnaires were mailed to 471 EPs in the target population. Out of the 471 questionnaires sent, 431 completed questionnaires were received, representing an overall response rate of 92% by number or 96% by turnover value in the target population.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Please refer to "Glossary" for definition.

 $<sup>^{2}</sup>$  Referred to as the year 2010/11 throughout the report; the same convention is used for the past surveys.

<sup>&</sup>lt;sup>3</sup> See Appendix 2 for details of the survey methodology.

### 2. KEY FINDINGS

#### Trading value by investor type

- (1) In 2010/11, overseas investors contributed 46% to total market turnover (similar to their contribution in 2009/10) while local investors contributed a record low of 42% (down from 44% in 2009/10). This was the second consecutive year overseas investors' contribution surpassed local investors' contribution.
- (2) In 2010/11, institutional investors and retail investors contributed 62% and 27% respectively to total market turnover (compared to 64% and 26% in 2009/10).
- (3) The contribution of EP principal trading in 2010/11 rose to a record high of 12%, up from 10% in 2009/10. It has been going up in the past four years.
- (4) Overseas institutional traders were the main traders in the market with a contribution of 42%. Their contribution increased gradually from about one-third in early 2000s to over 40% in recent years.

#### **Overseas investor trading**

- (5) In 2010/11, the main contributors to overseas investor trading were US investors (28%, up from 24% in 2009/10), UK investors (27%, compared to 29% in 2009/10) and Continental European investors (14%, compared to 16% in 2009/10).
- (6) Asian investors in aggregate contributed 22% of total market turnover in 2010/11, down from 27% in the previous year. Investors from Mainland China were the largest contributor group in Asia (10%, compared to 11% in 2009/10). They were followed by investors from Singapore, who contributed 7% in 2010/11 (compared to 9% in 2009/10).
- (7) Trading from the major investor origins (US, UK and Continental Europe) came predominantly from institutions (over 96%). Trading from Mainland China, on the other hand, had a significant proportion (at least 42%) coming from retail investors.
- (8) Over the past decade, the aggregate contribution of investors from the US, UK and Continental Europe was maintained at levels around 70-75% but the contribution from Continental Europe was on the wane in the past 5 years. In Asia, Mainland China's investors have been the largest trading group since 2006/07, with their trading value growing substantially at a compound annual growth rate (CAGR) of 47% the highest among all overseas origins.

#### **Retail online trading**

(9) Retail online trading accounted for 26% of total retail investor trading in 2010/11 (compared to 27% in 2009/10) or 7% of total market turnover (same as in 2009/10).

## 3. DISTRIBUTION OF MARKET TRADING VALUE BY INVESTOR TYPE

The total turnover value of the HKEx securities market in the 2010/11 study period increased by 20% from a year ago to HK\$19 trillion. As implied from the survey findings, the trading values contributed by the different investor types all recorded a year-on-year growth while the overall distribution pattern remained similar to that in 2009/10.

### 3.1 The pattern in 2010/11

**Overseas investors** maintained their dominance over local investors in the contribution to total market turnover — 46% in 2010/11, similar to their level in 2009/10. Most of their trading came from overseas institutional investors, who contributed 42% (similar to their contribution in 2009/10). Overseas retail investors contributed 4%, similar to 2009/10.

The contribution of *local investors* to total market turnover, after being surpassed by overseas investors in 2009/10, further decreased from 44% in 2009/10 to 42%, the lowest level since the survey started in 1991. Among them, trading came almost evenly from local retail investors (22% in 2010/11, compared to 21% in 2009/10) and local institutional investors (20% in 2010/11, compared to 23% in 2009/10).

Local and overseas *institutional investors* in aggregate contributed 62% to total market turnover in 2010/11, down slightly from 64% in 2009/10. This reflected mainly the decrease in the contribution from local institutional investors. Local and overseas *retail investors* contributed in aggregate 27% of total market turnover in 2010/11, little changed from the 26% in 2009/10.



The contribution of *EP principal trading* rose to a record high of 12% in 2010/11 from 10% in 2009/10. Excluding EP principal trading, *investor trading* contributed 88% to total market trading. Of this, institutional investor trading had a larger share (70%) than retail investor trading and overseas investor trading had a larger share (52%) than local investor trading.

*Institutional investor trading* came mostly from overseas (68%, up from 65% in 2009/10) while *retail investor trading* came predominantly from local sources (83%, similar to the level in 2009/10). More than half of *local investor trading* came from retail investors (53%, up from 49% in 2009/10), while *overseas investor trading* came predominantly from institutions (90%, similar to the level in 2009/10).

(See Table 1.)

Table 1. Breakdown of contribution by type of trade in cash market $(2008/09 - 2010/11)$							
Type of trade	2008/09	2009/10	2010/11				
All trading							
Investor trading	91.51	90.08	88.27				
EP principal trading	8.49	9.92	11.73				
	100.00	100.00	100.00				
Investor trading							
Retail	32.26	28.61	30.23				
Institutional	67.74	71.39	69.77				
	100.00	100.00	100.00				
Investor trading							
Local	54.27	48.60	47.78				
Overseas	45.73	51.40	52.22				
	100.00	100.00	100.00				
<b>Retail investor trading</b>							
Local	85.36	82.55	83.39				
Overseas	14.64	17.45	16.61				
	100.00	100.00	100.00				
Institutional investor trading							
Local	39.47	35.00	32.36				
Overseas	60.53	65.00	67.64				
	100.00	100.00	100.00				
Local investor trading							
Retail	50.74	48.59	52.75				
Institutional	49.26	51.41	47.25				
	100.00	100.00	100.00				
Overseas investor trading							
Retail	10.33	9.72	9.62				
Institutional	89.67	90.28	90.38				
	100.00	100.00	100.00				

### 3.2 Historical trend

Figure 2 shows the distribution of cash market trading value by investor type over the past decade. During the period, *overseas institutional investors* were the dominant traders in the market. Their contribution gradually increased from about one-third in early 2000s to over 40% in the 2010s, double the respective contribution from local retail investors and local institutional investors. Over the past decade, they contributed 39% to the *cumulative market turnover*. Together with overseas retail investors, overseas investors contributed 43% to the cumulative market turnover.

Because of the relative dominance of local retail investors in early 2000s, local investors as a whole contributed 50% to the cumulative market turnover in the past decade. Notably, the percentage contribution of local institutional investors remained at around a quarter over the past decade but reached the lowest level of 20% in 2010/11.





Figures 3 and 4 show clearly the rising trend in the relative contribution of trading from overseas investors against the declining trend for local investors and for retail investors. Notably, EP principal trading gradually rose in the past four years.

Distribution of cash market trading value by investor type Figure 4. (retail vs institutional) (2001/02 - 2010/11) 80% 70% 64% 65% 65% 64% 63% 62% 62% 60% 59% 55% 60% Δ 50% 38% 40% 35% 34% 32% 31% 30% 29% 30% 27% 26% 30% -20% 12% 10% 8% 8% 7% 7% 6% 5% 10% 4% 3% 0% 2001/02 2002/03 2003/04 2004/05 2005/06 2006/07 2007/08 2008/09 2009/10 2010/11 EP principal trading ----Retail investor trading Institutional investor trading Note: Numbers may not add up to 100% due to rounding.

In value terms, trading from all investor types increased substantially compared to the levels ten years ago. Overseas investors as a whole recorded a compound annual growth rate (CAGR) of 34%. Overseas institutional investors had a CAGR of 33%. Overseas retail investors (a significant proportion of which came from Mainland China in recent years), given their small base, also had a substantial CAGR of 40% in the past decade. Trading from overseas institutional investors resumed significant growth immediately after their contraction in 2008/09 under the Global Financial Crisis. Local retail investors, on the other hand, took two years to resume growth.



## 4. DISTRIBUTION OF OVERSEAS INVESTOR TRADING VALUE BY ORIGIN

### 4.1 The pattern in 2010/11

Overseas investor trading contributed 46% to total market trading in 2010/11. Among the different overseas origins, *US investors* contributed the most — 28% of overseas investor trading in 2010/11, an increase from 24% in 2009/10. The second largest contributors were *UK investors* who had a contribution of 27%, down from 29% in 2009/10. In 2010/11, the contribution from *Continental European investors* was 14%, down from 16% in 2009/10. The aggregate contribution from Europe decreased from 45% in 2009/10 to 41% in 2010/11, probably due to the heightening of the European Debt Crisis.

In 2010/11, *Asian investors* contributed in aggregate 22% of total overseas investor trading, down from 27% in 2009/10. *Mainland investors* continued to be the largest contributors among Asian investors, with a contribution of 10% compared to 11% in the previous year. They were followed by *Singaporean investors* who contributed 7% in 2010/11, compared to 9% in 2009/10. Notably, the contribution from Australian investors increased from 2% in 2009/10 to 5% in 2010/11 due mainly to a change in reporting by a responding EP.<sup>4</sup>

Although the survey did not ask for a breakdown by retail/institutional investor for each overseas origin, a minimum proportion of retail/institutional investor trading from each origin could be deduced from EPs' responses. Overseas investor trading from *the US, the UK and Continental Europe came predominantly from institutional investors* (over 96%), and so were those from *Australia* (over 94%), *Singapore* (over 83%) and *Japan* (over 72%). For trading from *Mainland China*, at least 42% came from retail investors and at least 35% came from institutional investors. From the implied value of trading, at least 43% of total overseas retail investor trading came from Mainland China.



<sup>&</sup>lt;sup>4</sup> This EP reported a substantial contribution to its trading from its sister company in Australia in 2010/11 while in the past surveys, this kind of trading carried out for its corporate group was reported as its principal trading.

### 4.2 Historical trend

Figure 7 shows the distribution of overseas investor trading by origin over the past decade. The main contributors to total overseas investor trading during this period were investors from the US, UK and Continental Europe. They had roughly equal shares in the first half of the decade (around 25% each). However, the contribution of trading from Continental Europe fell below 20% in the second half of the past decade. On the other hand, the contribution of trading from the US reached record highs of 35% and 36% in 2007/08 and 2008/09 respectively when the market was hit by the Global Financial Crisis.



(1) Taiwan was included in "Rest of Asia" in surveys prior to 2001/02. Singapore was included in "Rest of Asia" in surveys prior to 2002/03. Australia was included in "Others" in surveys prior to 2007/08.

(2) Numbers may not add up to sub-totals or 100% due to rounding.

The contribution of Asian investors hovered at around 20% for most of the past decade and climbed to more than a quarter in 2008/09 and 2009/10, reflecting an increase in the share of trading from Mainland China in the second half of the decade. The contribution from Mainland investors grew to over 10% in the later part of the past decade, surpassing the contribution from Continental European investors in 2008/09 for the first time (12% vs 10%). Mainland investors have also surpassed Singaporean investors since 2006/07 and became the largest contributor from Asia. (See Figure 7.)

In value terms, trading from Mainland investors (given their small base) had the highest growth rate — a CAGR of 47% in the past decade, compared to 36% for US investors and 34% for UK investors. (See Figure 8.)



(1) Taiwan was included in "Rest of Asia" in surveys prior to 2001/02. Singapore was included in "Rest of Asia" in surveys prior to 2002/03. Australia was included in "Others" in surveys prior to 2007/08, for which year-on-year percentage change in implied value of investor trading was not available.

(2) For trading from Singaporean and Australian investors whose implied values were not available in 2001/02, the CAGR was calculated for the period starting from the year when data was available. Since these origins were spinned off from "Rest of Asia" during the ten-year period, CAGR for "Rest of Asia" had to be interpreted with care.

(3) The substantial growth in trading from Australia in 2010/11 was due to a change in reporting by an EP, who reported a substantial contribution to its trading from its sister company in Australia in 2010/11 while in past surveys, this kind of trading carried out for its corporate group was reported as its principal trading.

## 5. RETAIL ONLINE TRADING

There were 209 EPs reporting themselves as online brokers in 2010/11. This was equivalent to 48% of all responding EPs, up from 45% (or 185 EPs) in 2009/10. Retail online trading contributed 18% to the total turnover value of online brokers in 2010/11, compared to 17% in 2009/10.

Retail online trading accounted for 26% of total retail investor trading in 2010/11, compared to 27% in 2009/10. It accounted for 7% of total market turnover, similar to the proportion in 2009/10. In value terms, retail online trading increased by 14% in 2010/11, compared to the 20% increase of the total market turnover.



Note: One EP which had a significant proportion of its total turnover as retail agency trading and reported high percentage share of retail online trading prior to 2010/11 did not provide the percentage share of its retail online trading in 2010/11. This EP was excluded from the responded sample in calculating retail online trading in percentage and value terms for 2010/11.

Table 2. Statistics on retail online trading in cash market (2006/07 – 2010/11)								
	2006/07	2007/08	2008/09	2009/10	2010/11			
Responded sample size	380	404	410	409	431			
Online brokers <sup>(1),(2)</sup>	2006/07	2007/08	2008/09	2009/10	2010/11			
Number of online brokers	126	155	173	185	209			
- As % of all responding EPs	33%	38%	42%	45%	48%			
Online trading <sup>(2)</sup>	2006/07	2007/08	2008/09	2009/10	2010/11			
Total implied trading value (HK\$m)	845,014	1,156,321	921,416	1,095,691	1,252,109			
- As % of total market turnover	5.26%	5.06%	6.34%	6.94%	6.59%			
- As % of all agency (investor) trading	5.49%	5.39%	6.92%	7.70%	7.50%			
- As % of total retail investor trading	16.81%	17.38%	21.46%	26.91%	25.82%			
- As % of total turnover of online brokers	16.27%	15.39%	16.48%	17.12%	18.35%			

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) One EP which had a significant proportion of its total turnover as retail agency trading and reported high percentage share of retail online trading prior to 2010/11 did not provide the percentage share of its retail online trading in 2010/11. This EP is included in the number of online brokers but excluded from the responded sample in calculating retail online trading in percentage and value terms for 2010/11.

Agency trading	Trading on behalf of the participant firm's clients, including client trading channelled from the firm's parent or sister companies.			
Implied value of trading	The implied value of trading for a particular type of trade is calculated by multiplying the percentage contribution to market turnover by that type of trade as obtained from the survey by the actual overall market turnover during the study period.			
	The implied value of trading from a particular overseas origin is calculated by first calculating the implied overseas agency trading value during the study period, and then multiplying it by the percentage contribution to overseas agency trading by that origin as obtained from the survey.			
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, with Hong Kong as the source of funds.			
Online brokers	Stock Exchange Participants 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, with the source of funds overseas.			
Principal trading	Trading on the participant firm's own account.			
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).			

## APPENDIX 1. REPRESENTATIVENESS OF THE RESPONDED SAMPLE VIS-À-VIS THE TARGET POPULATION OF EXCHANGE PARTICIPANTS



### **APPENDIX 2. SURVEY METHODOLOGY**

#### (1) Target population

The target population included all trading Stock Exchange Participants (EPs) of the cash market who became trading participants prior to the end of March 2011 (i.e. who had been in business for over 6 full months during the study period) and remained so before the fieldwork of the survey began. It excluded EPs whose trading was suspended from July 2011 to September 2011 or ceased on or before September 2011 or who traded for less than 6 months during the study period. This is to avoid distortion of the results by participants who were not in the normal course of business.

All EPs are corporations.

#### (2) Methodology

The study period is from October 2010 to September 2011.

EPs in the target population were ranked in descending order by turnover value. To achieve a fairer ranking, the actual turnover of new EPs whose trading period was less than 12 months during the study period was annualised for the ranking. The actual turnover of the EPs was used in analysing the results. Ranking of EPs by turnover was for the purpose of monitoring the responses and follow-up in the fieldwork as well as generating response rates by turnover size groups as weighting factors in the subsequent analysis.

The survey sample consisted of all EPs in the target population. Survey questionnaires were mailed to each EP firm in the sample, with close telephone follow-up to ensure a high response rate, especially for the EPs which were top-ranked in the target population by turnover value. In the survey questionnaire, EPs were requested to provide an estimated percentage breakdown of their trading value during the study period in accordance with the prescribed classification. EPs were asked to provide their consolidated trading composition including trading channelled through their affiliate or sister companies as far as possible, if applicable. Those who were known to have such situation but who refused to provide details were treated as cases with missing value for which a mean substitution method<sup>5</sup> was adopted, except for online trading. For online trading, EPs who reported to be online brokers but were unable to provide the proportion of their retail investor trading as online trading were excluded from the responded sample in calculating the retail online trading in percentage and value terms.

Each responding EP's answers in percentage terms were weighted by the respondent's total turnover value in the overall market accordingly to obtain respective values in the responded sample. The implied percentage shares of different types of trade in the market were then calculated, adjusted by the response rate in value terms relative to the target population.

<sup>&</sup>lt;sup>5</sup> The average values obtained from other EPs in the same size group were applied to the missing cases. For this purpose, EPs in the target population were divided into three size groups with equal aggregate contributions to total turnover value of the target population — large-sized brokers (contributing the top one-third of turnover in the target population), medium-sized brokers (contributing the second one-third of turnover) and small-sized brokers (contributing the bottom one-third of turnover).

The implied value of trading for a particular type of trade is determined by multiplying the percentage contribution to total turnover by that type of trade as obtained from the survey by the actual total turnover in the overall market during the study period for that year of survey.

#### (3) Limitations

In providing the breakdown of total turnover value by the type of trade, many EPs could only provide their best estimates instead of hard data.

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.

In practice, it is not unusual for EPs to convey client orders to other EPs for execution. When providing the breakdown of their investor composition, most of the EPs would treat those EPs who conveyed orders to them as their ultimate clients, i.e. as local institutions, regardless of the client origin.

Some bank-related EPs might not be able to provide the trading composition of client orders originating from their associated banks and would treat the banks as their local institutional clients. This would also affect the result of retail online trading since part of the retail investor trading channelled through banks would be online.

Different EPs would have different corporate group structures and operating models within their corporate groups. Some EPs might be able to provide the investor composition of trading channelled via their sister companies; others may regard their sister companies as their clients and incorporated no further breakdown. In other words, the depth of detail in investor composition across EPs might not be on the same ground.

The non-responded EPs and responded EPs with missing responses for certain questions may have different trading composition from the other responded EPs. The exclusion of these EPs from the applicable analysis might affect the survey results. Since the survey has a high response rate by turnover value and a method of weighting by size group in treating missing responses was adopted to cater for the different trading composition by size group, the impact of non-responded EPs to the overall findings should be small. Nevertheless, there might be some impact on the types of investor trading which had relatively low contribution to market turnover.

The random sampling method used in the previous surveys in 2001/02 and  $2002/03^6$  would also have consequences similar to those stated in the above paragraph. Therefore, for the types of investor trading with very small contributions, the relative changes in their contributions and in absolute value terms over the years should be interpreted with caution.

— END —

<sup>&</sup>lt;sup>6</sup> In 2001/02 and 2002/03 surveys, the survey sample consisted of all brokers contributing the top two-thirds of turnover value in the target population as well as a random sample covering 60% of brokers contributing the bottom one-third of turnover value. In the prior years and since the 2003/04 survey, a census approach was adopted, i.e. all brokers in the target population were included in the survey sample.