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# The Investment Preferences and Behaviour of Small Investors in Derivatives Markets: A Survey on Derivative Investments in Hong Kong

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## *Abstract*

*This paper, using a survey, makes an attempt to investigate the investment preferences and behaviour of small investors trading at the Hong Kong derivatives markets. The observation period for the current survey covers the most turbulent period of the economic crisis of January 2011-January 2012 which happened in Hong Kong. The survey was conducted from 31st January 2012 to 15th March 2012. A non-probability sampling method was applied to select individuals aged 18 and above from the investing population of Hong Kong. The results indicate that small investors mostly tend to trade Callable Bull/ Bear Contracts (35% of total) and warrants (23% of total). The results further indicate that 38% and 26% of the respondents respectively considered Internet and newspapers/TV/ magazines as the decisive factors which would affect their decision-making while investing in the financial derivatives. At the same time, about 45% respondents can be found in 10-30% portfolio weight in derivatives products irrespective of the fact whether they were influenced by Euro Zone Sovereign Debt crisis or not. This result unveiled that the small investors were interested in derivatives investments in Hong Kong. Finally, we focus on the online trading phenomenon in the derivatives markets. We found that 'online trading' was popular and had a noticeable trend, with 80% of the small investors participating in online trading.*

## 1. Introduction

The retail investor survey[1] 2011(HKEx, 2012) found that 35.8% of the Hong Kong adult[2] population (or 2,154,000 individuals) were retail investors in stocks[3] (i.e. securities market products: equity securities, exchange traded funds, derivatives warrants, Callable Bull/Bear Contracts[4], etc.) and/or derivatives (i.e. futures and options) traded on Hong Kong Exchanges and Clearing Limited(HKEx). For historic reasons, stocks, derivative warrants (DWs) and Callable Bull/Bear Contracts (CBBCs) are traded on the Stock Exchange. The derivatives market is further divided into the Futures Exchange and Stock Options Exchange. Index futures and index options, among others, are traded on the Futures Exchange, while options on individuals stocks are traded on the Stock Options Exchange. Also, banks provide trading of Renminbi non-deliverable forwards (NDFs) investment services to the investors. The mandatory requirements are that the investors must pass the risk assessment test before the start of trading on the exchanges. They also need to open an investment services account.

Retail participation in the HKEx derivatives market remained low - 2.0% of adult populations were derivatives investors[5] (122,000 individuals). In respect of product investment, almost all stock investors (99%) invested in equities and a significant proportion (21%) in Exchange Traded Funds. A few of them invested in warrants (7.1%) or CBBCs (5.9%), collectively 9.7% in warrants and/or CBBCs, and in derivatives (5.3%) ( HKEx, 2012).

During the first half of 2012, trading in derivative warrants and Callable Bull/Bear Contracts decreased in both absolute terms and as a percentage of the total market turnover (Securities and Futures Commission, 2012a).Trading in futures products rose by 20% in 2011. Among futures products, Hang Seng Index (HSI) futures remained the most actively-traded contract, accounting for nearly half of all futures trading; trading in options rose by 25% in 2011. Stock options

[1] The trading activity of stock investors in equities/funds/bonds and in warrants or Callable Bull/Bear Contracts (CBBCs) was separately assessed in the 2011 survey. In the past surveys, the trading activity of stock investors in the Hong Kong Exchange and Clearing Limited (HKEx) securities market as a whole (ie in stocks ) was assessed.

[2] The definition of "adults" in surveys before 1997 referred to individuals aged 21 or above. Since 1997, the definition was revised to individuals aged 18 or above.

[3] The definition of "Hong Kong stocks" includes shares, warrants, Exchange Trade Funds (ETFs)since the 2001 survey, Real Estate Investment Trust (REITs) since 2005, Callable Bull/Bear Contracts (CBBCs) since 2007 and bonds in 2011 (after the issuance of iBond in the same year), which are products of the HKEx securities market.

[4] The incidence of retail participation in Callable Bull/Bear Contracts (CBBCs) was newly assessed in the 2009 survey.

[5] An individual who was holding derivatives at the time of interview or had traded derivatives in the 12 months preceding the interview.

remained mostly-traded options product and trading volume rose 23% compared to 2010 (Securities and Futures Commission, 2012b). Securities and Futures Commission (SFC) of Hong Kong (2008) reported that investors invest for multiple purposes. The key reason, as mentioned by 86.6% of those surveyed, was to get returns better than yields on bank deposits. Investors mentioned at least seven factors that they took into consideration when making an investment. Return on investment (91.7%) was at the top, followed by downside risk (90.9%), while knowledge of investment products ranked fifth (84.7%). It also reported (SFC, 2005) that derivative warrants can be attractive to investors for several reasons. First, as they cost only a fraction of the price of their underlying asset and allow investors to profit from movements in the price of the underlying asset, they provide a much cheaper alternative to investing in the underlying asset. Second, they have a leveraging effect.

In 2011, the majority of derivatives investors (64%) used broker firms as the main derivatives trading channel[6]. A larger proportion of CBBCs investors (93%) and warrant investors (84%) were online stock trader[7] (HKEx, 2012). A survey from HKEx (2010/11) revealed that 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. The use of online trading by retail investors was even more prominent for other derivatives – 65% of total retail investor trading in 2010/11 and 18% of total product turnover in 2010/11. In 2005, a survey from HKEx, online derivatives traders[8] have a higher trading frequency and a larger deal size than non-online derivatives traders during the 12-month period. In 2002, according to the Derivative Retail Investor Survey 2001/02 written by HKEx, 18% of the respondents had online trading experience in HKEx futures or options (either through Internet or other electronic media).

In the present study, we attempt to analyse and study as to what sorts of events will initiate a psychological instead of rational[9] response from the small investors. Hence, it is interesting to explore whether the investment behaviour on derivatives markets change in the past ten years. As such, it is also interesting to discover whether it can apply to Hong Kong small investors. This

[6] Although banks do not directly offer derivatives trading service to retail investors, they can provide redirection service to their broker firm (sister company in the same corporate group) on their websites or on inquiry. Investors who regard themselves trading derivatives through banks would include those using such service and those trading through broker firms with the same label as the related banks.
[7] A stock trader who had traded stocks in the 12 months preceding the interview through electronic media such as the Internet, either always or sometimes.
[8] A derivatives trader who had traded derivatives in the 12 months preceding the interview through electronic media such as the Internet, either always or sometimes.
[9] There are four axioms of the expected utility theory that define a rational decision maker. They are completeness, transitivity, independence and continuity. Details see the von Neumann-Morgenstern (1944)axioms at: http://en.wikipedia.org/wiki/Von_Neumann-Morgenstern_utility_function

survey's observation period covers Euro Zone Sovereign Debt crisis[10] of January 2011-January 2012 in Hong Kong. The main purpose of the survey is to find out the profile and attitude of small investors towards financial derivatives in Hong Kong and their investing pattern of different financial derivatives. By using the information collected, we make an attempt to examine if there is any interesting phenomenon in the survey and analyse the reasons behind it.

This paper is organized as follows: Section 2 reviews the related literature, and is followed by Section 3, which explains the data and method; Section 4 discusses the analytical results, and the last section concludes the present study.

## 2. Literature Review

Although many personal and situational factors may influence the behaviour of small investors in the derivatives markets, research on this topic is sparse. Previous studies revealed that interpersonal influence (Hoffmann and Broekhuizen, 2009), knowledge (Wang, 2009), and some other personal factors such as gender and personality traits (Durand et al., 2008) were crucial in explaining investor behaviour. However, it is important to explore the psychological processes (such as perception, attitudes, learning, and motivation) that affect an individual's decisions regarding an investment. For example, an investor's gender and educational level (i.e., individual factors) may affect his or her knowledge and orientation in investment, which then influence the risk perception, and finally his or her investment behaviour. Graham *et al*. (2009) noted that male investors, and investors with larger portfolios or literacy levels, are more likely to perceive themselves as competent than are female investors and investors with smaller portfolios or less education. Hoffmann and Post (2012) found that past returns positively impact investors' return expectations and risk tolerance, and negatively impact their risk perception. Moreover, Korniotis and Kumar (2011) suggested that older people make better investment choices as they gain more investment knowledge and experience, and questioned whether deterioration of their investment skills with age was largely due to the adverse effects of cognitive ageing.

## 3. Data and Method

The data for the present study were collected from the small investors in Hong Kong through a survey questionnaire (see Appendix 1). Its main purpose is to find out the profile and

[10] Since 2010, the Eurozone debt problems have affect investor sentiment and increased market volatility. In 2011, major markets around the globe were confronted by a number of uncertainties. The US credit rating was downgraded, and there were concerns about US banks given their exposures to European debt, affecting market sentiment. In Asia, the Japanese market was hit by a massive earthquake in March which was followed by a tsunami and radiation leakage at one of its nuclear plants. Most markets bottomed on October. The Hong Kong market generally underperformed, dragged down by financial stocks.

attitude of small investors towards financial derivatives in Hong Kong and their investing pattern of different financial derivatives. The questionnaire was designed to elicit information about demographics, investment experience and behaviour, and factors affecting financial decision-making of the respondents. The first part of the questionnaire focused on the investment experience, perceptions about the investment conditions, and factors that affect financial decision-making. The second part collected the respondents' demographic data such as personal information which include gender, age, education level, employment status, and average monthly income. Since the majority of Hong Kong population is Chinese, the questionnaire was written in Chinese. After a pilot test on nineteen respondents, some amendments[11] were made before we finalized the questionnaire. Since some respondents did not reply to all the questions in the questionnaire, we only used the number of replies (i.e., the questions that respondents did not answer were not counted) to calculate the total number of and the percentage of the total for the individual entries.

The survey was conducted from 31 January 2012 to 15 March 2012. A non-probability sampling[12] process was adopted to select individuals aged 18 or above from the population of Hong Kong. A group of undergraduate students helped in the distribution of questionnaires to the respondents. The target population is the small investors in the Hong Kong derivatives markets. Finally, a total of 524 respondents completed and returned the questionnaires. The respondents were requested to provide an estimated percentage breakdown of their average return on investment from the derivative products under study during the study period. We use cross tabulation analysis for our survey. It is often an experimental process of digging into the data and exploring the relationships between items.

Since the survey findings are projected figures/estimates concerning the whole Hong Kong adult population, they are subject to sampling error. For small investors in derivatives markets, due to the small sample size of this investor type, the findings are subject to bigger possible error and certain detailed analysis on this small investor type could not be performed. Respondents might not intentionally disclose the truth in sensitive questions such as income level. Certain questions on derivatives holdings and trading behaviour which were rather demanding on the respondent's memory may have a relatively high rate of refusals. These shortcomings might lower the reliability of the results. Some responses were perceptions or estimates of respondents that might deviate from the truth, such as small investors replies to the period of sell or close out

[11] Such as rewording of some questions to eliminate ambiguities.
[12] See Cochran, Mosteller, and Tukey (1954).

their positions when they invested in financial derivatives during January 2011 to January 2012.

## 4. Results

In this section, we analyze the data obtained from our survey. First, we present information about the sample and then we report their opinions on investing using financial derivatives. Second, we report the cross tabulation analysis.

*Sample Demographics and Summary Statistics*

[Table 1 here]

The profile of the respondents is reported in Table 1. Among the respondents, 62.9% of the respondents were male and 37.1% were female. The majority of them were under the age of 55 (92.6%), and only 7.4% were aged 55 or above. Regarding the level of education, majority of them have tertiary education (63.2%), while 36.7% graduated from secondary schools or below. Regarding their employment status, 61.9% of the respondents were employed, 10.2% were self-employed, 6.7% were retired and 21.3% were classified as "others" which included housewives and students. Finally, the respondents' median income was \$14,573.36[13]. In view of the above demographic profile of the respondents, we believe that the respondents are representative of small investors in the Hong Kong derivatives markets.

[Table 2 here]

Responses to various items are reported in Table 2. The results from item 1 indicate that 34% of the respondents had invested for a period ranging from one to three years, 18.1% had invested for lesser than one year, 17.6% had invested for three to five years, 13.5% had invested for five to ten years, 8.6% had invested for a period above ten years and 8.2% had no experience of investing in financial markets. The results from item 2 indicate that 79.6% of the respondents invested in financial derivatives from January 2011 to January 2012.

Callable Bull/Bear Contracts was the most favorite product; the results from item 3 indicate that 34.9% of the respondents traded it most frequently. The second frequently traded derivatives product was warrant, with 23.2% of the respondents; the third frequently traded was Hang Seng Index futures, with 17.9% of the respondents; the

fourth frequently traded was stock options, with 12.4% of the respondents; the fifth frequently traded was Hang Seng Index options, with 8.4% of the respondents; the least frequently traded was Renminbi non-deliverable forwards, only with 1.9% of the respondents.

[13] $\$9{,}999.5+\left[\frac{261.5-181}{88}\times\$5{,}000\right]=\$14{,}573.36$

This may possibly be due to the fact that small investors buy the Callable Bull Contracts in the bull market and buy the Callable Bear Contracts in the bear market during the volatile period of global economic meltdown. Also, small investors have rich experience in warrant markets. These warrants are attractive investment vehicles for two reasons: their leveraging effect and limited loss feature make them attractive to aggressive investors; they can serve as hedging instruments to reduce the risk exposures arising from other related investments.

The most important determinants for the respondents to make investment decisions on financial derivatives are reported as follows. The results from item 4 indicate that 37.8% of the respondents think that those taking market commentators' recommendations from the Internet; 25.8% of the respondents think those taking recommendations in newspapers, TV, or magazines; and 17.2% of the respondents would take recommendations from investment consultants as the major determinant on derivatives investments. Relatives and friends, company annual reports were less important in influencing investors' decisions, with only 10.3% and 4.8% respectively. The results show that the small investors pay more attention to Internet and TV/magazines/newspapers when deciding their investments as these factors are highly accessible and more updated. As derivative investments are generally conceived to be speculation (48.8% shown in item 16), which means that they have a high frequency of trading and shorter holding period. 38.2% (shown in item 16) of the respondents think that financial derivatives trading both have investment and speculation functions. It is crucial for the small investors to access the updated information easily. Importance of the companies' annual reports was ranked relatively low (4.8% shown in item 4). This may possibly be due to the fact that reading these reports is complex and time-consuming. Companies' annual reports are also not updated as they record the past performances of the companies, and thus they are not decisive for the small investors.

*Cross Tabulation Analysis*

[Table 3 here]

Surprisingly, the cross tabulation results of item 4 and item 11 show us that the respondents, who had taken the information or recommendations from the investment consultants when they were making investments in financial derivatives, would have a relatively lower proportion to suffer loss. Table 3 shows that only 6.9% of the respondents who had taken recommendations from investment consultants as their major determinant had suffered loss on their derivatives investments, while 20.4% and 18.4% of the respondents had suffered loss when they had obtained information from newspapers/TV and Internet.

[Table 4 here]

The cross tabulation results of item 1 and item 11 show that the respondents who have more experience would have a relatively higher average return. It can be observed that there is a decreasing trend of the proportion of the respondents suffered loss on their derivatives investments with the longer investment experiences. Table 4 shows us that 29.7% of the respondents who have less than 1 year investment experience had suffered losses. It implies that the well-experienced respondents had a greater proportion to earn profit on their financial derivatives investments. Therefore, the investment experiences of small investors are directly related to the average return on their financial derivative investments.

[Table 5 here]

Table 5 shows the combined cross tabulation results of item 10 and item 11 which states that 21.4% and 24.2% of the respondents who usually sell or close out their positions within one day and one week had a larger proportion to suffer loss in their financial derivatives investments. While only 10.7% of the respondents who sell or close out their positions within one year had suffered losses. It implies that there is a decreasing trend of the proportion of the respondents to suffer loss with longer holding periods. But, we are also concerned that derivatives prices have time value. Time value decays more rapidly as expiration approaches. No investor who sells or closes out his positions more than one year has suffered loss.

To determine how the investment incentive and derivatives portfolio were affected during the global economic crisis, the respondents were asked to answer item 5. Table 2, reveals that 68.7% of the respondents was affected by the Euro Zone Sovereign Debt crisis in their derivatives investment incentive, which was a significantly large portion. Only 31.3% of the respondents were not affected in their derivatives investments.

[Table 6 here]

At the same time, the proportion of derivatives in the portfolio was analyzed among those who were impacted by Euro Zone Sovereign Debt crisis but they were not impacted. Table 6 combined cross tabulation results of item 5 and item 7 shows that about 45% of the respondents can be found in 10-30% portfolio weight in derivatives products; no matter they were or were not influenced by Euro Zone Sovereign Debt crisis. This result unveils that the small investors were interested in derivatives investments.

[Table 7 here]

Table 7 combined cross tabulation results of item 6 and gender in table 1 shows that the majority of the male and female respondents, 41.3% and 40.3% considered their risk tolerance as normal. Yet, 37.5% and 6% of the male respondents believed that their risk tolerance as high and

very high respectively, compared with only 33.6% and 5.2% of the female respondents who believed that their risk tolerance as high and very high. Besides, 19.4% of the females conceived their risk tolerance as low, compared with only 12.7% of the males. Therefore, we may conclude that the females are generally more prudent and risk-adverse than males.

The results from table 2 item 8 shows that 83.3% of the respondents had used online trading systems such as Internet to invest in financial derivatives. The results indicate that the majority of the small investers respondents nowadays are online traders who had used online trading system for their derivatives investments, and the online trading system is popular. Considering that online trading involves lower commission, and it is more convenient for online traders/investors to make more timely executions. In addition, the online traders/investors could enjoy high privacy and lower transaction cost of derivation trading than trading through traditional broker service.

[Table 8 here]

Table 8 combined cross tabulation results of item 8 and item 10 shows that the respondents who had used online trading for their derivative investments are prone to selling or closing out their positions in a shorter period after making the financial derivatives investments. Table 8 shows that 41.4% and 30.2% of the respondents who usually sell or close out their positions in financial derivatives within one month and one week are also online traders who had used online trading system during January 2011 to January 2012.

[Table 9 here]

The cross tabulation results of item 8 and education level in table 1 indicate that the respondents who have higher education are prone to using online trading system to invest in financial derivatives. Table 9 shows that more than 70.6% of the respondents who have tertiary education using online trading system for their derivatives investments during January 2011 to January 2012. On the contrary, the respondents who have relatively lower education (i.e. primary school and secondary school) are prone to using other trading methods instead of online trading for their derivative investments.

[Table 10 here]

Table 10 combined cross tabulation results of item 8 and age groups in table 1 shows that the majority of respondents who have used online trading for their derivative investments during January 2011 to January 2012 are relatively younger. 35.7% of 18-24 years old group and 31.4% of 25-34 years old group of respondents have used online trading while only 3.5% of the respondents who are over 55 years old have used online trading for their derivatives investments. In addition, the respondents who are over 45 years old are prone to using other methods instead of

online trading since the survey results showed that 25.7% of 45-54 years old respondents and 14.3% of 55-64 years old respondents had not used online trading system for their derivative investments during January 2011 to January 2012.

## 5. Conclusion

The main purpose of our research was to to analyse the profile and attitude of small investors towards financial derivatives in Hong Kong and their investment patterns of different financial derivatives. The majority of the respondents are in the age group of 18-34. More than a half of these respondents have less than 3 years of experience of investing in financial market. About one-third of them have an average return of less than 10% and another one-third of them have an average return of 10-30%. Most of these respondents reported that they have a medium or high level of tolerance for investment risk. 72.2 percentages of them think that the risk level in investing in financial derivatives is high or very high. The respondents also reported that they obtained the information and opinions that affect their investment decision from various sources.

Firstly, we studied the trading pattern and performance of the small derivatives investors. We found that the small derivatives investor that we studied mostly traded Callable Bull/ Bear Contracts (34.8%) and warrant (23%). This may possibly be due to the fact that small investors buy the Callable Bull Contracts in the bull market and buy the Callable Bear Contracts in the bear market during the fluctuation of global economic environment. Also, small investors have long experience in warrant markets. These warrants are attractive investment vehicle for two reasons i.e., their leveraging effect and limited loss feature make them attractive to aggressive investors; and they can serve as hedging instruments to reduce the risk exposures arising from other related investments.

Secondly, we tried to find out the factors which contribute to a better performance of the small investors. We found that there was a positive relationship between investment experience and average return. A positive relationship between holding period of derivatives products and average returns was observed.

Thirdly, we studied the investment attitude and behaviour of the small investors in the Hong Kong derivatives markets. We found that the most decisive factor that could influence small investors' derivatives decision making was highly accessible and updated. 38% and 26% of the respective respondents considered internet and news/ magazines/ newspaper as the decisive factors.

Fourthly, we observed that the majority of them, 69% were affected in derivatives investment incentive during the global economic crisis. About 45% of the respondents can be

found in 10-30% portfolio weight in derivatives products no matter they were or were not influenced by Euro Zone Sovereign Debt crisis. This result unveils that the small investors were interested in derivative investments.

Finally, we put the focus on the online trading platform in the derivatives markets. We found that online trading was popular and had a noticeable trend, with 80% of the small investors participating in online trading. The popularity of online trading may be due to the low transaction cost, high privacy and lower commission. At the same time, most of the investors who were sophisticated in online trading were better educated, aged younger, and with a high frequency of trading and shorter holding period. On the contrary, older and educated investors were prone to the traditional trading method, using the brokers.

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## Appendix 1: Questionnaire

Code:_____

A survey of the investment behaviour of small investors
in the Hong Kong derivatives markets

| | |
|---|---|
| Target Population: | Hong Kong small investors |
| The Purpose: | To find out the profile and attitude of small investors towards financial derivatives in Hong Kong and their investing pattern of different financial derivatives. |
| Duration of the Survey: | 31January 2012 – 15 March 2012 |

**Part 1: Investment experience, perceptions about the investment conditions, and factors that affect financial decision-making**

1. How long have you invested in the financial market?
   - ☐ Never invested
   - ☐ Less than 1 year
   - ☐ 1 year to under 3 years
   - ☐ 3 years to under 5 years
   - ☐ 5 years to under 10 years
   - ☐ 10 years or above
2. During January 2011 to January 2012, have you ever invested in financial derivatives?
   - ☐ Yes

- ☐ No →→ If no, please jump to question 13.

3. Which type of financial derivative do you invest most frequency?
   - ☐ Warrants
   - ☐ Hang Seng Index Futures
   - ☐ Stock Options
   - ☐ Hang Seng Index Options
   - ☐ Callable Bull/ Bear Contracts
   - ☐ Renminbi Non-Deliverable Forwards Contracts
   - ☐ Others
4. Which type of information and opinion will most affect your decisions in investing in financial derivatives?
   - ☐ None
   - ☐ Newspapers, TV, magazines, etc.
   - ☐ Relatives and Friends
   - ☐ Internet
   - ☐ Investment Consultants
   - ☐ Companies' Annual Reports
   - ☐ Others
5. Did Euro Zone Sovereign Debt crisis in recent years affect your desire on investing financial derivatives?
   - ☐ Yes
   - ☐ No
6. What is your personal level of tolerance for investment risk?
   - ☐ Very Low
   - ☐ Low
   - ☐ Medium
   - ☐ High
   - ☐ Very High
7. As a percentage of the total amount in your investment portfolio, how much do you invest in derivatives products?
   - ☐ Less than 10%
   - ☐ 10% to under 30%
   - ☐ 30% to under 50%
   - ☐ 50% to under 100%
   - ☐ 100%
8. Have you ever used online trading system, such as Internet, to invest financial derivatives during January 2011 to January 2012?
   - ☐ Yes
   - ☐ No
9. Have you ever used other ways to trade financial derivatives during January 2011 to January 2012?
   - ☐ Yes
   - ☐ No
10. When did you mostly sell or close your position when you invested in financial derivatives between January 2011 and January 2012?
    - ☐ Within one day
    - ☐ Within one week
    - ☐ Within one month
    - ☐ Within three months
    - ☐ Within one year

- ☐ After more than one year

11. What is your average return on investment in derivative products?
    - ☐ Loss
    - ☐ Average return less than 10%
    - ☐ Average return 10% to under 30%
    - ☐ Average return 30% to under 50%
    - ☐ Average return 50% to under 100%
    - ☐ Average return 100% or above
12. During January 2011 to January 2012, were you satisfied with the average returns of your financial derivatives investment?
    - ☐ Very satisfied
    - ☐ Satisfied
    - ☐ Neutral
    - ☐ Dissatisfied
    - ☐ Very dissatisfied

13. During January 2011 to January 2012, have your family members ever invested in financial derivatives?
    - ☐ Yes
    - ☐ No
    - ☐ Cannot say

14. Besides your family members, do you know any relatives or friends invested in financial derivatives during January 2011 to January 2012?
    - ☐ Yes
    - ☐ No
    - ☐ Cannot say
15. What do you think is the risk level in investing in financial derivatives?
    - ☐ Very Low Risk
    - ☐ Low Risk
    - ☐ Medium Risk
    - ☐ High Risk
    - ☐ Very High Risk
16. Do you think trading financial derivatives is an investment or a speculation?
    - ☐ Investment
    - ☐ Speculation
    - ☐ Both Investment and Speculation
17. Do you think the small investor education provided by the related government department is adequate?
    - ☐ Very Inadequate
    - ☐ Inadequate
    - ☐ No Opinion
    - ☐ Adequate
    - ☐ Very Adequate

**Part 2: Demographic Characteristics**

18. Gender:
    - ☐ Male
    - ☐ Female

19. Please choose your relevant age group:
    - ☐ 18 - 24 years old
    - ☐ 25 – 34 years old
    - ☐ 35 – 44 years old
    - ☐ 45 – 54 years old
    - ☐ 55 – 64 years old
    - ☐ over 65 years old

20. Your education level is:
    - ☐ No school
    - ☐ Primary school
    - ☐ Secondary school
    - ☐ Tertiary education

21. Your occupational status is:
    - ☐ Employed
    - ☐ Self-employed
    - ☐ Retired
    - ☐ Others

22. Your personal monthly total income (including salary, interest, rental income and other incomes) is:
    - ☐ Below HK$5,000
    - ☐ HK$5,000 - HK$9,999
    - ☐ HK$10,000 - HK$14,999
    - ☐ HK$15,000 - HK$19,999
    - ☐ HK$20,000 - HK$24,999
    - ☐ HK$25,000 - HK$29,999
    - ☐ HK$30,000 - HK$49,999
    - ☐ HK$50,000 or above

Thank you very much for taking your valuable time to complete this questionnaire!

**Table 1: Demographic characteristics of the respondents**

| **Personal characteristics** | **No.** | **% of Total** |
|---|---|---|
| Gender: | | |
| Male | 329 | 62.9 |
| Female | 194 | 37.1 |
| | | |
| . Age group: | | |
| 18 – 24 years old | 172 | 33.0 |
| 25 – 34 years old | 156 | 29.8 |
| 35 – 44 years old | 76 | 14.5 |
| 45 – 54 years old | 79 | 15.3 |
| 55 – 64 years old | 34 | 6.5 |
| over 65 years old | 5 | 1.0 |
| | | |
| Education level: | | |
| No school | 6 | 1.1 |
| Primary school | 33 | 6.3 |
| Secondary school | 153 | 29.3 |
| Tertiary education | 330 | 63.2 |
| | | |
| Employment status: | | |
| Employee | 323 | 61.9 |
| Self-employed | 53 | 10.2 |
| Retired | 35 | 6.7 |
| Others | 111 | 21.3 |
| | | |
| Average monthly income: | | |
| Below HK$5,000 | 110 | 21.1 |
| HK$5,000 -HK$9,999 | 71 | 13.6 |
| HK$10,000 - HK$14,999 | 88 | 16.9 |
| HK$15,000 - HK$19,999 | 94 | 18.0 |
| HK$20,000 - HK$24,999 | 77 | 14.8 |
| HK$25,000 - HK$29,999 | 32 | 6.1 |
| HK$30,000 - HK$49,999 | 38 | 7.3 |
| HK$50,000 or above | 12 | 2.3 |

**Table 2: Responses to various items**

| **Items and responses** | **No.** | **% of Total** |
|---|---|---|
| 1. How long have you invested in the financial market? | | |
| Never invested | 43 | 8.2 |
| Less than 1 year | 95 | 18.1 |
| 1 year to under 3 years | 178 | 34.0 |
| 3 years to under 5 years | 92 | 17.6 |
| 5 years to under 10 years | 71 | 13.5 |

| | | |
|---|---|---|
| 10 year or above | 45 | 8.6 |
| | | |
| 2. During January 2011 to January 2012, have you ever invested in financial derivatives? | | |
| Yes | 417 | 79.6 |
| No | 107 | 20.4 |
| | | |
| 3. Which type of financial derivative do you invest most frequency? | | |
| Warrants | 97 | 23.2 |
| Hang Seng Index Futures | 75 | 17.9 |
| Stock Options | 52 | 12.4 |
| Hang Seng Index options | 35 | 8.4 |
| Callable Bull/Bear Contracts | 146 | 34.9 |
| Renminbi Non-Deliverable Forwards Contracts | 8 | 1.9 |
| Others | 5 | 1.2 |
| | | |
| 4. Which type of information and opinion will most affect your decisions in investing in financial derivatives? | | |
| None | 12 | 2.9 |
| Newspapers, TV, magazines, etc. | 108 | 25.8 |
| Relatives and Friends | 43 | 10.3 |
| Internet | 158 | 37.8 |
| Investment Consultants | 72 | 17.2 |
| Companies' Annual Reports | 20 | 4.8 |
| Others | 5 | 1.2 |

| **Items and responses** | **No.** | **% of total** |
|---|---|---|
| 5. Did Euro Zone Sovereign Debt crisis in recent years affect your desire on investing financial derivatives? | | |
| Yes | 287 | 68.7 |
| No | 131 | 31.3 |
| | | |
| 6. What is your personal level of tolerance for investment risk? | | |
| Very Low | 9 | 2.2 |
| Low | 62 | 14.8 |
| Medium | 171 | 40.9 |
| High | 152 | 36.4 |
| Very High | 24 | 5.7 |
| | | |
| 7. As a percentage of the total amount in your investment portfolio, how much do you invest in derivative products: | | |
| Less than10% | 92 | 22.0 |
| 10% to under 30% | 192 | 45.9 |
| 30% to under 50% | 91 | 21.8 |
| 50% to under 100% | 31 | 7.4 |
| 100% | 12 | 2.9 |
| | | |
| 8. Have you ever used online trading system, such as Internet, to invest financial derivatives | | |

| | | |
|---|---|---|
| during January 2011 to January 2012? | | |
| Yes | 348 | 83.3 |
| No | 70 | 16.7 |
| | | |
| 9. Have you ever used other ways to trade financial derivatives during January 2011 to January 2012? | | |
| Yes | 76 | 18.2 |
| No | 342 | 81.8 |
| | | |
| 10. When did you mostly sell or close out your position when you invested in financial derivatives between January 2011 and January 2012? | | |
| Within one day | 14 | 3.4 |
| Within one week | 120 | 28.6 |
| Within one month | 170 | 40.8 |
| Within three months | 82 | 19.7 |
| Within one year | 28 | 6.7 |
| After more than one year | 3 | 0.7 |
| | | |

| **Items and responses** | **No.** | **% of total** |
|---|---|---|
| 11. What is your average return on investment in derivative products? | | |
| Loss | 76 | 18.2 |
| Average Return less than 10% | 143 | 34.2 |
| Average Return 10% to under 30% | 137 | 32.8 |
| Average Return 30% to under 50% | 48 | 11.5 |
| Average Return 50% to under 100% | 12 | 2.9 |
| Average Return 100% or above | 2 | 0.5 |
| | | |
| 12. During January 2011 to January 2012, were you satisfied with the average returns of your financial derivatives investment? | | |
| Very satisfied | 9 | 2.2 |
| Satisfied | 127 | 30.4 |
| Neutral | 157 | 37.6 |
| Dissatisfied | 89 | 21.3 |
| Very dissatisfied | 36 | 8.6 |
| | | |
| 13. During January 2011 to January 2012, have your family members ever invested in financial derivatives? | | |
| Yes | 52 | 9.9 |
| No | 356 | 68.1 |
| Cannot say | 115 | 22.0 |
| | | |
| 14. Besides your family members, do you know any relatives or friends invested in financial derivatives during January 2011 to January 2012? | | |
| Yes | 168 | 32.1 |
| No | 121 | 23.1 |
| Cannot say | 235 | 44.8 |

| | | |
|---|---|---|
| 15. What do you think is the risk level in investing in financial derivatives? | | |
| Very Low Risk | 2 | 0.4 |
| Low Risk | 18 | 3.4 |
| Medium Risk | 125 | 23.9 |
| High Risk | 281 | 53.7 |
| Very High Risk | 97 | 18.5 |
| | | |

| **Items and responses** | **No.** | **% of total** |
|---|---|---|
| 16. Do you think trading financial derivatives is an investment or a speculation? | | |
| Investment | 68 | 13 |
| Speculation | 255 | 48.8 |
| Both Investment and Speculation | 200 | 38.2 |
| | | |
| 17. Do you think the small investor education provided by the related government department is adequate? | | |
| Very Inadequate | 72 | 13.8 |
| Inadequate | 233 | 44.6 |
| No Opinion | 165 | 31.5 |
| Adequate | 48 | 9.2 |
| Very Adequate | 5 | 1.0 |
| | | |

Note: percentages do not always add up to 100 due to rounding up.

**Table 3: Average return versus Determinants Cross Tabulation**

| | Average Return | Loss (%) | <10 (%) | 10-30 (%) | 30-50 (%) | 50-100 (%) | >100 (%) | Total (%) |
|---|---|---|---|---|---|---|---|---|
| Determinants | None | 8.3 | 41.7 | 8.3 | 41.7 | 0 | 0 | 100 |
| | Newspapers, TV | 20.4 | 38.9 | 31.5 | 7.4 | 1.9 | 0 | 100 |
| | Relatives, Friends | 30.2 | 25.6 | 34.9 | 9.3 | 0 | 0 | 100 |
| | Internet | 18.4 | 36.7 | 32.3 | 10.1 | 2.5 | 0 | 100 |
| | Consultants | 6.9 | 33.3 | 36.1 | 15.3 | 6.9 | 1.4 | 100 |
| | Annual Reports | 15.0 | 15.0 | 45.0 | 15.0 | 5.0 | 5.0 | 100 |
| | Others | 60.0 | 0 | 20.0 | 20.0 | 0 | 0 | 100 |

**Table 4: Average Return versus Investment Experience Cross Tabulation**

| | Average Return | Loss (%) | <10 (%) | 10-30 (%) | 30-50 (%) | 50-100 (%) | >100 (%) | Total (%) |
|---|---|---|---|---|---|---|---|---|
| Investment Experience | Never invested | 0 | 0 | 50 | 50 | 0 | 0 | 100 |
| | <1 year | 29.7 | 41.9 | 24.3 | 4.1 | 0 | 0 | 100 |
| | 1-3 years | 16 | 30.1 | 37.8 | 12.2 | 2.6 | 1.3 | 100 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 3-5 years | 20 | 31.3 | 32.5 | 12.5 | 3.8 | 0 | 100 |
| | 5-10years | 10.3 | 36.8 | 29.4 | 20.6 | 2.9 | 0 | 100 |
| | >10 years | 15.8 | 39.5 | 34.2 | 2.6 | 7.9 | 0 | 100 |

**Table 5: Average Return versus Sold or Closing Out Position Cross Tabulation**

| | Average Return | Loss (%) | <10 (%) | 10-30 (%) | 30-50 (%) | 50-100 (%) | >100 (%) | Total (%) |
|---|---|---|---|---|---|---|---|---|
| Sold or Closing Out Position | Within 1 day | 21.4 | 42.9 | 21.4 | 14.3 | 0 | 0 | 100 |
| | Within 1 week | 24.2 | 32.5 | 30 | 10 | 1.7 | 1.7 | 100 |
| | Within 1 month | 18 | 35 | 34 | 10 | 3 | 0 | 100 |
| | Within 3-month | 12.2 | 30.5 | 37.8 | 15.9 | 3.7 | 0 | 100 |
| | Within 1 year | 10.7 | 42.9 | 25 | 14.3 | 7.1 | 0 | 100 |
| | After more than 1 year | 0 | 33 | 67 | 0 | 0 | 0 | 100 |

**Table 6: Euro Zone Sovereign Debt Crisis Impact versus Investment Portfolio in Derivatives Products Cross Tabulation**

| | Euro Zone Sovereign Debt Crisis | Impact (%) | No Impact (%) |
|---|---|---|---|
| Investment Portfolio in Derivatives Products | Less than 10% | 26.5 | 12.2 |
| | 10% to under 30% | 46 | 45.8 |
| | 30% to under 50% | 19.9 | 26 |
| | 50% to under 100% | 5.6 | 11.5 |
| | 100% | 2.1 | 4.6 |
| | Total | 100 | 100 |

**Table 7: Level of Tolerance for Investment Risk versus Gender Cross Tabulation**

| | Level of Tolerance | Very Low (%) | Low (%) | Medium (%) | High (%) | Very High (%) | Total (%) |
|---|---|---|---|---|---|---|---|
| Gender | Male | 2.5 | 12.7 | 41.3 | 37.5 | 6 | 100 |
| | Female | 1.5 | 19.4 | 40.3 | 33.6 | 5.2 | 100 |

**Table 8: On-line Trading versus Sold or Closing Out Position Cross Tabulation**

| | On-line Trading | Yes (%) | No (%) |
|---|---|---|---|
| Sold or Closing Out Position | Within one day | 3.7 | 1.4 |
| | Within one week | 30.2 | 21.7 |
| | Within one month | 41.4 | 37.7 |
| | Within three months | 18.7 | 24.6 |
| | Within one year | 5.7 | 11.6 |
| | After more than one year | 0.3 | 2.9 |
| Total | | 100 | 100 |

**Table 9: On-line Trading versus Education Level Cross Tabulation**

| | On-line Trading | Yes (%) | No (%) |
|---|---|---|---|
| Education Level | No School | 0.9 | 1.4 |
| | Primary School | 2.9 | 15.7 |
| | Secondary School | 25.6 | 44.3 |
| | Tertiary Education | 70.6 | 38.6 |
| Total | | 100 | 100 |

**Table 10: On-line Trading versus Age Groups Cross Tabulation**

| | On-line Trading | Yes (%) | No (%) |
|---|---|---|---|
| Age Group | 18-24 years old | 35.7 | 14.3 |
| | 25-34 years old | 31.4 | 27.1 |
| | 35-44 years old | 15.6 | 15.7 |
| | 45-54 years old | 13.8 | 25.7 |
| | 55-64 years old | 3.2 | 14.3 |
| | over 65 years old | 0.3 | 2.9 |
| Total | | 100 | 100 |