THE INVESTOR BEHAVIOR RESPONSES ON FIRST TRADING DAY OF IPO EXPERIENCED FROM SET

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ABSTRACT

This paper examines the initial and aftermarket performance of Thailand initial public offerings (IPOs) during January 2003 to December 2010. Using sample of 120 IPO firms listed in the Stock Exchange of Thailand (SET) to investigate the degree of underpricing, this study provides a number of interesting findings. First, there are statistically significant excess initial returns SET. The close prices in the first trading day are significantly higher than the offer prices. The study also emphasises on the investor respond on the first trading day. Mutual Fund and Foreign Investor are the group which sold out the IPOs at first trading day; on the other hand, Retail Investor would buy the IPOs. However, the result of OLS regression shows that there is no relationship between abnormal return on IPOs and the investor trading. The study of one year performance of IPOs provided the continuously decreasing in the cumulative abnormal return (CAR) and increasing in volatility (Standard Deviations) after the first trading day.

KEY WORDS: Initial return / long-term performance/ IPOs / Investor behavior / Underpricing.

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CHAPTER I
INTRODUCTION

There are tons of empirical research and argument on the return on IPOs. Normally, they will find out which factors which had the relationship or its impact to the return on IPOs such as market debt ratio, firm size, PE ratio and etc. Some study show the return by separate the period into before, and after crisis to see the return performance based on the economic situation. However, in different assumptions, the result of the study would be in the same pattern which answers the underpricing on IPOs theory.

Existing literature widely documents initial underpricing of common stock, especially, in the U.S. find that at the end of the first trading day, Welch and Ritter (2002) use the U.S. data from 1980 to 2001 result on average underpriced is 18.6%. Gounopulos (2003) studies 225 listed companies on the Athens Stock Exchange for the period of 1990 to 2001 and finds that Greek IPOs are on average underpriced by 63.92%. For Thailand, Pinta (2007) studied 150 samples listed in both the Stock Exchange of Thailand (SET) and Market for Alternative Investment (MAI) shown the result of average market adjusted return at 21.07% and 16.23%, respectively.

In the Stock Market of Thailand, we could separate the investor into 4 main major types which are retail investor, foreign investor, mutual fund and proprietary trader. They react in the market different role and responsibility but aim for one goal which is wealth of the stock they hold. As foreign investors are more likely to be selective in choosing countries in which they invest, the level of financial market development might signal whether equity and bond markets are large enough to attract foreign investors. There was the study argue that the foreign investor is the group which lead the movement of stock price, Grinblatt and Keloharju(2000), and Froot et at.(2001).

For the proprietary trade they could act as the market maker, The Nasdaq is the prime example of an operation of market makers, there are more than 500 member firms that act as Nasdaq market makers, keeping the financial markets running efficiently because they are willing to quote both bid and offer prices for an asset. However, making

money from the differences in bid and ask prices is not the only function of market makers. Their first priority is to provide liquidity to their own firm's clients, for which they will receive a commission. They may also facilitate trading for other brokerage firms, which is very similar to the duties of a specialist. As the result, in Thailand, there is requirement for the securities company to register and report their trading with SET

Asymmetric information is a situation that all investors have different ability to access to the relevant information that could be used in order to making investment decision in stock market at a point in time. An investor that has superior information would earn higher profit than other such as foreign investors or mutual fund or proprietary trader who know inside information then they decide to change their position beforehand As a result retail investor who have only public information see the reaction of them, they may be earn bad return or hurt because the timing is not appropriate.

The study in Thailand emphasised on the daily trading by each type of investor then it is motivate my study on the investor behavior and relationship to the initial return with the IPOs listed in SET only on its first trading during 2003 – 2010. This study also find the one-year performance of the IPOs on SET to prove that the return on IPOs will be highest at the first day trading and continuously decrease afterward.

The remainder of this paper is organized as follows. Chapter 2 outlines the theoretical framework and the reviews of related literature. Chapter 3 describes the data with basic static table showing the maximum, minimum, standard deviation and number of observations for the study. Chapter 4 then presents the results and discussion of the findings. Lastly, the final Chapter 5 contains the conclusion of the finding in this paper.

CHAPTER II
LITERATURE REVIEW AND HYPOTHESES

This chapter reviews the theoretical and prior empirical studies of initial public offerings underpricing and long-run underperformance. The first section describes the evidence of initial public offering underpricing existing in Thailand and other countries. The second section addresses the literature on trading behavior of investor on the initial public offerings. The literature of initial public offerings long-run underperformance and financial advisor performance based on listed stocks are mentioned in section 3 and 4 respectively.

2.1 Initial Public Offering Underpricing Literature

The initial public offering underpricing phenomenon exists in every nation with a stock market, although the amount of underpricing varies from country to country. Ljungqvist (2005) mentions that the U.S. probably has the most active IPOs market in the world, showing by the number of companies going public and by the aggregate amount of capital raised. Over long periods of time, the return was underpricing in the U.S. averages between 10% and 20%.

Such underpricings are not restricted to the US market alone. There are also various underpricing of IPOs literatures in Malaysia. Othman and Zaidiisa (2003) examine the levels of underpricing for new issues in Malaysia. Over the entire 1990-1998 period, the average initial return (offer-to-open) is also high with 94.91% but lower than the prior research of 166.7% (offer-to-close) reported by Dawson (1987).

Ghosh (2002) studies relationship between IPOs underpricing and ex-ante measures of risk proxies during April 1991 to March 2001 on the Bombay Stock Exchange (BSE). He finds that there is high level of underpricing of IPOs after adjusting for the market (BSE) index return over the issue and listing period with 91.06%.

Similarly, there is also high degree of IPOs underpricing on the Athens Stock Exchange. Gounopoulos (2003) investigates the initial performance of the Greek Initial Public Offerings and his sample consists of 225 firms listed on the Athens Stock Exchange for the period from January 1990 to December of 2001. This represents 79 percent of the IPOs listed during this period. His study shows that Greek IPOs' average market adjusted initial return is 62.52%. The initial undepricing is 66.01% for industrial firms, 52.92% for finance firms and 53.82% for other firms.

All above studies discover IPOs underpricing phenomenon in various countries. Furthermore, there were several researches on underprcing research in Thailand. Chaichompoo (2003) studies the 1 year performance of IPOs offered in Thailand during 2000 to 2003. Her sample data consists of 50 newly stocks. Results show the initial return of 8.34% and long-run market adjusted return after the first trading date is 7.68%. In addition, multivariate analysis in this study is not statistically significant with adjusted R^2 of 30.75%. However, this regression analysis uses sample data of only 29 observations.

Sasanonda (2003) also examines underpricing of IPOs in Thailand stock markets. This study focuses on the short-run analysis and uses 53 IPOs offered during 2001 to 2003. His results show average and median of initial return are 31.37% and 20.37%, respectively. The standard deviation of average return is 44.54%.

Pinta (2007) studied sample of 150 IPO firms listed in the Stock Exchange of Thailand (SET) and the Market for Alternative Investment (MAI) from 2001 to 2005 to investigate the underpricing phenomenon. First, there are statistically significant excess initial returns on both SET and MAI. The close prices in the first trading day are significantly higher than the offer prices. The average raw initial return and average market adjusted initial return of 150 IPOs on the first trading day are 20.41% and 19.96%, respectively and are highly statistically significant at 1% level. The standard deviation of raw and adjusted initial returns is 36.60% and 35.71%, respectively. He also studied the raw initial return (RIR) and market adjusted initial returns (MAIR) base on years of their listing. The highest means for both raw and adjusted initial return occurred in 2003, 50.96% and 48.25% respectively. Whereas the lowest means for RIR and MAIR are shown in 2005 with 9.72% and 9.79%, respectively. His report also showed the return by

industry. The resources industry has the highest average MAIR of 44.47% and the second highest average MAIR is from financials industry with 34.74%. Raw and market adjusted initial returns on both industries are statistically significant at 1% level. Amongst the sample, agro & foods industry has the worst initial performance with an average market adjusted performance of 4.56%.

Initially, we examine the level of short-run return on the Stock Exchange of Thailand and propose the first hypothesis as follow.

Hypothesis 1: There are statistically significant excess initial returns on the Stock Exchange of Thailand (SET).

2.2 Trading behavior of investor on Initial Public Offerings Literature

Our study emphasize the trading behavior of each type of investor react on the initial trading day of IPOs such retail, foreign, mutual fund and proprietary trade. However, mostly, the study investigates the impact to the returns separately by investor type.

The high expectation of investor on the company listed in the stock market was studied by Ritter (1991) and Rajan and Servaes (1994) among others argue that firms go public when investors are over-optimistic about the growth prospects of IPO companies. Investors overpay initially but mark prices down as more information becomes available hence expected long-run returns therefore decrease with the decrease in initial investor sentiment.

Wermers (1999), he analyze the trading activity of all mutual funds based in U.S. from 1975 through 1994 to determine whether funds "herd" or "flock together" when they trade stocks and to investigate the impact of herding on stock prices. Herding on the buy-side is strongest in high past-return stocks; herding on the sell-side is strongest in low past-return stocks. Large sell imbalances tend to follow a few months of negative abnormal returns that are preceded by a prolonged period of positive abnormal returns. Again, this is attributed to some leader institutions being first in perceiving that the stocks are overvalued after their price run-up.

Under Taiwan Stock Exchange Corporation, the dealer access to the TSEC is for proprietary trading purposes only and they actually trade as liquidity-providing market makers. Thus, market maker order flow will be negative (positive) when stock returns are positive (negative), implying the negative relation.

Chae and Wang (2003), prove that low transaction costs and high transaction speeds may allow them to take advantage of opportunities that are not worthwhile to other market participants. The result shown that dealers do not provide liquidity to the market; instead, they trade on information. The contemporaneous correlation between dealer order flow and stock returns is highly positive, inconsistent with models of market maker trades and they also earn significant excess returns which are in aggregate driven by the information component of profits.

Kamesaka and Wang (2004), The paper investigates the short-term speculative trade performance of individual, institutional and foreign investors using daily buying and selling flows from Thailand's equity market. The sample period covers the Asian crisis in Thailand. They examine investor behavior before, during and after this crisis. The results indicate that foreign investors tend to increase their net buying (buying less selling) after an increase in stock price of a few days, whereas individual investors in Thailand tend to increase their net buying after a drop in the stock price of a few days.

The previous literatures study how the investor behavior influence or impact the return on stock. Besides, each type of investor has different background, role and responsibility however they all aim for only one goal which is high expected return thus we examine their behaviors and relationship at the first trading of IPOs on SET through following hypotheses.

Hypothesis 2.1: The investor reacts differently on the first trading day of IPOs listed in the Stock Exchange of Thailand (SET).

Hypothesis 2.2: There is relationship between investor trading behavior and degree of initial returns.

2.3 Long-run Performance of Initial Public Offerings Literature

This paper studies not only the short-run returns but also the long-term return of the Thai IPOs made during the 2003 to 2010 This section describes literatures of the long-run performance and the theoretical explanations for the long-run underperformance of IPOs.

Ibbotson (1975) reported a negative relation between initial returns at the IPO and long-run share price performance for a sample of U.S. IPO issued during the period of 1960 to 1969. He finds that the U.S. IPO market in general shows positive performance in the first year, negative performance in the next three years and a general positive performance in the fifth year.

Carter, Frederick and Singh (1998) show that over a three-year period after the IPO, the US firms underperformed the market (NYSE/AMEX/NASDAQ) by 19.92 %. Work in other countries has shown that long-run market adjusted returns are negative with the notable exceptions of Korea (Kim, Krinsky and Lee (1995)) which exhibit a significant positive long-run performance, especially for the first month after the public offering. The degree of underperformance has been highest in Australia as 51.0%

In Thailand, Connelly, Limpaphayom and Siraprapasiri (2005) investigate the long-run performance of a sample of 171 new firms. Their work presents long-run performance (24 months) during 1989 to 1993 in Thailand and shows a negative cumulative return of -5.02% and an average wealth relative of 0.957. IPO in 1989 have the poorest 24-month performance with an average cumulative adjusted return of -49.8%.

Sribooncharoen (1997), her paper studies long-run performance of IPO stocks on SET during 1992 to 1993 and find that the average three-years market adjusted returns is around -64.61% though the market adjusted initial return is higher at 34.91%.

According to various arguments shown from previous research, this study intends to test whether the one-year performance of the IPOs is negative by following hypothesis.

Hypothesis 3: There are statistically negative performances on the long-term returns on IPOs listed in the Stock Exchange of Thailand (SET).

2.4 Financial advisor performance based on listed stocks.

There were several role and responsibility of the financial advisor to the listed company and public investor. For example, refer to the Securities and Exchange Act stated by Securities Exchange Commission of Thailand (SEC), any term or condition that may cause any conflict of interest between the client and the advisory company and its related persons requires the client's consent. Advisers must disclose the information necessary for making investment decisions sufficiently and within an appropriate period of time. In this regard, the information must be correct and up to date and must not have any characteristics that mislead or distort facts. There are also extensive record-keeping requirements.

Nevertheless, Balver, Macdonal and Miller (1998), they studied the theory suggested that high reputation investment bankers will more frequently use high reputation auditors, and that both investment banker and auditor reputation help to reduce underpricing. However, we just briefly studied the financial advisors performance based on the return of the listed stock they advised by following hypothesis

Hypothesis 4: The initial returns on the Stock Exchange of Thailand (SET) shall be positive based on the most frequent advice of financial advisor.

CHAPTER III
THEORITICAL/CONCEPTUAL FRAMEWORK OF RESEARCH STUDY

3.1. Data

The data used in initial and one year performance analysis comprises 120 companies issued, respectively and listed in the Stock Exchange of Thailand (SET) from 1 January 2003 to 31 December 2010. This study excluded the listed stock on the Market for Alternative Investment (MAI) and the delisted stock on SET

The offering prices, issued sized, industry group, close price and, first trading dates are obtained from Stock Exchange of Thailand's website. Additional information (e.g. investment bankers, I_Security code, listed shares and,etc.) is gleaned from prospectuses filed with SEC and the SETINFO database which comprises Public SIMS Information (PSIMS) and SETSMART.

3.2. Methodology

3.2.1 Raw Initial Return and Market Adjusted Initial Return Calculation Method

The measurements of the raw initial return for each IPO in this study will be calculated following the conventional method used by Aggarwal, Leal and Hernandez (1993), and Gounopoulos (2003),It defined degree of underpricing as the percentage change of stock price from its offering price to the first trading day closing price. The raw initial return (RIR) on the first day of trading is calculated as follows

$$RIR_{i,1} = \frac{\left(P_{i,1} - P_{i,0}\right)}{P_{i,0}}$$

where;

$RIR_{i,1}$ = Raw initial return of company 'i' at the end of the first trading day

$P_{i,0}$ = IPO offer price as per prospectus of company 'i'

$P_{i,1}$ = Closing price of IPO of company 'i' at the end of the first trading day

Raw initial return, which is calculated by the above equation, is ideal for a market that there exists no opportunity cost and no time lag between the closing day and the first day of trading in the stock exchange. During time lag period, major changes in market conditions could occur, and much information can be disclosed. The initial return measured could be a result of changes in market conditions rather than initial mis-pricing by the underwriters, therefore, the raw initial return should be adjusted for market changes. The market adjusted initial return is calculated as follows:

$$MAIR_{i,1} = \frac{\left(P_{i,1} - P_{i,0}\right)}{P_{i,0}} - \frac{\left(MI_{i,1} - MI_{i,0}\right)}{MI_{i,0}}$$

or

$$MAIR_{i,1} = RIR_{i,1} - \frac{(MI_{i,1} - MI_{i,0})}{MI_{i,0}}$$

where;

$MAIR_{i,1}$= Market adjusted initial return of company 'i' at the end of the first trading day

$RIR_{i,t}$ = Raw initial return of company 'i' at the end of the first trading day

$P_{i,0}$ = IPO offer price as per prospectus of company 'i'

$P_{i,1}$ = Closing price of IPO of company 'i' at the end of the first trading day

$MI_{i,0}$ = Market Index at the first offering day of company 'i'

$MI_{i,1}$ = Market Index at the close of first trading day of company 'i'

The raw initial return derived in above equation (RIR) is adjusted for market changes by taking into account of movements of the Market Index between the first offering day and the first trading day of the IPOs.

The sample mean of raw initial return and mean of market adjusted initial return for the first trading day are represented by RIR bar and MAIR bar respectively. The mean of market adjusted initial return may be viewed as a performance index which reflects the return, in excess of the market return on an investment, divided equally by *N* new issues in a sample;

$$\overline{RIR_1} = \frac{1}{N}\sum_{i=1}^{N} RIR_{i,1}$$

$$\overline{MAIR_1} = \frac{1}{N}\sum_{i=1}^{N} MAIR_{i,1}$$

This paper tests both mean of raw initial return and mean of market adjusted initial return in order to compare and check results. To test hypotheses that mean of raw initial return and mean of market adjusted initial return for the first trading day equal zero, we will use t-statistics to test this hypothesizes. T-statistics is computed as follows;

$$t_{\overline{RIR}_1} = \frac{\overline{RIR}_1}{\left[\frac{S.D.}{\sqrt{N}}\right]}$$

$$t_{\overline{MAIR}_1} = \frac{\overline{MAIR}_1}{\left[\frac{S.D.}{\sqrt{N}}\right]}$$

3.2.2 One Year Performance Calculation Method

Previous research, Ritter (1991) and Corhay, Teo and Rad (2002) use the cumulative average market adjusted returns to measure long-run performance. This study follows the procedure in their work. Prior to deriving the cumulative average market adjusted returns (CAR) for IPOs from day 1 to day T. The day 1 means the first day after the initial trading day. Therefore, the return on day 1 calculated from the closed price of the first trading date. Abnormal return (ar_{it}) is defined as;

$$ar_{it} = r_{it} - r_{mt}$$

Next, the cumulative market adjusted abnormal return is the summation of the market adjusted returns;

$$CAR_T = \sum_{t=1}^{T} ar_{it}$$

3.2.3 Trading Imbalance Measured by Investor

Trading volume for the overall stock market is used to investigate net trading volume by each type of investors. According to the market, investors can be categorized into four groups which are Mutual Fund (TV_M), Proprietary Trade (TV_P), Foreign traders (TV_F) and Retails traders (TV_C). We used the trade imbalance by investor types on each announcement date to find the impact. The trading imbalance derived from the following formula:

$$TV_X = \frac{Buy\ Volume_{TVx} - Sell\ Volume_{TVx}}{Buy\ Volume_{TVx} + Sell\ Volume_{TVx}}$$

where;

TVx = The trading volume by each investor type (TV_M, TV_P, TV_F and TV_C).

The formula is repeated for each investor type to calculate the net trading volume. The result will be in a percentage term and use to analyze the impact of raw initial return on first trading date of IPOs on SET.

3.2.4 Regression Model

In order to study the relationship between the average market adjusted initial return and trading by investor types (Trading Imbalance). We perform test of mean differences between market adjusted initial return and trading imbalance by each type of investor by using ordinary least square (OLS) method to examine the relationship by following model:

$$MAIR = \alpha + \beta_1 TV_C + \beta_2 TV_M + \beta_2 TV_F + \beta_2 TV_P + e_t$$

where;

$MAIR_{i,1}$ = Market adjusted initial return of company 'i' at the end of the first trading day

TVx = The trading volume by each investor type (TV_C, TV_M, TV_F and TV_P).

CHAPTER IV
EMPIRICAL RESULTS

The sample data is based on the companies listed in the Stock Exchange of Thailand (SET) during January 2003 to December 2010. Data of new listed companies are verified with the Stock Exchange of Thailand's website.

Table 4.1: Summary Statistic of Sample Selection

Sample Selection Process	2003	2004	2005	2006	2007	2008	2009	2010	Total
New Listed Securities in January 2003 to December 2010	29	50	55	22	16	16	22	15	225
Less:									
Common Stocks listed on MAI	6	14	14	6	6	3	11	7	67
Property Funds	2	-	6	4	4	5	5	4	30
Common Stock delisted on SET	2	-	4	2	-	-	-	-	8
Final sample new listed securities	**19**	**36**	**31**	**10**	**6**	**8**	**6**	**4**	**120**

Table 4.1 presents sample selection process of new listed securities. There are totally 225 new listed securities in 2003 to 2010. Listed companies in Thailand stock exchange are traded on two markets; the Stock Exchange of Thailand (SET) and the Market for Alternative Investment (MAI). The collective data of new listed securities on SET consists of 158 new securities. New listed securities on SET are classified by type of securities as common stocks for 128 securities and property funds 30 securities. While the

new listed securities on MAI are also classified by type of securities but have only common stocks 67 securities. However, the samples exclude 8 securities of list common stock on SET which are verified with the SEC's website. As the result, the final sample using for study are 120 new listed securities

Table 4.2 : Descriptive Statistic of Raw Initial Return and Market Adjusted Initial Return on the Stock Exchange of Thailand

	Raw Initial Return		Market adjusted return	
	n = 120		n = 120	
Median	4.41%		4.42%	
Maximum	151.75%		149.77%	
Minimum	-36.40%		-36.64%	
Mean	17.66%		17.71%	
S.D.	34.70%		34.59%	
T-statistic	5.58	***	5.61	***
Probability	0.00		0.00	
Skewness	1.64		1.63	

*** Indicates statistical significance at the 0.01 level (one-tailed t tests).

Summary of both returns for the entire sample of 120 IPOs are presented in table 4.2.The means of raw initial return and market adjusted initial returns on SET are 17.66% and 17.71% respectively and both are statistically significant at 1% level. The raw initial return ranges from -36.40% to 151.75%, while the market adjusted initial returns ranges from -36.64% to 149.77%. The standard deviations of the raw and adjusted initial return on SET are 34.70% and 34.59% respectively.

Table 4.3: Trading imbalance by type of investor experienced from the Stock Exchange of Thailand

Investor type	Retail		Foreign		Mutual Fund		Proprietary	
	n = 120		n = 120		n = 120		n = 120	
Median	1.86%		-3.66%		-92.25%		0.00%	
Maximum	37.43%		97.49%		93.80%		97.78%	
Minimum	-43.66%		-94.09%		-100.00%		-100.00%	
Mean	2.23%		-8.69%		-61.74%		4.07%	
S.D.	8.26%		47.66%		52.59%		35.93%	
T-statistic	2.95	***	(2.00)	**	(12.86)	***	1.24	
Probability	0.00		0.05		0.00		0.22	
Skewness	(1.07)		0.04		1.31		(0.09)	

*** Indicates statistical significance at the 0.01 level (one-tailed t tests).

** Indicates statistical significance at the 0.05 level (one-tailed t tests).

Table 4.3 showed the statistically trading behavior of the first day trading of each type of investor. The mutual fund and foreign investor statistically sell out the IPOs by average trading imbalance of 61.74% and 8.69% at the first trading day and both types are statistically significant at 1% and 5% level, respectively. On the other hand, the retail investor statistically buys the IPOs by the average trading imbalance of 8.26% at the first trading day and it is statistically significant at 1% level.

Table 4.4: Regression Analysis of the Effects of Investor Type on Initial Trading day of IPOs experienced from SET

Independent variables	Model 1 Dependent variable: Market Adjusted Initial Return		
	Coefficient	T value	
Intercept	0.20936	4.11	
TV_M	0.12545	0.26	
TV_P	0.09151	1.17	
TV_F	0.04220	0.62	
TV_C	-0.02486	-0.28	
Observation		120	
F statistic		0.47	
Adjust R2		0.0162	

The table represents from a regression of abnormal return and trading imbalance of 4 major types of investor, which are Mutual Fund (TV_F), Proprietary Trading (TV_P), Foreign Trader (TV_F) and Retail Investor (TV_R), measure their effect to the abnormal return of IPOs issue at first trading day on SET. The columns provide the coefficients of the regression, which indicate the magnitudes of the level or incremental level of the return measures.

Table 4.4 is the result of OSL regression in order to find the relationship between the abnormal return and 4 investor types trading on the first day trading of IPOs. This model show statistically insignificant relationship among variables. However, the limitation of IPOs only120 stocks, it presents the F-statistic at 0.47 and adjusted R^2 at only 1.62% which mean that there is no relationship between the abnormal return and 4 investor trading behavior on the first trading day. The return on IPOs at first day trading statically were impacted by the performance pattern of itself which the investor perceptive that the initial return will significantly increase only at the first day trading and dramatically drop on the following period then the investor will trade to take the benefit of the first day return. The major investor type who statistically gets the return at the first

day trading is Mutual Fund because they have high purchasing power or they could buy and sell at huge volume and get the return within one day.

Table 4.5 : IPO's Initial Performance Classified by years

Panel A: Raw Initial Return Classified by years

Year	n	Median	Maximum	Minimum	Mean	S.D.	T-Statistic		Probability
2003	19	39.29%	151.75%	-36.40%	50.05%	45.53%	4.79	***	0.00
2004	36	4.62%	98.75%	-23.20%	14.05%	31.97%	2.64	***	0.01
2005	31	2.63%	90.91%	-23.08%	10.82%	25.02%	2.41	**	0.02
2006	10	-1.65%	36.89%	-16.88%	0.69%	14.00%	0.16		0.88
2007	6	3.73%	146.67%	-5.96%	26.42%	59.10%	1.09		0.32
2008	8	1.90%	26.56%	-23.91%	2.18%	14.73%	0.42		0.69
2009	6	6.19%	16.16%	-9.02%	5.64%	9.03%	1.53		0.19
2010	4	26.55%	59.26%	-1.96%	27.60%	25.22%	2.19	**	0.12

***Statistically significant at 1% level

**Statistically significant at 5% level

Panel B: Market Adjusted Initial Return Classified by years

Year	n	Median	Maximum	Minimum	Mean	S.D.	T-Statistic		Probability
2003	19	38.12%	149.77%	-36.64%	49.81%	45.28%	4.80	***	0.00
2004	36	4.74%	101.44%	-23.35%	14.16%	32.19%	2.64	***	0.01
2005	31	1.66%	89.77%	-22.92%	10.64%	24.90%	2.38	**	0.02
2006	10	-2.30%	35.96%	-19.13%	0.63%	13.92%	0.14		0.89
2007	6	4.18%	146.22%	-4.78%	27.03%	58.61%	1.13		0.31
2008	8	2.49%	25.77%	-22.28%	2.41%	14.20%	0.48		0.65
2009	6	6.65%	16.43%	-7.62%	6.43%	8.85%	1.78	*	0.14
2010	4	27.54%	58.73%	-0.38%	28.36%	24.41%	2.32	**	0.10

***Statistically significant at 1% level

**Statistically significant at 5% level

Table 4.5 describes the raw initial returns (Panel A) and market adjusted initial returns (Panel B) of the 120 IPOs of the sample based on years of their listing. The highest means for both raw and adjusted initial return occurred in 2003, 50.05% and 49.81% respectively. Whereas the lowest means for raw initial return and market adjusted return are shown in 2009 with 9.03% and 8.85%, respectively. Excess returns during 2003

and 2004 are statistically significant at 1% level. The means of excess returns and standard deviations of returns are tended to continuously decrease in 2003 onward however it is significantly increase in 2007 to raw initial return at 26.41% and market adjusted initial return at 27.03% with highest standard deviation at 59.10% and58.61%, respectively. The reason is the U.S. economic crisis with the sub-prime mortgage and downgrade U.S. debt status, as the result of unstable world economic, the IPOs listed during 2007 was only 6 securities and issuance on average at 6 listed common stocks on SET for 3 years later.

Table 4.6 : IPO's Initial Performance Classified by Industries

Panel A : Raw Initial Return Classified by Industries

Industry	n	Mediean	Maximum	Minimum	Mean	S.D.	T-Statistic		Probability
AGRO	4	-0.22%	12.11%	-7.10%	1.14%	8.36%	0.27		0.80
CONSUMP	3	0.00%	26.56%	-4.38%	7.40%	16.74%	0.77		0.52
FINCIAL	12	22.67%	151.75%	-4.17%	33.95%	42.94%	2.74	***	0.02
INDUS	15	1.46%	90.91%	-23.91%	8.81%	28.83%	1.18		0.26
PROPCON	37	2.22%	98.75%	-23.20%	11.37%	30.78%	2.25	**	0.03
RESOURC	11	36.46%	73.44%	-6.25%	30.83%	28.19%	3.63	***	0.00
SERVICE	17	2.64%	146.67%	-19.29%	17.22%	40.58%	1.75	*	0.10
TECH	21	11.11%	117.11%	-36.40%	23.83%	40.16%	2.72	***	0.01

***Statistically significant at 1% level

**Statistically significant at 5% level

Panel B: Market Adjusted Initial Return Classified by industries

Industry	n	Mediean	Maximum	Minimum	Mean	S.D.	T-Statistic		Probability
AGRO	4	-0.82%	10.83%	-6.96%	0.56%	7.68%	0.15		0.89
CONSUMP	3	0.54%	25.77%	-3.98%	7.45%	16.03%	0.80		0.51
FINCIAL	12	23.42%	149.77%	-4.63%	34.47%	42.16%	2.83	***	0.02
INDUS	15	-0.36%	89.77%	-22.28%	8.42%	28.40%	1.15		0.27
PROPCON	37	1.66%	101.44%	-23.35%	11.33%	30.74%	2.24	**	0.03
RESOURC	11	34.74%	75.87%	-5.73%	31.29%	28.58%	3.63	***	0.00
SERVICE	17	3.42%	146.22%	-18.66%	17.71%	40.32%	1.81	*	0.09
TECH	21	12.13%	117.75%	-36.64%	23.66%	40.13%	2.70	***	0.01

***Statistically significant at 1% level

**Statistically significant at 5% level

Results report in Table 4.6 present the raw (Panel A) and market adjusted initial performance (Panel B) of IPO by industries. The findings show that the financials industry has the highest average raw initial returns and market adjusted initial returns with 33.95% and 34.47%, respectively. The second and third highest initial returns are resource industry at average raw return 30.83% and market adjusted return at 31.29% and technology industry at average raw return 23.83% and market adjusted return at 23.66%. Raw and market adjusted initial returns are statistically significant at 1% level for first

three of highest return on average by industry. Amongst the sample, agro & foods industry has the worst initial performance with a raw initial return of 1.14% and an average market adjusted performance of 0.56%. In the view of standard deviation, the findings show that financials industry also has the highest standard deviation of market adjusted performance with 42.16%. Service industry has the second highest volatility with 40.32%. On the other hand, agro & foods industry has the lowest standard deviation of market adjusted initial return of 7.68%.

Chiraphadhanakul., V. (2005), his study investigated the relation between selected factor and initial return of IPOs listed in 2000 - 2004 by multiple regression method. The study shown the main specific company factors (Age, Firm size, ROA, Debt ratio, Return on average of 3 years return, PE ratio, Three years PE ratio) and overall market factors (Trend of the SET index, Trend of the SET's volume). That would influence the initial return of IPO in Thai stock market, further following company specific factors significant to earn initial return of IPO 1) firm size, 2) Three year PE ratio, 3) Debt ratio, and 4) Return on average of 3 years return. The example of his study, the return on the IPOs in financial industry affected by the 2 main variables – debt ratio and the firm size

Table 4.7 : Descriptive Statistics of One-year Performance on IPOs

		Cumulative Adjusted Returns							
Days	n	Median	Maximum	Minimum	Mean	S.D.	T-Statistic		Probability
20	120	6.54%	181.24%	-68.40%	12.86%	41.43%	3.40	***	0.00
60	120	1.23%	190.59%	-87.52%	13.00%	46.70%	3.05	***	0.00
120	120	11.42%	183.10%	-91.16%	15.07%	49.56%	3.33	***	0.00
180	120	9.96%	207.47%	-101.73%	11.64%	57.83%	2.21	***	0.03
240	120	11.45%	170.14%	-150.03%	9.14%	60.65%	1.65	*	0.10
***Statistically significant at 1% level									
**Statistically significant at 5% level									
*Statistically significant at 10% level									

Table 4.7 reports the descriptive statistics of one year performance of IPOs on SET by separate number of days as 20 (one month), 60 (first quarter), 120 (first half year), 180 (third quarter) and 240 days (one year). The table shows the cumulative average market adjusted returns (CAR_t) for the 240 days after the offering date for IPOs in Thailand during 2003-2010. The CAR of 120 firms continuously decreased and the first 20^{th} day and it is statistically significant at 1 level. However the CAR moved up at 120 days to 15.07% and its standard deviation also increases from 41.43% in 20 days to 49.56% (significant at 1% level). The CAR starts going down after 120 days onward, in contrast, the standard deviation keeps increasing and reaches to 60.65% at 240 days. The CAR of 240 was 9.14% (significant at 10% level) which decreased from 17.71% average market adjusted return at the first trading day of IPOs or by 48.39%.

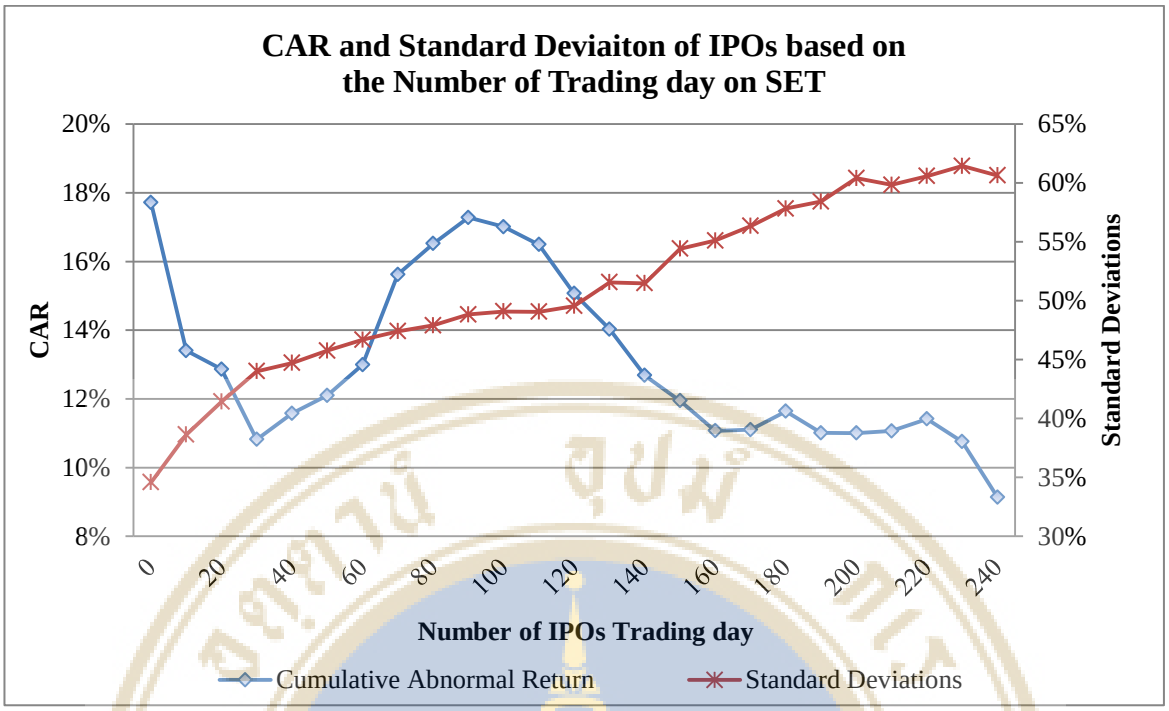

Figure 4.1: The cumulative abnormal return and standard deviations of IPOs on SET during the one year from first trading day.

Figure 4.1 show the trend of the IPOs cumulative abnormal return (CAR) and standard deviation from its first trading day to one year later based on 120 IPOs listed on SET during 2003 – 2010. The CAR line moves fluctuate by dramatically drop during first 40 days trading to approximately 11% then the CAR shift up to almost 18% on 100 days. After 100 days of trading, the CAR keeps decreasing from the highest return at approximately18% to 9.14% on 240 trading days. In contrast, the standard deviation increase continuously from day by day and moved from 51.45% on the first trading day to 60.65% on 240 day of trading.

Table 4.8 : The Top 10 of Most Frequency of Financial Advisor on Listed IPOs on SET during 2003 – 2010 and Average Raw Initial Returns

No	Financial Advisor	No. of Listed Company	Average Raw Initial Return
1	Seamico Securities Public Company Limited	16	16.4%
2	Maybank Kim Eng Securities (Thailand) Public Company Limited (MBKET)	10	7.7%
3	Asia Plus Securities Public Company Limited	9	-1.4%
4	Finansa Securities Company Limited	6	24.1%
5	Thanachart Securities Public Company Limited	6	20.7%
6	Tisco Securities Company Limited	6	10.6%
7	IFCT Advisory Company Limited	5	39.6%
8	Phatra Securities Public Company Limited	5	3.9%
9	Bualuang Securities Public Company Limited	5	-5.9%
10	Trinity Advisory 2001 Company Limited	4	24.8%

Table 4.8 is the roughly summaised the top 10 of financial advisor based on the 120 IPOs listed during 2003 – 2010 which most frequent on advice to go public on SET and average their raw initial return. The most frequent advisor is Seamico Securities Public Company Limited which their frequency on advice reached to 16 times and the average raw initial return is 35.67%. However, the highest raw initial of top 10 financial advisory that provide the raw initial return to IFCT Advisory which provided the average raw initial return at 39.6%. The highest raw initial return of the IPO advised by IFCT is Maybank Kim Eng Securities (Thailand) Public Company Limited at 151.75%. The lowest average raw return financial advisory is Bualuang Securities Public Company Limited at minus 5.9% which mainly came from negative average raw initial return of DSG International (Thailand) Public Company which is in consumption industry at 19.87%

CHAPTER V
CONCLUSION

The purpose of this study is to investigate the performance of initial public offerings for the first trading day (initial performance) and the investor behavior response on first trading day. The study also shows the result of one year performance of IPOs cumulative after first trading as well as roughly show the financial advisory performance based on their frequency of advice.

First, this paper explores the underpricing of IPO on the Thailand Stock Exchange and investigates the degree of underpricing and investor response by either buying or selling the stock on the first trading. The Ordinary Least Square (OLS) regression model is employed to investigate the relationship of investor react to the return of IPOs on first trading. The paper examines the one year performance and also examines the degree of underperformance by cumulative its abnormal returns

Using sample of 120 IPO firms listed in the Stock Exchange of Thailand (SET) to investigate the degree of underpricing, this study provides a number of interesting findings. First, there are statistically significant excess initial returns SET. The close prices in the first trading day are significantly higher than the offer prices. In other words, there exists the underpricing pattern of IPOs at first trading day in Thailand stock exchange similar to the several markets around the world.

On the first trading day, the result shows 2 major investors significantly react on IPOs. Mutual fund would sell out the IPOs statistically significant; on the other hand, retail investors would buy the IPOs statistically significant on the first trading day. Foreign investors also sell out the stock but in less proportion of IPOs than Mutual fund trading. However, there is no relationship between the initial return on IPOs and trading behavior for all types of investor.

Furthermore, the evidence shows that Thailand IPOs for one year period are underperformed. The abnormal return decreased continuously since the first trading day in

contrast, the volatility of the IPOs increased throughout the one year period we studied. This result conforms to Ibbotson (1975), Ritter (1991) and Carter, Frederick and Singh (1998).

Lastly, the roughly result of the financial advisor performance in Thailand would be depended type of the listed company they advise. The high performance financial advisory advises the listed company in the sector or industry which provide high return such finance or resource.

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