Adjusting toward the Appropriate Underpricing of Initial Public Offerings: Evidence from Stock Exchange of Thailand

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ABSTRACT

In general, initial public offerings (IPO) stocks are underpriced as documented in numerous studies, mostly from the U.S. As documented by Ritter (1984), the average IPO stocks were underpriced at 18.8 percent or higher. This paper is not aiming at proving that Thai IPO stocks are underpriced. Instead the objective of this paper is to show that investment banks did not set the price appropriately or did not leave any money for the investors to compensate the ex ante uncertainty of IPO stocks in the sample of before crisis. The result form the test of Proposition II indicates that most of the time during before crisis period investment banks underpriced too little and even overpriced in many cases. The result from the study shows that investment banks underpriced the IPO at 0.77 percent which is insignificant different from zero before crisis. However, the study finds that during crisis the investment bank did leave more money on the table for the investors compensating for the ex ante uncertainty at 12.29 percent. There is significant relation between ex ante uncertainty and initial return during crisis. Moreover, the relation between change in market share of the investment and mispricing set by investment banks was found but it is insignificant. The results from this study are to support two statements:

1. The underpricing in Thai stock market facilitated by the investment banks will be appropriately enforced once there are more institutional investors participate in the market. There is strong evidence of the positive relation between ex ante uncertainty and initial return during crisis and total sample whereas such strong evidence did not found during before crisis period.
2. There is weak evidence on the penalty impounded on the underwriters who try to cheat on the investors and issuing firms by underpriced by too much or too little by the market.

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1. INTRODUCTION

Generally, IPO stocks are underpriced as we can observe from the positive initial return of the IPO stocks as indicated in various studies. This paper documented that there is relationship between the ex ante uncertainty and the underpriced level. Ex ante uncertainty means that when investors submit their purchase order, they are not certain about an offering's values once the stocks start publicly trading. Since the issuing firm cannot make any commitment that its stocks will be underpriced once it starts trading. Therefore, investment banks come into the picture to enforce the underpricing equilibrium. This means that the investment banks have no incentive to overdiscount or underdiscount the stocks. However, in the inefficient market with high degree of speculation due to asymmetric information, there are chances for the investment banks to give the insignificant discount for the IPO stocks or sometimes may overprice the IPO stocks.

Investment bank earns its reputation from the fair price settings. Since investment bank does not know the real market price of the IPO stocks on the trading day and the certain factor for pricing the IPO stocks is the ex ante uncertainty. Fair price settings in this context means the IPO stocks have to be underpriced to compensate the ex ante uncertainty. One may argue that how can the appropriate discount priced level be assessed? This answer can be answered based on two propositions and substantiated by observing the behavior of the investors and issuing firms in the market. Two propositions are as follow:

Proposition I. Greater return is required too compensate the greater ex ante uncertainty of an issue.

Proposition II. Mispricing by the investment bank either overpricing or underpricing which is not commensurate with the ex ante uncertainty causes the investment banks to lose their subsequent market share.

This means that if the underpricing set by investment bank is appropriate, the market share of such investment bank should increase over time. Hence, the appropriate underpriced IPO stocks set by the investment banks can be tested via the relationship between the percentage change of the market share and the absolute standard average return.

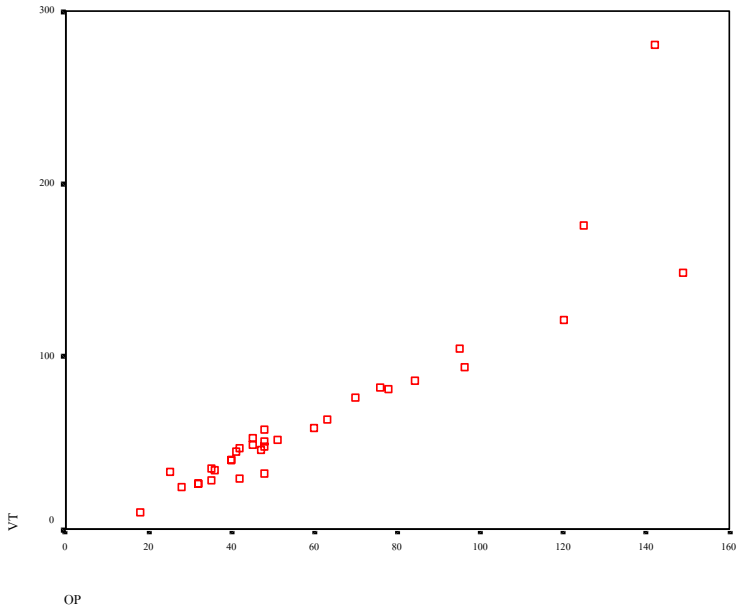

Figure 1

The scattergram depicts the relationship between offered price and the market price (closing price) on the first day the stock traded **before the crisis, 1996 to 1997**. Where OP, offered price, is on the horizontal axis and VT, closing price on the fist day, is on the vertical axis.

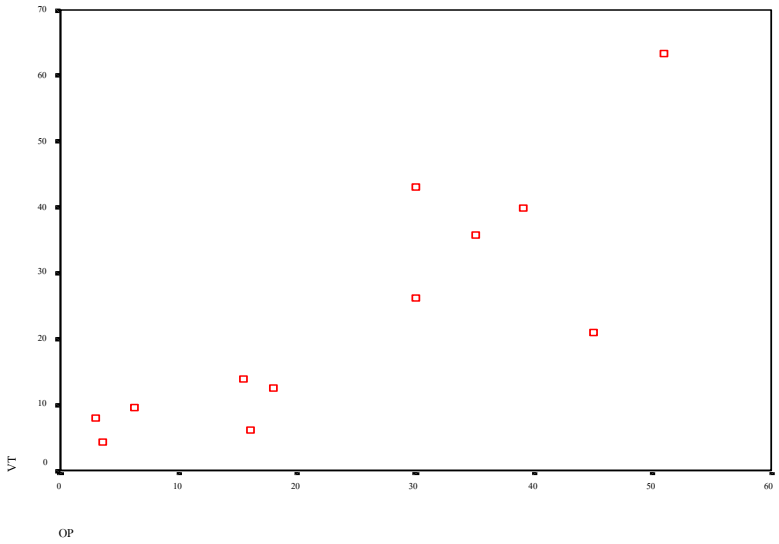

Figure 2

The scattergram depicts the relationship between offered price and the market price (closing price) on the first day the stock traded **during the crisis, 1998 to 2001**. Where OP, offered price, is on the horizontal axis and VT, closing price on the fist day, is on the vertical axis.

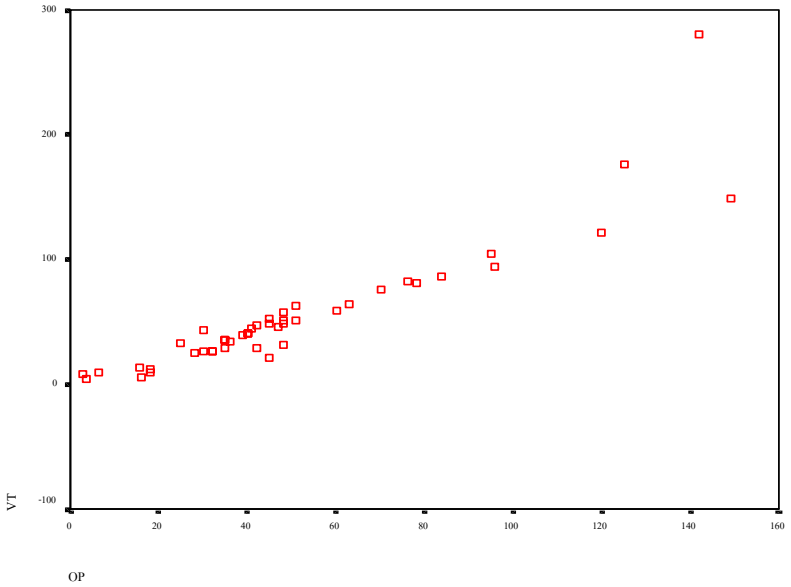

Figure 3

The scattergram depicts the relationship between offered price and the market price (closing price) on the first day the stock traded **total sample from 1996 to 2001**. Where OP, offered price, is on the horizontal axis and VT, closing price on the fist day, is on the vertical axis.

As shown in figure 1 to figure 3, they elaborate relationship between offered price and the closing price at the end of the first day of trading. If the graph depicts the straight line with slope of zero, there is no relationship between the offered and closing price. In the other words, there is no evidence for the underpriced IPO stocks. Three figures show positive relations between the closing price and the offered price. This supports the evidence of the underpriced IPO stocks because the positive slope shows the positive return due to the gain from higher closing price comparing with the offered price. However, stronger evidences supporting the underpriced IPO stocks will be discussed in the following sections.

Table 1 shows descriptive statistics before crisis period, 1996 to July 1997, during the crisis period, July 1997 to 2001, and total sample from 1996 to 2001. The average gross proceed (GP) of during crisis, 566.87 million Baht, was lower that of during crisis, 2,559.5 million Baht, but it cannot be concluded that during crisis firms did issue larger IPOs than those of before crisis. This is because the distribution of the proxies are skewed. Therefore, median is used to represent the gross period over the period. Median of the gross proceed of during crisis, 342.5 million Baht was actually lower than that of before crisis, 411.25 million Baht. The explanation is that during crisis, privatization activities arose, i.e., electrical power plants, petroleum industry. Therefore, the gross proceed during crisis was large but number of IPO transactions during crisis is lower than those of before crisis.

Table 1

Descriptive statistics of gross proceed, number of use for the proceed, sales, and potential. Periods of the analysis are before crisis, 1996 to 1997, and during crisis, 1998 to 2001. Total sample includes all observations from before and during crisis, 1996 to 2001. GP is gross proceed. Gross proceed is the amount issued for the initial public offerings of each firm. NUSE is the proxy for the number of proceeds used as indicated in the prospectus or it is the number of objective declared in the prospectus. Sales is the last twelve month sales of each firm reported in the financial statement. POTEN is the proxy for growth potential of each firm or it is the ratio of NUSE and SALES.

Before Crisis

	Mean	Median	Var
GP	566.8726	411.2500	274,966.9890
NUSE	3.0606	3.0000	1.5590
SALES	1,233.9283	1,125.8900	1,404,072.2900
POTEN	2.0961	1.8715	5.0600

During Crisis

	Mean	Median	Var
GP	2,559.5500	342.5000	55,817,787.85
NUSE	2.3333	2.0000	0.7880
SALES	1,472.5555	853.3210	2154520.4400
POTEN	5.4486	3.5206	36.7020

Total Sample

	Mean	Median	Var
GP	1,098.2532	390.6000	14,948,575.6160
NUSE	2.8667	3.0000	1.4360
SALES	1290.2289	981.6700	1572137.0820
POTEN	3.5841	2.1987	14.1490

The other factor worth for discussion is potential (POTEN). Potential is the ratio between number of used divided by sales of the last twelve month. The higher the potential ratio indicate the higher ex ante of the IPO stocks. According to the pecking order theorem[2]. Information theory[3] can be used to explain the behavior of issuing stock. Two types of assets, asset-in-place and growth opportunity, are worth to be discussed. Regarding to tradeoff theory, firm with high growth opportunity[4] should use low level of debt because cash flows from the investment are uncertain. Firm with low opportunity growth and has high level of asset-in-place can use high debt level because the risk from future cash flows is lower than high growth opportunity firms. This means that any firm issues stock will signal high level of ex ante uncertainty of the future cash flows. Firm with good fundamental of business growth or with high sales level in the last period will have good reason for expansion by raising funds through IPO. However, the ex ante uncertainty regarding to the future cash flows is considered at a very high level during crisis. The discount price of the IPO is a must that the investment bank has to adopt. Moreover, during crisis number of survived firms were much lower than those before crisis left a lot of rooms for the growth to the existed businesses. Table 2 supports the above argument in that the number of investment banks decreased substantially from 39 investment banks to 11 investment banks.

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[2]For more detail, see Myers C, Stewart, "The Capital Structure Puzzle", The Journal of Finance, 1984. The pecking order stated that firm prefers internal capital to external funds and if the external funds is needed, debt is preferred to equity

[3]For more detail, see Barclay J. Michael and Smith W. Smith Jr., "The Capital Structure Puzzle: Another Look at the Evidence", The new corporate Finance where theory meets practice, Donald H. Chew Jr. page 197 - 209

[4]For more detail, see "Capital Projects as Real Options: an introduction", Kester, Fruhan, Piper, and Ruback, Case problems in Finance, 11th edition, Irwin 1997

Table 2

This table depicts number of investment banks of the two-analysis periods, which are before crisis period, 1996 to July 1997, and during crisis period, July 1997 to 2001. Data are obtained from the CANOFILE of the stock exchange of Thailand (SET).

Before Crisis

NAME	MKTSHA
ACL	0.0119469
AST	0.1547627
CATHAY TRUST	0.0231989
CHAOPHAYA	0.0097309
CIMIC	0.0064441
CMIC	0.0186336
CNS	0.004529
DS	0.0797364
EKP	0.0494827
FAS	0.0086181
GF	0.0072464
IFCTF	0.0717568
JF THANAKORN	0.0073292
KTT	0.0467739
MANATHANAKIT	0.0069013
MCC	0.0146384
NAF	0.0517601
NAPAT	0.0417704
NAVA	0.012568
NFS	0.0351555

Before Crisis

NAME	MTKSHA
NITIPHAT	0.0030366
PACFIN	0.0130435
PEREGRIME NITHI	0.0231368
PFS	0.0029814
PHATRA	0.0270533
SBC WARBURG	0.0138898
SCB	0.023292
SCCF	0.0242927
SCF	0.0113775
SIAM CITY	0.0093168
SICCO	0.0136647
S-ONE	0.0717783
TFT	0.0024845
THAI FUJI	0.0060559
THAI SUMMIT	0.0024068
THANA ONE	0.0048913
TISCO	0.0442523
UAF	0.0375778
WALL	0.0024845

Table 2 (continued)

During Crisis

NAME	MTKSHA
CNS	0.0765231
DS	0.1871789
IFCT	0.0538537
MERYLLYNCH PHATRA	0.0214093
PATTANASIN	0.1222902
PIRAT WAREHOUSE	0.0471006
SCBSC	0.0214093
SG SIN ASIA	0.0734035
THANA ONE	0.0765231
TISCO	0.2085882
UNION	0.0658429

2. DATA

Data used in this study are obtained from the Stock Exchange of Thainald (SET), specifically from the CANOFILE which contains prospectus and the financial statements of IPO firms during 1996 to 2001. Data set of all firms that conducted SEC-registered initial public offerings of common stock during 1996-2001, are 45 firms in total. We split data are into two subperiods.

- The first subperiod, before crisis period, includes 33 firms that went public between 1996 and the second quarter of 1997.
- The second subperiod, during crisis period, includes 12 firms that went public between the second quarter of 1997 and 2001.

These subperiods have different ranges because number of firms engaged the IPOs were much higher before crisis subperiod. By splitting data into two subperiods, proposition 2 can be tested by detecting changing in market shares causing from mispricing by IB. The clarifications of each variables are discussed below.

Proxy and variable:

1. IR = $\frac{(\upsilon_t - OP)}{OP}$

   Where: IR = Initial Return
   OP = Offering Price
   υ_t = Closing bid price on the first day of public trading

Initial return (IR) is the proxy for the return from the underpricing of the IPO stocks. Positive value of IR indicates the positive return from purchasing the IPO stocks during the first trading day. This means that positive value of IR indicates gain from underpriced stocks. Negative IR indicates overpriced IPO stocks. The results (not shown) of the negative or overprice stocks of the total sample is 16 out of 45 observations and 11 observations of the overpricing occurred in the before crisis period. This means that the investment banks did not underpriced the IPO stocks and there is no evidence from the market indicating for the objection of the overpricing before crisis period.

2. Two proxies for ex ante uncertainty
   - Log(#of uses of proceeds listed in the prospectus), the greater ex ante uncertainty, the greater number of the uses of proceeds listed
   - Inverse of gross proceeds (INVG)

As discussed in section 1, two theories have been used to explain the risk of choices of financing to firm's value. The two theories are tradeoff theory and information theory.

3. Market share = (# of managed or co-managed IPO) / (total # IPOs)

Market share of each investment bank is calculated by allocating number of managed and the co-managed of an initial public offerings the investment bank engages in divided by total number of the IPO in the particular year. For example, if there are 3 investment banks engage in an initial public offering, each investment bank will be allocated by one-third to each co-manager and divided by the total number of IPO in the particular year.

4. PCG = (New Market Share – Old Market Share) / Old Market Share

   Where: PCG = percentage change in the market share

Percentage change in the market share (PCG) is used to measure the consequence of pricing of line or mispricing in terms of overpricing or underpricing by the investment banks. With the premise that if the investment banks underprice or overprice too much the firm and the investors will not trust such investment for the future transaction causing losing market share. Hence, negative PCG is the penalty for the pricing off line and positive PCG can be viewed as reward of doing the good job by gaining more reputation from the market.

5. SAR = $\dfrac{\bar{r}_i}{\sigma_i / \sqrt{N_i}}$

Where: SAS = Standardized Average Return

Standardized Average Return is calculated by divided the average return and normalized by the standard deviation of the mean initial return, to get the standardized average return.

ASAR = $|SAR|$

Where: ASAR = Absolute Standardized Average Return

6. $\bar{r}_i = \dfrac{1}{N}\sum_{j=1}^{N} r_{ij}$

Where: $\bar{r}_i$ = average return

7. $r_{ij} = p_{ij} - E(p_{ij})$

Where: r_{ij} measures pricing off line which includes both overpricing and underpricing.

8. $E(p_{ij})$ = expected initial return obtained from the regression line.

Expected initial return from the regression obtained as shown in the next section. After conducting the structural change, there is no strong evidence indicating the structural change. Thus, the expected initial return equation is shown below.

Expected Initial Return Equation:

$ir = \beta_0 + \beta_1(LOGNUSE) + \beta_2(INVGP)$

3. EMPIRICAL EVIDENCE AND INTERPRETATION OF THE RESULTS:

3.1) Proposition I test: the positive relationship between ex ante uncertainty and higher return from underpriced IPO stocks:

As documented in the U.S. in numerous studies, there are evidences show that, on average, initial public offerings are underpriced. As documented in Ritter's (1984) reported that for the approximately 5,000 firms that went public during 1960 - 1982, the average initial public offering was trading at a price, 18.8 percent higher than its offering price shortly after public trading started. In the other word, the price of the IPO stocks was underpriced, on average, at 18.8 percent. This paper is not aiming at proving that Thai IPO stocks are underpriced but instead it tries to show that investment banks did not underpriced the stock appropriately or did not leave any money for the investors in case of IPO before crisis.

Table 3 shows the results indicating relationship between ex ante uncertainty and initial return. Since IPOs are underpriced. This doesn't imply that an investor can always expect to realize excess returns. The degree of underpricing is directly related to the ex ante uncertainty about the value of an issue or as the ex ante uncertainty increases. This leads to Proposition I stated earlier. Results indicate the positive

relationship between ex ante uncertainty and the return or the level of underpriced stock. Results in table 3 show the relationship between ex ante uncertainty and the initial return is significant only during crisis. Coefficients of inverse gross proceed (INVGP) are significant in both models for the during crisis period. This supports that either OLS or WLS can estimate the regression because the results from both models are not significantly different.

The results of table 3 give the contradict results when different period is tested. Coefficients of LOGNUSE of the before crisis period are negatives for both models (OLS and WLS) and insignificant whereas the coefficients of LOGUSE from during crisis and total sample yield the same sign which is positive sign and significant only during crisis period but still insignificant in the total sample. Coefficients of INVGP in the before crisis period are negative and insignificant whereas they are positive and significant for both during crisis and total sample.

Table 3

This table contains the estimated coefficient for regression relating the initial return to the proxies of uncertaitny over the period of before crisis, 1996 to July 1997, after crisis, July 1997 to 2001, and total sample 1996 to 2001. The initial returns are defined as $(V_t - OP) / OP$, where ir represents initial return, V_t is the closing market price on the first trading day, OP is the offered market price. NUSE is the number of objectives indicating for the number of activities the firm plans to use the proceeds from the IPO in the prospectus. NUSE is used to proxy the ex ante uncertainty. INVGP is the inverse gross proceed used as the proxy for the ex ante uncertainty. Model 1 uses the Ordinary Least Square method (OLS) to estimate the regression. Model 2 uses Weighted Least Square (WLS) to estimate the regression line. WLS is used to correct the heteroskedasticity that is presented in the OLS. The weighting factor is logsale, where sales is the most recent 12-month revenues of the issuing firm. T-statistics is in the parenthesis.

BEFORE CRISIS

	Model 1	**Model 2**
C	-0.0433	-0.0491
	(-0.2863)	(-0.32826)
LOGNUSE	0.2611	0.2821
	(1.0180)	(1.1306)
INVGP	-13.4642	-17.8777
	(-0.8194)	(-0.9489)
R-squared	0.0891	0.0971
Adjust R-squared	0.0283	0.0369
F	1.4667	1.6135
DW.	1.8587	1.7937
Observation	33	33

DURING CRISIS

	Model 1	**Model 2**
C	0.5887	0.5204
	(2.16182)	(2.06508)
LOGNUSE	-1.8865	-1.7275
	(-3.0049)	(-2.9282)
INVGP	23.2996	21.2367
	(2.1442)	(1.7552)
R-squared	0.7149	0.6281
Adjust R-squared	0.6516	0.5455
F	11.2861	7.6004
DW.	1.8108	1.8800
Observation	12	12

Table 3: (continued)

TOTAL SAMPLE

	Model 1	**Model 2**
C	-0.0132 (-0.0875)	0.0182 (0.12814)
LOGNUSE	-0.1027 (-0.351238)	-0.1275 (-0.464908)
INVGP	25.7070 2.8861	19.6569 1.9874
R-suqared	0.2060	0.1046
Adj. R-squared	0.1682	0.0619
F	5.4489	2.4519
DW.	1.7532	1.8044
Observation	45	45

In conclusion, results from table 3 yield the different outcomes. As one can observe that there are contradictions of the coefficients from the models when the periods are different, the interpretation is that the before crisis can be ignored because none of the coefficient is statistically significant from zero. However, during crisis model will not be used because the observations during this period is very small which may lead to selection bias. Therefore, the total sample model will be used as the model capturing relationship between the initial return and the ex ante uncertainty. Proposition I stated in the introduction section will be tested by the total sample.

Table 4: structural change test of relationship between initial return and ex ante uncertainty

Initial return and ex ante uncertainty (total sample)

This table contains the estimated coefficient for regression relating the initial return to the proxies of uncertaitny over the period of before crisis, 1996 to July 1997, after crisis, July 1997 to 2001, and total sample 1996 to 2001. The initial returns are defined as $(V_t - OP) / OP$, where ir represents initial return, V_t is the closing market price on the first trading day, OP is the offered market price. NUSE is the number of objectives indicating for the number of activities the firm plans to use the proceeds from the IPO in the prospectur. NUSE is used to proxy the ex ante uncertainty. INVGP is the inverse gross proceed used as the proxy for the ex ante uncertainty. Time is a dummy variable equals to 1 if it is the period before crisis, 1996 to July 1997, and 0 other wise. Model 1 uses the Ordinary Least Square method (OLS) to estimate the regression. Model 2 uses Weighted Least Square (WLS) to estimate the regression line. WLS is used to correct the heteroskedasticity that is presented in the OLS. The weighting factor is logsale, where sales is the most recent 12-month revenues of the issuing firm. Model 3 and Model 4 use the same estimation method as those in model 1 and model 2. The difference between model 1,2 and model 3,4 is the inclusion of Time factor in the model 3 and 4 to test for the structural change. T-statistics is in the parenthesis.

	Model 1	**Model 2**	**Model 3**	**Model 4**
C	-0.01319	0.01824	-0.2424	-0.0121
	(-0.0857)	(-0.1281)	(-0.1439)	(-0.0775)
LOGNUSE	-0.10275	-0.12753	-0.1116	-0.1619
	(-0.3513)	(-0.4649)	(-0.3702)	(-0.5678)
INVGP	25.7107	19.6569	25.98	20.5641
	(2.8861)	(1.9874)	(2.8293)	(2.0270)
TIME			0.0186	0.0575
			(0.1539)	(0.4985)
R-squared	0.206018	0.10455	0.2065	0.1099
Adj. R-squared	0.168209	0.06191	0.1456	0.0448
F	5.4489	2.4519	3.5561	1.6882
DW.	1.7532	1.8044	1.7505	1.6882
Observation	45	45	45	45

Even though total sample seems to be the best model for capturing the relationship discussed above, structural change has to be taken into account. As the results from the different period between before crisis and during crisis are totally different, the test of structural change should be conducted. In table 4, the test of structural change is shown. Time is the dummy variable capturing the structural change. Time equals to 1 if the period is before crisis and 0 other wise. The results from table 4 reveal that there is no structural change from the before crisis period to during crisis period because the coefficients of Time in model 3 and 4 are insignificant. Moreover, when compare coefficients of LOGNUSE and INVGP among four models, the signs of these variable are the same with the same statistical results. The negative coefficients of LOGNUSE are persist in four model and insignificant and the positive of INVGP are all significant in all four models. The

interpretation of the results is that there is significant relationship between the initial return and the ex ante uncertainty with no impact from the
different periods. Since the positive initial return implies the underpricing of IPO stocks, the evidences form table 4 support Proposition I which states that "greater return is required too compensate the greater ex ante uncertainty of an issue.

The estimated equation for testing the Proposition I or the expected initial return regression equation is shown below:

$ir = \beta_0 + \beta_1(LOGNUSE) + \beta_2(INVGP)$

ir = -0.013188 - 0.102748 (LOGNUSE) + 25.7107 (INVGP)

The coefficient of 25.7107 on the inverse of gross proceeds indicates that smaller offerings have substantially higher average initial return. The result from the expected initial return confirms the relationship stated in Proposition 1, there is positive relation between ex ante uncertainty and expected underpricing (see figure 4). R^2 and Adjusted R^2 are very low in all estimated regressions. This is not the major concern of the model because the objective of the model is not to predict the actual initial return but, instead, the model is aiming at showing that there is relationship as stated in Proposition I.

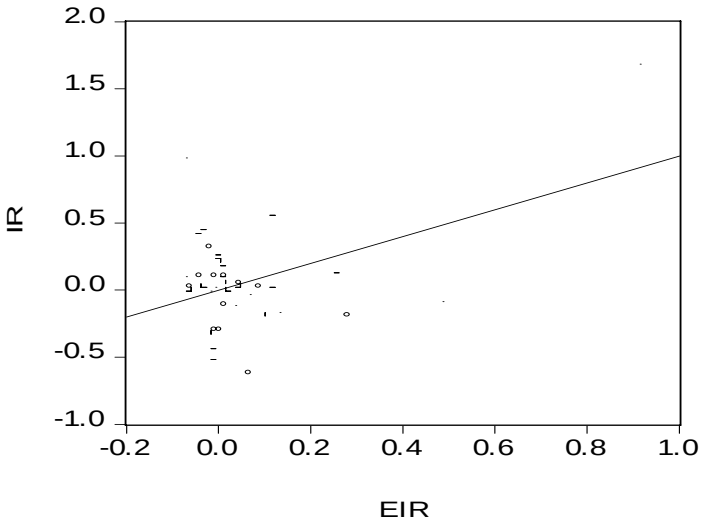

Figure 4:
Relation between the actual average percentage initial return (vertical axis) and the expected average percentage initial return (horizontal axis)

3.2) Proposition II test: Mispricing by the investment bank either overpricing or underpricing which is not commensurate with the ex ante uncertainty causes the investment banks to lose their subsequent market share.

To test Proposition II, the percentage change in market share of each investment bank is calculated by the following realtionship.

PCG = (New Market Share – Old Market Share) / Old Market Share
Where: PCG = percentage change in the market share

The major variable for testing the Proposition II is market share. Market share is calculated by allocating number of managed and the co-managed of an initial public offerings the investment bank engages in divided by total number of the IPO in the particular year. For example, if there are 3 investment banks engage in an initial public offering, each investment bank will be allocated by one-third to each co-manager and divided by the total number of IPO in the particular year. Market share is calculated as follow.

Market share = (# of managed or co-managed IPO) / (total # IPOs)

Percentage change in the market share (PCG) is used to measure the consequence of pricing of line or mispricing in terms of overpricing or underpricing by the investment banks. With the premise that if the investment banks underprice or overprice too much the firm and the investors will not trust such investment for the future transaction causing losing market share. Hence, negative PCG is the penalty for the pricing off line and positive PCG can be viewed as reward of doing the good job by gaining more reputation from the market.

Figure 5 depicts number of cases that the investment banks pricing on line (correct pricing) located exactly on the line with intercept zero and slope of one. If all the scatter points located exactly on the line, it can be interpreted that the investment banks did price the IPO stocks correctly and leave no money on the table for neither the investors nor the issuing firms. The off line pricing is the scatter points over and under the zero intercept and slope of one line. In the other words, scatter points above or below the line indicate mispricing by the investment banks. When the scatter points located above the line, it indicates that the investment banks did underprice the IPO stocks. On the other hands, when the scatter points located below the line, it also indicates that the investment banks overpriced the IPO stocks. From figure 5, the scatter points show that most of the time the investment banks did overpriced the IPO in Thailand. This can be explained by two reasons. The first is that most of the observations used for the analysis in this study basing on the IPO before crisis. Since number of IPOs before crisis, 33 firms, were higher than those of during crisis, 12 firms. Therefore, the results shown in figure 5 may stem from the bias by the nature of data used. The second explanation for the overpriced behavior in Thailand is that during the before crisis period investors in the market behaved as speculators. There were high demand for any IPO stocks. This means that investors did not pay enough

attention whether the IPO stocks were underpriced or left some money on the table for compensating the ex ante uncertainty.

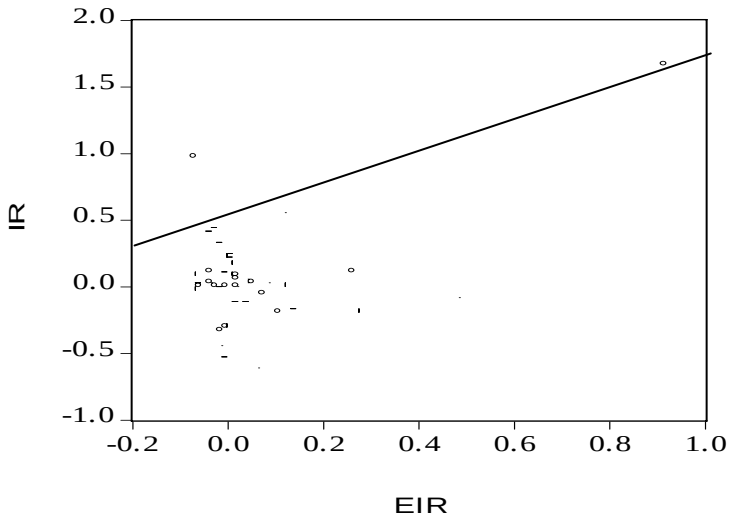

Figure 5:
Relation between the actual average percentage average return (vertical axis) and the perdicted average percentage initial return (horizontal axis). The line drawn has slope of one and intercept of zero

In conclusion, the evidence from figure 5 depicts that investment bank in Thailand overpriced the IPO stocks and only few cases that the investment banks left the money on the table for the investors or underprice the stock for them.

According to the premise discussed earlier stating that investment banks will not put their reputation at risk a small benefit from mispricing, therefore, the IPO stocks will be underpriced by them. However, the results did contradict to the premise set earlier with the explanation regarding to the behavior of investors during before crisis period. Thus, the test regarding to the impact of mispricing to the changes in market share has been conducted. By regressing the percentage change in market share (PCG) on absolute standardized average return (ASAR) for 6 underwriters of interest. This is because the number of investment banks had been reduced from 39 investment banks to 11 investment banks due to economic crisis. By matching the number of before crisis and during crisis, there were only 6 underwriters matched with the criterion.

Table 5: Regression results indicating the impact of mispricing to the percentage change in market share.

Ordinary Least Square (OLS) regression results with the percentage change in market share as dependent variable represented by PCG and Absolute Standardized Average Return (ASAR) as explanatory variable. Market share is calculated by dividing the sum of number of initial public offerings of underwriter i by the total number of initial public offerings in the particular period. The sum of number of initial public offerings of underwriter i can be calculated by the sum of number of the IPO the underwriter i engages plus the fractions of number of IPOs that the underwriter i engages or number of co-managed offerings. Standardized Average return (SAR) is defined as the ratio of mean return divided by standard deviation of the mean return. ASAR is defined as the absolute value of standardized average return.

C	3.8847 (0.972133)
ASAR	-1.1214 (-0.17311)
R-suqared	0.0074
Adj. R-squared	-0.2407
F	0.0300
DW.	1.2027
Observation	6

Results from table 5 indicates that as the value of explanatory variable changes from one standard deviation below to one standard deviation above, the expected initial return drops by 1.1214 percent. However, t-statistics and F-statistics indicate the insignificant relationship of the regression. This can be concluded that the relation from the regression is not an economically meaningful change.

In summary, the test for the Proposition II indicates that there is negative relationship between mispricing and percentage change in market share. Even though the relationship from the regression is insignificant, it indicates that market does penalize the investment banks who cheat on the underpricing equilibrium by overprice or underprice too much. The results from Thailand impounds that the penalty from cheating is more pronounced during crisis period (result is not shown). This means that investment banks in Thailand are pushed to the direction with more corporate governance.

4. Summary and conclusions

Numerous studies had been conducted to show that the IPO stocks have to be underpriced by the investment banks regarding to the ex ante uncertainty of the future cash flows. However, this paper is not aiming to prove such underpricing issue but the objective of the paper is to depict that during before crisis period the underpriced IPO stocks in Thailand is too low or leave less money on the table for the investors. The explanation for the too low underpriced was that the behavior of most investors during before crisis was considered as that of speculators. During crisis period, the structure of investor structure had changed from individual based to be more

institution investor base. This help promote more corporate governance in Thai corporation.

This study support Proposition I, which states the positive relation between ex ante uncertainty and the initial return from underpricing. Moreover, the result of testing Proposition II implies the penalty impounded on the underwriters who try to cheat on the investors and issuing firms by underpriced by too much or too little by the market. The relation from the test of Proposition II is insignificant. The results from this study are to support that the underpricing in Thai stock market will be placed on line once there are more institutional investors participate in the market.

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