THE LONG RUN PERFORMANCE OF INITIAL PUBLIC OFFERINGS IN MALAYSIA

Tay Seng Wu*

1. INTRODUCTION

As new equity financing is assuming increasing importance as a source of funds, more and more firms are taking the opportunity to float new issues. This can be seen from the increasing number of initial public offerings (IPOs) lately. However, most of these new issues were usually over-subscribed many times. As such, not all interested investors would be able to buy such shares at the offer price. The majority of the investors would have to purchase such shares in the open market after listing. As such, the aftermarket performance of the new issues would be of interest to eager investors.

The objectives of this study are to examine the one to three years aftermarket performance of these IPOs for departures from market efficiency and to examine their aftermarket performance in relation to their initial returns, degree of establishment and market value at the time of listing.

2. LITERATURE REVIEW

The studies by Ritter (1991) and Shaw (1971) generally found that in the long run IPOs underperformed the market. Ritter also noted in his study that there was a tendency for firms with high adjusted initial returns to have the worst aftermarket performance and that 'older' IPOs performed significantly better than 'younger' IPOs showing a strong monotone relation between age and aftermarket performance. Ibbotson (1975), however found evidence that generally there was a positive performance in the first year, negative performance in the following three years

---

and generally positive performance in the fifth year and that there were no departures from market efficiency in the aftermarket. The study by McDonald and Fisher (1972) concluded that the initial success of the offering, in terms of the magnitude of the return in the first week after offering, has no predictive value in selecting stocks for subsequent performance.

On the local scene, the study by Ong (1987) indicated that an investor would gain by purchasing the new issues at the offer price. The initial excess return measured from the offer price to the first trading day closing price as determined using the market-adjusted model, risk-adjusted market model and modified RATs model are 97.14%, 99.5% and 98.42% respectively. The results of his study also showed that the IPOs outperformed the market by 13.65% at the end of one year after it was purchased on its first trading day.

3.   DATA AND METHODOLOGY

This study uses secondary data collected from the Investors Digest (formerly called the KLSE Gazette), Annual Companies Handbook, prospectuses of new share offers, daily price records from The KLSE and press releases by MIDFCCS subsequent to new share balloting.

The sample includes all companies that made initial public offerings and sought listing of their shares on The KLSE Main Board during the period from January 1974 to December 1989. The criterion used to select the sample of new issues is to accept only new issues of ordinary shares of companies incorporated in Malaysia. All in, 70 new issues were used in this study which comprises 50 industrial stocks, eight property stocks, seven finance stocks and five plantation stocks.

3.1 Portfolio Formation

In addition to their overall performance, the IPOs are also partitioned according to the following:–

(a) Market Adjusted Initial Return

The initial return of the issue is taken as the percentage change in price from the offer price to the first official listing price. It is then adjusted for market changes (using the sectoral indices as a proxy) for the period between the issue of prospectus and first official listing.

$$INITR = R_i - R_m$$

where INITR is the adjusted initial return, R_i is the initial return of stock i and R_m is the market return.

(b) Degree of Establishment of the Company

NTA/share is chosen as a proxy for the degree of establishment of a company as it is easily understood amongst investors and obtainable from the prospectuses. A large NTA would imply a well established firm whilst a small NTA would imply the reverse.

(c) Market Value or Firm Size

The market value is determined as the first closing price on The KLSE multiplied by the total number of shares listed when first quoted.

The stocks are then ranked in ascending order according to the three factors above respectively and three equal size portfolios are formed from each. The performance of the three portfolios for each of the three factors are then compared.

3.2 Performance Measures

The performance of IPOs is evaluated using two measures:–

(a) Cumulative Average Adjusted Returns (CAR)

This is exclusive of the initial returns where the adjusted returns are computed using The KLSE sectoral indices as proxies for the market returns.

The last transacted price of the stocks for each month from the listing day is used to calculate the montly returns of the stocks. For example if the stock is listed on the third day of February, then the last transacted price on the third day of March is used to calculate the return for the first month. Similarly the last transacted price on the third day of March and April are used to calculate the return for the second month and so on. If a particular month's date falls on a non trading day, the last transacted price of the last previous trading day is used. The prices are adjusted for all capital changes such as spilts, rights issue and bonus issue. Cash dividends are excluded from the returns computation to simplify calculations.

The monthly market adjusted return will be taken as the monthly percentage raw return on a stock minus the monthly percentage market return for the corresponding trading period, i.e.

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

where ar_{it} is the market adjusted return for stock i in event month t, r_{it} is the return on stock i in month t and r_{mt} is the market return in month t. The average market return on a portfolio of n stocks for month t is the equally weighted average of the market adjusted returns;

$$AR_t = \frac{1}{n} \sum_{i=1}^{n} ar_{it}$$

where AR_t is the weighted average market adjsuted return in month t and n is the number of stocks in the portfolio in month t.

Therefore the cumulative market adjusted aftermarket performance from month r to month s is the summation of the average market-adjusted returns;

$$CAR_{r,s} = \sum_{t=r}^{s} AR_t$$

where $CAR_{r,s}$ is the cumulative average market adjusted return from month r to month s.

(b) Holding Period Returns

The one year, two years and three years buy and hold unadjusted and adjusted returns are calculated for each portfolio and compared.

The one, two and three-year holding period returns of the stocks are measured from the closing market price on the first day of public trading to the market price on the one, two or three-year anniversary of the stock as the case may be.

The holding period returns for each portfolio is the equally weighted average of the holding period returns of all stocks in each porfolio;

$$X = \frac{1}{n} \sum_{i=1}^{n} X_i$$

where X is the average holding period return of portfolio, X_i is the holding period return of stock i and n is the number of stocks in the portfolio. To test the hypothesis that X equals zero, a student's t-statistic (t) is computed.

4.   RESULTS AND INTERPRETATIONS

As shown in Table 1, the mean initial return is zero at the 0.01 level (t-stat = 10.45) indicating that the IPOs in Malaysia are underpriced. The median for the initial returns and market value are both lower than their means indicating a skew to the right while that of the NTA/share is skewed to the left.

Table 1

STATISTICAL RESULTS OF THE ADJUSTED INITIAL RETURN, NTA/SHARE AND MARKET VALUE OF SAMPLE

	Adj Init Return	NTA/share	Market Value
Lowest	0.11%	RM0.51	RM7.8 m
Highest	297.95%	RM2.05	RM2420 m
Mean	107.14%	RM1.08	RM188.3 m
S.D.	81.35%	RM0.31	RM33.5 m
Median	89.15%	RM1.09	RM96 m

4.1 Overall Aftermarket Performance

The results of the overall aftermarket performance analysis are shown in Figure 1, Table 2A and 2B.

From Figure 1, it can be seen that the sample of IPOs showed positive average adjusted monthly returns in the first 11 months. Thereafter it is negative as can be seen from the declining cumulative adjusted average return after the eleventh month. After the 25th month it again showed positive monthly adjusted returns but at a more reduced rate. On the whole, the sample showed positive aftermarket performance which is in contrast to studies by other researchers.

From Table 2A, it can also be seen that the monthly adjusted returns is significantly different from zero at the 0.05 level only in month three and seven. However the hypothesis that the monthly average adjusted returns is equal to zero cannot be rejected for the rest of the other 34 months. Therefore it can be concluded here that generally the results confirmed that there were no departures from market efficiency.

From Figure 1, it can also be concluded that investors would still gain by buying the stock at the listing date and holding it for a year. This conformed with the study by Ong where a 13.65% market adjusted return in the first 12-month period was found. After the first year it would not be worthwhile picking up the stock as a negative return is envisaged.

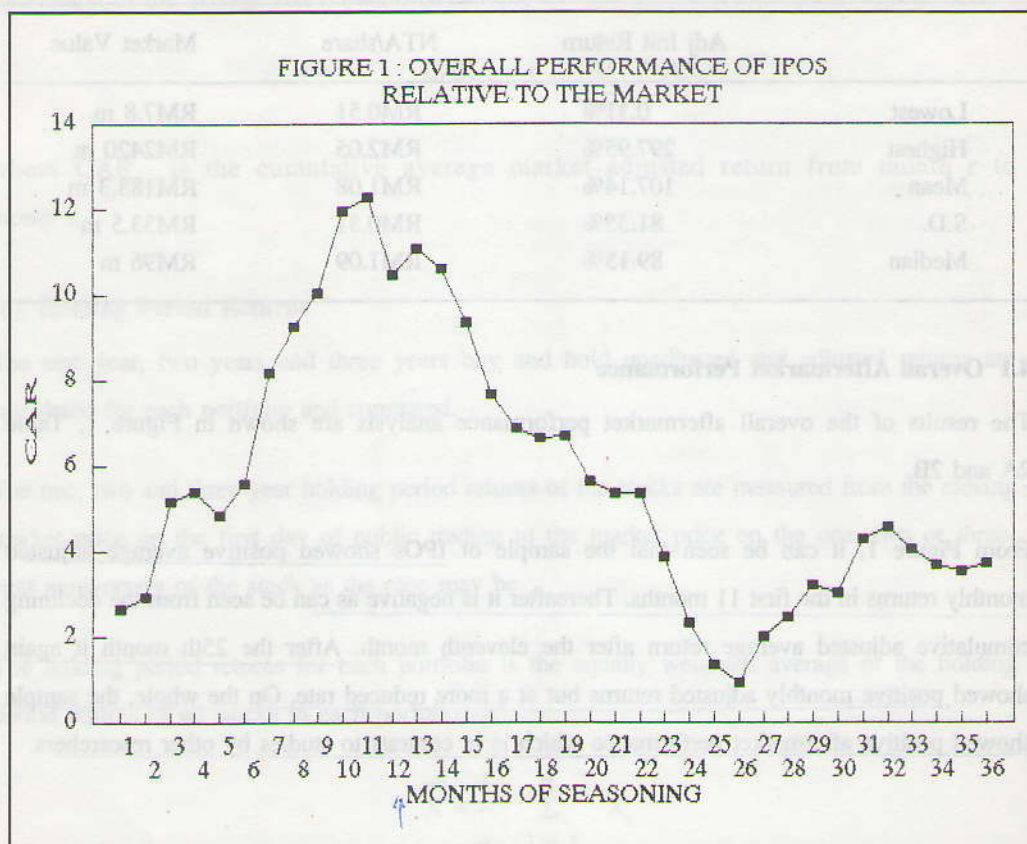**Figure 1**

Overall Performance of IPOs Relative To The Market

FIGURE 1 : OVERALL PERFORMANCE OF IPOS RELATIVE TO THE MARKET

Table 2A

OVERALL PERFORMANCE OF IPOS RELATIVE TO THE MARKET

Months of Seasoning	AR	N	T–stat	CRR	CAR
1	2.654	68	1.102	3.543	2.654
2	0.271	67	0.238	4.709	2.925
3	2.217	67	2.039*	7.322	5.141
4	0.221	68	0.197	7.461	5.362
5	− 0.539	70	− 0.577	7.674	4.823
6	0.757	70	0.759	8.228	5.580
7	2.619	71	2.366*	11.781	8.199
8	1.065	69	0.845	14.114	9.264
9	0.758	69	0.547	15.834	10.022
10	1.927	69	1.579	17.094	11.950
11	0.340	71	0.314	16.701	12.289
12	− 1.839	71	− 1.701	16.020	10.450
13	0.617	71	0.451	17.328	11.067
14	− 0.462	70	− 0.368	17.796	10.605
15	− 1.275	70	− 1.360	16.569	9.330
16	− 1.674	71	− 1.004	16.812	7.656
17	− 0.770	70	− 0.805	15.970	6.886
18	− 0.267	71	− 0.280	16.766	6.619
19	0.089	71	0.064	18.082	6.708
20	− 1.086	71	− 0.856	17.995	5.622
21	− 0.306	71	− 0.139	18.629	5.316
22	0.010	70	0.006	20.481	5.326
23	− 1.486	70	− 1.101	20.611	3.840
24	− 1.541	70	− 0.866	20.778	2.299
25	− 0.983	63	− 0.613	20.177	1.316
26	− 0.385	62	− 0.310	20.606	0.932
27	1.044	63	0.707	24.563	1.976
28	0.458	64	0.254	28.667	2.434
29	0.780	64	0.690	29.724	3.214
30	− 0.215	64	− 0.174	30.421	2.999
31	1.241	63	0.720	36.070	4.241
32	0.271	61	0.179	34.399	4.520
33	− 0.508	59	− 0.439	33.790	4.012
34	− 0.338	61	− 0.238	32.615	3.674
35	− 0.145	62	− 0.109	33.253	3.529
36	0.160	63	0.137	30.114	3.689

AR = average adjusted returns
N = no. of stocks
CAR = cumulative average adjusted returns
CRR = cumulative raw returns
* = significant at 0.05

Table 2B

1, 2 & 3 YEARS OVERALL UNADJUSTED AND ADJUSTED HOLDING PERIOD RETURNS

	Unadjusted Holding Period Return			Adjusted Holding Period Return		
	1 Year	2 Year	3 Year	1 Year	2 Year	3 Year
OVERALL	0.228	0.253	0.368	0.169	0.138	0.141
	(3.370)**	(3.016)**	(3.162)**	(2.900)**	(1.816)	(1.324)
% with +ve return	63.77	58.82	59.68	60.87	50.00	46.77

Note: t-statistics in parentheses
         ** significant at 0.01

As can be seen from Table 2B, the unadjusted holding period returns are statistically significant at the 0.01 level while the market adjusted holding period returns are only significant at the 0.01 level in the one year period and significant at the 0.1 level in the two years period. This shows that the abnormal returns of the IPOs relative to the market diminishes in the 2 and 3 years period.

4.2 Performance Analysis by Initial Return

The results of the analysis by comparing the performance of the IPOs partitioned by initial returns are as shown in Table 3.

On the whole it can be seen that IPOs with lower initial returns performed better than IPOs with higher initial returns in the long run. A large initial return is due to a large underpricing of the issue and this, as Dawson (1985) argued, has repercussions on a number of important financial measures. Though a lower price reduces the risk that the issue would not sell, it however necessitates the issuance of a larger number of shares to raise a given amount of capital. As these larger number of shares are sold to outsiders, this descreases the owner's control position, earnings per share, dividends and net asset backing. This in turn will then have a negative impact upon the market price of a share. This probably explains the downturn in performance of IPOs with higher initial returns after the second year period.

Table 3

1, 2 & 3 YEARS UNADJUSTED AND ADJUSTED HOLDING PERIOD RETURNS CATEGORISED BY INITIAL RETURNS

	AVE INIR	Unadjusted Holding Period Return			Adjusted Holding Period Return		
		1 Year	2 Year	3 Year	1 Year	2 Year	3 Year
INITR 1	26.55	0.418	0.442	0.871	0.257	0.218	0.471
		(3.470)**	(2.930)**	(3.703)**	(3.001)*	(1.574)	(2.065)*
INITR 2	87.92	0.324	0.154	0.239	0.233	0.004	−0.097
		(2.137)*	(1.746)*	(2.027)*	(1.625)	(−0.012)	(−0.888)
INITR 3	206.95	0.006	0.025	−0.165	0.091	0.159	−0.118
		(0.085)	(0.145)	(−1.095)	(1.357)	(0.997)	(−0.945)
F Ratio		2.152	1.364	5.916**	0.495	0.436	2.797

Note: t-statistics in parentheses
       ** significant at 0.01
       * significant at 0.1

Table 3 seems to indicate some ranking of both unadjusted and adjusted holding period returns for all the one, two and three-year periods. Portolios with lower initial returns seem to have higher holding period returns compared to portfolios with higher initial returns. However, only the F ratio for the unadjusted holding period returns on the third year anniversary of the portfolios is significant at the 0.01 level and the hypothesis that the portfolio returns are equal can be rejected.

It can also be seen that only the average unadjusted holding period return for the first two portfolios (INITR 1 and INITR 2) is statistically significant at the 0.01 level. The average adjusted holding period return is only statistically significant at the 0.01 level for the first portfolio (INITR 1) in the one year and at the 0.05 level in the three-year period. It is not statistically significant in the two-year period. This shows that IPOs with low initial returns outperformed the market and there are abnormal returns to be gained from such stocks in the first and third year of seasoning.

4.3 Performance Analysis by NTA/share

The results of this analysis are shown in Table 4. A well establised firm is less risky than a less established one in the eyes of the investors. Thus, investors would expect a higher average initial return from less established firms.

The results also agree with the expectation that well established firms should perform better than less established ones in the long run. The firms with the highest NTA/share showed positive performances throughout the three year period but not the other two which showed a downturn in performance even after the first year.

Table 4

1, 2 & 3 YEARS UNADJUSTED AND ADJUSTED
HOLDING PERIOD RETURNS
CATEGORISED BY NTA/SHARE

	AVE NTA	Unadjusted Holding Period Return			Adjusted Holding Period Return		
		1 Year	2 Year	3 Year	1 Year	2 Year	3 Year
NTA 1	0.73	0.123	0.039	–0.113	0.189	0.116	–0.026
		(0.986)	(0.271)	(–0.955)	(1.647)	(0.942)	(–0.254)
NTA 2	1.10	0.258	0.186	0.405	0.148	0.037	–0.003
		(1.707)	(1.425)	(2.368)*	(1.005)	(0.2562)	(–0.017)
NTA 3	1.40	0.279	0.496	0.957	0.168	0.278	0.512
		(2.738)*	(2.931)**	(3.755)**	(2.293)*	(1.952)*	(2.208)*
F Ratio		0.304	1.647	5.437**	0.020	0.541	1.598

Note: t-statistics in parentheses
** significant at 0.01
* significant at 0.1

In Table 4, the unadjusted holding period returns seemed to rank to expectation. For the market adjusted holding period returns, the ranking is only obvious in the three-year period. T-statistics calculated also showed that only the adjusted holding period returns for the period portfolio (NTA 3) are statistically significant at the 0.1 level.

4.4 Performance Analysis by Market Value

The results in Table 5 show that the smaller firms performed better than the larger firms in the short and long run. This result concurs with the size effect study by Banz (1981) and Reinganum (1981).

The holding period returns in Table 5 also indicate some ranking as one would expect under the size effect. It shows that the smallest firms have the highest holding period returns and it increases through the three years of seasoning. The biggest firms however, have the lowest holding period return, and this it also decreases through the three years of seasoning.

The unadjusted holding period returns are statistically significant for all three periods in the first portfolio (MV 1) and the one-year period of the second portfolio. The adjusted holding period returns are statistically significant only in the one-year period for the first two portfolios and in the three-year period in the first portfolio.

Table 5

1, 2 & 3 YEARS UNADJUSTED AND ADJUSTED HOLDING PERIOD RETURNS CATEGORISED BY MARKET VALUE

		Unadjusted Holding Period Return			Adjusted Holding Period Return		
	AVE MV	1 Year	2 Year	3 Year	1 Year	2 Year	3 Year
MV 1	3E + 07	0.306	0.522	1.023	0.256	0.250	0.583
		(3.115)**	(3.381)**	(4.164)**	(1.903)*	(1.641)	(1.989)*
MV 2	1E + 08	0.304	0.141	0.222	0.228	0.121	−0.062
		(2.458)*	(0.982)	(1.291)	(2.290)*	(0.920)	(0.326)
MV 3	4E + 08	0.077	0.082	0.015	0.140	0.077	−0.083
		(0.603)	(0.627)	(0.109)	(1.317)	(0.691)	(−0.941)
F Ratio		0.820	1.820	5.386**	0.140	0.296	2.260

Note: t-statistics in parentheses
           ** significant at 0.01
          * significant at 0.1

Using ANOVA to test the portfolios holding period returns again yield low F-ratios resulting in accepting the hypothesis that the portfolio returns are equal. The only exception is the three-year unadjusted holding period returns of the portfolios which have a F ratio of 5.386.

4.4 Performance Analysis by Market Value and Initial Return

The results are shown in Table 6. MVINITR 1A represents the smaller firms with the lower initial returns while MVINITR 1B represents the smaller firms with the higher initial returns. Similarly MVINITR 2A and MVINITR 2B represents the larger firms with the lower initial returns and higher initial returns within that group respectively.

Here, it can be seen that the group of smaller firms with the lower initial returns performs the best in the long run. The larger firms with higher initial returns performed the worst. In fact it consistently underperformed the market in the three-year period. This shows that the size effect of the stocks is further compounded by the size of the initial return.

The results of the ANOVA analysis showed that the hypothesis that the four porfolios' returns are equal can be rejected where the unadjusted holding period returns are concerned. The F ratio of the three-year adjusted holding period returns are also such that the hypothesis can be rejected.

Portfolio MVINITR 2A also seemed to perform better than portfolio MVINITR 1B and was comparable to portfolio MVINITR 1A in the long run. As such, it can be concluded that the size of the initial return has a more dominant effect on the performance of the IPOs compared to the size effect in the long run.

Table 6

1, 2 & 3 YEARS UNADJUSTED AND ADJUSTED HOLDING PERIOD RETURNS CATEGORISED BY MARKET VALUE AND INITIAL RETURNS

	Unadjusted Holding Period Return			Adjusted Holding Period Return		
	1 Year	2 Year	3 Year	1 Year	2 Year	3 Year
MVINITR 1A	0.465	0.558	1.418	0.216	0.201	0.669
	(3.573)**	(2.913)**	(4.842)**	(1.608)	(0.959)	(2.014)*
MVINITR 1B	0.256	0.188	0.002	0.310	0.204	0.083
	(1.717)	(0.847)	(0.012)	(2.219)*	(0.943)	(0.435)
MVINITR 2A	0.419	0.427	0.503	0.254	0.216	0.226
	(2.157)*	(3.180)**	(3.985)**	(1.662)	(1.958)*	(2.159)*
MVINITR 2B	–0.108	–0.220	–0.285	0.043	–0.044	–0.319
	(–0.213)	(–1.431)	(–2.255)*	(0.490)	(–0.304)	(–4.590)**
F Ratio	2.393*	2.745*	11.755**	0.580	0.383	2.980*

> Note: t-statistics in parentheses
> ** significant at 0.01
> * significant at 0.1

4.5 Performance Analysis by NTA/share and Initial Returns

The results are shown in Table 7. Portfolio NTAINITR 1A are firms with low NTA/share and low initial returns while NTAINITR 1B are firms with low NTA/share and high initial returns. Similarly, NTAINITR 2A and NTAINITR 2B represent high NTA/share firms with low initial returns and high initial returns respectively.

In the above discussion, it was found that the best performing firms are those with the highest NTA/share while those with the lowest NTA/share performed the worst. However, it can be seen from the analysis here that in the long run, firms with low NTA/share performed reasonably better than firms with high NTA/share provided their initial returns are low. The portfolio with the best performance however, is the one with high NTA/share and low initial returns (NTAINITR 2A). Thus,here again it can be concluded that the size of the initial returns play a more dominant role in determining the long run performance of IPOs.

Table 7

1, 2 & 3 YEARS UNADJUSTED AND ADJUSTED HOLDING PERIOD RETURNS CATEGORISED BY MARKET VALUE AND INITIAL RETURNS

	Unadjusted Holding Period Return			Adjusted Holding Period Return		
	1 Year	2 Year	3 Year	1 Year	2 Year	3 Year
NTAINITR 1A	0.337	0.210	0.383	0.245	0.026	0.154
	(2.107)*	(1.356)	(2.089)*	(1.592)	(0.223)	(1.221)
NTAINITR 1B	−0.007	0.076	−0.230	0.097	0.257	−0.066
	(−0.083)	(0.358)	(−1.403)	(1.222)	(1.274)	(−0.498)
NTAINITR 2A	0.468	0.614	1.367	0.301	0.357	0.749
	(3.229)**	(3.144)**	(4.439)**	(2.447)*	(1.806)*	(1.926)*
NTAINITR 2B	0.187	0.041	0.078	0.213	−0.009	−0.097
	(0.930)	(0.217)	(0.411)*	(1.322)	(−0.057)	(−0.566)
F Ratio	1.340	1.467	3.680*	0.325	0.813	1.181

Note: t-statistics in parentheses
           ** significant at 0.01
           * significant at 0.1

From Table 7 it can be seen that only the holding period returns for portfolio NTAINITR 2A are significant for the one, two and three-year holding period. The unadjusted holding period returns of portfolio NTAINITR 1A are only significant at the 0.1 level for the one and three-year holding period. The portfolios with high NTA/share, high initial returns and low NTA/share, high initial returns do not have significant holding returns for all three holding periods. The F ratio is only significant at the 0.1 level for the three years unadjusted holding period returns. This shows that the disparity in performance is only more obvious in the long run.

Thus, we can see that the performance of the IPOs is compounded when the effect of both the NTA/share and size of initial returns are considered together. However, the size of the initial returns seem to have a more determining effect on their long run performance as compared to NTA/share.

4.6 Cross-Sectional Analysis

To ascertain the extent to which the above three factors are affecting the IPOs holding period returns, the one, two and three years holding period raw returns are regressed against their

respective initial returns, NTA/share and market values. Since initial returns seemed to affect the long term performance of the IPOs significantly, the initial returns are also regressed against the percentage of capital issued, the number of times the issue is oversubscribed, NTA/share, gross earning per share, gross dividend per share and times covered to ascertain the factors affecting it.

Specifically the following regressison equations are run:

$$HPR_{1j} = \alpha + \beta_1 INITR_j + \beta_2 NTA_j + \beta_3 logMV_j + e_j$$

$$HPR_{2j} = \alpha + \beta_1 INITR_j + \beta_2 NTA_j + \beta_3 logMV_j + e_j$$

$$HPR_{3j} = \alpha + \beta_1 INITR_j + \beta_2 NTA_j + \beta_3 logMV_j + e_j$$

$$INITR_j = \alpha + \beta_1 CAP_j + \beta_2 TOS_j + \beta_3 NTA_j + \beta_4 GEPS_j + \beta_5 GDPS_j + \beta_6 TC_j + e_j$$

where,

HPR_{1j} = one year unadjusted holding period return

HPR_{2j} = two years unadjusted holding period return

HPR_{3j} = three years unadjusted holding period return

$INITR_j$ = initial return of stock j

NTA_j = NTA/share of stock j

MV_j = market value of stock j at time of initial listing

CAP_j = percentage capital issued of stock j

TOS_j = times stock j was oversubscribed

$GEPS_j$ = gross earning per share of stock j

$GDPS_j$ = gross dividend per share of stock j

TC_j = times covered of stock j i.e. profit after taxation divided by dividend.

e_j = regression error

a, β_1 to β_6 = regression constants

The log of market values is used here in the above regressions because past research has indicated that returns are more linearly related to the log transformation of the market values than to the firm's absolute size (Brown, Kleidon and Marsh - 1983).

The results of the regression are shown in Table 8A and Table 9 and it can be concluded that all the regression equations are statistically significant since all the F ratios are significant at the 0.1 level. The correlation coefficients between the variables shown in Table 8B are low with the highest being only 0.380 showing that the variables do not exhibit excessively high correlation among themselves.

From the first three regressions it can be seen that the results are to expectation where the market values and the initial returns are negatively related to the holding period returns, both in the short and long run performance of the IPOs. The NTA/share factor, on the other hand is positively related to the holding period return.

However, only the coefficients of the the initial returns is significant at the 0.1 level in all the first three regressions and the coefficients to the log market value and NTA/share is only significant at the 0.1 level in the 3 years holding period returns.

Table 8A

RESULTS OF CROSS-SECTIONAL REGRESSION OF RAW HOLDING PERIOD RETURNS AGAINST INITIAL RETURNS, NTA/SHARE AND LOG MARKET VALUE

(a) $\quad HPR_{1j} \quad = \alpha + \beta_1 INITR_j + \beta_2 NTA_j + \beta_3 logMV_j + e_j$

(b) $\quad HPR_{2j} \quad = \alpha + \beta_1 INITR_j + \beta_2 NTA_j + \beta_3 logMV_j + e_j$

(c) $\quad HPR_{3j} \quad = \alpha + \beta_1 INITR_j + \beta_2 NTA_j + \beta_3 logMV_j + e_j$

	α	β_1	β_2	β_3	R^2	F	N
HPR_1	1.963	-0.002 (-2.197)*	0.121 (0.437)	-0.203 (-1.219)	0.140	2.43*	56
HPR_2	2.367	-0.002 (-1.719)*	0.312 (0.904)	-0.284 (-1.375)	0.134	2.46*	56
HPR_3	3.475	0.005 (-4.102)**	0.746 (2.128)*	-0.416 (-1.785)*	0.434	10.60**	49

Note: t-statistics in parentheses
** significant at 0.01
* significant at 0.1

Table 8B

PEARSON'S CORRELATION COEFFICIENTS (R) BETWEEN VARIABLES

	INITR	NTA	LOG MV
INITR		−0.380	0.035
NTA			−0.055

Table 9

REGRESSION RESULTS OF INITIAL RETURNS AGAINST CHARACTERISTICS OF NEW ISSUES

$$INITR_j = \alpha + \beta_1 CAP_j + \beta_2 TOS_j + \beta_3 NTA_j + \beta_4 GEPS_j + \beta_5 GDPS_j + \beta_6 TC_j + e_j$$

Variables	Coefficient	t-statistics
% Capital Issued	-0.664	-1.749
times oversubscribed	1.003	3.723 *
nta/share	-103.824	-2.927 *
geps	-3.163	-1.919
gdps	8.028	2.317 *
times covered	34.243	2.721 *

R^2 = 0.457
F = 7.00
N = 56
α = 136.142
* significant at 0.05 level

From the fourth regression (Table 9), it can be seen that the initial returns of the IPOs are negatively related to the percentage of capital issued, its net tangible asset backing per share and gross earnings per share. It is however, positively related to the number of times the issue is oversubscribed, its gross dividend per share and times covered.

The negative relation between the GEPS and initial returns can be used to explain the overperformance of IPOs with low initial returns. The relation suggests that the higher the GEPS, the lower the initial returns will be. Thus the overperformance of such issues can be indirectly linked to the earnings per share of the stock which may be taken as a surrogate measure for strength.

The above negative relation between the initial returns and NTA/share is also logical as initial returns are negatively related to the holding period returns while the NTA/share is positively related. The positive relation between initial returns and times oversubscribed can be explained by the impression that oversubscription seems to imply to potential investors. A high oversubscription would imply great interest in the issue and as such, a great potential in the issue. Thus potential investors would bid up the price when it is listed.

5. SUMMARY AND CONCLUSIONS

Unlike the study by Ritter (1991) and Shaw (1971), this study showed that a strategy of investing in IPOs on the first day of official trading and holding them for one to three years yield positive returns.

The results of this study also indicated that stocks with low initial returns performed better than stocks with high initial returns. As such, it seems here that initial market performance of IPOs may be of predictive value in selecting stocks for subsequent performance. Similarly, the sample of IPOs also performed to expectation where more established firms performed better than less established ones. The difference in performance between such firms is also more apparent only in the longer run. A higher initial return is also observed for less established firms. The small firm effect apparently exists also in the IPO market. Small sized firms are observed to perform better than bigger sized firms as shown by both the CAR and holding period returns. However this firm size effect is more apparent in the long run than in the short run.

Between the three factors, initial returns seem to exert the strongest influence on the stock returns both in the short and long run. The other two factors exert their influence only in the longer term.

The number of times the issue is oversubscribed, its NTA/share, gross dividend per share and times dividend covered are also found to be significantly related to the size of the initial returns.

This study seems to indicate that investors should go for IPOs which are of low market capitalisation, are more established and have a low initial return on the first day of trading if they intend to invest on the first day of listing.

BIBLIOGRAPHY

Dawson, Steven M. (1985), "Raising Capital With New Share Issues : The Issuers' View," *Journal of the Malaysian Institute of Management*, 20 (August), 49-55.

Ibbotson, Roger G. (1975), " Price performance of Common Stock New Issues," *Journal of Financial Economics*, 2, 235-272.

McDonald, John G. and Fisher, A.K. (1972), "New-Issue Stock Price Behaviour," *Journal of Finance*, 27 (March), 97-102.

Ong, W.S. (1987), "Risk and Return Performance of Unseasoned Equity Issues in Malaysia," Unpublished MBA   Thesis, University of Malaya.

Reignanum, M.R. (1981), "A Direct Test of Rolls Conjecture on the Firm Size Effect," *Journal of Finance*, 37, 27-35.

Ritter, Jay R. (1984), " The "Hot Issue" Market of 1980", *Journal of Business*, 57, 215-239.

Ritter, Jay R. (1991), " The Long Run Performance of Initial Public Offerings," *Journal of Finance*, XLVI,   3-25.

Shaw, David C. (1971), " The Performance of Primary Common Stock Offerings : A Canadian Comparison," *Journal of Finance*, 27 (December), 1101-1113.