PRICE BEHAVIOR AROUND EARNINGS ANNOUNCEMENT OF NEWLY LISTED SHARES

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INTRODUCTION

Oversubcription for new equity issues has become a common phenomena in the Malaysian capital market. The strong public support to these new equity issues is mainly due to the high expected return predicted by the investors. Studies conducted on Malaysian capital market and those in other countries have shown that investors would most likely make excess returns on their investments not just on the initial listing but also thereafter. In the local scene, Ku Ismail, Abidin and Zainuddin (1993) finds that excess returns ranged from 19.74% (for hotel) to 125% (for industrial and commercial).

The investors' prediction on the amount of the excess returns that they would make from the IPOs' shares is based on several factors and one of them is the forecasted earnings published in the prospectus. Several studies have been conducted to investigate the accuracy of profit forecasts made by the management of the companies in various countries including Malaysia. A study by Shamser et al.(1994) done on Malaysian companies indicates that companies seeking new listing tend to make forecasting errors in their profits. The errors may be due to the difficulties encountered by the companies when estimating future profits. However, the study also indicates that the companies seeking new listing on the KLSE had a low level of forecasting error compared to those in the developed countries such as the United Kingdom and New Zealand.

This paper examines price reaction around earnings announcement of newly listed firms. Since actual earnings announced by the companies would probably deviate from projected earnings published in the prospectus, it would be interesting to see market reactions regarding the deviations in earnings and the extent to which market anticipate such deviations.

Specifically this paper tries to determine whether the negative forecast errors made by the management will have any significant effect on the share prices. According to the efficient-market hypothesis, the market will respond either positively or negatively to information it receives including information on company's earnings depending on its interpretation of the announcement. Therefore the general hypothesis is that there will be positive reaction to companies that eventually announce favorable earning, and there will be negative reaction to companies announcing unfavorable earnings.

The specific objectives of the study are:

(i) to examine the information effects of the accounting earnings announcements in relative to the forecasted earnings on the prices of the newly issued shares listed on the KLSE;

(ii) to analyze the share price movements of those companies that experienced 'favorable' earnings announcements as opposed to the share price movements of those that experienced 'unfavorable' earnings announcements;

(iii) to see if the market had correctly anticipated earnings changes prior to their public announcement and

(iv) to investigate whether all publicly available information and earnings announcement are quickly and adequately reflected in stock prices.

This study is organized into five sections; Section 1 introduces the subject and specifies the objectives of the study, Section 2 discusses the past empirical and theoretical studies on information effects of the earnings announcement together with a brief discussion on the relationship between information effects and market efficiency, Section 3 provides the data and methodology, Section 4 presents the empirical findings and Section 5 concludes the paper.

LITERATURE REVIEW

Several studies were done to test the effects of earnings announcement on stock prices. Research findings performed by Ball and Brown (1969) gave very interesting results. In their study the actual earnings per share of each company were compared with earnings per share forecasted. About 85 percent of the information content of the annual earnings announcement was reflected in stock prices prior to the release of the actual annual earnings figure. Brown and Kenelly (1972) repeated the same test and their results were similar to those found by Ball and Brown.

Rendleman, Jones and Latane (1982) carried out a study on reaction of stock prices to quarterly earnings reports and discovered that stock prices began to respond to the earnings number up to 20 days before the announcement was made. In another similar test done by Joy, Litzenberger and McEnally (1977) found that positive information published in quarterly earnings reports was not immediately absorbed by the market. Some of their results contradicted the semistrong form of the efficient-market hypothesis.

A comprehensive study by Foster, Olsen and Shevlin (1984) gave evidence concerning the speed of response of stock prices to earnings announcements. They found that price adjustments took place before the favorable and unfavorable announcements were made to the public.

In the local scene, Ariff and Johnson (1990) extended similar test on shares listed on the Stock Exchange of Singapore. They discovered that price adjustment had taken place prior to earnings announcement. They also found that prices reacted and adjusted more quickly to good news information than to bad news information. They concluded that the market was able to anticipate the changes in the information content and behave accordingly.

Mansor and Subramaniam (1992) in their paper examined the reaction of the Malaysian stock market to announcements of changes in dividend and earnings. The study showed that contrary to an efficient market situation, significant abnormal returns were still realized even after the announcement week.   The market continued to react well after the announcement and the direction of the reaction was upward irrespective of the kind of information conveyed to the market.

More closer to the issues address in this study is the study by Shamser et al. (1994) which discussed the accuracy of earnings forecast for Malaysian IPOs over the period 1975 to 1988. They discovered that the companies did make forecasting error when estimating their future profits. The actual earnings could be more or less than the projected earnings. However, the study did not address the issue of market reaction to earnings announcement.

 In summary, the great majority of the empirical research provide strong support for the semistrong form of efficient-market hypothesis with few exceptions. The studies give clear indication on the ability of the market to respond quickly to new information and accurately reflect it onto the stock prices.

DATA AND METHODOLOGY

Data

The sample for this study comprises of IPOs that were listed on the KLSE Main Board and Second Board during the period January 1987 to June 1992. Out of the 92 IPOs that were initially identified in the sample, only 59 IPO's earnings figures were used in the analysis. The rest were excluded as they did not meet the following requirements.

(i)   The share closing prices must be available for the period of 100 trading days before and after the announcement date of the company's earnings in that particular year.

(ii) The availability of the forecasted earnings figure from the prospectuses for that particular financial year's earnings announcements being studied.

(iii) Those IPOs where by the announcement dates can not be traced or there are no announcement dates are excluded from the sample.

(iv) The earnings announcement dates are further verified against the date that the respective company's proforma results submitted to the KLSE. If there appears a significant time lag between the two dates without any reasonable explanation, the IPOs are excluded.

Companies' earnings figures can be indicated by gross profit before tax, net profit after tax, profit before extraordinary items or minority interest and others. Both the predicted earnings and actual earnings were screened for consistency of accounting method used to derive at the earnings figure.

Information on projected earnings are obtained from the prospectuses of selected companies from the KLSE Library. The data on the actual earnings and announcement date of the earnings were collected from press releases made by the management in the local newspaper and the KLSE Daily Diary.

The data was subsequently verified against the financial statement that was submitted to the KLSE by the individual company.

The daily closing prices of respective IPOs for the 200 trading days (100 days prior to announcement and 100 days after announcement) were obtained from University Malaya's data base and share price records of the KLSE. The KLSE Composite Index was used as the market proxy. Information on the listing date was compiled from the Investor Digest and the prospectuses.

Methodology

The actual accounting earnings of each company was compared with the projected earnings published in the prospectus. This determines the nature of the information on the earnings announcement as either earnings increases or earnings decreases information. Forecast errors are calculated as the difference between predicted and forecasted earnings divided by forecasted earnings.

The rate of return of securities at day t was computed by using the following formula:

$$R_{it} \quad = \quad (P_{it} - P_{it-1}) / P_{it-1}$$

where:

R_{it} =   daily return for security i on trading day t

P_{it} =   closing price of share i on trading day t.

P_{it-1} =   closing price of share i on trading day t-1.

For the market rate of returns, the closing values of the KLSE Composite Index were used :

$$R_{mt} \quad = \quad (I_t - I_{t-1}) / I_{t-1}$$

where:

R_{mt} =   daily return on market for trading day t

I_t =   KLSE Composite Index on trading day t.

I_{t-1} =   KLSE CI on trading day t-1.

The market-adjusted excess returns for security i on day t was calculated by deducting the daily market portfolio return on day t from the daily rate of return for security i on day t. It is written as:

$$AR_{it} \quad = \quad R_{it} - R_{mt}$$

where ARit is the return on security i in period t in excess of the market returns.

The average market-adjusted excess return of n security for event time t is given by the equally weighted average of the individual stocks:

$$AAR_t \quad = \quad 1/n \ \Sigma \ Ar_{it}$$

where n = the number of securities being studied.

Finally, the cumulative average abnormal returns (CAR) are calculated for period beginning from 100 days before and 100 days after the announcement event. It is given as:

$$CAR \quad = \quad \Sigma\ AAR_t$$

where AARt = average excess return for each period.

FINDINGS

Accuracy of Earnings Forecast

Table 1 shows the distribution of earnings performance of the 59 samples selected for this study. The mean absolute error of earnings forecast is found to be about 25% of forecasted earnings.

Earnings announcements by the companies were classified as earnings increases and earnings decreases on the basis of a comparison between actual earnings and predicted earnings published in their prospectus. The sample is into divided two categories based on this classification.

There were altogether 41 firms with earnings increases information and only 18 firms with earnings decreases information.   This means 69% of the chosen companies reported performance better than expectation while 31% of the companies reported performance below the expectation.

The distribution reveals that two thirds of the companies' actual earnings figures do not deviate much from their forecasts.   Their reported earnings are within 20% from the expected figures. Only 9 companies reported earnings increases of 50% more from their projected figures. Companies with best performance were RHB (with actual earnings exceeding forecasted earnings by 147%), Omega (134%) and John Masters (114%).

Table 1: The Distribution Of Earnings Performance Of Newly Listed Company In The KLSE

Deviation from Forecast Earnings (%)	Number of Company (N)	% of N	Cumulative (%)	Mean of deviation earnings (RM)
> 100	3	5.08	5.08	6.169
51 to 100	6	10.17	15.25	38.031
21 to 50	8	13.56	28.81	4.856
> 0 to 20	24	40.68	69.49	2.733
< 0 to - 20	16	27.12	96.61	-2.754
-21 to - 50	2	3.39	100.00	4.235
Total/Mean*	59	100	24.94%	

* Mean Absolute Forecast Error

It is also found that the accuracy of earnings forecast is not dependent on forecast period. This is somewhat surprising because it tends to indicate inability of issuers to capitalize on their experience in the early part of the fiscal year to make better forecasts. It is also surprising to note that this study also finds that the accuracy of earnings forecasts is unrelated to companies size, which can be regarded as a proxy for expertise and riskiness of the firm.

Earnings Increase

Table 2 shows earnings analysis for the sample with earnings increases information. The CAR is also shown in Figure 1. Figure 1 shows that there is a gradual increase in CAR starting from day -100 to day 0 with a sizable price increases around the vicinity of the announcement. The upward drift is more pronounced within the 20-day period around the announcement.

The earnings increases sample shows there are price adjustments prior to the public announcements of the actual earnings. The upward movement of share prices began as far back as 100 days before the actual announcement day. This may indicate that the market is able to anticipate the event or it may also be due to more timely information sources such as company's half yearly earnings announcement, newspaper articles and analysts' forecasts. Another plausible explanation for this trend is the inside information which may have leaked out to the market.

The price adjustments that took place after the announcement shows the inability of the market to react fully to new information. There appears to be a delayed reaction that continues up to 100 days after the announcement.

The behavior of post announcement excess returns indicate the incomplete reaction of the market towards the event. The continued price adjustments after the announcements means the release of earnings increases information is not instantaneously and fully reflected in stock prices. This is inconsistent with the semistrong form of the efficient market hypothesis.

It is also observed that there is no price reaction on the announcement day itself, and also on the few days around it. This may be due to the possibility that the nature of the announcement is fully anticipated even before the announcement itself.

Earnings Decrease

Table 3 shows the result of the earnings analysis on the sample which represents earnings decreases category, where actual earnings are less than forecasted earnings. The CAR is also graphed in Figure 1.

For this subsample, share prices decline dramatically during the pre- and post-announcement period. CAR calculated are negative from 90 days prior to the actual announcement until 100 days after the announcement. The behaviour of the CAR for this sample is exactly the opposite of the previous sample. The negative excess return reaches its lowest point on day 10 before the event day. The excess returns were virtually zero

around the vicinity of the event. A decline in the share prices was also evident after 30 days of the event.

Table 2: Abnormal returns around earnings announcement earnings increases category)

DAY	ABN RTN	CAR	T-STATISTIC
-100	0.000	0.000	-0.015
-90	0.002	0.028	0.733
-80	-0.001	0.036	-0.520
-70	0.008	0.043	1.543
-60	-0.003	0.034	-0.845
-50	0.000	0.050	0.005
-40	-0.007	0.040	-2.802 *
-30	-0.001	0.066	-0.277
-20	-0.003	0.071	-0.925
-10	-0.002	0.079	-0.507
-9	-0.001	0.077	-0.607
-8	-0.002	0.075	-0.714
-7	-0.001	0.074	-0.277
-6	0.003	0.077	1.226
-5	0.005	0.082	1.671 *
-4	0.002	0.084	0.768
-3	-0.001	0.083	-0.381
-2	0.002	0.085	0.940
-1	0.000	0.085	-0.012
0	0.003	0.089	0.808
1	0.001	0.090	0.341
2	0.006	0.096	2.050 *
3	0.009	0.105	2.231 *
4	0.001	0.106	0.200
5	0.003	0.109	0.948
6	0.006	0.115	1.970 *
7	-0.007	0.108	-2.032 *
8	-0.002	0.106	-0.638
9	-0.003	0.103	-1.017
10	-0.001	0.102	-0.360
20	0.001	0.101	0.500
30	0.004	0.121	1.079
40	0.003	0.131	1.168
50	-0.004	0.138	-1.679 *
60	-0.003	0.129	-1.100
70	0.001	0.120	0.533
80	0.005	0.129	1.839 *
90	0.000	0.137	0.141
100	-0.002	0.143	-0.896

* significant at the 0.05 level   N = 41

Similar to the first group, share prices seem to have begun its adjustments from the beginning of the event window. The market seems to have anticipate the event possibly through more timely information sources or leakage of inside information. As in the

previous sample, IPOs' shares continue to experience price changes declined even after the announcement. This tend to indicate the inefficiency of the market.

Table 3: Abnormal returns around earnings announcement earnings decreases category)

DAY	ABN RTN	CAR	T-STATISTIC
-100	0.000	0.000	-0.069
-90	0.002	0.003	0.596
-80	0.001	-0.011	0.164
-70	0.000	-0.034	-0.016
-60	0.003	-0.044	-1.065
-50	-0.002	-0.071	-0.570
-40	-0.007	-0.078	-1.964 *
-30	-0.003	-0.095	-1.029
-20	0.000	-0.097	0.055
-10	0.010	-0.105	1.615
-9	-0.008	-0.101	-2.203 *
-8	-0.002	-0.103	-0.470
-7	0.003	-0.101	0.503
-6	0.011	-0.090	1.549
-5	0.001	-0.089	0.088
-4	0.001	-0.088	0.139
-3	-0.001	-0.089	-0.235
-2	0.001	-0.088	0.260
-1	-0.003	-0.091	-0.519
0	-0.001	-0.092	-0.337
1	0.001	-0.091	0.267
2	0.005	-0.086	1.133
3	-0.006	-0.092	-1.690
4	0.002	-0.090	0.677
5	-0.002	-0.092	-0.683
6	0.008	-0.084	0.932
7	-0.002	-0.086	-0.429
8	0.003	-0.083	0.942
9	0.000	-0.083	-0.106
10	-0.009	-0.112	-2.639 *
20	-0.004	-0.103	-0.608
30	-0.002	-0.105	-0.297
40	0.000	-0.129	-0.059
50	0.014	-0.109	0.948
60	-0.003	-0.139	-0.751
70	-0.004	-0.104	-0.980
80	0.004	-0.083	0.703
90	-0.002	-0.070	-0.759
100	0.002	-0.079	0.436

* significant at the 0.05 level
N = 41

CONCLUSION

This study examines deviations between the actual earnings and forecasted earnings of 59 IPOs listed on the KLSE over the period 1986 - 1992 and analyzes the information effects of the earnings announcement on the share prices.

It is found that about 70% of the sample experienced positive deviation from forecasted earnings, and 30% experienced negative deviations. About 68% of the sample falls within plus and minus 20% from the forecasted earnings figure. It is appropriate to conclude that majority of the IPO firms do not make large forecasting errors when estimating their future earnings. Accounting figures given in the prospectus can therefore be considered valid information to the potential shareholders.

Announcements of actual earnings increases relative to predicted earnings are associated with positive excess returns whereas earnings decreases announcements are associated with negative excess returns. Stock prices seems to correctly anticipate earnings information long before the actual announcement is made. The CAR for positive earnings changes takes an upward trend from the very beginning of the event window. The opposite goes for negative earnings changes. However, persistent lag in price adjustment after the announcement day seen in both groups indicates to some extent the inefficiency of the market.

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