

THE ACCURACY OF PROFIT FORECASTS OF MALAYSIAN IPOS

Shamsher Mohamad
Annuar Md. Nassir
Tan Kung Kuing
Mohamed Ariff

ABSTRACT

The paper examines the accuracy of profit forecasts reported in prospectuses of newly listed companies on the Kuala Lumpur Stock Exchange. Accuracy is measured by forecast errors, absolute forecast errors and squared forecast errors. The level of forecast accuracy appears to be better than that reported in studies in developed markets. An attempt to model the errors as a function of firm specific characteristics and of Big Six/non-Big Six auditor firms proved to be of little value. There was no significant relationship between forecast errors and stock price premium upon listing.

I. INTRODUCTION

Every company that seeks listing on Kuala Lumpur Stock Exchange (KLSE) is required by the Companies Act, 1965, to issue a prospectus to potential shareholders. As the information contained in the prospectus related to Initial Public Offers (IPOs) is usually the first publicly available document on the organization, more information is usually provided than in an annual report. Investors subscribing for new shares should read and understand the information content of the prospectus. The profit forecast contained in the prospectus is potentially more important to investors investing in the newly listed companies [4] than a profit forecast made by a listed company as it forms a fundamental part of the valuation process of the IPOs by investors [6]. From the information in the prospectus, an analysis can be done to determine the potential profitability and growth of the entity. The profit or turnover contribution of all the business segments will provide an indication of the earnings dependency of the entity and the extent

Dr. Shamsher Mohamad and Dr. Annuar Md Nassir are lecturers at the Department of Accounting and Finance, Faculty of Economics and Management, Universiti Pertanian Malaysia.

Mr. Tan Kung Kuing is currently the Tactical Planning Controller, Malaysian Airline System Berhad.

Dr. Mohamed Ariff is attached to the National University of Singapore.

of IPOs underpricing. Whether a forecast is realized depends upon the relative accuracy of the forecast; while investors can evaluate the past forecasting accuracy of existing listed companies, there is no comparable historical data for IPOs.

This study investigates the predictive accuracy of profit forecasts made by Malaysian IPOs (listed on the KLSE in the period 1975- 1988) in their prospectuses, and the results are compared with findings of similar studies in other countries. Indirectly, the study assesses the degree of professionalism of accounting firms responsible for certifying such forecasts.

This paper is organised as follows: section 2 defines Malaysian IPOs, section 3 details the data and methodology, section 4 presents the preliminary findings, section 5 discusses the determinants of forecasting accuracy, section 6 presents the findings on determination of forecasting accuracy and section 7 concludes the paper.

A large number of studies investigating the accuracy of profit forecasts made by company management and by investment analysts have been carried out in developing markets. Some of these studies have focused on comparing the accuracy of analysts' forecasts, managers' forecasts, and the predictions from various statistical models [20, 24, 38], while others [32, 33, 34] have examined the impact of forecast errors on stock prices. These studies discuss the forecasts of annual earnings of ongoing U.S.A. corporations, but not much is reported of forecasts made during takeover bids [14, 43], and upon the issue of securities by newly listed companies [13, 17].

2. MALAYSIAN INITIAL PUBLIC OFFERS (IPOs) DEFINED

Malaysian law recognises sale of expanded authorised shares of a company as new issues. Offers of existing shareholdings are defined as *sale of shares*. Private placements of shares are permitted in limited cases, and account for about 5-10 percent of the funds raised in the stock exchange. In the case of new issues and sale of shares, which form the IPOs in Malaysia, applications must be open to the public and in the event of over-subscription, allocation is done by balloting. Also, about a third of the issued shares of each IPO is compulsorily acquired by designated investment funds and members of certain segments of the population, who are considered to have less equitable capital ownership in Malaysia's stock of private capital. This is a unique market micro-structure (directive from the Finance Ministry) built into the new issue process since 1976 to achieve public objective of equitable distribution of wealth. Regulators approve new sale of shares of any kind with elaborate care, and the approval process may take up to a year in a large placement: the average time for approval is estimated

at about 4-6 months against a much shorter time of 6-8 weeks or less in developed markets. The potential for higher risk of price changes relative to offer prices makes it interesting to study IPOs in emerging and developing markets, which are also noted for high share price volatility.

A distinctive feature of regulation is that no documentation may be released to potential investors until a company's application is approved. Therefore, investment banking practices of building-books or red-herring offers that are designed to reduce uncertainty of off-takes of a new issue in major developed markets would be illegal in Malaysia. Hence, there is a very high risk of price changes away from the offer prices during the long period the application is processed.

Legislation covering the raising of finance, the content and form of prospectuses is provided by The Companies Act, 1965, and Kuala Lumpur Stock Exchange's Listing Requirements. Section 39 of the Act and Part 6 of the Requirements stipulate the contents to be included in a prospectus. Both require a prospectus to contain statements (in qualitative and/or quantitative terms) as to trading prospects and a quantitative forecast of statement of changes in financial position for the year after the registration of the prospectus. In essence, Part 6, Section 218 of the Requirements requires a company to provide a profit forecast, the principal basis and assumptions (including commercial assumption upon which the directors have based the profit forecast) for the year subsequent to the registration date of the prospectus. In addition, Part II of the Fifth Schedule of the Act specifies that the auditor gives an opinion on the compilation of the specific forecast and on the accounting policies used.¹ Most initial public offers go beyond the legal requirements and forecast profits and dividends to the end of the fiscal year (the date to which a company draws up annual financial statements). These forecasts can be compared against actual profits and they form the date set for this study. The amount of details given in forecasts varies considerably. For example, some companies disclose a net income figure only while others disclose detailed revenue and expense items that go into constructing the net income forecast. All companies sampled do give some form of explicit profit forecasts.

¹ The Malaysian Institute of Accountants has issued an Auditing Technical Release, ATR 3, stating that auditors should ensure that assumptions on which prospective financial information is based are not unreasonable (MIA, 1990).

3. DATA AND METHODOLOGY

Prospectuses were gathered from companies which listed their shares as IPOs on the KLSE in the period 1975 to 1988. A total of 65 usable forecasts were obtained. To qualify as a sample, a specific forecast and the actual profits in the first year after listing must be available. The sampled companies covered a wide range of sectors namely: Industrial, Finance, Properties, Plantation and Mining.

Forecasting accuracy varies across companies, and this study tests the hypotheses which seek to explain the cross-sectional variations. The stock price performance of IPOs on the first day of listing was observed to ascertain whether the stock market anticipates inaccurate profit forecasts.

The accuracy of profit forecasts can be measured in a number of ways [8]. Three measures² were chosen for this study: the forecast error, the absolute forecast error, and the squared forecast error. Their computations are described in Table 1. The mean forecast error is a measure of the bias in forecasting; that is, whether company management systematically over or under predicts earnings. The mean absolute forecast error gives some insight into how close to actual profits the predictions were. Finally, the mean squared forecast error gives greater weight to large errors and this may better model the loss function to investors due to erroneous forecasts [5].

4. PRELIMINARY FINDINGS

Table 1 also provides the descriptive results from the forecast error analyses in this study. The mean forecast error is a positive figure; the actual profits were 9.34% more than forecast. This performance is much better than that reported by Dev and Webb (1972) and Firth and Smith (1992) in their respective studies on the British and New Zealand new issues. The mean forecast error is noted to have been influenced by the presence of a few very large forecast errors which were the result of both over-and under-forecasts (forecast profits appear in the denominator of the error metrics). After omitting the four large errors (those errors greater than +140% and -230%) the mean forecast error was reduced to +5.25%. In total, 44 companies exceeded their profit forecast while 21 reported profits below those predicted in the prospectus. A majority of new issues, therefore, under-forecast their earnings. These findings indicate that managerial

² These measures were used by Firth and Smith (1992) for the New Zealand IPOs.

TABLE 1
DESCRIPTIVE STATISTICS OF FORECAST ERRORS

$$FE = \text{Forecast Error (\%)} = \frac{\text{Actual Profit} - \text{Forecast Profit}}{\text{Forecast Profit}} \times 100$$

$$AFE = \text{Absolute Forecast Error (\%)} = \frac{\text{Actual Profit} - \text{Forecast Profit}}{\text{Forecast Profit}} \times 100$$

$$SFE = \text{Squared Forecast Error (\%)} = \frac{(\text{Actual Profit} - \text{Forecast Profit})^2}{\text{Forecast Profit}} \times 100$$

	Mean	Standard Deviation	Highest Positive Error	Highest Negative Error	n
Forecast Error (%)	9.34%	52.65%	219.97%	-232.05%	65
Forecast Error after deleting 4 outlying companies (%)	5.25%	25.00%			61
Absolute Forecast Error (%)	27.91%	45.61%			65
Absolute Forecast Error after deleting 4 outlying companies (%)	17.43%	21.02%			61
Squared Forecast Error (%)	28.59%	94.62%			65
Squared Forecast Error after deleting 4 outlying companies (%)	6.36%	23.61%			61

44 companies exceeded their forecast profits

21 companies reported profits below those that are forecast

Distribution of Errors

% Forecast Error	Number of Companies in Error Category
> 201	1
101 to 200	2
71 to 100	0
61 to 70	2
51 to 60	2
41 to 50	2
31 to 40	3
21 to 30	4
11 to 20	6
0 to 10	22
-10 to -1	9
-20 to -11	5
-30 to -21	1
-40 to -31	1
-50 to -41	3
-60 to -51	1
< -61	1
Total:	<u>65</u>

personnel responsible for estimating the forecast profits prefer to err on the positive side rather than on the negative side, and those who committed negative errors are, on average, within the acceptable 10% range. Table 1 also shows the distribution of the forecast errors. The absolute forecast error is slightly larger. Although direct comparisons with Dev and Webb's (1972) and Firth and Smith's (1992) results are not possible, the level of forecasting accuracy in new issue prospectuses of Malaysian companies appears to be comparatively better (histograms in Dev and Webb indicate forecast errors ranging from negative 50% to positive 100% while Firth and Smith's histogram ranges from above negative 500% to above positive 500%). The results of this study also compare favourably with the forecasting accuracy level reported in studies that examined management earnings predictions made in other circumstances.

An alternative to omitting "extreme" observations and one which avoids the small denominator problem is to scale the differences between actual and forecast profits by the assets of the company (after the new issue has been completed). As can be seen from Table 2 this refinement substantially reduces the error metrics to an insignificant level. In general the forecast errors are standardised by the size of the company.

TABLE 2
FORECAST ERRORS COMPUTED FROM SCALING BY GROSS ASSETS
OF COMPANIES (n = 65)

	Mean	Standard Deviation
Forecast Error (%)	0.00000013%	0.00000172%
Absolute Forecast Error (%)	0.00000068%	0.00000159%
Squared Forecast Error (%)	0.00000048%	0.00000151%
Distribution of Errors		
% Forecast Error	Number of Companies in Error Category	
0 to 1	44	
< -1	21	

To get some insight into the reasons for the inaccurate forecasting performance a number of hypotheses were tested. The hypotheses relate to differences in absolute forecast errors.

5. DETERMINANTS OF FORECASTING ACCURACY

(i) Forecast Interval

Previous studies have shown that the shorter the forecasting period (the time between the prospectus date and the year end to which the forecast pertains) the more accurate the profit prediction becomes [9, 11, 12]; this finding also applies in the new issue forecasts analysed by Dev and Webb (1972). The following hypothesis was tested:

H_1 : Forecasting accuracy improves, the shorter the forecast interval.

H_0 : Alternative hypothesis.

A variable, representing the number of months making up the forecast interval, was calculated and a positive relationship was hypothesised with the error metric; the longer the interval the greater the error.

(ii) Size of Company

There is some support in the literature [5] for the contention that it is "easier" for larger-sized companies to forecast than for their smaller-sized counterparts to do so. This is based on the idea that larger companies have a greater control over their market settings and that they enjoy some comparative economies of scale which make them less susceptible to economic fluctuations. To examine this notion the following hypothesis was tested:

H_2 : Forecasting accuracy improves with size of the company.

H_0 : Alternative hypothesis.

Therefore, the larger the company the smaller the error.

This hypothesis implies a negative relationship between forecast error and company size. It should be noted here that newly listed companies are in general small compared to existing listed companies.

(iii) Company Profits

The profits of companies which have been in existence for a small number of years would appear to be intrinsically difficult to forecast [4]. The prediction of earnings of newly listed companies is particularly more difficult. This leads us to a third hypothesis:

H_3 : Forecasting accuracy improves, the longer the company has been in existence.

H_0 : Alternative hypothesis.

The hypothesis is tested via two variables. The first is the age of the company in years while the second is a dummy variable taking the value one if the company had a trading record prior to the prospectus, otherwise zero. A negative relationship with forecast error is expected for both variables. Except for the study by Firth and Smith, this hypothesis does not appear to have been explicitly examined in prior studies on forecasting accuracy.

(iv) Size of Auditors

The fourth hypothesis relates to the credibility of the sponsors, promoters, underwriters and auditors of the new issue. Previous research has examined the importance of the reputational signalling of these agencies and principals [7, 40, 42]. The auditing profession in Malaysia does have an informal market segmentation for the 730 audit firms which is based on large and small firm status. In Malaysia, the criteria of large and small audit firms follow the international basis of annual income derived from audit activities. The large firms in Malaysia are the Big-Six in the international classification. The dichotomy of accounting firms into large and small is established, and various arguments have been forwarded to the effect that the large firms are the high quality producers of audits [40].

Part II in the Fifth Schedule of the Companies Act 1965 requires the profit forecasts to be reported in prospectuses, and audited with regard to the accounting policies adopted and the financial calculations used. Therefore, auditors are involved in the validation of profit forecasts appearing in the prospectus of newly listed companies. Given that a large audit firm has been retained in order to add credibility to the new issue, we hypothesize that large audit firms are associated with increased profit forecasting accuracy. The hypothesis tested is:

H_4 : Forecasting accuracy improves if the company's auditor is a large auditing firm.

H_0 : Alternative hypothesis.

In order to test this hypothesis, accounting firms were classified as large auditor (and given a dummy variable value of one) or small (given a dummy variable of zero). A negative relationship is hypothesised. Although prior research has addressed the question of auditor choice in the market for initial public offerings [19, 40], only Firth and Smith provide some evidences linking the size of accounting firm and the magnitude of profit forecast accuracy.

(iv) Industry Factors

Industrial classification may have an association with the level of forecast accuracy; that is, in some industries, profits may be inherently more difficult to predict than in others. Empirical evidence on whether differences exist in forecasting errors across industries has been mixed [5, 16, 35]. For forecasts contained in new issue prospectuses in the UK, Dev and Webb (1972) reported some industry differences. As the number of observations appearing for each industry category was small in this study and statistical testing for differences was not feasible, a test for industry factor was not carried out.

(v) Level of Leverage

The net profits of companies with comparatively high levels of debt are traditionally regarded as being more difficult to forecast. To accommodate this factor as a determinant of forecast accuracy the following hypothesis was constructed:

H_5 : Forecasting accuracy improves, the lower the leverage (measured as debt divided by gross assets).

H_0 : Alternative hypothesis.

A positive relationship is expected between the forecast error and the leverage ratio.

These hypotheses are tested using multiple regression analysis with the error metric (absolute forecast error) as the dependent variable and measures of forecast period (PERIOD), size (SIZE), age (AGE), prior existence (EXIST), auditor (AUDITOR), and leverage (LEVER) as the independent variables. Table 3 lists the variables and their measurements. Summary statistics (mean and standard deviation of continuous variables) relating to the 65 sample companies are shown in Table 4. As expected, the size of sampled companies was small compared to listed companies in general; the total gross assets of the newly listed companies were only RM5.04 billion (or 5%) when compared to RM99.1 billion for all listed companies in 1988.

TABLE 3

DESCRIPTION OF VARIABLES USED IN EXPLAINING ABSOLUTE
FORECAST ERRORS

Variable	Description
SIZE:	Gross assets after the new issue (millions).
PERIOD:	Length of the forecast period measured as the number of months between prospectus date and the year end to which the forecast pertains.
AGE:	The number of years the company has been in existence.
EXIST:	A dummy variable taking a value of one if the company existed prior to the prospectus date, otherwise zero.
AUDITOR:	A dummy variable taking a value of one if the auditor is a member of the large firms.
LEVER:	The ratio of debt to gross assets after the issue.
AFE:	Absolute Forecast Error (see Table 1 for its construction).

TABLE 4

SUMMARY STATISTICS OF SAMPLE FIRMS

Variable	Mean	Standard Deviation
SIZE (\$ million)	155.66	452.63
PERIOD (months)	9.07	14.45
AGE	10.93	8.07
LEVER	0.17	0.28

4. FINDINGS ON DETERMINANT OF FORECASTING ACCURACY

The results of the regression on 61 companies (the four "outlying companies with forecast errors exceeding +140% and -230% respectively were omitted) are shown in Table 5.

TABLE 5
RELATIONSHIP BETWEEN SIZE OF FORECAST ERRORS AND
VARIOUS EXPLANATORY VARIABLES

Variable	Coefficient	Standard Error	t-statistic	p level
Intercept	23.160	11.593	1.998	0.051
PERIOD	0.410	0.225	1.818	0.075
SIZE	-0.001	0.005	-0.144	0.886
AGE	-0.226	0.317	-0.715	0.477
EXIST	-7.369	11.051	-0.667	0.508
AUDITOR	7.988	5.130	1.557	0.125
LEVER	-20.496	9.386	-2.184	0.033
F statistic = 1.860		Significance level = 0.05		
R ² = 0.171				

The R^2 statistic indicates a moderate fit with only one variable: LEVER, being statistically significant at five percent level. However, contrary to expectations, the coefficient for the LEVER variable had a negative sign. This could be due to the fact that companies with a higher level of leverage are required to comply with the need to provide profit forecasts more regularly than their lower geared counterparts. Close scrutiny by creditors improve the ability to forecast profits. This provides an explanation for the negative relationship between LEVER and magnitude of forecast errors.

The SIZE variable had the expected negative sign, indicating larger companies have a greater control over their market settings and enjoy some comparative economies of scale which make them less susceptible to economic fluctuations, but it is not statistically significant at the 0.05 level. One possible reason for the lack of significant relationship is that larger companies are capable of utilising the new issue proceeds to generate a minimum return at least equal to the rate of earnings from activities owned prior to the new issue. This minimises the profit forecast errors. This explanation supports hypothesis 2, and provides a rationale for larger-sized firms being associated with lower forecasting errors.

Although the coefficient on PERIOD had the expected positive sign, indicating that longer forecast horizons are associated with higher forecast errors, it is not statistically significant at the 0.05 level. One possible reason for the lack of a significant relationship is that the longer the period to the year end, the more time management has to utilise the proceeds from the new issue to generate earnings. This offsets the seeming disadvantage of a longer forecasting horizon. This finding is inconsistent with the results reported by Dev and Webb (1972).

The AGE and EXIST variables had the expected negative sign, indicating greater forecasting accuracy for companies with longer operating histories, but neither was statistically significant. Apparently, forecasting the earnings of a brand new company was no harder than forecasting for an existing company with a track record of performance. In many cases, the size of the company after the new issue more than doubled its original size and so its historical track record (based on its original size) was perhaps, of limited relevance; this operates against the hypothesis of a negative relationship between absolute forecast error and the AGE and EXIST variables.

The coefficient for the AUDITOR variable had a positive sign, contrary to the expectation suggested by hypothesis 4, but was not statistically significant.

Table 6 shows the predicted sign of expected relationship and the sign of actual/observed relationship of various explanatory variables.

TABLE 6

PREDICTED SIGN OF EXPECTED RELATIONSHIP AND SIGN OF
ACTUAL RELATIONSHIP OF VARIOUS EXPLANATORY VARIABLES

Variable	Expected Relationship	Actual/Observed Relationship	Significant
PERIOD	+	+	Not
SIZE	-	-	Not
AGE	-	-	Not
EXIST	-	-	Not
AUDITOR	-	+	Not
LEVER	+	-	Yes *

* Significant at 0.05 level.

The leverage variable was statistically related to the level of forecasting accuracy. The difficulty in forecasting profits for newly listed companies appears to pervade all types of companies with only level of leverage providing some explanation for the hypothesis. Except for the AUDITOR and LEVER variables, the signs of the other variables were consistent with expectations but not statistically significant.

The profit forecasting accuracy results shown in Table 1 reveal considerable variability and dispersion. The interest is whether investors are able to predict, at the time of the issue, those forecasts as either overly optimistic or pessimistic. If it is assumed that the IPO is, on average, correctly priced, given the profit forecasts,³ then the initial listing price would be expected to be close to the issue price. In practice, however, underpricing of the IPO appears to be averaging about 135% in Malaysia and this is rationalised on the basis of risk considerations [37] and market structure explanation [41]. A high level of underpricing of IPOs is reported in developing markets [41], for example, in New Zealand and Australia [18] and in the U.S.A. [2, 23, 25, 26, 36]. Given the prevalence of underpricing, this study assumed that the level of underpricing (or equivalently, the level of the premium)⁴ is the same for all companies. Thus the sponsors and underwriters of companies which seek listing, price the issue based on forecast profits and then attach a constant percentage adjustment to reflect an average underpricing discount.

Evidence shows that the level of the premium does vary between companies. It is hypothesised that differences in the levels of premiums arise, in part, because investors expect actual profits to depart significantly from those being forecast. If investors believe that the forecast profits are unduly pessimistic, then they are likely to attach larger premiums to the issue price when the shares are first listed on the stock exchange (this assumes the issue price is predicated on the forecast profits). Conversely, if investors believe forecast profits are unduly optimistic,⁵

³ Profit forecasts would, *a priori*, appear to be important in fixing the issue price. Some authorities contend that profit forecasts are all important (Hartford, 1969)

⁴ Premium is the difference between the initial listing price and the issue price. This is usually a positive amount (i.e. listing price exceeds the issue price) reflecting underpricing. The level of the premium is the premium divided by the issue price, expressed as a percentage.

⁵ In this scenario, investors are unlikely to take up all of the issue and the underwriters will be left owning a larger chunk of the shares. In this study, there was no under-subscription of IPOs.

then the initial listing price could be below the issue price. Based on this reasoning the following hypothesis is tested:

H_6 : The level of the premium is related to the forecast accuracy.

H_0 : Alternative hypothesis.

In particular, a positive relationship is postulated between the forecast error metric (forecast error) and the level of the premium. A high positive forecast error (actual profits greater than predicted) is associated with a high positive share price premium (listing price substantially above issue price).

Logue's study, (1973), using U.S. data, showed a negative relationship between premiums and the size of the issue, and premium and percentage of common stock held by outsiders. Both Neuberger and LaChappelle (1983) and Neuberger and Hammond (1974) found that the prestige of the underwriter had an impact on the premium. Ritter (1984) reported higher premiums the smaller the size of the company prior to the issue. Other researchers, however, have found no significant variables to explain the level of premiums, and the evidence on the determinants of the premiums is inconclusive.

In testing H_6 it was necessary to control for the potential influence of company size after the issue, the finance raised by the issue, the age of the company, and the percentage ownership of stock by company management.⁶ Therefore the following regression was constructed to test H_6 :

$$\text{LISTPREM} = B_0 + B_1 \text{ SIZE} + B_2 \text{ AGE} + B_3 \text{ INSIDE} + B_4 \text{ FE}$$

SIZE and AGE are described in Table 3. The variable FE is the forecast error (see Table 1). INSIDE is the percentage of common stock owned by managers after the new issue. LISTPREM is the premium or the percentage change between the offer price and the initial listing price:

$$\text{Premium} = \frac{\text{Initial Listing Price} - \text{Offer Price}}{\text{Offer Price}} \times 100$$

⁶ Consistent with Firth and Smith's observation that no useful measurement could be attributed to the underwriter reputation, so this variable was not used in the regression.

The SIZE variable is highly correlated with the RAISED variable⁷ (RAISED is the amount of new money raised by the issue) and so the following model was also run:

$$\text{LISTPREM} = B_0 + B_1 \text{ RAISED} + B_2 \text{ AGE} + B_3 \text{ INSIDE} + B_4 \text{ FE}$$

The results of the regression are shown in Table 7. Panel B of Table 7 uses RAISED as an independent variable in place of SIZE. The findings suggest that the independent variables have very low explanatory power for the large premiums. The notion that the forecast error is positively related to the premium is not supported by the evidence. The coefficient is in the predicted direction, but not significant.

TABLE 7

REGRESSION OF PREMIUM ON LISTING AND FORECAST ERRORS

Panel A: Using Size Variable

Variable	Coefficient	Standard Error	t-statistic	p level
Intercept	149.573	80.605	1.856	0.069
SIZE	-0.001	0.038	-0.020	0.984
AGE	-0.515	2.288	-0.225	0.823
INSIDE	-28.114	104.615	-0.269	0.789
FORECAST ERROR (FE)	0.758	1.046	0.725	0.471

F statistic: 0.291

Significance level = 0.05

 $R^2 = 0.020$

Panel B: Using Raised Variable

Intercept	158.811	81.687	1.944	0.057
RAISED	-0.325	0.539	-0.604	0.549
AGE	-0.354	2.276	-0.156	0.877
INSIDE	-33.531	104.242	-0.322	0.749
FORECAST ERROR (FE)	0.727	1.044	0.697	0.489

F statistic: 0.384

Significance level = 0.05

 $R^2 = 0.027$

⁷ Pearson correlation is 0.65.

7. CONCLUSION

The Listing Requirements of Kuala Lumpur Stock Exchange and the Companies Act 1965 require companies seeking a new listing on the Kuala Lumpur Stock Exchange to estimate and report a profit forecast in their prospectus. This study observed that for some companies, profit forecasts were difficult and when projected it was subject to comparatively larger errors. The results showed that companies seeking new listing had a low level of forecasting error in contrast to those observed in the developed countries. The mean error was 9.34% higher than expectations but was reduced to 5.25% after deleting the outlying companies. These errors are within the acceptable limits.

The small forecast errors in prospectuses observed in this study compared to the findings in the U.K. [13, 17] and New Zealand [19] might be due to close vigilance of the relevant agencies in Malaysia. It is hoped that the situation would be further improved with the formation of the Securities Commission effective March, 1993, to enforce the requirement that companies do not depart materially (not more than 10%) from their profit and dividend payment forecasts.

During the period of the study, corporate profits in Malaysia were increasing and there appeared to be no undue variability in profitability consistent with the New Zealand study [19]. The ratio of IPOs to already listed companies in Malaysia was far higher than in Australia, Canada, U.K. and the U.S.A. This large ratio might be indicative of companies coming to the newly established stock market even though their operating plans had not been carefully thought through; in such a situation it would not be surprising that some forecast errors occur. The above scenario requires company sponsors to acquiesce in the new issues; perhaps the buoyant stock market and large issue fees made company sponsors (stockbrokers, investment bankers) less circumspect in screening IPOs.

Based on the literature from other countries, attempts were made to model the degree of forecasting errors in an effort to explain the errors. In particular, the PERIOD of the forecast provided some help in explaining the errors; although the variable had the hypothesised positive sign, it was not statistically significant. The only significant variable in explaining absolute forecast errors was LEVER, but this had a negative sign contrary to expectation. This could be due to the close and regular scrutiny of the company by creditors, therefore the higher the leverage, the lower the forecast errors.

The company's forecasts are probably not being closely scrutinised by many external parties. The AUDITOR variable, based on the large and small firms dichotomy, did not explain the forecast accuracy. Likewise SIZE, AGE and EXIST (existence of a trading history prior to the new issue) were not statistically significant.

It was observed that the notion of forecasting accuracy being related to underpricing is not supported by evidence. Negative forecast errors did not have significant effect on market prices of the companies concerned, which implies that investors in general are optimistic about the performance of new issues.

Most variables suggested in the literature as possible explanations for profit forecast errors failed to explain the forecast errors of Malaysian IPO's. Future research on this topic could explore and incorporate other independent variables in an effort to build an explanatory model for profit forecast errors in IPO's.

REFERENCES

1. Barstow, J., 1987. "Profit Forecasting", *Accountants' Journal* May 1987, 28-29.
2. Beatty, R.P. and Ritter, J.R., 1986. "Investment Banking, Reputation, and the Underpricing of Initial Public Offerings", *Journal of Financial Economics*, 15, 213-232.
3. Beatty, R.P., 1989, "Auditor Reputation and the Pricing of Initial Public Offerings", *The Accounting Review*, 64, 693-709.
4. Berlinger, R.W. and Robbins W.B., 1986. "Using Forecasts and Projections to Raise Capital", *Journal of Accounting, Auditing and Finance*, Fall 1986, 347-352.
5. Bhaskar, K.N. and Morris R.C., 1984. "The Accuracy of Brokers' Profit Forecasts in the UK", *Accounting and Finance Research*, Spring 1984, 113-124.
6. Blair, M. and Taylor S., 1989. "Forecasting: The Profit Speaks", *Chartered Accountant in Australia*, August 1989, 50-53.
7. Booth, J. and Smith R., 1986. "Capital Raising Underwriting and the Certification Hypothesis", *Journal of Financial Economics* 15, 261-281.
8. Brandon, C.H. and Jarrett J.E., 1976. "Evaluating Accounting Forecasts", *Journal of Business Finance and Accounting*, Autumn 1976, 67-77.
9. Brown, P., Foster G. and Noreen E., 1985. "Security Analyst Multi-Year Earnings Forecasts and the Capital Market", *Studies in Accounting Research* No. 21, American Accounting Association, 1985.
10. Cameron, A.B., 1986. A Review of Management's Earnings Forecast Research", *Journal of Accounting Literature*, 1986, 75-83.
11. Collins, W.A. and Hopwood W.S., 1980. "A Multivariate Analysis of Annual Earnings Forecasts of Financial Analysts and Univariate Time-Series Models", *Journal of Accounting Research*, Autumn 1980, 390-406.
12. Cooper, A and Taylor B., 1983. "How Good are Stockbrokers' Earning Forecasts?", *Investment Analyst*, January 1983, 14-23.
13. Des. S. and Webb M., 1972. "The Accuracy of Company Profit Forecasts", *Journal of Business Finance*, Vol. 4, No 3, 1972, 26-39.

14. Dev. S., 1972, "Mergers and Shareholders" in *Readings in Mergers and Takeovers*, ed. Samuels J.M., Elek, 1972, 163-198.
15. Elmslie, R., 1988. "Independent Reports on Profit Forecasts", *Chartered Accountant in Australia*, November 1988, 61-63.
16. Ferris, K.R., 1976. "The Apparent Effects of Earnings Forecast Disclosure in Managerial Behaviour: An Empirical Examination", *Journal of Business Finance and Accounting*, Autumn 1976, 53-65.
17. Ferris, K.R. and Hayes D.C., 1977. "Some Evidence on the Determinations of Profit Forecast Accuracy in the United Kingdom", *International Journal of Accounting Education and Research*, Spring 1977, 27-36.
18. Finn, F.J. and Higham R., 1986. "The Performance of Unseasoned New Equity Issues-Cum-Stock Exchange Listings in Australia", *Working Paper, University of Queensland*, 1986.
19. Firth, M. and Smith A., 1992. "Selection of Auditor Firms by Companies in the New Issue Market", *Applied Economics*, Vol 24, 1992, 247-255.
20. Hagerman, R.L. and Ruland W., 1979. "The Accuracy of Management Forecasts and Forecasts of Simple Alternative Models", *Journal of Economics and Business*, Spring 1979, 172-179.
21. Harford, T., 1969. "Pricing a Flotation", *Journal of Business Finance*, Vol. 1, No. 1, 1969, 17-21.
22. Henderson, S and Peirson G., 1988. *Issues in Financial Accounting*, 4th edition, Longman Cheshire, 1988.
23. Ibbotson, R.G., 1975. "Price Performance of Common Stock New Issues", *Journal of Financial Economics*, 2, 235-272.
24. Imhoff, E. and Pare P., 1982. "Analysis and Comparison of Earnings Forecast Agents", *Journal of Accounting Research*, Autumn 1982, 429-439.
25. Logue, D.E., 1973. "On the Pricing of Unseasoned Equity Issues: 1965-1969", *Journal of Financial and Quantitative Analysis*, 8, 91-103.

26. McDonald, J.G. and Fisher A.K., 1972. "New Issue Stock Price Behaviour", *Journal of Finance*, March 1972, 97-102.
27. Mear, R. and Firth M., 1986. "A Note on the Financial Variable and Ratio Structure of New Zealand Listed Companies", *Accounting and Finance*, May 1986, 47-56.
28. Myers, V., 1989. "Clean Up Prospectuses: Law Commission Told", *National Business Review*, April 6, 1989, 8.
29. Neuberger, B.M. and Hammond C.T., 1974. "A Study of Underwriters' Experience with Unseasoned New Issues", *Journal of Financial and Quantitative Analysis*, March 1974, 165-177.
30. Neuberger, B.M. and La Chappelle C.A., 1983. "Unseasoned New Issue Price Performance on Three Tiers: 1975-1980", *Financial Management*, Autumn 1983, 23-28.
31. New Zealand Society of Accountants (NZSA), 1990. "The Examination of Prospective Financial Information", *Auditing Guideline AG-20*, 1990.
32. Patell, J.M., 1976. "Corporate Forecasts of Earnings Per Share and Stock Price Behaviour: Empirical Tests", *Journal of Accounting Research*, Autumn 1976, 246-276.
33. Penman, S.H., 1980. "An Empirical Investigation of the Voluntary Disclosure of Corporate Earnings Forecasts", *Journal of Accounting Research*, Spring 1980, 132-160.
34. Penman, S.H., 1983. "The Predictive Content of Earnings Forecasts and Dividends", *Journal of Finance*, September 1983, 1181-1199.
35. Richards, R.M., 1976. "Analysts' Performance and the Accuracy of Corporate Earnings Forecasts", *Journal of Business*, July 1976, 350-357.
36. Ritter, J.R., 1984. "The 'Hot Issue' Market of 1980", *Journal of Business*, April 1984, 215-240.
37. Rock, K., 1986. "Why New Issues are Underpriced", *Journal of Financial Economics*, 15, 187-212.
38. Schreuder, H. and Klaassen J., 1984. "Confidential Revenue and Profit Forecasts by Management and Financial Analysts: Evidence from the Netherlands", *Accounting Review*, January 1984, 64-77.

39. Securities Commission, 1991. "The Regulation of Profit Forecasts and Other Forecast Information in Prospectuses for Equity Securities", *Discussion Paper*, Security Commission, July 1991.
40. Simunic, D. and Stein M., 1987. Product Differentiation in Auditing: A Study of Auditor Choice in the Market of Unseasoned New Issues, *Canadian Certified General Accountants Research Foundation*, 1987.
41. Shamsheer, M., Annuar, M.N., and Ariff, M., 1993. "A Market Micro-Structure Explanation For the Excessive Underpricing In Malaysian IPOs" *Seminar Paper*, KLSE, Kuala Lumpur, Malaysia.
42. Wakeman, L., 1981. "The Real Function of Bond Rating Agencies", *Chase Financial quarterly*, Vol. 1, 1981, 18-26.
43. Westwick, C.A., 1972. "The Accuracy of Profits Forecasts in Bid Situations", *Accountancy*, July 1972, 10-16.
44. The Kuala Lumpur Stock Exchange, Daily Diary, 1975-1988.
45. Members' Handbook, Malaysian Institute of Accountants, Kuala Lumpur, Malaysia.
46. The Companies Act, 1965, Malaysia.