ACCOUNTING FOR REVALUATION: AN ASSOCIATION OF ITS PRACTICES WITH STOCK WEALTH

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ABSTRACT

This paper investigates the relationship of revaluation surplus and stock wealth as well as the determinants of revaluation practices in Malaysia. The sample comprises 100 companies listed in Kuala Lumpur Stock Exchange during the period 1998-2001. Results from ordinary least square regression (OLS) support the alternate hypothesis where revaluation surplus is associated with the stock wealth. The findings from logit regression reveal that revaluation practices are associated with higher earnings, larger size companies, lower dividend, lower liquidity and lower risk companies. It is hoped that this study, which is conducted in an economically and culturally different context from all existing studies, can contribute toward the current literature on revaluation practices.

INTRODUCTION

The limitation of historical cost and the importance of more relevant information called the accounting practitioners to conduct revaluation. Revaluation of fixed asset is not compulsory and is considered as an alternative accounting treatment in MASB No. 15. However, the statute indirectly advocates companies to conduct revaluation. Section 169(6) of the Companies Act 1965, requires directors to review book values for all tangible assets at the end of each financial year to determine whether they exceed current replacement values. Apart from that, directors are also required to make a statement, in accordance with a board resolution, as to whether the balance sheet is drawn up so as to give a true and fair view of the state of affairs of the company as at the end of the financial year.

The greater concern about the relevancy of financial information has motivated several investigations on factors associated with revaluation practices (Aboody, Barth and Kasznik, 1998; Brown, Izan and Loh, 1992; Easton, Eddey and Harris, 1993; Henderson and Goodwin, 1992; Jaggi and Tsui, 2001; Lin and Peasnell, 2000; Whittred and Chan, 1992; Cotter and Zimmer, 1995).

The empirical and analytical evidence found that revaluation practices have some repercussion on firms value (Easton, Eddey, and Harris, 1993; Standish and Ung, 1982; Aboody, Barth and Kasznik, 1998). Easton, Eddey, and Harris (1993) claimed that revaluation tended to modify the misalignment of market and book values. Standish and Ung (1982) and Sharpe and Walker (1975) found a positive market reaction to upward revaluation announcements. Aboody, Barth and Kasznik (1998) also found that the revaluation balance is significantly positively associated with prices incremental to net income and book value of equity. However, evidence by Amir, Harris and Venuti (1993) and Barth and Clinch (1996) found a negative relation between share prices and revaluation balances.

The purpose of this study is to provide further evidence of factors associated with revaluation practices and to see whether this practice has some influence on firms value. This study extends the previous studies by focusing on Malaysian environment and with a more recent data. The present study also considers the econometrics problems when conducting the Ordinary Least Square (OLS) and Logit regression.
PREVIOUS EMPIRICAL EVIDENCE

Revaluation has been a topic of study by many researchers. In the UK, Aboody, Barth and Kasznik (1998) found that 58.9% of the companies revalued their assets upwards. In the US, Dillon (1979), found that one-forth of these corporations had revalued some of their assets upwards during 1925 – 1934, though more made downward revaluations then upward revaluations in the period of 1925 – 1929.

In Australia, revaluation has been a topic of three previous studies (Leech, Pratt and Magill, 1978; Brown, Izan and Loh, 1992; and Whittred and Chan, 1992). According to Leech, Pratt and Magill (1978) the average frequency of revaluation by listed public companies was 7.4% per annum during the period of 1949 to 1972. Brown, Izan and Loh (1992) claimed that during high inflation, the frequency of assets revaluation is higher. About 4.5% of Australian firms revalued their assets four times during high inflation period compared to none during low inflation period. Whittred and Chan (1992) extended the research to the period between 1972 and 1985 and found the frequency increased to an average of 23.8% per annum.

Several studies have been carried out on factors associated with revaluation practices. Brown, Izan and Loh (1992) also found that the larger the companies have greater frequency of revaluing their asset. On the other hand, Easton, Eddey and Harris (1993) found that only two (3%) respondents suggest high profitability was a primary motivation for revaluation. Henderson and Goodwin (1992) stated that assets revaluation was carried out to provide a lower and more realistic measure of profit, provide more meaningful data on the balance sheet, create a reserve from which bonus shares can be issued, improve asset backing per share as to increase share prices and improve the debt/asset ratio.

Another study by Whittred and Chan (1992) found that the motivation of revaluation was when a firm has higher growth opportunities, faces with borrowing constraints and has a relatively low cash reserves. Brown, Izan and Loh (1992) found that revaluations are associated with the existence of debts contract, high leverage, reduction of political costs, simultaneous issues of bonus shares and avoidance of hostile takeover bids. Easton, Eddey and Harris (1993) report survey evidence that the primary reason for Australian managers to revalue assets is to present true and fair financial statements (45%). Their survey also indicates that the second most common motivation is to improve debt-to-equity ratio (40%). Other reasons given were takeover (6%), takeover defense (3%), political costs (3%) and stock dividend (2%).

Cotter and Zimmer (1995) on the other hand, found that companies, which revalued their fixed assets, are those that experienced declining cash flows from operation as well as increase in secured debts. Aboody, Barth and Kasznik (1998) found a motive of revaluation is more on to affecting the debt-to-equity ratio rather than presenting true and fair financial statements. The most recent study by Jaggi and Tsui (2001) on revaluation in Hong Kong firms, found that the main motivation for revaluation is to convey fair value of fixed assets to investors. However, their findings also reveal that improving firms’ borrowing capacity as a main motivation of revaluation practices.

RESEARCH METHODOLOGY

This study examined the association of revaluation surplus and firms value as well as the determinants of revaluation practices for Malaysian public companies for the year 1998 to 2001. Because of the need to obtained information from annual reports, the study was restricted to public companies. For this research, 400 annual reports involving 100 public listed companies were scrutinized and any upward revaluations reported were recognized. This research focus only on upward revaluation since it is based on the management discretion and allowed by Malaysian Accounting Standard Board No. 15 as an alternative accounting treatment.
The first hypothesis concerned with the question of whether the market took into account the reported revaluation amount when valuing a firm. For this hypothesis, the Balance Sheet Identity model of market value predictions developed earlier by Landsman (1986) was modified. The Ordinary Least Square (OLS) regression was then conducted using the modified model.

\[
\begin{align*}
\text{BVE} &= \text{BV}\_\text{ASSETS} - \text{BV}\_\text{LIABILITIES} = \text{OS} + \text{RESERVES} \\
\text{MVE} &= \beta_0 + \beta_1\text{OS} + \beta_2\text{RESERVES} + \varepsilon \\
&= \text{RESERVES} = \text{RE} + \text{GR} + \text{CR} + \ldots + \text{RS} \\
\text{MVE} &= \beta_0 + \beta_1\text{OS} + \beta_2\text{RESERVES(Ex_RS)} + \beta_3\text{RS} + \varepsilon \\
\text{MVE} &= b_0 + b_1\text{SHFUND(Ex_RS)} + b_2\text{RS} + \varepsilon
\end{align*}
\]

where

- BVE = Book Value of Equity
- BV\_ASSETS = Book Value of Assets
- BV\_Liabilities = Book Value of Liabilities
- MVE = Market Value of Equity
- OS = Ordinary Shares
- RESERVES = Total Reserves
- RE = Retained Earnings
- GR = General Reserves
- RS = Revaluation Surplus
- RESERVES(Ex_RS) = Revaluation surplus excluded Revaluation Surplus
- SHFUND(Ex_RS) = Shareholders Fund excluded Revaluation Surplus

The findings by Aboody, Barth and Kasznik (1998) indicate that the market’s assessment aligns with revaluations and the investors find revaluation information useful for their investment decisions. If investors consider revaluation amounts to be value relevant, they would use them for their investment decision. Thus, the investors might increase their assessments of firm value when high debt-to-equity ratio firm upwardly revalue assets, even if the revaluations do not reflect changes in asset values. The effect of this revaluation will reduce the probability of debt default.

For the second hypothesis, logit regression was conducted to measure the association of factors probably associated with revaluation practices. The factors that comprise size, performance, growth, risk, liquidity and dividend policy were included in the model, which is as follows:

\[
\text{REV} = \alpha_0 + \alpha_1\text{Log(TA)} + \alpha_2\text{EPS} + \alpha_3\text{DPS} + \alpha_4\text{ACID} + \alpha_5\text{DEBT} + \alpha_6\text{GROWTH} + \varepsilon
\]

**TABLE 1**

<table>
<thead>
<tr>
<th>Regressor</th>
<th>Explanatory Variable</th>
<th>Explanation</th>
<th>Expected relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>REV</td>
<td>Revaluation practices</td>
<td>1= Revaluer , 0 = Non-revaluer</td>
<td>-</td>
</tr>
<tr>
<td>Log(TA)</td>
<td>Firm Size</td>
<td>Total asset of the company.</td>
<td>?</td>
</tr>
<tr>
<td>EPS</td>
<td>Financial Performance</td>
<td>Earnings per share</td>
<td>+</td>
</tr>
<tr>
<td>DPS</td>
<td>Dividend policy</td>
<td>Dividend per share</td>
<td>?</td>
</tr>
<tr>
<td>ACID</td>
<td>Liquidity</td>
<td>Acid test ratio</td>
<td>?</td>
</tr>
<tr>
<td>DEBT</td>
<td>Risk</td>
<td>Debt to total asset.</td>
<td>+</td>
</tr>
<tr>
<td>GROWTH</td>
<td>Growth</td>
<td>Sales growth</td>
<td>?</td>
</tr>
</tbody>
</table>
The revaluation practices and its relationship with financial performance, firm size and risk have been discussed in several literatures. According to Brown, Izan and Loh (1992) when larger firms report ‘high’ profit, this is more likely to be noticed by regulators and others who may have incentives and the capacity to reallocate resources away from them. Under such circumstances, larger firms have greater incentives to adopt income-reducing procedures. The income-reducing procedure may be in the form of higher depreciation charges due to a higher carrying amount of asset after revaluation. Thus, while revaluation practice increases the firm size, it reduces the profitability ratios such as return on capital employed (ROCE) and return on total assets (ROTA).

Since larger firms receive greater attention than smaller firms, it is more likely that larger firms will revalue their assets in order to report lower rates of return. Therefore, the firm size may influence company’s decision to revalue their assets.

Assets revaluations results in increased shareholders equity for as long as the asset is held. This increase in reported equity may improve the perception of the company by suggesting that leverage is less than it would otherwise be (Henderson and Goodwin, 1995). This apparent reduced leverage may enhance borrowing capacity, thereby lowering the costs of capital.

Whittred and Chan (1992) argued that since asset revaluation increases the carrying amount of the assets and lowers the debt/ asset ratio, firms are more likely to revalue when their level of leverage is increasing and their borrowing capacity is reduced. Their empirical evidence tends to support this view.

Cotter and Zimmer (1995) proposed that assets revaluations occur to signal available borrowing capacity via an increase in collateral values at the time of increases in secured debts. They investigated whether the incidence of revaluation coincides with the increases in levels of secured borrowings due to lenders demand for current values of assets offered as collateral. Their evidence indicates that firms are more likely to record as asset revaluation if they have increased in their secured borrowings and that most non-year-end revaluations emanate directly from contracting with lenders.

Apart from that, Cotter and Zimmer (1995) also suggest that firms that undertaken an asset revaluation are more likely to be experiencing declining cash flows from operations than firms that have not revalued.

This is supported by Dietrich and Kaplan (1982), who stated that since borrowing capacity is also a function of existing leverage, firms experiencing both lower cash flows and high (book value) leverage are expected to achieve greater economic benefits from revaluation than firms which have relatively low leverage.

RESULTS AND IMPLICATIONS

Revaluation Practices And Firms Value

Table 2 denotes the result from ordinary least square (OLS) regression conducted on the first model. The results show that RS are significantly associated with firms value in the year 1998, 2000 and 2001 and pooled sample.

The coefficient of RS ($\alpha$) is negative in 1998 but positive in the year 2000 and 2001. While revaluation surplus is a proxy of earning and firms size, these two factors do not move in the same direction. The existence of revaluation surplus will increase the firms size and consequently this increases the firms value. However, in the case of revaluation of fixed assets, the additional
Depreciation expense incurred would reduce the earnings level and this would negatively affect the firm's value. In certain situations, the offset effect may occur.

### TABLE 2
Revaluation Surplus (Market Valuation Model)

<table>
<thead>
<tr>
<th>Predicted Sign</th>
<th>(\alpha_0)</th>
<th>(\alpha_1)</th>
<th>(\alpha_2)</th>
<th>(R^2)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998 OLS-t</td>
<td>-8.96E+07</td>
<td>1.6678</td>
<td>-5.5026</td>
<td>.42983</td>
<td>100</td>
</tr>
<tr>
<td>1999 OLS-t</td>
<td>-9.97E+08</td>
<td>2.7403</td>
<td>-2.1164</td>
<td>.79665</td>
<td>100</td>
</tr>
<tr>
<td>2000 OLS-t</td>
<td>-1.35E+09</td>
<td>2.4618</td>
<td>3.5607</td>
<td>.78712</td>
<td>100</td>
</tr>
<tr>
<td>2001 OLS-t</td>
<td>4.72E+09</td>
<td>-1.5484</td>
<td>65.8213</td>
<td>.14536</td>
<td>100</td>
</tr>
<tr>
<td>98-01 OLS-t</td>
<td>1.60E+08</td>
<td>1.7508</td>
<td>11.1989</td>
<td>.13123</td>
<td>400</td>
</tr>
</tbody>
</table>

MVE = \(\alpha_0 + \alpha_1\text{SHFUND(EX_RS)} + \alpha_2\text{RS} + \varepsilon\)

* Correlation is significant at 0.10 level
** Correlation is significant at 0.05 level
*** Correlation is significant at 0.01 level

The aggregate results show that revaluation surplus is positively associated with market value. These results indicate that during the economic recession that is the year 1998, market reacts more towards the earnings of a company. As a result, it is found that there is a negative association between revaluation surplus and market value of equity. On the other hand, the years 2000 and 2001 reveal that market plays less emphasis on earnings.

**Testing Econometric Assumption**

The econometric assumptions are related to the procedure for the estimation of the parameters of a population regression line provided by the ordinary least squares (OLS) method. A number of assumptions about the variables and the error term of OLS must be satisfied in order to ensure that the interpretations of the regression estimates are valid. Five major assumptions will be discussed including the serial correlation, linearity, heteroscedasticity, multicollinearity and normality assumptions.

**Serial Correlation**

Serial Correlation is defined as a correlation between members of series of observations ordered in time (as in time series data) or space (as in cross-sectional data). If serial correlation is present then the usual OLS estimators, although unbiased, no longer exhibit minimum variance among all linear unbiased estimators. In short, they are no longer BLUE (Gujarati, 1995). In the MICROFIT software package, the Lagrange multiplier (LM) test statistics are included in the diagnostic test table, and is applicable to models with and without lagged dependent variables. The LM is appropriate for testing the hypothesis; that the disturbances are serially uncorrelated against the alternative hypothesis; that they are autocorrelated of order \(p\) (either as autoregressive or moving average processes). Symbolically:

\[u_t = \phi_1 u_{t-1} + \phi_2 u_{t-2} + \phi_3 u_{t-3} + \ldots + \phi_p u_{t-p} + \varepsilon_t\]
TABLE 3
Testing Econometric Assumptions

<table>
<thead>
<tr>
<th>Year</th>
<th>Serial Correlation (A)</th>
<th>Linearity (B)</th>
<th>Heteroscedasticity (C)</th>
<th>Collinearity (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CHSQ</td>
<td>p-value</td>
<td>CHSQ</td>
<td>p-value</td>
</tr>
<tr>
<td>1998</td>
<td>1.3010</td>
<td>0.2540</td>
<td>8.4518</td>
<td>0.0040</td>
</tr>
<tr>
<td>1999</td>
<td>0.7258</td>
<td>0.3940</td>
<td>24.4651</td>
<td>0.0000</td>
</tr>
<tr>
<td>2000</td>
<td>1.7267</td>
<td>0.1890</td>
<td>24.3303</td>
<td>0.0000</td>
</tr>
<tr>
<td>2001</td>
<td>0.0396</td>
<td>0.8420</td>
<td>13.0450</td>
<td>0.0000</td>
</tr>
<tr>
<td>98-01</td>
<td>0.0889</td>
<td>0.7660</td>
<td>1.4185</td>
<td>0.2340</td>
</tr>
</tbody>
</table>

Notes:
A: Diagnostic Test for the Serial Correlation Assumption (Langrange Multiplier test of residual serial correlation)
B: Diagnostic Test for the Linearity Assumption (Ramsey’s RESET test using the square of the fitted values)
C: Diagnostic Test for Heteroscedasticity Assumption (Based on the regression of squared residuals on squared fitted values)
D: Diagnostic Test for Collinearity Assumption (Pearson Correlation between SHFUND(EX_RS) and RS)

where $e_t$ is a purely random disturbance term with zero mean and constant variance. The null hypothesis $H_0$ is: $p = p_2 = p_3 = ... = p_p = 0$, that all autoregressive coefficients are simultaneously equal to zero; that is, there is no autocorrelation of any order. Table 3 reports the LM statistics test from the regression of the basic model. In all cases for both models, the null hypothesis of no serial correlation was not rejected.

**Linearity Assumption**

The classical linear regression model assumes that the relationship between the dependent and independent variables is correctly specified by means of a linear functional form. The linearity assumption for the basic models ($MVE = \alpha_0 + \alpha_1 SHFUND(EX_RS) + \alpha_2 RS + \varepsilon$) is tested using a general test of specification error called RESET (Regression Specification Error Test) proposed by Ramsey (1969). The RESET test statistic follows the Chi-square distribution with 1 degree of freedom $\chi^2_{1,\alpha}$ under the null hypothesis that the true model is linear at a specific significance level. If the RESET statistics value exceeds the critical value at the chosen level of significance, then the regression model is misspecified. In the MICROFIT software package, the diagnostic test for the linearity assumption is reported as a part of the standard results using RESET.

Table 3 reports the RESET statistics from the regression of the basic model. Result for the year 1998,1999,2000 and 2001 statistically reject the null hypotheses that the true model is linear at the 1% level of significance. When the data was pooled, CHSQ is only 1.4185, which indicates that there is no enough statistical evidence to reject the null hypothesis. This automatically resolves the linearity problem.

**Heteroscedasticity Assumption**

One of the major econometric problems when estimating cross-sectional valuation models is the problem of heteroscedastic disturbances that arises from the fact that large (small) firms tend to produce large (small) disturbances. According to Gujarati (1995), if heteroscedasticity is present, then the usual OLS estimators, although unbiased, no longer exhibit minimum variance among all linear unbiased estimators.
Previous researchers such as Landsman (1986), Gopalakrishnan and Sugrue (1993), Kane and Unal (1993), Shevlin (1991), McCarthy and Schneider (1995), Jennings et al. (1996) mentioned problems of heteroscedasticity in their studies. According to Landsman (1986), to produce more efficient estimates, one can, in principle, transform the variables in a particular regression model to produce a constant (but still unknown) variance. One common deflation technique involves transforming the variables by deflating the independent variable. This procedure implies that the true error variance is proportional to the square of the independent variable. Studies by McCarthy and Schneider (1995) and Landsman (1986) used total sales as a deflator. However, Landsman, instead of simply deflating by the variables by sales, generalized a technique by Park (1966) to deflate the variables. On the other hand, Shevlin (1991) and Jennings et al. (1996) used the book value of shareholders’ equity and total assets, respectively, as the deflators. All the elements of data previously discussed are deflated by total sales to reduce the heteroscedasticity problems. Because heteroscedasticity has been a major problem in previous studies, it is necessary to test the heteroscedasticity assumption for the basic models in order determine whether the variance of the residuals in the basic models is constant throughout the sample. Symbolically,

\[ \text{Var}(\epsilon_t) = \sigma^2 \quad t = 1, 2, \ldots, n \]

In the MICROFIT software package, the diagnostic test for heteroscedasticity is reported as a part of the standard results using the Langrange Multipliers (LM) test. The test statistic is performed by regressing the square of the residual \( \epsilon_t^2 \) as the dependent variable on the predictive values, MVE\(^{jt}\), symbolically,

\[ \epsilon_t^2 = \beta_0 + \beta_1 MVE^{jt} + \epsilon_t \]

We then calculate LM = nR\(^2\) which is \( \chi^2 \) with 1 degrees of freedom under the null hypothesis that the error term is homoscedastic where n and R\(^2\) are the sample size and coefficient of determination receptively, obtained from the above regression. Table 3 reports the heteroscedasticity test statistics, which are \( \chi^2 \) with 1 degree of freedom under the null hypothesis. The null hypothesis that the variance of the residuals of the model is constant throughout the whole sample is not rejected at the 1% level of significance for all cases except for the year 1999. Thus, there is evidence that the variance of the residuals is not constant in the sample for year 1999. However, the overall results show that the variance of the residuals is constant.

**Multicollinearity Assumption**

Another major assumption of the classical regression model is that there is no multicollinearity among the regressors included in the regression model. According to Gujarati (1995), the term multicollinearity is used where the variables (regressors) are intercorrelated (perfect or non-perfect). Symbolically, it can be written as follows:

\[ \lambda_1 X_1 + \lambda_2 X_2 + \cdots + \lambda_k X_k + \epsilon_t = 0 \]

where \( \epsilon_t \) is a stochastic error term.

If multicollinearity is perfect, the regression coefficients of the X variables are indeterminate and their standard errors are infinite. If multicollinearity is less than perfect, the regression coefficients, although determinate, possess large standard errors (in relation to the coefficients themselves), which means that the coefficients cannot be estimated with great precision or accuracy. Therefore, the presence of a severe multicollinearity problem could result in drawing misleading inferences from sample t-statistics. The simple correlation (based on the Pearson correlation) of SHFUND(EX_RS) and RS, as presented in Table 3, less than 0.70. Apparently, the correlation coefficients can be considered not serious to create problems of multicollinearity.
Normality Assumption

Under the normality assumption, the error term \( \epsilon \) follows a normal distribution for all \( j \). We were able to establish that the OLS estimators of the regression coefficients follow the normal distribution, that \( (n - k) \left( \sigma^2 / \hat{s}^2 \right) \) has the \( \chi^2 \) distribution and that one could use the \( t \) and \( F \) tests to test various statistical hypotheses regardless of the sample size. However, according to Gujarati (1995), the normality assumption is not essential if the objective is merely estimation. A commonly quoted justification of least-squares estimation, called the Gauss-Markov theorem, states that the least-squares coefficients are the most efficient unbiased estimator; that is, linear functions of the observation \( y \). This result depends on assumptions of linearity, constant error variance, and independence, but does not require normality.

Furthermore, if the residuals are not normally distributed, then the \( t \) and \( F \)-tests are only valid asymptotically in large samples. The sample size in this study is 100 companies, which can be considered large. As a result, the test for normality is not necessary for this sample.

Factors Associated With Revaluation Practices.

To examine the factors or determinants of revaluation practices, this study incorporates firms size (\( \log(TA) \)), financial performance (\( EPS \)), dividend distribution (\( DPS \)), liquidity (\( ACID \)), risk (\( DEBT \)) and growth (\( GROWTH \)) into a model. A logit regression is then conducted on the model to determine the factors that are significantly associated with revaluation practice. Before conducting the regression, the companies were classified into two groups; group 1 is for revaluer and group 0 is for non-revaluer. The model used is as follows:

\[
REV = \alpha_0 + \alpha_1 \log(TA) + \alpha_2 EPS + \alpha_3 DPS + \alpha_4 ACID + \alpha_5 DEBT + \alpha_6 GROWTH + \epsilon 
\]

Table 4 shows the results from the above model. Size, financial performance, dividend distribution, liquidity and risk are significantly associated with revaluation practices. On the other hand, it is found that a firm’s growth is not associated with revaluation practice.

| TABLE 4 |
| Basic Logit Model |
| Regressor | Coefficient | Standard Error | T-Ratio |
| Intercept | -6.2877 | 2.1802 | -2.8840*** |
| LOGTA | 0.3022 | 0.1047 | 2.8860*** |
| Eps | 0.4416 | 0.2538 | 1.7402* |
| DPS | -2.3063 | 1.1101 | -2.0777** |
| ACID | -0.1626 | 0.0543 | -2.9949*** |
| DEBT | -0.9561 | 0.5154 | -1.8549* |
| GROWTH | 0.0026 | 0.0052 | 0.5012 |

The estimation method converged after 5 iterations
* Correlation is significant at the 0.10 level
** Correlation is significant at the 0.05 level
*** Correlation is significant at the 0.01 level

REV = \( \alpha_0 + \alpha_1 \log(TA) + \alpha_2 EPS + \alpha_3 DPS + \alpha_4 ACID + \alpha_5 DEBT + \alpha_6 GROWTH + \epsilon \)
Theoretically, revaluation practices relax the debt covenant of the companies and it is believed that they widen the companies financial decision. Thus, indirectly the revaluation practices would enhance the growth of the revaluers. However, there is no enough evidence to support the proposition. Further test on multicollinearity was conducted before making any inferences on factors associated with revaluation practices.

**The Multicollinearity Test**

Pearson correlations were performed to measure association between the independent variables. The correlation matrix in Table 5 reports that there is no serious collinearity problem. However, EPS and DPS are correlated at 0.503, which can be considered as average. On the other hand, the ACID and LOGTA are correlated at 0.451. However, according to Mason and Lind (1992), correlations amongst the independent variables which are less than 0.70 or -0.70 are not considered to cause problems.

<table>
<thead>
<tr>
<th>Regressor</th>
<th>LOGTA</th>
<th>EPS</th>
<th>DPS</th>
<th>ACID</th>
<th>DEBT</th>
<th>GROWT H</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGTA</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPS</td>
<td>-0.007</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>-0.116*</td>
<td>0.503**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACID</td>
<td>0.451**</td>
<td>0.051</td>
<td>-0.042</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEBT</td>
<td>0.237</td>
<td>-0.280**</td>
<td>-0.195**</td>
<td>0.256**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>GROWT H</td>
<td>-0.001</td>
<td>0.046</td>
<td>0.031</td>
<td>0.007</td>
<td>0.001</td>
<td>1.000</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

**CONCLUSIONS**

The study examined the association of revaluation surplus and stock wealth in Malaysia accompanied with determinants of revaluation practices. The main interest of the study is the association of revaluation surplus and firms value for the year 1998 to 2001. Significant associations were found during the period under study with an increasing coefficient as the economic situation improves. The diagnostic tests on serial correlation, linearity, heteroscedasticity and collinearity corroborate the findings. We then run the logit regression to determine factors associated with revaluation practices. After considering multicollinearity problem, the results indicate that revaluation practices are associated with (1) higher earnings, (2) larger size companies, (3) lower dividend, (4) lower liquidity and (5) lower risk companies.

**REFERENCES**


