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Movement of Hidden Reserves: Empirical Evidence from Malaysia

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Abstract

Reserves in accounting can be of different kinds and created for diverse reasons. Most of them are revealed publicly in one way or another. When the firm's net worth swerves from its economic value, it is said to have hidden reserves. Two sources of hidden reserves exist: accountant's misevaluation of portfolio positions that accounting principles designates as on balance sheet items and the systematic neglect of off balance sheet sources of value that these principles do not permit to be formally recorded (Kane & Unal, 1990). This paper used the model developed by Kane & Unal (1990) to study the movement of the hidden reserves in Malaysia from the year 1999 to 2008. In effect, the analysis found that the firms' values in Malaysia are overstated and the values of the hidden reserves are insignificant throughout the year under study.

Keywords: *Hidden reserves, Net book value, Market value*

1. INTRODUCTION

Although reserves in accounting can be of different kinds and created for diverse reasons, most of them are revealed publicly in one way or another. Hidden reserves are defined as amount by which a firm's net worth is understated. For instance, over depreciation results in assets and net worth being carried on the firm's financial statements at less than market value. It is a device by which the condition of the business is made to appear less favorable than it actually is, through the action of the managers, without the knowledge of the board of directors; or of the board itself without the knowledge of the shareholders. It is imperative to bear in mind that such reserves are not only created to deliberately conceal the true values, but are also as the standard and regular effects of applying the valuation on the basis of historical costs. Among objectives of creating hidden reserves are it will strengthen the financial position of a concern, losses can be made good without disclosing their occurrence to the shareholders and others. This will, in a way, help the firm to remain financially strong in spite of a period of adversity. Even having motivations for creating the hidden reserves, certain had objection the formation of such reserves. It is said that the balance sheet and the income statement does not exhibit the true and fair view of the financial affairs of the firm if such reserves is created and maintained. Two sources of hidden reserves exist: accountants' misevaluations of portfolio positions that accounting principles designate as on balance sheet items and the systematic neglect of off balance sheet sources of value that these principles do not permit to be formally recorded (Kane & Unal, 1990). This paper used the Statistical Market Value Accounting Model, SMVAM, to study the movement of the hidden reserves evidenced in Malaysia from the year 1999 to 2008.

2. HYPOTHESES DEVELOPMENT

By measuring the extent to which market value and net book value give impact on hidden reserve, we have statistically examined the relationship between these two variables to see if there is significant positive correlation between them. As such, we have taken 95% as

confidence level that the relationship is statistically significant (ie. $p = 0.05$). The analysis is performed by using balance sheet equation;

$$MVE = a_1 + a_2NBVA + e \quad (1)$$

Where:
MVE = market value of equity
NBVA = net book value of assets
e = approximation error

According to Kane and Unal, hidden reserves or unbookable assets emerge when the company's net worth value deviates from its market value. By using the above model, they have found hidden reserves which are indicated by a_1. Unless $a_1 = 0$, and $a_2 = 1$ (with the assumption of $e = 0$), the market value equity will signify the net book value of the company. If a_1 has shown a positive sign, it will indicate a net source of capital and vice versa (Ibrahim, 1999). Based on the model, we concur that if net book value of assets (NBVA) is not recorded at market value, then a_1 should not equal zero and we state the alternative hypothesis as H_1. This gives as the null hypothesis H_0, that NBVA signifies MVE.

H_0: $a_1 = 0$
H_1: $a_1 \neq 0$

The test conducted can either reject or do not reject the null hypothesis.

On the same tune, we has applied the balance sheet concept to find a_1 for 10 years, namely from 1999 to 2008 to 100 top Malaysian companies which is ranked by their total net value of assets. The reason underlies as we need to develop a comparable net worth of assets of the samples.

3. RESEARCH METHODOLOGY

We use regression analysis to partition the market value of a firm's stock into two components: recorded capital reserves and unrecorded capital reserves (hidden reserves) net worth. We derived our results from the model developed by Kane & Unal (1990) which called as Statistical Market Value Accounting Model, SMVAM. The model estimated the net unbooked value of on balance sheet positions by estimating an intermediate variation ration, *k.* this variable expresses the ration of the market value to the book value of the collected components of a firm's bookable equity. Applying the valuation ratio to BV, the value of accounting or book net worth, assigns a market value to bookable assets and liabilities. Subtracting this estimate from market capitalization, assigns a value to the off balance sheet items. This statistically appraised value of unbookable equity, *U*, expresses the net value of unbookable assets and liabilities. By expressing the market value of unbookable equity as *U* and allowing for approximation error, the model is stated as:

$$MV = U + NBVA + e \quad (2)$$

Top 100 companies based on total assets are taken as sample in this research for a period of ten years starting from 1999 up to 2008. The value of NBVA is resulted from subtracting total liabilities from the total asset for the firms. Wald test is used to test the hypotheses developed in this paper and further analyze the data by using ordinary least square regression to find the relationship between the two variables; MV and NBVA.

4. DATA ANALYSIS

Table 1 show that the regression of the accounting equation is fit to the balance sheet model as the coefficient determination (R^2) of the model is close to 1. The table also shows that p-value, as indicated by a_2, is significant at 99% throughout 10 years of study. For 1999 until 2001, a_1 which signify the hidden reserves, have shown negative value. This has suggested that the hidden reserve serve as a capital drain. These drains were statistically supported with their residual value at significant at 95%. The negative reserves may have resulted from the currency uproar in Asia while the accountants may have recorded the net assets at the market value. This observation is consistent with our hypothesis that only 5% that a_1 is actually zero. Later in year 2002 and 2003, the coefficients of a_1 have surged upward to positive sign as the economy continued to recover. Though the accountants have recorded the book value as equal to market value, hidden reserve subsisted.

Table 1: Market value to book value regression: Time verifying parameter

N= 100					
Year	a_1	*COE*	a_2	*COE*	R^2
1999	-2.532**	-1,025.4	13.635***	1.3940	0.655
2000	-3.808**	-1,257.6	18.480***	1.4683	0.777
2001	-3.353**	-969.2	18.588***	1.2154	0.779
2002	0.453*	167.5	10.450***	0.7139	0.527
2003	0.990*	371.8	10.345***	0.6596	0.522
2004	-2.349**	-726.7	21.031***	1.2162	0.819
2005	-2.580**	-720.6	23.870***	1.1251	0.853
2006	-0.730*	-248.5	21.670***	1.1399	0.827
2007	0.369*	166.3	19.498***	1.1686	0.795
2008	0.287*	172.7	10.553***	0.8554	0.532

Notes: The model is MVE = a_1 + a_2NBVA. MV and NBVA are market value and net book value of asset respectively. N is the number of companies for this study.
This table indicates significance at 1% (***), 5% (**) and 10% (*) levels
The coefficient relation (COE) is rounded to the nearest thousand

However, the hidden reserves, a_1 dropped significantly for year 2004 and the trend continued to fall until 2006 which resulted to the capital drain. With the residual values are at significant level of 95%, the economy in Malaysia seemed to be unenthusiastic due to the sharp lower negative contributions from the manufacturing sector. However, opinions from many schools of thought remained afloat for the real reasons that optimistic due to the revival of private investment in Malaysia. The confidence was reflected with the positive note of a_1 coefficient in this study. These findings are particularly true at significant level of 99%.
Nevertheless, based on the diagnostic test of the Ordinary Least Square (OLS) model, we found that the data was affected by the heteroscedasticity problem. In order to mitigate the problem, we have performed 1990 white-t test. This test will automatically adjust the standard deviation error and t-stat of the data as shown in Table 2.

The result has shown that both tests do not contradict with each other significantly. Though the p-value of a_1 has shown consistent result from earlier test, the p-value of a_2 however, shows trivial changes for year 2002 and 2003. For both 2002 and 2003, a_2, which signified book value of companies, has shown 95% significance level of residual value. As indicated earlier, the economic condition during these two periods were strengthening due to the aftermath of Asian financial crisis. A prudent fiscal policy was then aimed to revive private sector to lead economic growth in parallel with stimulating domestic demand in local products. As such, the accountants tend to record the net assets at book value.

Table 2: Adjusted market value to book value regression

Year	a_1	*COE*	a_2	*COE*
1999	-1.717*	-102.6	4.008***	1.3940
2000	-3.317**	-125.8	7.819***	1.4683
2001	-3.2728**	-969.2	8.1966***	1.2154
2002	0.260*	167.6	2.310**	0.7140
2003	0.617*	371.9	2.449**	0.6596
2004	-2.122**	-726.7	8.892***	1.2162
2005	-3.193**	-720.6	15.259***	1.1251
2006	-0.874*	-248.5	11.353***	1.1399
2007	0.430*	166.3	11.787***	1.1686
2008	0.437*	172.7	6.390***	0.8554

Notes: This table indicates significance at 1% (***), 5% (**) and 10% (*) levels.
The coefficient relation (COE) is rounded to the nearest thousand.

Figure 1 and Figure 2 depict the most interesting part of the result is related to the intercept value. Deviations of U from zero show a definite time pattern. From the year 1999 to 2001, the value of unbookable equity is negative and significant. This suggests that off balance sheet items serve as a drain on the capital before 2002 and becomes positive and insignificant in 2002. This trend follows up to the year 2003 but the value drop to negative and significantly from the year 2004 up till 2006 which later we can see it changed for the year 2007 and 2008. We can say that U is there in the balance sheet but not with a high value.

Figure 1: Movement of hidden reserves (using u and nbva values)

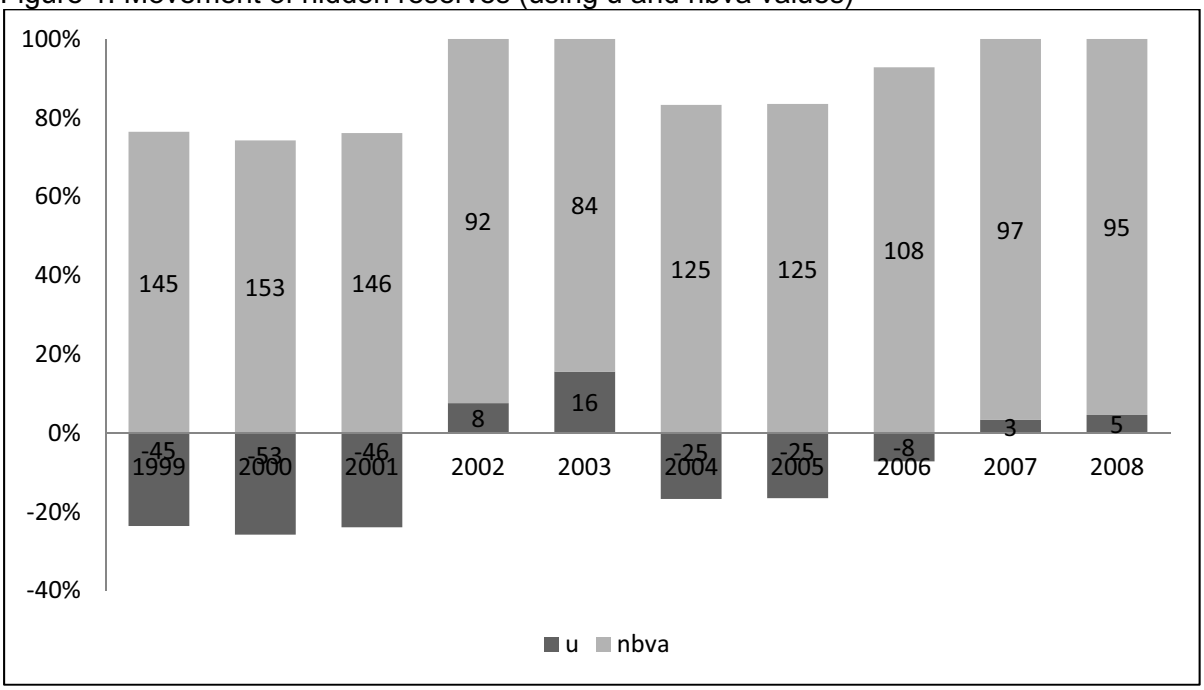


Figure 2: Movement of hidden reserves (using u values)

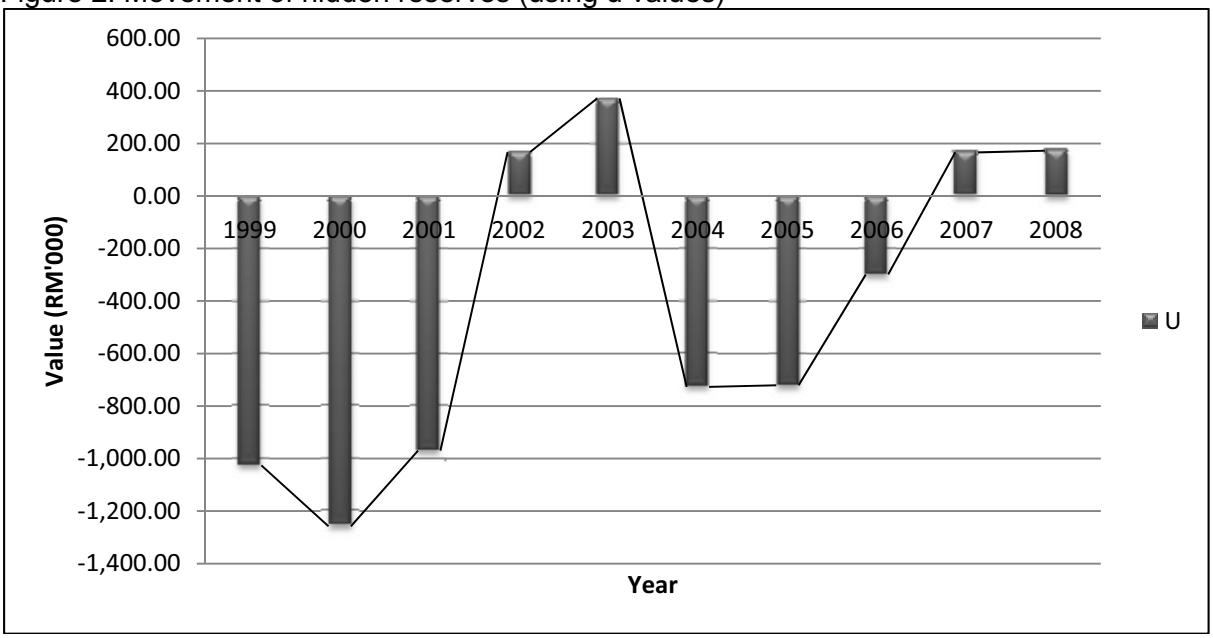
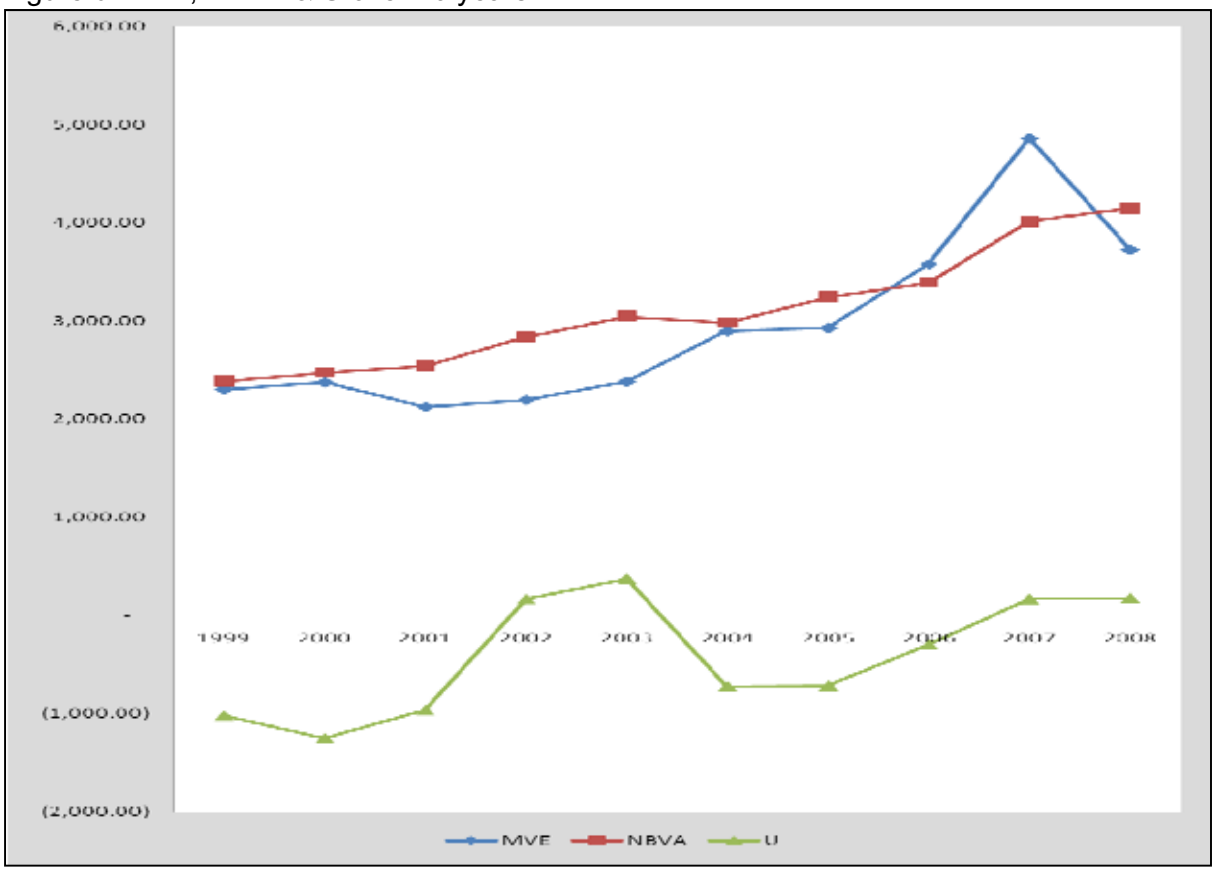


Figure 3: MVE, NBVA & U over 10 years



5. SUMMARY

In this paper we examined the movement of hidden reserves in Malaysia using the Statistical Market Value Accounting Model from the year 1999 to 2008 and it was discovered that the

value of hidden reserves is insignificant throughout the period under study. In summary, accountants in Malaysia reported the balance sheet of the firm at the net book value and hidden reserves is irrelevant in Malaysia. Our work contributes to the literature on the hidden reserves in the scenario of Malaysian firms which to the best of our knowledge, few are exist to date. It documents the historical patterns in the relationship between the market value and the net book value of the firms which hidden reserves may be discovered. This information is likely to be useful to academicians and practitioners alike.

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