Creating Wealth for Shareholders: Evaluating the Performance of the Malaysia Property Companies

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Adopting Economic Value Added (EVA) on Real Estate Corporations in Malaysia

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Abstract

This paper measures property companies' performance under new economic performance metric known as Economic Value Added (EVA) and identifies which companies perform better. The EVA of 27 Malaysia property companies are computed and analysed during the periods of 1997 through 2006. The EVA is an economic performance metric proposed by Stern Stewart Management Services. It claims to have successfully eliminated financial and accounting distortions and provides a true measure of a company's success in driving shareholder value. Overall, the result of the present study shows that most property companies in Malaysia fail to generate enough income to cover their cost of capital, and thus indicating failure in creating corporate wealth. In order to have positive EVA in the future, the actions and decisions of managers should focus on investing more on capital in the high return projects.

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I Introduction

Maximizing shareholder wealth is a single most important goal for any profit seeking organization and as such it becomes extremely crucial for them to achieve higher profit. Many believe that managing business organization is like managing a football team. In managing a football club, a coach needs to push many factors to succeed in getting results such as number shots on goal, winning corner kicks and free kicks, passing with accuracy and never say die attitude of midfielder's engine room, providing a solid defense and having a save hands between the post. In business too, a executive official or manager should manage many inputs available to them efficiently and try to adopt more innovative performance metrics so that their management behavior are closely monitored in getting results for the benefits of shareholders. This is in line with the growing awareness among shareholders to place more pressure on the companies to create and maximize their wealth. Indeed, recent developments in corporate world such as corporate restructuring, merger and acquisitions and share buyback have been motivated largely by corporations' needs to increase shareholder wealth.

Real estate companies as with other business around the world are not spare from this development. They too are focusing on creating wealth for their shareholders. In today's business environment, many real estate firms are investing significantly in properties that are used for operational and investment purposes. In some cases, real estate has become the corporations' largest asset. In Malaysia, real estate sectors have become one of the largest sectors and continue to grow and developed for the past two decades even through difficult economic period. Some has survived such as IOI Properties and Boustead Properties Bhd with flying color while others are facing hardship like Country Heights, Land & General, and Damansara Realty.

In realizing the potential of adding more shareholders value, an alternative corporate performance measure is introduced such as economic value added (EVA) proposed by Stern Stewart Management Services. The EVA, as it is claimed is more superior than the traditional accounting measures because it eliminates financial and accounting distortions and provides a true measure of a company's success in driving shareholder value. In contrast, the traditional measures of corporate performance such as accounting profit, return on investment (ROI) and return on equity (ROE) have been criticized as inconsistent with the goal of wealth maximization. In many cases managers are evaluated and rewarded not for the efforts that lead to real value but are based on the accounting profits. Balance sheets are often considered just the result of accounting rules rather than the focus of value enhancement. The use of EVA is considered to be more comprehensive in that its measurement tool provides a clearer picture of whether a business is increasing or reducing shareholder wealth. Many multinational companies such as Siemens, Sony, Coca-Cola and Monsanto have formally announced their adoption and implementation of EVA as management systems in their quest of the value. EVA has been getting plenty of attention in recent years as a new form of performance measurement. According to Tully (1993), companies, which use EVA in their quest for values will give marked competitive advantage over their competitors.

Economists and accountants, somehow have different understanding on the concept of profits. To an accountant, profit is define as an excess of revenues over expenses and taxes and measured by earnings while to an economist, economic profit is a total revenues less total cost, where costs in economics sense will includes the full opportunity cost of the factors of production. The opportunity cost of capital invested in a business is quite alien to concept of accounting profit.

II. The Concept of EVA and Economic Profit

The EVA is a measure that enables managers to see whether they are earning an adequate return. It is a value based financial performance measure, an investment decision tool and a performance measure reflecting the absolute amount of shareholder value. It is computed as the product of the excess return made on an investment and the capital invested. The EVA is the net operating profit minus a charge for the opportunity cost of all capital invested in a project. Thus, it is an estimation of true economic profit.

The idea behind EVA is that shareholder must earn a return that compensates their risks. In other word, equity capital has to earn at least the same return as similar risky investments in equity markets. It means that wealth is created when the company earns more than the cost of investing or the cost of running the business. The concept of shareholders value is that a company creates value only for its shareholders when the returns it achieves on its capital is greater than its opportunity.

In addition, when compensation is based on EVA, the goals of employees and managers are associated with the goals of the entire company. Unlike traditional measure such as accounting profit, return on investment (ROI) and return on equity (ROE) does not encourage managers to show decision making behavior that suitable with the goals of the company to maximization shareholders value.

The main objective of this paper is therefore to measure company performance under new economic performance metric. Specifically, the study's main intention is to provide new performance measurement known as EVA on real estate firm listed on the Bursa Malaysia. The study seeks to address whether the EVA understates the true value economic performance of real estate as mentioned by Ooi and Liow (2002). The remainder of this paper is structured as follows: Section II discusses the concept of EVA and economics profit. Section III reviews the related literature. Section IV explains the data and the method used, while the results are presented in section V. Finally, section V gives conclusion of the study.

III. Literature Review

Stewart (1994) has mentioned that EVA stands well out from the crowd as the single best measure of wealth creation and has made claims concerning the merits of EVA which it is almost 50% better than its closest accounting–based competitor in explaining changes in shareholder wealth. He further argues that, the adoption of EVA also is a proven and potent way to increase corporate performance, motivation and market value. With increased competition and greater awareness among investors, new and innovative ways of measuring corporate performance are being developed. New tools provide

flexibility to managers in their functions, be it in term of operational aspects or evaluation parameters. The EVA is a new flexible tool for measuring corporate performance.

Biddle, Bowen and Wallace (1997), assert that Economic Value Added (EVA) is more highly associated with stock returns and firm values than accrual earnings and evaluates which components of EVA, if any contribute to these associations. The relative information content tests reveal earnings to be more highly associated with returns and firm values than EVA, residual income or cash flow from operations. Incremental tests suggest that EVA components add only marginally to information content beyond earnings. Considered together these results do not support claims that EVA dominates earnings in relative information content and they suggest rather those earnings generally outperforms EVA.

Biddle, Bowen and Wallace (1998) empirically test whether EVA is superior to accounting-based competitors in explaining changes in shareholder wealth as claimed by Stern Stewart & Co. They find that earnings before extraordinary items dominate EVA in comparisons of relative information content for explaining stock returns and firm values. Further, they find that the EVA components estimated by Stern Stewart add only marginally to the information contained in cash flows and accruals and that their contributions are likely to be economically insignificant. Thus, it appears at least one of the Stern Stewart claims is based more on marketing hype than unbiased statistical evidence. Naser, Karbhari and Mokhtar (2004) examine the impact of ISO 9000 Registration on company performance. They find that EVA do determine the performance of the Malaysian Listed Companies. Specifically, there is an association between ISO 9000 Registration and performance of companies in Malaysia. Their analysis reveals that accredited Malaysian companies outperformed the non-accredited ones during the period of study.

Jeffrey, John, Todd and Anjan (1997) study on the best financial performance measure for 25 firms for the1988-1992 period. Their results indicate that the most appropriate measure of shareholder value is the return shareholders earn through price appreciation and dividends in excess of that required compensating shareholders for systematic risk. They conclude that EVA does quite well in terms of its correlation with this measure of shareholder value creation.

EVA on Property/Real estate Sector

Ooi and Liow (2002), examine the implications of the corporation's quest for value and the adoption of a new economic performance metric on real estate corporate strategies. The economic profit of 19 Singapore property companies is computed. Overall, the result suggests that most property companies failed to generate enough period income to cover their cost of capital. Hence the companies appear to be destroying rather than creating corporate wealth. They also conclude some reasons why EVA tends to understate the true economic performance of real estate both as an investment and as a business unit.

Ooi and Liow (2004) examine whether corporate real estate create wealth for shareholders using two value-based measures that are EVA and Market Value Added (MVA). The study find that corporate real estate has impacted negatively on non real

estate firms' EVA and MVA in the period of 1997-200. This happen for non real estate corporations from different industries. Further, the higher the real estate intensity, the greater negative impact on the firms' EVA and MVA. These results have important implications for the traditional notion that there is a competitive advantage in owning corporate real estate by diversifies conglomerates. In all, given that real estate is neither the core business nor the only business at many non-real estate firms, it is interesting to find out why so many corporations are still hanging on to the ownership of corporate real estate.

The question of whether stock markets are able to value corporate real estate holdings adequately poses great concern for corporate management. There is evidence in the literature to support the management claim of significant "hidden value" in corporate real estate that is not reflected in a company's share price. For example research done by Brennan (1990) categorized real estate as "latent assets" where the value of assets owned by a corporation might not accurately reflect in its share prices. If the ownership of corporate real estate decreases firm valuation, then there appears to have little incentive for non-real estate firms to own properties. Based on the 1997-2001 EVA and MVA performance of listed non-real estate firms that have significant property asset holdings on the benchmark stock market index in Singapore, the empirical evidence suggests that many companies involved in property have struggled to create shareholder wealth. During this period, Asian markets experienced severe recession because of the financial crisis experienced in the region.

Pagourtzi, Assimakopoulos, Hatzichristos and Nick (2003) claim that the valuation of real estate is a central tenet for all businesses. Land and property are factors of production and, as with any other asset, the value of land flows from the use to which it is put, and that in turn is dependent upon the demand or supply for the product that is produced. The valuation of real estate is therefore required to provide a quantitative measure of the benefit and liabilities accruing from the ownership of the real estate. Valuations are required, and often carried out by a number of different players in the marketplace such as real estate agents, appraisers, brokers and property developers. They find that there should be an appropriate method according to the criteria to estimate property value. As valuers move from operating in their home country to the demands of a European and international marketplace, these issues are likely to become more complex.

Krumm and Vries (2003) examine value creation through the management of corporate real estate. They find that corporations are under continuous pressure from shareholders to focus on core competencies and avoid getting involved in other core matters. In order to increase shareholder value, there is an increasing trend to outsource non core support services. In many corporations real estate is considered to be of those non core activities. However up to now, real estate is a necessity for the core business to exist. As a consequence, every real estate investment a corporation makes should in fact be a balance of the costs ad the expected return just like any other corporate investment.

IV Data and Methodology

A sample of 27 listed companies traded on the Main Board of the Bursa Malaysia Security Berhad (BMSB) from 1997 to 2006 are used. The balance sheet, income statement and other related data are obtained from the DATASTREAM (DS) database.

Data Analysis

Following Stewart (1991), EVA is net operating profit minus an appropriate charge for the opportunity cost of all capital in a company:

EVA = Operating Profit – Cost of Capital Employed
Or
EVA = Operating Profit – (Capital Employed x Weighted Average Cost of Capital)

The equation show that EVA is depends on:

1) The firm's net operating profit after taxes (NOPAT)
2) Its total capital invested to generate net income
3) Its weighted average cost of the capital (WACC)

The calculation for EVA also can be:

Net sales
Less - operating expenses
_____
OPERATING PROFIT (EBIT)
Less - Taxes
_____
NET OPERATING PROFIT AFTER TAX (NOPAT)
Less - Capital Charges (invested Capital x Cost of Capital)
_____
ECONOMIC VALUE ADDED (EVA)

The EVA is also known as economic profit and is derived after subtracting the cost of capital employed. A positive EVA indicates that the operating profit is sufficient to cover the total cost of capital. The EVA provides management tool for investors and corporate managers to identify whether value has been created or not for any business and investments.

NOPAT is a measure of the operating profit of an organization. From the income statement, operating income (EBIT) is sales less cost of sales and less selling, general and administrative expenses. Then, EBIT is less taxes in order to obtain NOPAT. The EVA is obtained by subtracting cost of capital from NOPAT. In real world, not many businesses realize their true cost of capital, which means that they probably do not know if their company is increasing in value each year. There are two basic types of capital which is borrowed and equity. The cost of borrowed capital is the interest rate charged by the bondholders and the banks. The equity capital is provided by the shareholders. An investor's expected rate of return on an investment is equal to the risk free rate plus the market price for the risk that is assumed with the investment. The relationship between expected return and risk is measured by comparing a company to the market.

The next step, the study calculates the capital that is being used by the property corporations from the economist point of view. Accounting profits is differing from the economic profits. Under generally accepted accounting principles, most companies appear to be profitable. However, many actually destroy shareholder wealth because they earn less than the full cost of capital. In this study, capital employed is basically the long term funds employed in a business. It is from the ordinary shareholders and from long term liabilities. Hence, it is the effective amount of money actually being used in a business, regardless of whether it is from the owners or creditors or banks. Since capital employed is net worth, the formula is total assets less liabilities.

Weighted Average Cost of Capital (WACC) is defined as the weighted average of the cost of equity and the after tax cost of debt. It is the total returns demanded by debt and equity investors weighted against the proportions of debt and equity employed in the target capital structure of a company. The WACC of a company can be presented as follows:

$$\text{WACC} = \left[C_E\left(\frac{E}{D+E}\right)\right] + \left[C_D\left(\frac{D}{D+E}\right)(1-T_c)\right]$$

C_E is the cost of equity, C_D is the cost of debt, E is total equity employed, D is total debt employed and T_C is the company's marginal tax rate. Perfectly, the cost of debt should be measured for each individual property companies based on the marginal borrowing rate but it is difficult to determine the marginal borrowing rate because companies do borrow funds from many sources and for different purposes. Therefore, as an alternative, the present study employs the base lending rate (BLR) from commercial bank as a proxy for the marginal cost of debt across all companies. Then, the company's after tax cost of debt is estimated by multiplying BLR with one minus the relevant corporate tax rate for the respective year.

The cost of equity in this calculation is computed using the capital asset pricing model (CAPM) as follows:

$$\boldsymbol{E(R_i) = Rf + B_i\,[\,E(Rm) - Rf\,]}$$

Where $E(R_i)$ is the expected cost of equity in year *t*, Rf is the rate of return on risk-free asset in year *t*, and Bi is the systematic risk of the company. The risk free rate is represented by the average interest yield on Malaysia Government Securities (MGS) for 1997-2006. E(Rm), is the expected market return proxied by KLCI over the same period.

The EVA is obtained by calculating Net Operating Profit after Taxes (NOPAT) subtract with the cost of investing and cost of running the business. That is why even in calculating WACC used cost of equity plus cost of debt but because of it is called as cost, so after calculating EVA, we want the WACC lower.

V. Results

The EVA of 27 property companies listed on Main Board BMSB are computed based on their historical accounting results extracted from the DATASTREAMS (DS) database as well as the monthly statistics of Bank Negara Malaysia's annual report. The ten years

study period from 1997 to 2006 is chosen to cover the real estate corporations in Malaysia which is from a sudden slump in 1997 and recovery stage in 2000 and beyong.

Companies Performance Under EVA

The EVA of a company is computed by deducting the cost of capital which is capital employed times with WACC from the firm's NOPAT. Table 1 reports the companies' performance under this new economic performance metric. From 27 companies, all these companies registered a negative EVA. The companies which perform the best using EVA is Fima Corporation Berhad with the average of negative 604024.4 followed by Crescendo Corporation with average of negative 727705.6. Out of 27 companies, IGB Corporation is performed the worst with an average EVA of negative 9902400.81.It is not surprising that all the companies perform badly under EVA metric. EVA is a measure of profit less cost of all capital employed that properly accounts for all the complex trade-offs between income statement and balance sheet. The negative EVA means the company is consuming capital rather than generating wealth.

It is possible that real estate corporations perform badly under EVA metric because of the poor management. One of the reasons is because most of the companies have small or negative NOPAT. It shows that the management of the companies is unable to manage and controlled their sales and operating expenses well.

The negative EVA shows the amount of real wealth that an employee generates and links it with income incentives. The lower the EVA generated, the lower the income and the lower is the likelihood of dividend payouts to the shareholder. Thus what we see is that every investment is aligned closely to its real return and that, in turn is in the interest of the shareholders. In equation to calculate EVA, NOPAT is used to evaluate the return on the invested capital that is earned by the company. Most of these companies have lower and negative NOPAT and when calculating EVA, all the result shows negative sign because of lower income. Brennen (1990) argue that the management claim of significant "hidden value" in corporate real estate is not reflected in companies's share price. Evidence found that many company involved in real estate have struggle to create shareholder wealth.

The cost of debt and cost of equity are weighted based on the company's capital structure to derive the WACC for each companies in Table 2. The average WACC of all companies is 4.5230%. Bandar Raya Development is in first rank with average of 3.7401% followed by A&M Realty with average of 3.7519% and Asas Dunia Berhad with average of 3.755%. Companies such as AMDB Berhad, Farlim Group (M) and Country Heights are on the last three ranking of WACC which are 5.3088%, 5.2194% and 5.1611%, respectively. The companies can maximize stockholder wealth by maximizing the value of the company and minimize the WACC. The lower WACC is better because WACC shows the cost incurred in running the business. Most of the property companies in the table show higher WACC with an average of 4.5230%. That is why all 27 property companies as a whole have negative EVA over the study period. Overall, the result suggests that most property companies in Malaysia fail to generate enough periodic income to cover their cost of capital. This research is supported the findings of Ooi and Liow (2002) who find that most of property companies in Singapore failed to generate periodic income and hence, the companies appear to be destroying rather than create wealth.

VI. Summary and Conclusion

The main objective of the present study is to measure company performance under new economic performance metric known as EVA. Specifically, we measure the real estate corporation's performance and identify which companies perform better using EVA. Most of the property companies perform badly. The results of the study show that all the 27 sample property companies in Malaysia have negative EVA. In the meantime, the management of real estate corporations in Malaysia should think the way to safeguard and increase shareholder wealth

The EVA has its own strengths as performance metric measurement. As an operational metric, EVA helps managers clarify how to create value. For real estate corporations in Malaysia, in order to increase EVA they should either invest additional capital that can generate returns above WACC or reduce capital employed in running their business.

Following the negative EVA, it is proposed that the real estate corporations in Malaysia should think of how to reduce the possibility of misusing free cash flow to unprofitable projects. As this represents real profit, obtaining positive EVA will enhances shareholder value while negative EVA reduces shareholder value. The only method to increase EVA is through the actions and decisions of managers, who make decisions and changes that create value. Companies that use EVA as their financial performance measure focus on operating efficiency and in doing so should closely managing their assets. Finally, in order to increase EVA, the management should improve capital efficiency by focusing more on optimal capital structure and improved strategic and scenario planning.

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Table 1:Economic Value Added (EVA) of Real Estate Corporations in Malaysia

COMPANY	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	AVERAGE	RANK
1. A&M REALTY	-141036.9	-284,653.2	-217,793.7	-1,149,657.7	-1,420,011.5	-1,494,701.4	-1,375,560.6	-1,377,989.7	-1,061,303.03	-939306.78	-946201.46	4
2. AMDB BHD	-5,512,199.2	-3,875,341.8	-2,663,094.3	-2,811,527.8	-2,544,993.5		-2,040,936.2	-2,664,591.2	-2792468.63	-2,010,162.46	-2921874.94	15
3. ASAS DUNIA BHD	-837497.4	-949,172.7	-994115.8	-1,093,603.2	-1,308,521.6	-1,282,588.5	-1,503,971.6	-1,241,453.3	-1,363,130.17	-1,431,718.81	-1200577.3	7
4. ASIAN PACIFIC HOLDING	-1,183,494.4	-932119.82	-830662.7	-875370.2	-3,115,946.5	-3,121,777.2	-2,502,199.8	-1,981,234.9	-2,144,955.07	-2,328,291.03	-1901605.16	11
5. BANDAR RAYA DEVT	-3,603,912.0	-3,551,861.2	-3,800,040.2	-4,139,529.9	-5,242,523.7	-5,332,659.0	-5,737,947.6	-6,228,843.7	-6,491,971.60	-7,692,214.64	-5182150.33	22
6. BCB BHD	-1,602,387.9	-1,391,105.3	-1,367,575.5	-1,441,904.2	-1,346,673.8	-1,355,697.2	-1,629,133.2	-1,583,964.5	-1,591,173.88	-1,105,266.56	-1441488.2	8
7. BOLTON BHD	-3,400,621.2	-3,593,029.2	-3,480,201.0	-3,256,964.4	-2,838,675.4	-3,671,880.4	-3,246,140.8	-3,286,895.5	-	-2,617,110.34	-3265724.26	17
8. BOUSTEAD PROPERTIES	-2,050,425.9	-1,992,943.5	-2,212,713.0	-2,833,872.7	-2,718,800.6	-2,925,096.6	-4,980,488.6	-5,744,642.3	-3,998,069.40	-6,109,029.86	-3556608.23	18
9. COUNTRY HEIHGTS	-3,475,923.1	-3,584,582.3	-4,219,459.4	-6,335,672.7	-7,423,946.2	-8,502,151.4	-7,681,959.8	-7,563,608.5	-7,264,029.97	-7,691,069.34	-6374240.25	26
10. CRESCENDO CORP	-586887.1	-621,620.7	-727228.5	-800097.1	-868631.1	-904082.6	-1,334,943.7	1,364,402.7	-1,425,714.93	-1,472,252.52	-737705.56	2
11. DAIMAN DEVT	-3,939,101.1	-4,024,085.6	-4,051,609.7	-4,087,494.5	-4,609,589.0	-4,699,027.2	-4,465,298.3	-3,949,663.7	-4,012,332.38	-3,668,038.43	-4150623.98	21
12. DAMANSARA REALTY BHD	-6,995,266.9	-2,276,376.2	-1,066,818.3	-3,428,622.2	-3,105,776.4	-3,361,310	-669156.9	-543162.7	-822033.3	-746309.92	-2301483.29	13
13. DIJAYA CORP	-2,392,476.1	-4,148,578.5	-3,674,135.1	-3,374,704.3	-3,085,746.1	-2,230,463.9	-2,255,425.9	-2,374,098.2	-2,483,017.68	-2,611,940.75	-2863058.66	14

14. FARLIM GROUP (M)	-3,253,479.6	-2,167,748.5	-2,182,409.6	-2,278,677.6	-1,916,545.4	-1,609,776.9	-1,528,747.2	-1,160,122.8	-760731.06	-780678.22	-1763891.69	9
15. FIMA CORP BHD	-632054.7	-777899.3	-670884.7	-694994.8	-466040.2	-475834.4	-530,817.7	-572866.3	-621005.96	-606845.96	-604924.41	1
16. FOCAL AIMS	-120178.0	57581.3	-1,306,041.3	-1,244,882.0	-1,363,447.4	-1,385,952.6	-1,412,135.2	-1,417,903.9	-1,365,372.19	-1,576,533.08	-1113486.4	5
17. GOLDEN PLUS	-2,233,797.5	-1,775,770.3	-1,257,673.3	-	-987625.2	-826895.7	-761984.3	-783227.6	-822151.95	-987671.51	-1,159,644.14	6
18.GUOCOLAND (M) BHD	-4,962,564.0	-6,477,543.7	-6,295,276.2	-6,602,562.4	-6,541,602.4	-5,391,301.3	-4,226,307.7	-4,568,014.7	-4,866,561.18	-3,925,896.94	-5,385,763.05	23
19. IGB CORP	-5,718,727.9	-6,710,539.5	-7,538,965.2	-7,311,303.7	-8,349,973.3	-12,213,943.0	-10,327,231.5	-11,977,605.2	-13,991,783.58	-14,883,935.29	-9,902,400.81	27
20. IOI PROPERTIES BHD	-3,887,084.8	-3,570,459.6	-5,619,219.6	-4,320,688.6	-5,503,635.3	-5,941,569.1	-6,665,134.3	-7,106,400.7	-7,267,884.98	-7,644,481.25	-5,752,655.83	25
21.JOHOR LAND BHD	-1,407,247.5	-1,267,090.7	-1,405,575.7	-1,353,206.1	-1,323,222.8	-1,265,942.4	-1,242,848.1	-3,133,118.5	-3,321,792.30	-3,615,989.37	-1,933,603.35	12
22. KARAMBUNAI CORP	-4,156,837.0	-6,437,289.1	-6,221,731.5	-5,700,151.6	-6,014,062.1	-6,704,363.5	-6,247,807.4	-5,771,150.4	-3,871,971.29	-3,868,048.65	-5,499,341.25	24
23. LAND & GENERAL BHD	-8,617,053.4	-6,314,821.1	-3,827,918.1	-3,687,381.2	-2,574,361.7	-2,153,757.1	-4,462,944.4	-	-3,545,917.52	-1,790,331.11	-4,108,276.18	20
24. LIEN HOE CORP	-2,723,432.4	-2,250,029.6	-1,309,007.5	-1,286,763.0	-1,891,522.6	-2,037,574.7	-1,917,598.2	-1,803,460.7	-1,618,656.11	-1,002,251.79	-1,784,029.66	10
25. MAH SING GROUP BHD	-696295.9	-411415.5	-336649.3	-557,156.9	-642396.0	-635831.3	-613572.4	-1,539,382.1	-1,503,555.20	-1,756,340.15	-869259.477	3
26. MK LAND HOLDINGS BHD	-136304.7	-155218.3	-129367.7	-1,629,666.5	-2,487,673.7	-3,002,115.1	-4,826,049.0	-5,434,361.2	-5,661,353.38	-5,797,986.98	-2926009.656	16
27.MUI PROPERTIES BHD	-4,606,847.0	-4,353,567.9	-4,060,412.6	-4,598,708.5	-4,397,621.6	-5,098,471.1	-4,571,613.7	-1,692,576.3	-1,575,467.44	-1,465,272.99	-3,642,055.91	19
TOTAL	-78873133.5	-73,837,281.7	-71,466,579.3	-76,895,163.6	-84,089,565.3	-89,928,197.7	-88,757,953.9	-84,135,935.8	-86,244,404.18	-90124974.73	-83288683.43	

Table 2: WACC of Malaysia property companies (1997-2006)

COMPANY	1997 (%)	1998 (%)	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	2004 (%)	2005 (%)	2006 (%)	AVERAGE	RANK
1. A&M REALTY	3.4012	3.2978	3.1359	3.4589	4.2168	4.1255	3.7715	3.8199	4.0436	4.2485	3.7519	2
2. AMDB BHD	8.4407	5.7245	5.0249	5.0503	5.0783	4.8237	4.5489	4.5927	4.7767	5.0276	5.3088	27
3. ASAS DUNIA BHD	2.5927	3.0364	3.1886	3.4523	4.2529	4.1335	4.7334	3.8369	4.0550	4.2683	3.755	3
4. ASIAN PACIFIC HOLDING	3.7194	4.6928	4.3169	4.5431	5.3096	5.2145	4.8413	4.9875	5.1950	5.3180	4.8138	21
5. BANDAR RAYA DEVT	3.1119	2.9899	2.9033	3.2665	4.2723	4.1257	3.8513	3.9581	4.3102	4.6145	3.7403	1
6. BCB BHD	6.7315	5.8108	5.3718	5.1153	4.4852	4.5656	4.7549	4.6789	4.5419	3.1571	4.9213	24
7. BOLTON BHD	4.5811	4.0037	3.7576	3.9490	4.5385	4.6538	4.2731	4.1633	-	5.1022	4.3358	7
8.BOUSTEAD PROPERTIES	5.1823	4.8526	4.7444	4.9347	4.4021	4.4406	4.5608	4.4843	3.2025	4.4163	4.5220	14
9. COUNTRY HEIGHTS	5.8926	5.3510	4.8836	4.9650	4.763	5.3118	5.0573	5.0272	4.9953	5.3642	5.1611	25
10. CRESCENDO CORP	3.9278	3.8251	3.9097	3.9463	4.1327	4.1092	4.3456	4.3118	4.2584	4.3660	4.1132	5
11. DAIMAN DEVT	4.1656	4.1430	4.098	4.098	4.098	4.098	4.098	4.098	4.098	4.098	4.1092	4
12. DAMANSARA REALTY BHD	5.6563	5.2122	4.8823	4.0335	4.3820	4.3163	4.1229	4.1317	4.2370	3.7998	4.4774	13
13. DIJAYA CORP	5.9449	5.1696	4.8589	4.7309	4.5097	4.3847	4.2392	4.1744	4.1558	4.1702	4.6338	18
14. FARLIM GROUP (M)	6.4741	5.6804	5.099	5.1410	4.8808	4.9888	5.2634	4.8782	4.9299	4.8586	5.2194	26
15. FIMA CORP BHD	5.0339	5.1805	4.2181	4.8854	4.1793	4.0952	4.2014	4.1860	4.1172	3.5365	4.3633	9
16. FOCAL AIMS	6.3187	6.0047	4.7344	4.4096	4.3584	4.3213	4.3115	4.2956	4.2673	4.1357	4.7157	19
17. GOLDEN PLUS	4.8383	4.7824	4.1066	-	4.4924	4.4973	4.1313	4.1271	4.2682	4.6266	4.4300	12
18.GUOCOLAND (M) BHD	4.5684	4.7872	4.4505	4.7607	5.0423	4.8104	4.3716	4.2599	4.5472	4.4419	4.6040	16
19. IGB CORP	3.8646	4.2622	4.0351	4.1359	4.7512	4.672	4.0824	4.1208	4.4232	4.7048	4.3052	6
20. IOI PROPERTIES BHD	4.8973	4.4241	6.0422	4.2923	3.9522	4.0287	4.242	4.2162	4.0886	3.975	4.4158	11
21.JOHOR LAND BHD	5.5307	4.4996	4.5827	4.5009	4.4417	4.3816	4.3408	4.8366	4.9442	5.167	4.7225	20
22. KARAMBUNAI CORP	4.6010	4.9273	4.6908	4.2359	4.7196	4.5016	4.3932	4.4418	4.5436	4.6963	4.5751	15
23. LAND & GENERAL BHD	6.1475	5.4527	3.3116	4.9907	5.1934	5.0269	4.6855	5.0674	4.8801	4.4096	4.9165	23
24. LIEN HOE CORP	5.7031	5.3495	4.7919	4.8625	4.9294	4.8005	4.5834	4.5999	4.0756	4.5959	4.8291	22
25. MAH SING GROUP BHD	3.751	4.0602	3.8866	4.6532	5.1738	4.5461	4.2740	4.2742	4.3738	4.5618	4.3554	8
26. MK LAND HOLDINGS BHD	4.4868	4.3353	3.9306	4.5583	4.4506	5.1374	4.4381	4.3189	4.2325	4.1689	4.4057	10
27.MUI PROPERTIES BHD	5.4356	5.0184	4.1817	4.6591	4.8769	4.7213	4.2911	4.3302	4.0823	4.5994	4.6196	17
AVERAGE	4.9999	4.6990	4.3384	4.4472	4.5882	4.5493	4.4002	4.3784	4.3708	4.4603	4.5230	