The Analysis of Performance of Newly Privatized State-Owned Enterprises: A Study in Malaysia

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ABSTRACT

Privatization is the transferring of ownership from state to private ownership expecting that the lackluster and unsatisfactory performance of state-owned enterprises can be improved. This study was focuses on the evaluation of operating and financial performances of the privatized firms which issued shares in capital market. The research was carried out by investigating the performance of the firms after privatization, and evaluating the performance of initial public offerings (IPOs) on the short-run and the long-run. The performance were studied through statistical analysis of the dependency of several independent variables namely performance proxies i.e. soft budget constraint, fraction of share sold, share allocated to employee and top management team change on dependent variables i.e. return on sales (ROS), return on assets (ROA) and return on equity (ROE), real sale and net income. Several factors associated with the variation in initial returns such as percentage of share sold, uncertainty about the future firm value, market index fluctuation prior to the issue, size of firm and the value of issue on the first day of trading were analyzed statistically to evaluate the short-run and the long-run performances. The results showed that the performance proxies ROS, ROA and ROE deteriorated and real sales and net profit of the firms improved upon privatization. The factors that are responsible to the performance changes differ

depending on the performance proxies. The factors responsible for ROS are the short-term debt to total asset and the share allocated to employee, the fraction of share sold and the share allocated to employee are responsible for ROA, while the ROE is affected by the top management team change only. The real sale is influenced by the fraction of share sold and the share allocated to employee, while net profit is not affected by any factor considered in this study.

Keywords: Privatization

I. Introduction

Privatization as a policy of transferring ownership from state to private or public assets has been one of the most popular economic policy for the last twenty five years. Margaret Thatcher's conservative government which came to rule United Kingdom in 1979 is regarded as the pioneer of the modern privatization programs. The policy has been adopted by many countries in which governments from various political backgrounds enthusiastically sold state-owned enterprises (SOEs, hereafter) to private investors expecting a significant improvement of the companies. This privatization policy has transformed the role of the state in the economy in almost every country in every continent from industrialized nations such as the United Kingdom, France, United States, and Japan to emerging countries such as Malaysia, Thailand, Indonesia, and Philippine in Asia, as well as Chile, Brazil, and Mexico in Latin America.

Malaysia as one of the leading economy from emerging market has embrace privatization since early 1980. The generally lackluster performance and unsatisfactory of state-owned enterprises together with economic crisis in the form of recession required the change in the policy. The then Malaysia Prime Minister Mahathir Mohamad first announced his government's privatization policy in 1983. Issuing shares in capital market is one popular mode of privatization in Malaysia which usually involves very large companies such as Malaysia Airlines, Telekom Malaysia, TV3, and Proton amongst others. These companies play very important role in Bursa Malaysia after privatization (Jomo, 1995b).

Now after more than two decades of privatization policy in many countries in the world, the impacts of the policy have been a fertile ground to study. Many studies were conducted in western countries and very few studies from emerging country like Malaysia. For example, Galal, Jones, Tandon and Vogelsang (1994) using case study approach reported an average net welfare gains in 11 of 12 privatized companies considered in their study which equal on average 26 percent as compared to the sales of the firm before privatized. Using large sample from many countries and many industries, Megginson, Nash and van Randenborgh (1994), Boubakri and Cosset (1998), and D'Sousa and Megginson (1999) report that on average the performance of SOEs is improving upon privatization. On the other hand, Harper (2001), using a sample of Czech firms, reports that the efficiency and the profitability of the firms decrease immediately following privatization.

Eckel, Eckel and Singal (1997) reports that the performance of the British Airlines improves upon privatization. Ramamurti (1997) and La Porta and Lopez-de-Silanes (1999), using a single industry sample, also report a favorable performance upon privatization. On the other hand, Martin and Parker (1995) find that only less than half British firms they studied perform better after being privatized. Newberry and Pollit (1997) conclude that British Electricity Company's (CEGB) restructuring and privatization was in fact worthwhile, however, it could have been better implemented taking into account of public's welfare. Privatization program in some transition countries, primarily Russia is considered failed (Nellis, 1999). Privatization through mass and rapid schemes as in these transition economies of former Soviet Union and Central Easter European countries turned over assets to people who are lacking incentives, skills, and resources to manage

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the firm. In this institutional vacuum, privatization can and has led to stagnation rather than to better financial results and increased efficiency.

Privatization emulates debates because theoretically it is a good policy to improve the firm performance which is lacking under state ownership. However, empirical evidences show mixed results. This indicates that evidences are inconclusive and therefore more researches on privatization are warranted and more empirical results are need to better understand and explain the privatization phenomenon.

The aim of this study is to examine the effect of privatization on the financial and operating performances of state owned enterprises (SOE) and to evaluate the determinants that possibly responsible for the variation on the performance. This study contributes in many aspects. Firstly, this study employs a single country data which is more homogeneous that lead to more meaningful conclusion. Secondly, this study focuses on a soft budget constraint theory introduced by Kornai (1980) which is used to assess the phenomenon of unsatisfactory performances of many state-owned companies in formerly planned economies of Eastern European Countries.

II. Theory Related to Privatization

Criticism of the existence of state-owned enterprises (SOEs) is based on theory. Most prominent theories that support privatization are notably property right, public choice and principal-agent theory. From point of view of property rights literatures, when a company has no clear residual claimant, no individual or group with a clearly specified right to claim any residual benefits or surplus left after other claims are met, the company will be less efficient (Alchian & Demsetz, 1972; Demsetz, 1988 and Grossman & Hart, 1986). Since no one clearly benefit from SOE's efficient operation, no one will be strongly motivated to hold management accountable for performance, hence agency problems will not be reduced. Thus, the property right analysis of public ownership leads to the conclusion that public enterprises are less economically efficient than private enterprises.

Other school of thought that shares a view of weaknesses of public ownership and hence providing the rational for privatization is public choice theory. Public choice theory suggests that public managers, bureaucrats and politicians will use their control of SOEs to pursue their own interest, rather than the state firm's efficiency (Niskanen, 1971). Privatization allows profit-maximizing entrepreneurs to take the place of size-maximizing-bureaucrats and vote-maximizing politicians. From the vantage point of the management of public enterprise, privatization alters the firm's criteria of success. Under public ownership which leads to large subsidies and other concessions, it is more worthwhile to lobby minister and key public official for fund than the diligent search for ways of reducing costs. On the other hand, privatization, by freeing enterprises from the burden of political inference and non-market criteria, limits politicians' ability to redirect the enterprise's activities in a way that promote their personal agenda or yield to a short-term political pressure at the expense of market efficiency, clarifies the objectives of the enterprise, and lead to enhanced economic performance.

Within the agency view, there are two perspectives on the causes of the existence of poor incentives for efficiency. The first one termed managerial perspective, states that monitoring is poor in publicly owned firms and therefore the incentives for efficiency are low powered (Vickers & Yarrow, 1989). The second

one, the political perspective claims that political interference is what distorts the objectives and the constraints facing the public managers (Shleifer & Vishny, 1996). The reason that the public managers are poorly monitored because the firms are not traded in capital market, as is the case of any private firms. This fact eliminates the threat of take-over when the firms perform poorly. Additionally, shareholders cannot observe and influence the performance of the enterprises (Yarrow, 1986).

The political perspective argues that distortions in both the objective function that managers seek to maximize (Shapiro and Willig, 1990) and the constraints they face, through the so-called soft budget constraints problem (Kornai, 1980), result in lower efficiency under public ownership. Public managers, who tend to report to a politician and pursue their political careers, incorporate to the objective function aspects related to maximization of employment at the cost of efficiency, and political prestige (the empire building hypothesis). The reason why managers are able to do that without facing the threat of bankruptcy is related to the second distortion, the soft budget constraint. In any situation in which the firms have engaged in unwise investments, it will be in the interest of the government to bail the firm out using the public budget. The rational for this relies on the fact that the bankruptcy of the firm would have a high political cost, whose burden would be distributed within a well-defined political group, like unions. On the other hand, the cost of the bailout can be spread over the taxpayers, a less organized, larger group in society, with diversified interests and preferences. The threat of bankruptcy is non-credible under public ownership because the political loss involved in closing a publicly owned company is larger than the political cost of using taxpayer money to bail it out. This is the essence of this research that is to apply the soft budget constraints to assess the privatization program in Malaysia.

III. Sample and Methodology

A. Sample

This research is an empirical study in nature. The subject of the research is state-owned enterprises privatized through public offering in Malaysia capital market or Bursa Malaysia. Unit of analysis of the study is individual firm. The sample represents the whole population of privatized SOEs that are fully and partially privatized through share issue privatization (SIP). Choosing this sample is not without reason. The firms that are privatized in this way continue to generate post-issue financial and accounting data that are directly comparable to pre-divestiture data. There are 41 state-owned enterprises listing their stocks on the Main Board of Bursa Malaysia. These firms were privatized from 1983 to 2001.

As discussed previously, this study uses two steps of analysis. The first step is comparing the firm performance pre- and post-privatization and the second step of analysis is examining the IPOs performance in the short-run and in the long-run. The first step which compares the performance before and after privatization employing Wilcoxon test, 32 firms are managed to include in the analysis. When regression analysis is used to examine factors that responsible for the variation in

firm performance, data from two firms are extremely outliers and hence, only 30 firms are included in regression analysis.

B. The Methodology

Analysis on Before and After Privatization Performance

Comparing firms' performance before and after privatization is used to answer the first objective. To measure the firm performance, several proxies are used. These proxies are adopted from Megginson, Nash and Randenborgh's (1994) with some adjustments because not all proxies used in Megginson, Nash, and van Randenborgh (1994) is relevant to the Malaysia setting. These similar proxies for performance measurements with various adjustments have also been used in several previous studies such as Boubakri and Cosset (1998), D'Sousa and Megginson (1999), Harper (2001) and (2002), Omran (2003), and the latest D'Sousa, Megginson and Nash (2005) among others.

In this study, employment proxy is excluded because in implementing its privatization policy, Malaysian government does not allow layoff in the privatization program. Hence, it really makes no sense to include this proxy into the analysis. Other proxies such as investment and dividend are excluded due to unavailability of data. Therefore, only profitability, real sales, and leverage are adopted from Megginson et al. (1994). In addition, to add more proxies for firm performance real net income and liquidity are adopted from Omran (2003).

To analyze the performance change between before and after privatization, the procedures are as follows. First of all, proxy variables for every company are computed for a seven-year period: three years before through three years after privatization. The year of privatization is excluded from analysis because it is the year of consolidation. Then, the average of three years pre- and post-privatization of each proxy is computed. Having computed the pre- and post-privatization means, the non-parametric Wilcoxon signed-rank test is used to test for significant changes in the variables. The standardized test statistic Z is used for conclusions for the significance of the study. Moreover, a proportion test is used to determine whether the proportion (p) of firms experiencing changes in a given direction is greater than would be expected by chance (typically testing whether $p = 0,5$).

As discussed earlier, in measuring of financial performance much attention is paid on profit rather than revenue as the measure of performance of a firm. This is consistent with economists who tend to think of profit as the measure of performance to best capture both the creativity (the revenue side) and the discipline (the cost side) required for survival in a market economy. ROS, ROA, and ROE reflect how firms are capable of generating operating income from sale (revenue) produced. Aside from the profitability, to get more complete picture of firm performance, liquidity ratios need to be added in the analysis because of its unique relationship with profitability. As known there is a tradeoff between the profitability and the liquidity; pursuing the profitability on one hand, sacrificing the liquidity on the other hand and vice versa. Thus by including liquidity in the analysis will give more complete picture about management policy on how to balance the two policies. In addition, real net income (NI) proxy is used to capture the ability of management to operate efficiently and the leverage proxy is to capture management policy on debt. The proxy and measurement of the variables are summarized in the following table.

Table 1
Summary of Proxy for Performance Measurements

Indicator	Proxy
	Return on Sales (ROS) = Net Income : Sales
Profitability	Return on Assets (ROA) = Net Income : Total Assets
	Return on Equity (ROE) = Net Income : Equity
Liquidity	Current Ratio = Current Assets : Current Liability
Real Output	Sales (RS) = Nominal Sales x Consumer Price Index
Income	Real Net Income = Income after Taxes x CPI
Leverage	Total Debt to Total Assets:
	(TDTA) = Total Debt : Total Assets
	Long-term Debt to Equity
	(LDE) = Long-term Debt : Equity

On Determinants of Post-privatization Performance

To investigate factors that could explain the variation in firms' performance due to privatization, five models are developed. Based on the previous studies, the relationships between the dependent variables comprising of the performance proxies and the independent variables are linear in parameters. Hence, the models take the form of multivariate linear regression. The dependent variables consist of ROS, ROA, ROE, real output (RS) and real net income (NI) while the independent variables are STDA, LTDA, SOLD, EMPL and TOPMGT.

The independent variables are regressed on these performance measures and form multivariate regression models as follows:

$$P = \alpha - \beta_1 SDTA - \beta_2 LDTA + \beta_3 SOLD + \beta_4 EMPL + \beta_5 TOPMGT + e$$

where:
P = Average three year post-privatization performance minus average three year pre-privatization performance
SLTA = Short-term Liabilities : Total Assets
LLTA = Long-term Liabilities : Total Assets
SOLD = Percentage of equity sold by government.
EMPL = Share allocated on employee of the firm upon privatization.
TOPMGT = A dummy variable that takes the value of 1 if there was change in key top management like CEOs and the managing director and 0 otherwise.

IV. Result

A. Pre- and Post-Privatization Changes

A specific objective of a privatization is to improve firm profitability. It is widely observed in many empirical researches, due to private-sector managements' greater concern to profit compared to that of governments, transferring the ownership from public to the private leads to a greater profitability. Based on the empirical evidences from other countries with different economic setting with Malaysia, this study aims to examine the change in firm operating performance between before and after being privatized for Malaysian state-owned enterprises. Accordingly, return on sales (ROS), return on assets (ROA), and return on equity (ROE) as proxies for profitability, real sales (RS) as proxy for outputs and current ratio (CR) as proxy for liquidity, net income (NI) and leverage comprising of total debts to total assets (TDTA) and long-term debts to total equity (LDTE) are used to measure firm performance. The results of the test of the performance change between before and after privatization are presented in Table 2.

Table 2
Test for Significance Change in Operating Performance for the Sample of 32 Privatized SOEs

Variable	N	Mean Before (Med)	Mean After (Med)	Mean Change (Med)	Z-Statistic for Difference in Median (After-Before)	Proportion of Firms that Performed as Predicted (%)	Z-Statistic for Significance of Proportion Change
Profitability							
Return on Sales (%)	32	16.2363 (15.5550)	15.3072 (15.6700)	-0.9297 (.1850)	-0.168	50	0.000
Return on Assets (%)	32	7.1331 (5.9800)	6.2772 (5.4000)	-0.8544 (-.2700)	-0.280	44	-0.679
Return on Equity (%)	32	18.5422 (12.4600)	5.5175 (11.2100)	-13.0234 (-2.7850)	-1.683*	38	-1.358
Liquidity							
Current Ratio	32	1.6449 (1.4200)	1.9885 (1.3950)	0.3436 (0.1233)	-0.963	59	-1.018
Output							
Real Sales	32	407024.8 (100636.1)	847117.1 (269520.4)	440092.3 (84566.34)	-4.656***	91	4.637***
Profit							
Real Net Profit	32	66156.6 (16408.09)	149002.2 (32385.51)	82845.6 (14766.62)	-2.281**	69	2.150**
Leverage							
Total debt/Total Assets	32	0.4937 (0.4530)	0.4682 (0.4093)	-0.0255 (-0.0458)	-0.870	63	1.471
Long-term debt/Equity	32	0.8646 (0.2566)	0.5539 (0.2604)	-0.3106 (-0.0112)	-1.234	59	1.018

Significant: *** at 1%, ** at 5% and * at 10%

As Table 2 illustrates, it clearly shows that no one of profitability ratios improve after divestiture. For instance, the mean (median) return on sale falls from 16.24 percent (15.56 percent) to 15.31 percent (15.67 percent), return on assets from 7.13 percent (5.98 percent) to 6.28 percent (5.40 percent), and return to equity from (18.54 percent (12.46 percent) to 5.52 percent (11.21 percent). Wilcoxon test reveals that return on sales and return on assets are statistically insignificant but return on equity with Z-value of -1.68 is statistically significant at the 10 percent level. To check the robustness of the results, Proportion test to determine whether the proportion (p) of firms experiencing changes in a given direction is greater than would be expected by chance is conducted. The results show that the proportion change in the expected direction of return on sale (ROS) is 50 percent meaning that only 50 percent companies increase in ROS and the other 50 percent companies experienced a decrease in ROS. Similarly, only 44 percent companies increase in return on assets (ROA) and 38 percent companies increase in return on equity (ROE). All the increase in ROS, ROA and ROE are statistically insignificant at the conventional level.

As known, improving profitability in one hand may sacrifice liquidity on the other hand and vice versa. The tradeoff between profitability and liquidity makes the profitability and the liquidity variables are worth examined to provide a more complete picture of analysis. Thus, the analysis of the liquidity of firm upon privatization will complement the analysis of profitability. This is the reason why liquidity variable is included in the analysis. The result of the liquidity test is also presented in Table 2. As Table 2 indicates, the mean (median) current ratio increase from 1.6449 (1.4200) to 1.9885 (1.3950) with Z-statistic of -0.963 which is statistically insignificant. In addition, Proportion test confirms the results and reveals that only 59 percent of companies' current ratios change in expected direction with Z-value of -0.937 which is also insignificant. It indicates that only 59 percent of companies showing the decrease in current ratio. The tradeoff between profitability and liquidity indicate that the decrease in current ratio is needed in attempt to increase profitability.

Other proxy for firm performance is output or revenue generated from company operation. Outputs are computed is represented by real sale. The sale is deflated with the consumer price index to negate the effect of inflation or to produce a constant-ringgit sale. The test result of the change in output between before and after privatization is presented in Table 2 as well. As Table 2 demonstrates, there is a strong improvement in real sale upon privatization. The mean (median) real sale jumps from RM407,024 (RM100,636) to RM847,117 (RM269,520) with Z-value of -4.90 which is significant at the 1 percent level. The expected proportion change in real sale is 97 percent with Z-value of 21.71 percent which is statistically significant at the 1 percent level.

The substantial increase in real sales is followed by the increase in net income. This shows that firms are possibly able to maintain their costs in such away and hence, the increase in the real sales is followed by the increase in net income. The mean (median) net income jump from RM66,156.6 (RM16,408.09) to RM149,002.2 (RM32,385.51) with Z-value of 3.336 which is significant at the 1 percent level. The Proportion test also is consistently yield comparable result with the expected proportion change in net income is 81 percent with Z-value of 5.69 which is significant at the 1 percent level.

Upon privatization new management would have an access to equity markets and thus the new management will have more incentive to diversify the sources of

the capital in pursuing optimal capital structure. To measure the change in leverage, total debts to total assets ratio and long-term debts to equity ratio are used as the proxies. The result of the test of change in leverage is presented in Table 2. It is clearly shown in Table 2 that the mean (median) total debts to total assets fall from 0.4937(0.4530) to 0.4682 (0.4093) with Z-value of -0.87 which is statistically insignificant. To add robustness of the analysis, Proportion test is employed. The results show that the expected proportion of the decrease in total debt to total assets is 63 percent with Z-value of 1.710 which is also insignificant. In addition, the mean (median) of long-term debt to equity also fall from 0.8646 (0.2566) to 0.5539 (0.2604) with Z-value of -1.234 which is insignificant. The Proportion test conducted also tell that the expected proportion fall in the long-term to total equity is 59 percent with Z-value of 1.124 which is also statistically insignificant.

B. Determinants of Performance Changes

There are several factors identified in the literature that are possibly related to the performance changes between before and after privatization. Those factors consist of short-term and long-term debt assumed before the firm privatized, debt and percentage of equity sold at initial offer when the firms are privatized, changes in top management team in the company around the time of privatization, and shares allocated to employees at the offer. These factors are regressed on the several proxies of performance consisting of returns on sales (ROS), returns on assets (ROA), returns on equity (ROE), real sales (RS) and real net income (NI). The results of the test for the five regressions are presented in Table 3.

As Table 3 illustrates, two out of the five independent variables of Regression A1 are significant at the 10 percent level namely, short-term debts to total assets (STDA) and natural log of shares allocated to employees (LN_EMPL). The other three independent variables are statistically insignificant. Taken together the independent variables of Regression A1 are able to explain 25.90 percent (R^2 = 0.2590) of the variation in return on sales (ROS) but when adjusted, the adj-R^2 decreases to only 0.1046. However, the low R^2 and adj-R^2 are common results of similar models from previous studies conducted in emerging market.

When return on assets (ROA) is issued as the dependent variable, Regression A2 has two significant variables i.e., percentage of equity sold during a privatization (SOLD) and LN_EMPL which are significant at 10 percent and 5 percent respectively. Taken together the independent variables have explanatory power to the variation in return on assets (ROA) as much as 24.15 percent (R^2 = 0.2415) and adj-R^2 of 0.0834. Regression A3 with dependent variable of return on equity has only one significant independent variable i.e. change in key top management (TOPMGT). The independent variables taken together could explain the variation in return of equity (ROE) as much as 30.25 percent (R^2 = 0.3025) and adj-R^2 of 0.1572. Furthermore, independent variables SOLD and LN_EMPL of Regression A4 with dependent variable real sales (RS) is statistically significant at 1 percent level and 5 percent level respectively. The explanatory power of the independent variables for this regression is 31.70 percent (R^2 = 0.3170) and Adj-R^2 of 0.1747. Lastly, Regression A5 with dependent variable net income (NI) has no significant independent variable in spite the fact that the model has explanatory power as much as 23.60 (R^2 = 0.2360) and adj-R^2 of 0.0768. It indicates that all the independent variables of this regression have no effect on the variation on the net income.

Table 3

The Empirical Results of Regression Analysis on the sample of 30 privatized firms

	ROS[a]	t	ROA[a]	t	ROE[a]	t	RS[a]	t	NI[a]	
Constant	-44.27	-2.26**	-19.45	-2.16**	-19.50	-1.29	0.57	0.16	7.75	3.47***
SDTA	21.30	1.76*	3.44	0.67	9.18	0.81	2.32	1.07	1.98	1.11
LDTA	9.91	0.95	1.59	0.35	-10.33	-0.91	0.34	0.20	2.34	1.46
SOLD	-0.59	-1.32	-0.27	-2.01*	-0.42	-1.40	-0.07	-2.40**	0.02	0.04
LN_EMPL	3.33	1.77*	1.63	2.30**	1.55	1.32	0.78	3.64***	0.18	0.93
TOPMGT	-0.33	-0.06	-0.75	-0.37	7.72	2.49**	0.18	0.24	-0.57	-0.97
R^2	0.2590		0.2415		0.3025		0.3170		0.2360	
Adj R^2	0.1046		0.0834		0.1572		0.1747		0.0768	
F value	1.6778		1.5282		2.0820		2.2273		1.4823	
Prob F	0.1783		0.2185		0.1028		0.0845		0.2325	

Significant: *** at 1%, ** Significant at 5%, and * Significant at 10%.

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V. Discussion

A. Pre- and Post-Privatization Changes

Various theories, primarily property right, public choice and agency theories, amongst others, implicitly predict that privatization will promote efficiency in the company and hence the company will operate more productively and efficiently. In privatization, a government surrenders a portion of its ownership to private sector investors. Together with the transfer of ownership, the governments relinquish some control as well. By listing shares in an exchange, the managers of the privatized firms are subjected to financial market regulations and to the monitoring and discipline of profit oriented investors. Further, firms' objectives and managers' incentives shift away from those which are imposed by politicians toward those which aim at maximizing efficiency and share holders' wealth. Finally, entrepreneurial opportunities will rise as the firms possess more freedom in decision making.

In actuality, empirical studies do not always produce results that are in accordance with the prediction by theories. This study is one of which that find the inconsistency. Performance proxy such as return on sale (ROS), return on assets (ROA), and return on equity (ROE) as proxies for profitability to capture the firms' performance should have been better after privatization. However, the results prove the opposite. The average ROS, ROA and ROE show a decreasing tendency, however, only ROE is statistically significant. The results are inconsistent with three previous comparable studies of Megginson, Nash and Randenborgh (1994), Boubakri and Cosset (1998), and D'Souza and Megginson (1999) amongst others. Using a cross-countries and cross-industries sample of 61 companies from 18 countries, Megginson, Nash, and Randenborgh (1994) find that all three profitability ratios increased after being privatized. The increase in ROS and ROA were statistically significant both using Wilcoxon test and Proportional test but the increase in ROE was statistically insignificant for both tests. Another study employing similar methodology using a sample of 79 firms from 21 countries was conducted by Boubakri and Cosset (1998) who found that all three profitability ratios increased after privatization though only ROS and ROA were statistically significant. When Proportion test was employed, ROS was statistically significant whilst ROA and ROE were statistically insignificant. Furthermore, using more samples of 85 companies from 28 industrialized countries, D'Souza and Megginson (1999) found similar results with the two previous studies. They found that the three profitability proxies increased after privatization and only two of which (ROS and ROA) were statistically significant in term of Wilcoxon and Proportional test. Another study using a single country sample is conducted by Omran (2003) in Turkey. The author found strongly significant increase in ROA and ROE and moderately significant increase in ROS.

In contrast to those four studies, Harper (2001)'s finding is consistent with this study in term of decrease in profitability upon privatization. Harper (2001), using 178 privatized firms from Czech Republic with pre- (1989-91) and post- (1993-94) privatization periods, found that ROS and ROA fell after privatization. Both proxies were strongly significant at the 1% level according to both Wilcoxon and Proportional test. In the subsequent study, Harper (2002), based on samples of 554 privatized firms in Czech Republic, found a significant increase in ROS but insignificant decrease in ROA. It seems that cross-country and cross-industry studies involve a sample from several countries and several industries well document that profitability

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increases after privatization. On the other hand, a single-country and cross-industry tend to reveal mixed results as is this study documents.

A straightway explanation of the results is that privatization does not always bring improvements to the company. A more plausible explanation for the inconsistency of this study with the theories and the discrepancy with other finding from previous studies is suspected to micro elements surrounding the privatization implementation. In Malaysia, most of the privatizations were preceded by a restructuring either minor or major one prior to the privatization of a company. In another words, the government prepared the company before the privatization in order to get more benefit from it. For instance, one or two years prior to privatization the firms were corporatized, most of the member of board of directors, chief executive directors or managing directors of the privatized companies are replaced with the new ones though the new ones were usually coming from within the companies. This activity is one of several measures taken aimed toward better privatizations. It seems that the government makes better preparation for privatizations. The refreshed board or management teams, of course, are intended to restructure the companies (mostly minor restructuring) in order to make the companies more attractive in the eyes of would-be investors. Subsequently, this measure makes the companies more saleable. Due to the restructuring prior to the privatization implementation, the performance of the company would improve even before the privatization occurs. Therefore, after being privatized those companies have little space for improvement and it is likely several of them even deteriorate. This is one logical explanation why privatization seemingly does not improve the performance of privatized companies or in another words, the privatized companies performances tends to deteriorate on average after privatization.

The inconsistency of findings from several studies specifically related to the profitability changes upon privatization is quite difficult to reconcile. Many factors could contribute to the inconsistencies of the results of different studies with different samples from different countries such as; market structure, macroeconomics policy, government political persuasion, etc. which are beyond the scope of this study.

From the theory stand point, it is confirmed that privatization will improve firm performance through several mechanisms discussed in the literatures reviews. However, in the empirical works, the results could be different. That is why Laffont and Tyrole (1993) said that theory alone is unlikely to be conclusive in analyzing the tradeoffs between government and private ownership in promoting efficiency. In sum, the arguments given by some theories pertinent to privatization particularly property, public choice and agency theories amongst others that privatization will improve firm performance are not supported by this study.

The second proxy for firm performance examined in this study is liquidity. As discussed earlier, liquidity is strongly related to profitability. There is a tradeoff between liquidity and profitability. Improving profitability in one hand may sacrifice liquidity on the other and vice versa. In examining liquidity, there are two possible ratios that could be used as proxies such as current ratio and quick ratio. However, due to the unavailability of quick ratio data, only current ratio is managed to be included in this analysis.

The results of the study reveal that the average current ratio increases after privatization but is statistically insignificant and the proportion of companies experiencing the increase is only 59 percent which is also statistically insignificant. This result is contradictory with Omran (2002) who finds a significant increase in liquidity for a sample of 69 privatized state-owned companies in Egypt. However,

based on the discussion of the tradeoffs between profitability and liquidity, the increase in liquidity in this case a current ratio is in line with the decrease in profitability. Therefore, this evidence is consistent with the proposition saying that there are tradeoffs between probability and liquidity. Hence, the increase in liquidity is, at the same time, followed by the increase in profitability supporting the notion that if profitability is pursued, the liquidity should be sacrificed and vice versa. It can be argued that the privatized firms in Malaysia pursue a conservative policy in managing cash which leads to lower the profitability.

Although Megginson, Nash and Randenborgh (1994) could not predict what happen with output of firm upon privatization, it is reasonable to expect that firm's revenues will increase due to more freedom for management to manage the company. With that freedom, the management will put serious effort to success, one of which is by increasing revenue. On the other hand, it is also reasonable to expect firm's revenue to decrease due to the termination of support form the government specifically for state-owned companies operating in command economies such as former Eastern European Countries (EEC).

Though this study reveals that profitability and liquidity do not improve upon privatization, however, it is expected that privatization possibly will increase output of the firms. Unsurprisingly, non-parametric test and proportion test show strong significant increase in real sale. This finding supports the prediction that output will increase following privatization. The result is consistent with Megginson, Nash and Randenborgh (1994), Boubakri and Cosset (1998), and D'Souza and Megginson (1999). In contrast, this result is in contradiction with Omran (2002) who find insignificant decrease in real sale. Furthermore, this finding is also inconsistent with the argument raised by Boycko, Shleifer and Vishny (1996) that effective privatization will lead to reduction in output since the government can no longer entice management (through subsidies) to maintain inefficiently high output sales.

The discrepancy in the finding between this study and that of the Boycko, Shleifer and Vishny (1996) is clear cut and can be explained as follows. Boycko, Shleifer and Vishny (1996) research's setting is in transition economies of Eastern Europe which the economies are under government control. Government determines output while the management of the companies just act like a production line in modern corporations. The managers do not worry about the budget because the governments will grants subsidies to support the policy. This policy has been in existence for several decades and is widespread all over transition economies of Central and Eastern European Countries. Therefore, when the government transfer the ownership to private sector through privatization, the governments also terminate their supports. If there are no more supports from the governments, the privatized companies' output will certainly decrease at least in the short-run because the managements are not accustomed to operate in such a condition. It takes a longer time for the companies to adjust to that condition and thus, upon privatization the output will decrease as suggested by Boycko, Shleifer and Vishny (1996).

In contrast, Malaysia economy more resembles free economy of the western countries. Though subsidies or soft budget are common practises but it is not as severe as that of transition economies of Central and Eastern European countries. Thus, it is highly likely that the result of privatization performance in term of output between privatized firms in transition economies and in more liberal economies such as Malaysia will produce different or even contradictory findings as is the case of this study.

The strong improvement in real sale is followed by strong improvement in real net income.   The change in real net income is strongly significant and 83 percent of the samples experience improvement in net income which is statistically significant. This finding supports Omran (2003) who finds an increase in real net income that is significant at the 5 percent level.   Net income is computed by subtracting all expenses including taxes from total revenues generated from the company operation indicating that net income represents not only the ability for firms to increase output but also the capability of firms to maintain low expenses or to being effective cost producers.   Therefore, the improvement of net income upon privatization may be the reflection of successful efforts by management to increase output in one hand and to suppress costs on the other hand.   Whichever it is, at least the privatization program to some extent contributes to those changes.   In short, to some extent the result lends support to the notion that privatization improves privatized firms performance.

The average debt to total assets ratio decreases upon privatization indicating that those firms improve their leverage ceteris paribus.   The average decrease in debt to total assets is relatively small in absolute value and the proportion of companies experience the decrease is also relatively small i.e. only 63 percent. Therefore, the improvement of debt to total assets ratio and the proportion test are statistically insignificant.   The results are in line with Megginson, Nash and Randenborgh (1994), Boubakri and Cosset (1999), D'Souza (1999), and Omran (2002) who also find that debt to total assets ratios decrease upon privatization but their findings are statistically significant.   On the other proxy for leverage, long-term debt to equity ratio decreases markedly as much as 31.06 percent from 86.48 percent to 55.39 percent and the proportion of firms experiencing the decrease in long-term debt to equity ratio is 59 percent but both figures are statistically insignificant.   The result is also in line with Megginson, Nash and Randenborgh (1994), Boubakri and Cosset (1999) and Omran (2002) but again their findings are statistically significant.

B. Factors Affecting Privatization Performance Changes

As described in Chapter 5, the privatization model is grouped into two.   The grouping is distinguished by the way the dependent variables are computed.   In the first group, the dependent variables are calculated by subtracting average three years pre-privatization performance from three years post-privatization performance.   The other group use dependent variables that are calculated by averaging the three year post-privatization performance.   Further, each group consists of five multiple regressions whereby every regression has different dependent variables.

The significant independent variables vary across regressions for each model. When return on sales (ROS) is used as dependent variable, there are two independent variables that are significant namely, the short-run debts to total assets (SDTA) and the employee share ownership (EMPL).

The significant of SDTA as an independent variable to capture soft budget in general or subsidy in particular supports the proposition that, to some extent, soft budget constraint or subsidy which manifests in the form of short-run liabilities to assets ratio influences significantly the performance of firms upon privatization.   This finding supports the theory of soft budget constraint introduced by Kornai (1980) who argued that soft budget constraints in the form of subsidies granted by governments as the main cause of the failure for many enterprises in the former Soviet Union and former communist countries of Central and Eastern Europe.   This finding is also in line with Earle and Estrin (1998) who report subsidy in the form of soft budget

constraints reduces the pace of restructuring in state-owned firms in Russia. In general, this study confirms the theory introduced by Kornai (1980) that soft budget constraints in the form of subsidy are hazardous to the management of companies. Soft budgets poison the managements as to not maximize their efforts because the threat of bankruptcy is practically absence. Thus, the managements have no incentives to pursue efficiency which is at the end detrimental to the health of the companies in general. Consequently, the government should reverse the policy of soft budget to hard budget in general in order to discipline the managements of state-owned companies. However, the government should be cautious in implementing the policy as not too hard because as Frydman, Gray, Hessel and Rapaczynski (2000) noted, the supposedly "hard" budget constraints imposed by a government on state-owned enterprises are not very effective either.

Other explanatory variable in the model that has significant positive impact on the changes of performance upon privatization is the number of share allocated to employees. Surprisingly, this result is contradicted with Frydman, Gray, Hessel, and Rapaczynski (1997) who uncover that different insider ownership has different performance; for employee-owned firms no discernable revenue effect could be found. Moreover, Lipton and Sachs (1990) argued that dominant ownership by employees could result in the perpetuation of existing inefficiencies. In contrast, this finding is in line with Djankov and rti (1998) who find that privatization to insiders do not hamper firm restructuring. Further support comes from Smith, Cin and Vodopivec (1997) who find that employee ownership is associated with higher value-added, but these efficiency gains are swamped by those achieved under foreign ownership.

This study proves that in Malaysia, the employee ownership has positive relationship with performance improvement, indicating that employee ownership in Malaysian behaves slight differently from companies in the sample of Frydman et. al. (1996) and Lipton and Sachs (1990). Both studies use samples from transition economies of Central and Eastern European countries and Russia. Malaysia SOEs employees seem in accordance to the thesis suggesting that employee and managerial ownership are aimed toward increasing motivation and sense of belonging of the employees and management which in turn will improve firm performances. Owner employees in Malaysia are far from free rider owners, instead they support the management toward achieving company's objectives by perhaps working harder or putting every effort toward company's success. It seems that the employees as the owners are aware they have to give support for their own benefits. This finding is worth considering when government design privatization program in the future.

Three out of five independent variables in the models are statistically insignificant. Long-term debts to total assets (LDTA), a proxy to capture soft budget constraints does not seems to effect performance change significantly. It is possibly that the soft budget is mainly accumulating in the form of short-term liabilities rather than long-term debts. The percentage of share sold (SOLD) by the government and the change in top management team (TOPMGT) is not significant either.

It is quite interesting that SOLD does not affect ROS. Tracing back the theory, the most relevant one to analyze fraction of share sold is public choice theory which predicts that the more control surrendered by a government leads to lesser interference from government on the management which in turn will improve efficiency. This insignificant finding presents ambiguous interpretation: there is a possibility that the government does not give up adequate control in privatization or,

in other word, the government still intervenes with the management of the newly privatized companies so that the management does not have more freedom in managing the firm. It is also possible that the government indeed gave up some control but not as much as the percentage of ownership sold and hence, the higher percentage of share sold does not reflect the control hand over. This means that the assumption that the more the transfer of ownership the control is surrender is not fulfilled. Later on, this finding may suggest that due to the government reluctance to not interfere with the management of the companies, partial privatization is not enough suggesting that complete or full privatization is warranted.

The last variable in this model that does not have statistically significant effect on performance change is the change in top management team. A number of studies report that the changes in top management affect the performance significantly (Barberis, Boycko, Shleifer and Tsukanova, 1996 and Dyck, 1997). The reasons for different finding of this study with those two earlier studies could be explained as follows. In Malaysian privatization, the change in top management does not occur right away when the privatization implemented. Instead the change in top management occurs around the time the privatization implemented; either one year prior or one year following the privatization. Moreover, less than half of the privatized companies change their top management position. This is a possible reason why this variable does not affect performance change upon privatization. It is worth considering that in privatization, the management should be replaced with the new team to get new management talent which at least will strive to perform better that old management. Furthermore, it is worth considering selecting professional management team even from outside the companies as many if not all the top management in old state-owned companies come from governments sectors and many times they are government veterans.

Furthermore, when ROS is substituted by ROA as dependent variable and keep the independent variables the same produces two statistically significant variables namely: the percentage equity sold by the government (SOLD) and the EMPL. The variable SOLD has negative effect on ROA which is inconsistent with the public choice theory. Based on the public choice theory, it is argued that the higher the equity ownership retained and hence the lower percentage of equity sold by the government during privatization is, the higher the possibility of the government's interference on the day to day firm operation in the future which in turn will lead to a worse performance. Hence, the variable SOLD is predicted to have a positive sign indicating the more fraction of stock sold is the more control the governments will relinquish which in turn will lead to a better performance. This finding is interesting and the following explanation could be possible. Malaysia government possibly choose to interfere with day to day operation selectively despite the fact that the government owns the majority of share. It means that the management of SOEs have to some extend autonomy in managing SOEs. This is in contradiction with their counterparts in transition countries where the opposite findings were found. In the transition countries, directors of SOEs play a role very much similar as production line managers in the company without much control. As a result, the Malaysian SOEs that sell higher percentage of share do not necessarily produce a better performance. On the other hand, the SOEs in transition countries, once they are privatized, the managers get much control and freedom to manage the company and hence, more opportunity to improve the performance. Other explanation, Malaysia government may exercise certain degree of intervention but only for certain policy and in a positive manner. Therefore, the government

interference in the SOEs in Malaysia does not lead to the worse performance of SOEs as reported in a number of literatures.

The positive effect of the variable EMPL is also inconsistent with the prediction. As predicted, based on enormous previous empirical studies, EMPL should have negative effect on performance. Again, the previous studies are mostly conducted in former transition countries of Eastern European nations. As already found in many studies, employee ownership was associated with worse performance. It has many things to do with the macro economic condition during the privatization era where the employees were not exposed to the free market such as in the western economy. As a result, the employees do not know what to do with their ownership other than taking advantage with assigning policies that were detriment to the companies such as raising wages etc. At the end, the employee ownership is not beneficial for the companies but instead worsening the performance of the company.

When ROE is used as dependent variable, only the change of top management in the companies has significant effect on ROE. This result is consistent with Barberis, Boycko, Shleifer and Tsukanova (1996) who argue that getting new managers (new human capital in their words) increases firm efficiency. Dyck (1997), in East Germany, shows that successful privatization hinges on the firm's ability to replace old and inefficient managers. It is argued that new manager will bring new expertise into the company or at least there is fresh new talent coming. Hence, the change in top management team or members of board of directors will lead to a better performance for the companies at least in the short-run because new comer almost always want to show his/her performance . When the dependent variable is substituted by real sale, the variable SOLD and Ln-EMPL are statistically significant. Of course, the significant effect of SOLD and Ln_EMPL on ROE has the similar explanation with the previous model.

Finally, when real net income is used as dependent variable, no one independent variable is significant. This result indicates that the data do not support the model and hence, combinations of all independent variables are not able to explain the variation in real net income. In short, out of five independent variables, only long-term debt to total assets has never been statistically significant for all different models. It indicates that long-term debt to total assets does not have any effects on the performance of firms upon privatization.

V. Conclusion

Some performance indicators of privatized firms upon privatization show improvements and some others do not. For instance, profitability proxied by return on sales (ROS), return on assets (ROA) and return on equity (ROE) tend to decrease. In another word, on average the privatized firms do not improve their performance in term of profitability. However, this pattern of deterioration in profitability is statistically insignificant except ROE. Proportional test also reveals that no one of these three profitability indicators change more than 50 percent into better performance. Furthermore, current ratio as proxy for liquidity slightly increases but statistically insignificant. The proportion increase as expected is 59 percent but it is statistically insignificant. Then, real sale on average increases more than two fold and are strongly statistically significant. The percentage of firms experiencing the increase is 91 percent and statistically significant at the 1 percent conventional level. Real net income shows considerable increases and is also statistically significant.

The proportion of firms experiencing the improvement is 69 percent which is significant at the 5 percent level.

The variations on the performance proxies could be explained by several factors. However, out of five independent variables that associate with the performances, only one or two variables are statistically significant at the conventional level depending on the proxies used as the dependent variables. For example, when the ROS used as the dependent variable, SDTA and Ln_EMPL are weakly significant at the 10 percent level. Further, ROA model has SOLD and Ln_EMPL which are statistically significant at the 10 percent and 5 percent level respectively. The ROE model has only TOPMGT which is significant at the 5 percent level. The RS model has SOLD and Ln_EMPL which are significant at the 5 percent 1 percent level respectively and the last model NI has none statistically significant variable.

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