

# Does the Use of Special Purpose Entities Affect Firm Value? Evidence from Indonesian Listed Nonfinancial Firms

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**Abstract**— This objective of this paper is to examine the effect of the use of special purpose entities (SPEs) on firm value. Applying a multiple regression analysis on a sample of 124 Indonesian listed nonfinancial firms during the year 2015 and using Tobin's Q ratio as a proxy for firm value, this paper finds a positive relation between the use of SPEs and firm value. The results show that the effect of the use SPEs on firm value is statistically and economically significant, where firms that use SPEs have a 21.52% higher value than firms that do not use SPEs. The sources of higher firm value might result from lower cost of capital, higher after-tax cash flows, and increased information value of reported earnings associated with the use of SPEs to serve tax planning, financing, and financial reporting objectives.

**Keywords**— *special purpose entities; securitization; bankruptcy costs; tax planning; earnings management; firm value*

## I. INTRODUCTION

An SPE is defined as a legal entity created by a sponsoring firm to carry out some specific purpose, and many SPEs are characteristically thinly capitalized, have no independent management or employees, structured in such a way so that they become bankruptcy remote, and usually incorporated in tax haven jurisdictions [1], such as Cayman Islands, Bermuda and British Virgin Islands, to name a few. Special purpose entities (SPEs), which are also commonly referred to as special purpose vehicles (SPVs), or special purpose companies (SPCs), have long been used by many financial as well as nonfinancial firms around the world, mostly for the purpose of obtaining external financing from the financial markets via securitization or project financing technique.

The revelation of Enron scandal which shows the massive abuse of SPEs by Enron's management to minimize financial-statement losses and volatility, accelerate profits, and avoid consolidating mounting debts to its financial statements [2], has caused SPEs usage by firms to be suspected, especially in the eyes of financial markets regulators and tax authorities. Nevertheless, the use of SPEs remains popular, where a recent study by Demere reports a significant increase of SPE users in their sample firms from an average of 9.4% in 1997 to 37.5%

in 2001 – the year when the Enron scandal was first revealed, and increases further to an average of 62.1% in 2011 [3].

This increase use of SPEs by firms, despite stringent scrutiny by relevant authorities, is interesting. It must be that the use of SPEs has provided user firms with significant economic benefits, that otherwise firms will not use SPEs in their activities. Extant literature suggests that firms use special purpose entities (SPEs) to serve one or more of the following purposes, which are: (i) to obtain cost efficient external financing by innovatively isolate business risk as well as financial risk and exploiting segmented capital markets through securitization process [1,4], (ii) to reduce global taxes through creative tax planning using establishments in tax haven or tax treaty countries [5-8], and (iii) to manage earnings to achieve certain financial reporting objectives..

The objective of this paper is to examine the effect of the use of SPEs on firm value, and therefore to provide evidence whether, on average, firms that are SPEs users have higher firm value compared to those firms that are not SPEs users. The present study claims to be the first study relating to the use of SPEs by Indonesian nonfinancial firms.

In this study, a firm is classified as an SPE user and assigned a value of 1 (one), if it has one or more subsidiaries or affiliates established in a tax haven or tax treaty country and engaged in trading or investments activities, and zero otherwise. And as predicted, by using a sample of 124 Indonesian listed nonfinancial firms during the year 2015, and also by including several control variables that are believed to have an impact on firm value, this study finds that the use of SPEs has a positive and significant effect on firm value.

This paper is organized as follows: the second section provides literature review on previous studies relating to the use of SPEs, explains why firms use SPEs, and argues how their use should have an impact on firm value. The third section outlines the data and methodology employed in the study. The fourth section presents the results of the study, and the fifth section concludes.

## II. LITERATURE REVIEW

### A. Previous Studies

While data on the use of SPEs is not readily and easily available, yet there are several prior studies relating to the use of SPEs by firms, where some involve financial firms, while others use nonfinancial firms as samples of their studies. For example, Feng examine the use, determinants, and earnings effects of SPEs using a sample of 2,403 firm-year observations, covering the periods of 1997 – 2004, that fully met data requirements relating to economic, financial reporting and corporate governance variables being studied. They find that the use of SPEs increases with financial reporting, economic, tax, and earnings management motivations [9]. As a proxy for the measurement of SPEs usage, Feng use list of names of subsidiaries and affiliates of the sample firms that contain the words "Limited Partnership", "Limited Liability Partnership", and "Limited Liability Corporation" [9].

Lemmon examine the securitization activities involving the use of SPEs by a sample of 434 nonfinancial firms for the periods of 1996-2009, and find that securitization lowers financing costs by reducing expected bankruptcy costs and providing sources of cheaper financing to sponsoring companies with lower credit ratings [4].

Contrary to the findings of Lemmon, Kim find that a firm's use of SPEs is associated with unfavorable loan contract terms, including higher loan rates, collateral requirements, and restrictive covenants [4,10]. They argue that these unfavorable loan contract terms are caused by perceived increase in the information risk faced by creditors due to the use of SPEs by borrowing firms. It is alleged that the use of SPEs has provided borrowing firms with opportunities to manage reported earnings, and thus increasing the information risk faced by creditors. As a consequence, creditors impose higher loan rates and more stringent non-price loan terms for borrowing firms using SPEs in their activities.

Lastly, studies conducted by Weyzig, Han and Hanlon, provide strong indications that firms use SPEs to reduce tax liabilities, especially when those SPEs are established in tax haven jurisdictions or tax treaty countries [5-8].

All of the studies above examine motivations or factors affecting the use of SPEs by firms, notably to reduce bankruptcy costs, lower financing costs, reduce tax liabilities, and manage earnings. The present study, however, focuses on whether the use of SPEs affects firm value, after controlling for some other value-relevant variables.

### B. Reasons for Using SPEs

The pervasive use of SPEs by firms, either financial or nonfinancial firms, could be explained by the existence of market imperfections relating to: (i) information asymmetry, and (ii) corporate taxes. The following will discuss briefly reasons for using SPEs based on the above said market imperfections.

1) *Reduced expected bankruptcy costs*: It is argued that investors or creditors do not exactly know the quality of a project proposed by a sponsoring company, and therefore

would demand higher returns as compensation for the expected bankruptcy costs associated with the project as well as the sponsoring firm's credit risk. The risk premium required could make a supposedly viable project become less or unprofitable. To alleviate the problem of higher expected bankruptcy costs arising from asymmetric information, a securitization process involving the transfer of the project from the sponsoring company to an SPE, coupled with implicit guarantee by the sponsoring firm, would effectively isolate the project risk from the remaining risks of the sponsoring company. Thus, the expected bankruptcy costs associated with the project is reduced, and so is the financing costs.

While Gorton and Souleles argue that firms use SPEs to avoid bankruptcy costs, Lemmon et al. has provided evidence that securitization through the use of SPEs has enabled firms to reduce their financing costs by reducing expected bankruptcy costs and accessing additional funds from corporate credit markets that are segmented due to the presence of some market frictions or inefficiencies [1,4].

2) *Tax arbitrage*: Different tax regimes adopted by different countries have provided many firms with opportunities to increase their global after-tax cash flows by creatively incorporating cross-border tax arbitrage strategy in their corporate-wide tax planning. Shaviro defined cross-border tax arbitrage as taking advantage of inconsistencies between different countries' tax rules to achieve a more favorable result than that which would have resulted from investing in a single jurisdiction [11].

The establishments of many SPEs in tax haven jurisdictions or tax treaty countries are indications that firms implement cross-border tax arbitrage strategy to reduce corporate tax liabilities. Also, a recent study by Bennedsen and Zeume states that firms can reduce their tax liabilities by shifting revenue from high-tax countries to off-shore tax haven subsidiaries that have no or little operational activities [12].

3) *Earnings management*: Firms conduct earnings management for various reasons. Based on the contracting theory [13], earnings management could be regarded as opportunistic behaviour on the part of managers to maximize their personal utility relating to contractual managerial compensation and debt covenants, which are both linked to reported earnings or to certain accounting numbers or financial ratios based on the reported financial statements. However, earnings management could also be used by managers to improve the quality of earnings to the capital market in the presence of information asymmetry [14].

It is argued that firms could use SPEs to strategically manage earnings to obtain certain financial reporting objectives, either to maximize managerial private utility or improve information value of earnings communicated to the capital market. Using a sample of 305 firm-year observations from both financial and nonfinancial firms covering the periods of 2000-2005, Dechow has provided evidence that managers use the discretion afforded by fair-value accounting rules to

manage earnings by determining the size of securitization gains resulting from the sales of financial assets to an SPE [15].

### C. The Use of SPEs and Firm Value

Simply defined, firm value is the present value of expected (after-tax) free cash flows discounted at the firm's weighted average cost of capital [16]. Finance literatures have utilized various proxies to measure firm value, such as natural logarithm of market value of equity, market-to-book value of equity ratio, and Tobin's Q ratio. Following Chung and Pruitt [17], the present study uses approximate Tobin's Q ratio as a proxy for firm value, and calculated as the ratio of the market value of equity plus the book value of debt divided by the book value of total assets.

Previous discussion has provided theoretical arguments as well as empirical evidence that firms use SPEs to: (i) lower financing costs, (ii) reduce corporate tax liabilities, and (iii) manage earnings. The first two evidence should indicate that, on average, firms that use SPEs will have lower cost of capital and higher after-tax free cash flows compared to those firms that do not use SPEs. Since a firm value is determined by its cost of capital and after-tax free cash flows, therefore it is argued that SPEs users must have higher firm value compared to non-users.

With regard to earnings management motivation for using SPEs, a positive effect on firm value is expected if, and only if, firms manage earnings in order to effectively communicate firm performance to the inefficient capital market. Otherwise, firms that manage earnings will be punished the capital market.

To conclude, based on the above discussion, the present study hypothesizes a positive relationship between the use of SPEs and firm value.

### D. Other Factors Affecting Firm Value

It must be noted, however, that there exist other factors affecting firm value. The following describes various other factors that are believed to have an impact on firm value, and are used as control variables when examining the effect of the use of SPEs on firm value using multiple regression analysis.

1) *Profitability (ROA)*: Relative to a less profitable one, shares of a profitable firm is likely to be demanded more by investors, with the expectation that higher profitability will lead to higher expected future dividend payments. As a consequence, shares of a profitable firm will trade at a premium, and hence will have higher firm value. Moreover, a profitable firm is likely to have positive cash flows that add to firm value, provided that the additional cash flows are channeled to finance new projects with positive NPVs. Therefore, it is hypothesized that profitability has positive relationship with firm value. The present study uses return on assets (ROA) as a proxy for firm profitability.

2) *Financial leverage (LEV)*: The use of leverage reduces weighted average cost of capital, and hence increases firm value, provided that the costs associated with bankruptcy risks due to the use of leverage does not exceed the benefits arising from interest-tax savings. The present study uses the ratio of

long term debt-to-market value of equity as a proxy for leverage, and hypothesizes a positive relationship between leverage and firm value.

3) *Total asset turnover (ATO)*: Higher total asset turnover, as represented by the ratio of sales-to-total assets, indicates higher asset utilization. Inferring from Du Pont equation [16], it is clear that higher asset utilization leads to higher profitability, and thus higher firm value. Therefore, the present study hypothesizes a positive relationship between total asset turnover - as represented by the ratio of total sales-to-total assets - and firm value.

4) *Total assets (Log TA)*: It is argued that larger firms have lower transaction costs due to economies of scale, and relatively easy to obtain financing from capital markets to fund positive NPV projects that add firm value, and therefore it is claimed that firm size - as proxied by total assets - is positively related with firm value. On the other hand, it is also observed that larger firms tend to be managed inefficiently and more prone to costs associated with agency problems. Hence, firm size could be negatively related with firm value. The present study believes that firm size - as represented by the natural logarithm of total assets - affects firm value, but does not predict the direction of the relationship.

## III. METHOD

### A. Samples

The initial sample includes all Indonesian nonfinancial firms listed in the Indonesia Stock Exchange (IDX) during the year 2015, excluding real estate and property, transportation, trading and services sectors that have special business characteristics. However, to be included in the final sample, additionally a firm must:

- have a complete set of audited financial statements - including the notes to financial statements,
- have an adequate disclosure on subsidiaries and affiliates, and
- have positive return on assets (ROA) as well as book value of equity at year end.

Imposing the above criteria yields a total sample of 124 nonfinancial firms, where information about a firm use of SPEs is obtained manually from notes to financial statements under the headings of subsidiaries and affiliates. It is found that among 124 sample firms, a number of 52 firms are identified as SPE users based on the findings that these firms report having one or more subsidiaries or affiliates engaged in trading or investments activities and incorporated in a tax haven or tax treaty country.

### B. Empirical Model

Below is the OLS regression model used by the present study to examine the value relevance of SPEs usage:

$$\text{Log Tobin's } QR = \alpha_0 + \beta_1 D\_SPE_i + \beta_2 ROA_i + \beta_3 LEV_i + \beta_4 ATO_i + \beta_5 \text{Log } TA_i + \epsilon_i \quad (1)$$

Where  $i$  is firm index. Log Tobin's  $QR_i$  is the natural logarithm of Tobin's  $Q$  ratio, and  $D\_SPE_i$  is the SPE dummy independent variable that takes the value of 1 (one) if a sample firm uses SPEs and 0 (zero) otherwise. Definitions for the remaining independent variables are as described in Section II.

#### IV. RESULTS AND DISCUSSION

##### A. Descriptive Statistics

Table 1 presents the descriptive statistics of the dependent and independent variables from the 124 sample firms used by the present study. The sample has a mean value of Tobin's  $Q$  ratio of 1.322, and a median value of 0.733. This indicates that, on average, market values of sample firms exceed their book values. However, the median value of 0.733 suggests that at least 50% of sample firms have market values below their book values.

TABLE I. DESCRIPTIVE STATISTICS

Variable Name	No. Obs	Mean	Std. Dev	Med.
Tobin's QR	124	1.322	2.926	0.733
D_SPE	124	0.419	0.495	0.000
ROA (%)	124	6.298	6.487	4.287
LEV	124	5.698	16.033	0.553
ATO	124	0.939	0.571	0.820
TA (Bill.)	124	14,551	31,611	3,311

##### B. Regression Results and Discussion

Prior to running the regression analysis, a multi-collinearity test using variance inflation factors is conducted. Based on the test results reported in Table 2, it can be concluded that there is no multicollinearity problem, since there is no independent variable or regressor that has a VIF value that exceeds 10.

TABLE II. VARIANCE INFLATION FACTORS

Variable Name	VIF
D_SPE	1.597
ROA (%)	1.511
LEV	1.748
ATO	1.776
TA (Bill.)	1.571

Table 3 below presents the results of OLS regression for the sample firms, after correcting for the problem of heteroskedasticity using the Huber-White heteroskedasticity consistent standard errors.

The standard Durbin-Watson test is employed to detect the presence of autocorrelation, and with a Durbin-Watson  $d$ -statistic value of 2.0255, it can be concluded that no autocorrelations are detected.

The measure of goodness of fit of the regression model, as indicated by the adjusted R-squared is 0.2912, which means that approximately 29% of the variations in firm value are

explained by the independent variables employed by the model.

Additionally, based on the result of F-test with a statistic and probability values of 11.1609 and 0.0000 respectively, it can be concurred that jointly, all the independent variables in the regression model have an impact on firm value at 1% level of significance.

Finally, before discussing the results of the individual coefficient test of significance, the present study applies the Ramsey's RESET test to examine whether the model is misspecified. The lower part of Table 3 shows that the  $p$ -value of the Ramsey's RESET statistic is 0.8824, which is not statistically significant. Therefore, the result of the model specification test indicates that the model used by the present study is not misspecified.

TABLE III. OLS REGRESSION RESULTS

Variable Name	Coeff.	t-Stat	Prob.
Constant	0.5612	1.3998	0.1642
D_SPE	0.2152	2.0034	0.0474**
ROA	0.0275	2.8561	0.0051***
LEV	-0.0029	-1.3961	0.1653
ATO	0.2689	2.2522	0.0262**
Log (TA)	-0.1429	-3.4869	0.0007***
R-squared	0.3200		
Durbin-Watson $d$ -Stat	2.0255		
$p$ -value of Ramsey RESET test	0.8824		
F-statistic	11.1069		
$p$ -value of F-test	0.0000		
No. of Obs.	124		

\*\*\*, \*\* denote significance at 1% and 5% levels, respectively

The variable of interest used to test the hypothesized relationship between the use of SPEs and firm value is the SPEs use dummy ( $D\_SPE$ ) that equals 1 if a sample firm uses SPEs and 0 otherwise.

The present study finds a positive and significant relationship between the use of SPEs and firm value (as proxied by the natural logarithm of Tobin's  $Q$  ratio), where the coefficient estimate for  $D\_SPE$  is 0.2152 and significant at 5% level. Therefore, it can be concluded that the use of SPEs increases firm value. The coefficient estimate also shows that, on average, SPE users have higher firm value compared to that of non-SPE users by 21.52%.

Based on the previous discussion on why firms use SPEs, it is suggested that the additional value enjoyed by SPEs user firms might result from lower cost of capital, higher after-tax free cash flows, and probably from the positive signaling effect of earnings management with the use of SPEs.

All control variables, except for leverage (LEV), are statistically significant and have the hypothesized relationships. The coefficient estimates for profitability (ROA) and total assets turnover (TATO) are positively and statistically

significant at 5% and 1%, respectively. This findings are consistent with the assertion that firms with higher profitability and higher asset productivity would generate more cash flows, and consequently higher firm value.

Finally, the present study finds that firm size has a negative relationship with firm value, indicating that large firms might not be managed as efficiently as smaller ones. This finding is similar to the findings of many previous research, albeit with different research topics, such as among others, Carter [18] who find negative and significant relationships between size and firm value. In your paper title, if the words "that uses" can accurately replace the word using, capitalize the "u"; if not, and keep using lower-cased.

## V. CONCLUSION

Using Tobin's Q ratio as a proxy for firm value, the present study finds significant evidence that the use of SPEs is positively related with firm value. The results of the present study indicate that, on average, firms that use SPEs have a higher firm value by 21.52% than firms that do not use SPEs. The present study asserts that the sources of this higher value might come from lower cost of capital, increased after-tax cash flows, and improved information value of earnings due to the use of SPEs by user firms.

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