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MANAGING A COMPANY'S LIABILITIES AND EQUITY TO REGULATE ITS VALUE

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Abstract

The recent events in the world of finance demonstrated the issues of financial management tools. Considerable difference in the company's share-price and its real value led to financial instability of businesses. In this paper we display the internal drivers based on the elements of a company's liabilities and equity to regulate its real value, market capitalization (as a proxy of market value) and just value. Those values were set as dependent variables, whereas independent variables were policies of common equity management, securities management, interests paid and dividends management, debt management. We defined expected effects of independent variables on dependent ones, and got similar results by empirical analysis. We consider these drivers as relevant management tools that provide a company's sustainable development.

Keywords: Financial management tools; value of a company; real value; market capitalization

INTRODUCTION

One of the most crucial conditions of providing financial stability and sustainable development of a company is adopting the right policy of financial management. The policy, in turn, depends on the goal of the financial management that was set by the company's owners. The authors of popular publications imply that the goal should be increasing shareholders' wealth by maximizing the company's fundamental (intrinsic) value, or its market value, or its value in general without emphasizing what value, which is already unclear goal. (Kudina, 2010; Ehrhardt and Brigham, 2011; Hawawini and Viallet, 2010) There is no doubt can top management of a company have various goals, however, the past world financial and economic crises demonstrated the consequences of not appropriately chosen goals.

On the one hand, if a financial manager has a goal of maximizing market capitalization (MC) of a company, which is an analogue of the market value, then it is a very important indicator for the investors, who plan to gain from reselling the owned shares. MC is a fairly sensitive indicator for both the external and internal environment of the company, starting from the natural peculiarities in the area of the company, and ending with even unconfirmed rumors of its important employee. Based on the rumors, the company's share-price can either rise or fall. Therefore, we do not have to underestimate existing psychological factor in the share-price.

On the other hand, if a manager is fixated on maximizing the fundamental (intrinsic) value of a company, this may adversely affect the market price of its shares or reducing its reputation among partners (costumers) because of the tough financial management policies, focused mainly on the internal indicators. This, in turn, will affect the company's financial stability and prosperity.

Thus, there is a need to set a trade-off goal, which fulfills the expectations of the owners, managers and market.

THEORETICAL FRAMEWORK

The trade-off goal of the financial management should include the aspects of the fundamental and market values of a company. Therefore, the modern goal of a company's financial manager should be increasing shareholders' wealth by creating the company's just value (JV). JV of a company is affected by its real value (RV) and its share-price in a stock market. JV can be illustrated by the geometric model (Shokhazamiy et al., 2014) or estimated by the just value ratio (JVR), which is calculated by dividing a company's MC on its RV.

To calculate the real value of a company we can use a common method (Ehrhardt and Brigham, 2011), which is based on discounting free cash flow (FCF) on weighted average cost of capital (WACC). In order to reveal the true potential of a company, it is not appropriate to use market indicators to avoid accounting of the "bubble", which forms in the market. As regards MC, it is calculated as multiplication of a number of outstanding shares and their price in a stock market.

The values of JVR, which are within the range of 0.414 and 3.172 indicate that a company has a JV. The optimal value is when JVR=1. In case, JVR is more than 3.172, it means that a high liquidity of a company's share, and at the same time that it is "overvalued" by the market. This may indicate the rise of investment risk because of a "bubble". Consequently, it is a caution signal for the investors, and a signal for the regulators to increase control measures and eliminate the formed "bubble". If JVR is less than 0.414, then a company's stocks are "undervalued" by the market. This may be a signal for strategic investors to invest into these stocks.

Overall, the concept of financial management based on the JV takes into account the aspects of financial management based on RV and MC, which leads to the balance of owners' and managers' interests (Shokhazamiy and Abduraupov, 2015).

RESEARCH METHODOLOGY

The Study and Data

For analysis purpose, this study exploits a dataset on foreign-invested enterprises of Uzbekistan. The data was obtained from the State Committee of the Republic of Uzbekistan on statistics (SCRUS) and the official web page of the Republican Stock Exchange "Toshkent" (RSET). It is an unbalanced panel dataset for the period of 2005-2013. The data was gathered on the basis of financial statements that were completed according to National Standards of Accounting. The specific years of 2005-2013 was chosen in order to cover the pre-crisis, crisis and post-crisis (i.e. global financial and economic crisis) periods.

Types of the company's activities that are covered in the dataset are presented in table 1. According to table 1, almost quarter of all the dataset consists of financials of electrical, electronic and optical products, and equipment manufacturing companies. 15%, 16% and 19% of the dataset are the companies that produce textile, leather and carpets; chemicals and chemical products; food, beverages and tobacco products respectfully. Each of the other type is less than 10% of the dataset.

Table 1. Types of activities in the dataset

Types of activity	In per cent to total number
Manufacturing of oil and gas products	3%
Manufacture of metal products	7%
Manufacture of chemicals and chemical products	16%
Manufacture of electrical, electronic and optical products, and equipment	24%
Manufacture of furniture, paper and paper products	4%
Manufacture of non-metallic mineral products	6%
Manufacture of textile, leather and carpets	15%
Manufacture of food, beverages and tobacco products	19%
Other manufacturing	8%
Total	100%

Source: elaborations of the author based on the data obtained from SCRUS

Research Model

The basic equation used for the analysis is as follows (1):

$$Y_{it} = \alpha + \sum_{j=1}^{n} \beta_j X_{i,j} + \varepsilon_{it} \quad (1)$$

where, Y – the dependent variable; α – constant; X – independent variables; i – number of firms; t – period of time; ε – error term, which is defined as:

$$\varepsilon_{it} = \theta_i + \tau_{it} \quad (2)$$

where, θ_i – unobservable individual effect; τ_{it} – remained error.

We study the impact of the financial management policies on real value, market capitalization and just value ratio of a company using the following linear regression specification (3):

$$V_{it} = \alpha + \beta_{i,1} PA_{it} + \beta_{i,2} PE_{it} + \beta_{i,3} PS_{it} + \beta_{i,4} PK_{it} + \varepsilon_{it} \quad (3)$$

where, V_i – dependent variables; α_i – constant; PA_i – policy of common equity management; PE_i – policy of securities management; PS_i – policy of interests paid & dividends management; PK_i – policy of debt management; β_i – expected (calculated) effects of the factors (PA, PE, PS, PK); ε_i – error term.

Variables for the empirical model

As the dependent variables (Vi) we used natural logarithm of real value of the companies, natural logarithm of the market capitalization, as well as natural logarithm of its JVR. Description and expected effects of independent variables are illustrated in table 2.

Table 2. Description and expected effects of independent variables

Variables	Description	Expected effect on dependent variables		
		RV	MC	JVR
PA	Natural logarithm of reinvested net income	+	+	±
PE	Ratio of net income to the sum of common equity and paid-in capital	+	±	±
PS	Ratio of dividends payable to net income	±	+	±
PK	Ratio of debts to equity	+	−	±

In table 2, the expected effect of PA on RV and MC is positive. We also expect positive impacts of PE and PK on RV and PS on MC, and negative effect of PK on MC. At the same time, it is hard to predict effects of the other indicators.

ANALYSIS AND FINDINGS

Descriptive statistics

Table 3. Descriptive statistics of the dependent variables

Variable	Mean	Std. Dev.	Min	Median	Max
RV	0.66	2.08	-6.52	0.62	7.63
MC	14.89	2.16	9.37	14.87	21.61
JVR	0.35	1.99	-4.76	0.48	5.77

Source: elaborations of the author based on the data obtained from SCRUS and RSET

According to the table 3. the figure for MC is higher than RV. The means of RV and MC are very close to their medians. which indicates that the data is evenly distributed around them.

The descriptive statistics of the independent variables is given in table 4. Table 4 demonstrates that mean value of natural logarithm of reinvested net income of a company (PA) is 13.37; ratio of net income to the sum of common equity and paid-in capital (PE) equals 8.99; mean PS is 2.80; ratio of debts to equity is 4.7 in average; and finally, ratio of amortization to historical value of intangible assets is 0.45.

Table 4. Descriptive statistics of the independent variables

Variables		Mean	Std. Dev.	Min	Max
PA	overall	13.37	2.97	4.48	20.48
	between		2.87	6.22	20.48
	within		1.52	4.66	17.98
PE	overall	8.99	129.59	-8.27	2434.29
	between		290.81	-0.76	2434.29
	within		5.88	-53.01	66.26
PS	overall	2.80	58.12	-2.05	1251.93
	between		19.28	-0.22	178.85
	within		53.87	-176.05	1075.88
PK	overall	4.70	44.10	0.05	763.43
	between		93.04	0.06	763.43
	within		3.40	-9.62	47.42

Source: elaborations of the author based on the data obtained from SCRUS

Correlation analysis

Correlation matrix is presented in table 5. It is seen that there is no high correlation between independent variables, which is supposed to be a good sign.

Table 5. Correlation matrix (rounded to the nearest hundredths)

	RV	MC	JV	PA	PE	PS	PK
RV	1.00						
MC	0.56***	1.00					
JV	-0.43***	0.51***	1.00				
PA	0.58***	0.51***	-0.02	1.00			
PE	0.12*	-0.06	-0.31***	0.16***	1.00		
PS	-0.09	-0.01	0.08	0.12**	-0.01	1.00	
PK	-0.08	0.01	0.09	-0.36***	-0.01	-0.01	1.00

* p<0.1; ** p<0.05; *** p<0.01

Source: elaborations of the author based on the data obtained from SCRUS and RSET

Regression results

The regression results with the dependent variable RV are given in table 6.

Table 6. Three different estimators of RV equation.

Dependent variable: RV			
Independent variable	Fixed effects	Random effects	Pooled OLS
PA	0.2023	0.3511***	0.3614***
PE	0.0088	0.0067	0.0061
PS	0.5742	0.3706	0.3719
PK	0.1081	0.2822***	0.3211***
_CONS	-1.9588	-4.1825***	-4.4966***
R^2	0.2819	0.3190	0.2870
Mean VIF	1.12		
Hausman FE vs RE Prob>χ^2	0.8712		
Breusch-Pegan RE vs OLS Prob>χ^2		0.1202	

* p<0.1; ** p<0.05; *** p<0.01

Source: elaborations of the author based on the data obtained from SCRUS

According to the regression results (table 6) we can see that the chosen indicators for the factors PA and PK in Random effect (RE) and Pooled OLS (POLS) models are statistically significant at 1% level. All the factors are positively correlated with the dependent variable. The coefficients of determination are between 0.2819 and 0.3190 in all the equations. Mean variance inflation factor (VIF) equals to 1.12. The results of Hausman's fixed effects versus random effects (1978) and Breuch-Pegan's random effects versus OLS (1980) tests indicate that it is appropriate to apply the results of POLS model for the further managerial decisions on RV.

The regression results with the dependent variable MC are given in table 7.

Table 7. Three different estimators of MC equation.

Dependent variable: MC			
Independent variable	Fixed effects	Random effects	Pooled OLS
PA	0.4572***	0.3558***	0.4150***
PE	-0.0324***	-0.0022***	-0.0022***
PS	2.0229***	1.9887***	1.8727***
PK	-0.0977*	-0.1039*	0.0667
_CONS	9.3005***	10.3141***	9.1257***
R^2	0.0492	0.2920	0.2954
Mean VIF	1.12		
Hausman FE vs RE Prob>χ^2	0.0002		
Breusch-Pegan RE vs OLS Prob>χ^2		0.0000	

* p<0.1; ** p<0.05; *** p<0.01

Source: elaborations of the author based on the data obtained from SCRUS and RSET

The regression results in table 7 demonstrate that the PA, PE and PS indicators in all the three equations are statistically significant at 1% level. The figures for PK in FE and RE are statistically significant at 10% level. All the factors have a positive effect on the dependent variable. The FE, RE and POLS models have determination coefficients of 0.0492, 0.2920 and 0.295 respectively. The results of Hausman's fixed effects versus random effects (1978) and Breuch-Pegan's random effects versus OLS (1980) tests indicate that it is appropriate to apply the results of FE model for the further managerial decisions on MC.

The regression results with the dependent variable JVR are given in table 8.

Table 8. Three different estimators of JVR equation.

Dependent variable: JVR			
Independent variable	Fixed effects	Random effects	Pooled OLS
PA	0.1125	0.0253	0.0614
PE	-0.0319***	-0.0435***	-0.0599***
PS	1.4012	1.3151	1.1598
PK	-0.3131	-0.2846***	-0.2748***
_CONS	-0.7849	0.3612	0.0089
R^2	0.2454	0.2944	0.2687
Mean VIF	1.12		
Hausman FE vs RE Prob>χ^2	0.2225		
Breusch-Pegan RE vs OLS Prob>χ^2		0.0112	

* p<0.1; ** p<0.05; *** p<0.01

Source: elaborations of the author based on the data obtained from SCRUS and RSET

The regression results (table 8) show that the factors PE in all the equations and PK in RE and POLS are statistically significant at 1% level. The adjusted R-squares in the FE, RE and POLS estimators are 0.2454. 0.2944 and 0.2687 respectfully. The results of Hausman's fixed effects versus random effects (1978) and Breuch-Pegan's random effects versus OLS (1980) tests indicate that it is appropriate to apply the results of RE model for the further managerial decisions on JVR.

CONCLUSION

The estimates given in table 6 bring to the conclusions that the growth of:

- PA for 1% rises RV for 0.36%;
- PE for 1 point increases RV for 0.61%;
- PS for 1 point also rises real value for 37.19%;
- PK for 1 point increases the dependent variable by 32.11%.

The estimates given in table 7 bring to the conclusions that the raise of:

- PA for 1% increases MC for 0.46%;
- PE for 1 point reduces MC for 3.24%;
- PS for 1 point rockets market capitalization for 202.29%;
- PK for 1 point decreases MC for 9.77%.

The estimates given in table 8 bring to the conclusions that the increase of:

- PA for 1% rises JVR for 0.02%;
- PE for 1 point decreases JVR for 4.35%;
- PS for 1 point result a growth of JVR for 131.51%;
- PK for 1 point decreases JVR for 28.46%.

Thus, the results of the empirical analysis demonstrated the expected signs of PA, PE, PS and PK on RV and MC. The growth of PE declines MC and JVR. The raise of PS also increases RV and JVR. Whereas the growth of PA rises JVR, but the increase PK declines JVR. By using the identified drivers as management tools we can regulate a company's value to provide its sustainable development.

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