EVA, ROCE, ROE, and EPS as Method of Assessment of Financial Performance and Its Effect on Shareholders' Wealth: Evidence From Bank Listed at Indonesian Stock Exchange in 2011 – 2013.

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Abstract- The study involved 30 Bank which go public, which is listed on the Indonesia Stock Exchange. This study used purposive sampling, using the data in the form of annual financial statements from 2011 to 2013. This study using the simple regression analysis method, namely by using the F test and t test, in order to determine the effect of the financial performance measurement results with the level of significance is (α) = 0:05. All data were analyzed using SPSS and Eviews 7.0.
The results of this study partialy, shows that the calculation of EVA during the period 2011 to 2013 yielded positive results, although not significant in explaining the Shareholders' Wealth, it is proved that the EVA assessed can not predict the value-added. Measurement, ROCE and EPS, positive and significant impact on Shareholders' Wealth. While ROE negative effect on Shareholders' Wealth. Then, the results of the simultaneous study shows that there is a positive effect of the independent variables are represented by ROCE, ROE, EPS, and EVA on Shareholders' Wealth.

Index Terms- Financial Performance, Shareholder Wealth Maximization

I. INTRODUCTION

In the midst of a slowing trend in the domestic economy and a weak exchange rate,Indonesian financial sector, especially the banking industry, remains solid. Banking risks are reflected in the credit risk, liquidity risk and market risk are also quite awake, with the support of capital is still strong resistance. Meanwhile, the growth of bank credit declined from 23.1% at the end of 2012 to 21.4% in December 2013 in line with Bank Indonesia's efforts to stimulate the economy moves toward a more healthy. However, none of these measurements can explain how much management can increase shareholders' wealth (Fogelberg and Griffith, 2000).
Performance measurement using traditional accounting ratios, such as Net Income (NI), Earning Per Share (EPS), Return on Equity (ROE) and Return on Assets (ROA). *Bank is the financial intermediary that offers the widest range of financial services – especially credit, savings, and payment services – and performs the widest range of financial functions of any business firm in economy*".

Fogelberg and Griffith (2000), "The advantage of EVA is that it is dollar-based and Tus, EVA correlates with wealth maximization maximization". This is supported by research conducted by Uyemura, Office, and Petit (1996) which states, "EVA has the strongest correlation with market value added". Performance appraisal using EVA approach led to the attention of management in accordance with the interests of shareholders. With EVA, the manager will think and act as well as shareholders (investors) ie investments that maximize returns and minimize capital cost levels so that the value of the company can be maximized.

EVA as sizing performance, not only has the advantage, but it also has its limitations. Here are some limitations of the method of Economic Value Added (EVA). Measurement of the performance of the EVA method, considered to be too simple. Some companies concluded that the EVA method does not match their company because in general the investment made by the company is long-term. Actual revenue or actual EVA of long-term investments can not be measured objectively because profits will be generated in the future can not be measured and estimated only subjectively. Determination of the period of time that one of the EVA method would be bad. The company will probably have a lot of new assets are not depreciated on the financial statements and it will show a negative EVA although the business will benefit in the long run.

The use of traditional financial ratios are still often used in different companies. It is proved that the EVA assessed can not predict the value added. In the circumstances explained above it is needed to evaluate the performance of banking . Basically, financial performance measurement is essential in order to provide information and an evaluation of materials for investors regarding the conditions and the financial position of the company. Need measurement of financial performance, which is able to provide proxy

information regarding the creation of added value for the shareholder. The measurements are typically used to assess the performance of a company that is ROCE, ROE, EPS, and EVA.

Return on Capital Employed (ROCE), According Weetman (2003: 363), "ROCE is the ratio of the which measure the performance of a company as a whole in using all sources of long-term finance" Meanwhile, according Irala (2005), "ROCE is an improvement over the EPS as it links the returns generated to the capital. Given the company's goal is to increase profits, then the maximum ROCE indicates that the company has been able to improve efficiency in the use of funds and capital. ROCE ratio can be formulated as follows (Weetman, 2003: 363): the profit before interest and tax is used as the numerator in determining the company's operating results or return on capital employed. Profit before interest and tax is often referred to as EBIT (earnings before interest and tax). Denominator value obtained ROE (Return on Equity

ROE (Return on Equity). According to Ross, et al. (2010: 62), "ROE is a measure of how the stockholders fared during the year". Irala (2005), "ROE indicates how much the firm has earned on the funds employed by the shareholders". ROE is a ratio that shows the extent to which companies manage their own capital (net worth) to effectively and measure the profitability of the investments made by its own capital owners or shareholders of the company. (Van Horne and Wachowicz, 2011: 149). This indicates that the value of a high ROE will bring success for the company - which results in a high stock price and make the company can easily attract new funding. ROE is an important feature of a modern market economy as a whole and for each company (Walsh, 2003: 56). Basically, ROE as well as ROCE ratio, does not include the cost of capital in the calculation so that the shareholders who bear the entire risk of the company's business.

EPS (Earnings Per Share). According Irala (2005), "EPS is a measurement of the company's per-share performance". Based on this definition, EPS is a performance measurement which assessed based on the value per share profit. Meanwhile, according Sawir (2001: 34), "EPS is a ratio used to determine how much net income per share". For that in its calculations, EPS does not include the cost of capital (debt) for the use of debt will lead to a change in earnings per share (EPS) and also changes in the risk - as these two factors will affect the company's stock price. Ratio Earning Per Share or EPS in question can be calculated and formulated as follows (Brigham and Houston, 2006: 25).

Shareholders' Wealth. Windsor (2008), "The shareholders' wealth can be defined, at any time, as the market capitalization of the public corporation". Meanwhile, according Bhasin (2013), describes the shareholders' wealth is "Creating wealth for the shareholders requires that the firm undertake investment decisions that have a positive net present value (NPV)".

The creation of shareholders' wealth maximum, means focusing on the motives and efforts to improve financial investors (Windsor, 2008). The same thing also expressed Bhasin (2013), the creation of wealth for the shareholders means associated with major changes that occur in periodic shareholder wealth. In general, these changes can be seen in changes in stock prices, dividends paid, and the capital increase during the period.

To measure the shareholders' wealth can be done in a way to know how much revenue that shareholders receive in an investment, through the existing stock price Stock Exchange stock. This can be evidenced by the distribution of dividends received by investors or other form of capital appreciation. Capital appreciation can be achieved if there is a change in the dominant value of the stock market (Raiyani and Joshi, 2011). To measure the shareholders' wealth (Windsor, 2008): In this calculation are taken into account is the amount of capital stock outstanding multiplied by the market price at the time calculated. The calculation itself is an estimate of the expected return on investment by the company. This estimate includes the expected dividend flows in the future

II. DATA AND VARIABLES FOR THE STUDY

Determination Techniques Population and Sample, Criteria set out in the determination of the population and sample banks, namely:
1. Establish the studied banks are banks that have gone public, listed as the issuer since 2011-2013 continuously.
2. Issuing financial statements each year of observation.
3. Having a stock price data.
Based on the above criteria, elected 30 banks listed on the Stock Exchange (Stock Exchange Indonesia) with a study period of 2011 to 2013.

Panel Data Regression Analysis. Data panel is a combination of data from cross section and time series. Regressions using panel data referred to the panel data regression model. The advantages of using panel data regression, namely:

1. Able to provide more data resulting degree of freedom is greater.

2. Being able to overcome the problems that arise when there is a problem removal variables.

Panel data regression model is said to balance (balance panel) when the cross section of each unit having the same time series data. And vice versa, said unbalanced panel data when the observation time series of unit cross section is not the same. For this study, a panel data regression model used is a balanced panel data regression models. The approach used

Analysis Method,this study uses panel data regression. Data processing was performed by using a software that is Eviews 7.0. The software can be used to process the descriptive statistics, the classical assumption test, and panel data regression. Performed classical assumption of multicollinearity , heterocedastity and autocorrelation test model fit (Fixed / Random Effect), and hypothesis testing (Test F-statistics and statistical t-test).

Regression equation model can be seen as follows:

$$Y = \beta_0 + \beta_1 ROCE + \beta_2 ROE + \beta_3 EPS + \beta_4 EVA$$

Dimana :
Y = , *shareholders' wealth*
β = regression coefficient direction
e = eror,

In this study, the independent variables to be studied can be represented by:
X_1 = ROCE
X_2 = ROE
X_3 = EPS
X_4 = EVA

Testing needs to be done, namely:

1. Formulate operational hypothesis, namely Ho and Ha
Ho: β1, β2, β3, β4 = 0, there is no influence of ROCE, ROE, EPS, and EVA together against shareholders' wealth.
Ha: β1, β2, β3, β4 ≠ 0, there is the influence of ROCE, ROE, EPS, and EVA together against shareholders' wealth.
2. Determine the significance level (α) of = 5% or 0.05.
3. Perform calculations in accordance with the approach (tool) statistics are used is by using Eviews 7.0.
4. Take a conclusion on the analysis that has been done, the criteria are:
Ho is rejected if sig. β <α = 0.05 and
Ho is accepted if sig. β> α = 0.05

IV.RESULTS AND DISCUSSION

Descriptive Statistics
The main theme of the present study is to assess the performance of 30 Private Sector banks in Indonesia. The study intends to assess the financial performance of Private Sector banks and thereby identifying the influence of them in improving the share'holder wealth. The findings of through Table 1 revealed the following salient information:

Tabel 1: Descriptive Statistics of Dependent and Independent Variables

	SW	ROCE	ROE	EPS	EVA
Mean	3.03E+13	0.099842	0.132196	156.8492	-1.22E+09
Median	6.44E+12	0.095600	0.130450	90.50000	1551275.
Maximum	2.68E+14	0.262135	0.317165	865.2200	8.61E+10
Minimum	2.76E+11	-0.068000	-0.317870	-21.66000	-3.81E+11
Std. Dev.	5.89E+13	0.060350	0.089003	199.4308	4.26E+10

Source: the authors analyzed data using E-views 7.0

Shareholders' Wealth maximum worth owned by PT Bank Central Asia Tbk. is Rp 268 trillion. Proven in 2012, BCA stock price of Rp 7,600 per share, which means that the management of PT Bank Central Asia Tbk., Has been successful and is able to optimize its financial performance and its share price rose higher than the share price at other banks

Average ROCE is 10% larger than the standard deviation is equal to 6%. This indicates that the fluctuations and variability ROCE is low. Maximum ROCE amounted to 26.21% (2011) owned by PT Bank Central Asia Tbk which means that PT Bank Central Asia Tbk managed to make efficiencies in the use of funds and bank capital.

ROE can be seen that the mean value is 14% greater than the standard deviation is 7%. This indicates that the fluctuations and variability ROE is low. Maximum ROE was 31.7% (2011), owned by PT Bank Central Asia Tbk (BCA). Van Horne and Wachowicz (2011: 149), return on equity, or ROE high acceptance of the company often reflect on the strong investment opportunities and management cost effective. This indicates that the value of a high ROE will bring success for the company - which results in a high stock price and make the company can easily attract new funding.

The average value of EPS is $ 157 which is smaller than the standard deviation of Rp 199. This indicates that the fluctuations and variability of annual EPS of high value. EPS is worth a maximum of Rp 865.22 (2013), owned by PT Bank Rakyat Indonesia, Tbk.

In the EVA can be seen that the mean value is-Rp 1:22 Billion smaller than the standard deviation of Rp 42.6 billion. This indicates that the fluctuations and variability of the annual EVA high value. EVA is a maximum of Rp 86,060,541,392 (2012), owned by PT Bank Swadeshi, Tbk.

Panel Data Regression Analysis

Data panel is a combination of data from cross section and time series. Regressions using panel data referred to the panel data regression model. Researchers conducted tests of significance. Test the significance of each independent variable (X) is represented by variables ROCE, ROE, EPS, and EVA to the dependent variable (Y) is a Shareholders' Wealth. The three tests that have been carried out to obtain the results of tests of significance for each variable, namely:

Tabel 2: Panel Data Regression Analysis Results

Dependent Variable: SW
Method: Panel EGLS (Cross-section random effects)
Date: 07/02/14 Time: 18:35
Sample: 2011 2013
Periods included: 3
Cross-sections included: 30
Total panel (balanced) observations: 90
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	27.41657	0.580132	47.25915	0.0000
ROCE	7.992612	2.747799	2.908733	0.0046
ROE	-0.631910	1.255609	-0.503269	0.6161
EPS	0.254511	0.071705	3.549432	0.0006
EVA	0.011915	0.025603	0.465373	0.6429

Effects Specification		
	S.D.	Rho
Cross-section random	1.250628	0.8853
Idiosyncratic random	0.450141	0.1147

Weighted Statistics

R-squared	0.193781	Mean dependent var	5.977063
Adjusted R-squared	0.155841	S.D. dependent var	0.537438
S.E. of regression	0.493788	Sum squared resid	20.72523
F-statistic	5.107592	Durbin-Watson stat	1.272570
Prob(F-statistic)	0.000977		

Unweighted Statistics

R-squared	0.364847	Mean dependent var	29.37703
Sum squared resid	215.3486	Durbin-Watson stat	0.122473

7.0

Source: Data processed by the author using Eviews

F-statistic Test Results

F test aims to measure whether the independent variable (X) simultaneously affect the dependent variable (Y) or to test the overall significance of regression coefficients, with the following criteria:

Ho is rejected if sig. F <α = 0.05 and

Ho is accepted if sig. F> α = 0:05

Based on Table 4.7., The value of the probability of 0.000977 with significance level of 5% or it can be said probability value less than 0.05, then Ho is rejected. This means that there is a positive influence ROCE (X1), ROE (X2), EPS (X3), and EVA (X4), simultaneously (together) to the shareholders' wealth.

Results of t-test statistics

Based on the results of tests of significance are shown in Table 2, namely:

a. ROCE (X1), a positive effect on shareholders 'wealth with regression coefficient of 7.992612 and has a probability value of t-statistic of 0.0046 so that Ho is rejected or it can be said there is a significant positive influence ROCE to shareholders' wealth. This ratio has a positive effect on shareholders 'wealth, because according to the benefits generated by the ROCE which provides efficiency in the use of funds and capital in order to maximize shareholders' wealth (Weetman, 2003: 363)

b.ROE (X2), negative effect on shareholders 'wealth with regression coefficient value of -0.631910 dani t-statistic probability is equal to 0.6161, so that Ho is accepted or can be said to be having an adverse ROE shareholders' wealth, but not significant.

This is likely due to the high level of SBI in Indonesia, SBI rate in January 2011 starting at 6.5%. Then, an increase in February to September 2011 which became 6.75%. After that, the first-quarter decline is up in January 2012 by 6%. Then, jump down again during the last 15 months amounted to 5.75%, which was closed at the end of June 2013. Then, the month July 2013 increased by 6% and continues to experience a sharp increase gradually and finally in December 2013 amounted to 7.5%.

The increase in high-level SBI affect stock prices of banks. It thus can happen because the return on investment received by investors is low, so investors are not interested in doing an investment which causes the market price tends to go down. According Hamida (2011: 118), changes in interest rates are classified as market risk or the risk that can not be diversified. Then, Brigham and Houston (2006: 12) also explains the impact of the risk that if the high fixed costs, the decline in sales of the slightest, can lead to a sizeable decline in ROE.

c. EPS (X3), a positive effect on shareholders' wealth with regression coefficient of 0.254511 and has a probability value of t-statistic is equal to 0.0006 which is smaller than the significance level was set at 5%, so that Ho is rejected or it can be said there is a significant positive effect of EPS to shareholders' wealth.

This is possibly due to the measurement of EPS is often an important concern for the management and investors in financial analysis because often attributed as the main target in the bank's annual report which is to increase profits through increased sales performance of products and services of the bank. According Hamida (2011: 5), to maximize the stock price means also conduct business efficiently and maintain the quality of goods and services best. In addition, to maximize the stock price also means continuous innovation according to the needs and tastes of consumers are fickle. Innovation will lead to the creation of new jobs means also improving the welfare of society. This explanation is in accordance with the opinion expressed by Walsh (2003: 150), that the EPS growth also provide information on the development of a company.

d. Effect of EVA on Shareholders' Wealth

EVA (X4), positive effect on shareholders' wealth with regression coefficient of 0.011915 and probability value of t-statistic of 0.6429. Ho is accepted or can be said to exist EVA influence on shareholders 'wealth but not significant, things that may lead to insignificant EVA test results to shareholders' wealth such as, the risk of the market, the increase rate of SBI which affect the magnitude of the cost of capital are borne by the bank . In addition, the use of traditional financial ratios are still often used in a variety of companies.

The same thing was stated by Hidayat (2006), there are several factors that led to the results of testing of EVA on shareholders' wealth is not significant that the popularity of EVA that has not been recognized by the market, the complexity of the calculation of EVA, plus hard earned some of the data for the calculation of EVA, and there is still controversy regarding the adjustment component in EVA.

The coefficient of determination (R2)

To determine the coefficient of determination seen from the adjusted R-square (R2) are listed in Table 2 in this study amounted to 0.155841. Based on these results it can be concluded that 15% of the dependent variable can be explained by the variation of the four independent variables are ROCE, ROE, EPS, and EVA. While 85% is explained by other factors beyond the variables examined in this study.

V. CONCLUSIONS

Based on the analysis that has been done before, then obtained the following results:

1. From the results of statistical tests were conducted to determine whether or not the partial effect of each independent variable on the shareholder's wealth, it was found that the ROCE and EPS significant positive effect on shareholders' wealth. While Eva significant negative effect on shareholder wealth. ROE is positive but not significant effect on shareholder wealth.

2. From the results of statistical tests were conducted to determine whether or not the influence of the independent variables simultaneously represented by ROCE, ROE, EPS, and EVA on shareholders' wealth of banks, it can be concluded that these variables have a positive influence. This one automatically reinforces the notion that the ROCE, ROE, EPS, and EVA together, can increase prosperity for its owners (shareholders' wealth).

REFERENCES

[1] Bhasin, M.L. 2013. "Economic Value Added and Shareholders' Wealth Creation: Evidence from a Developing Country". International Journal of Finance and Accounting. Volume 2 Issue 4. pp. 185-198.
[2] Brigham, E. F. and Joel F. Houston. 2006. Fundamentals of Financial Management, Book 2, Issue 10. Singapore: McGraw-Hill.
[3] De Wet, J. 2005. "EVA Versus Traditional Accounting Measure of Performance as Drivers of Shareholder Value - Mediatory Accounting Resarch". Volume 13. Issue No. 2, pp. 1-16.
[4] Fogelberg, L. and John M. Griffith. 2000. "Control and Bank Performance". Journal of Finance and Strategic Decisions ". Volume 13. Issue No. 3. pp. 63-69.
[5] Hamidah.2011. Financial Management. Jakarta: Jayabaya University Press.
[6] Hanafi, M. 2011. Financial Management. London: BPFE UGM.
[7] Husnan, S. 2009. Basics Portfolio Theory And Analysis Securities. Yogyakarta: UPP STIM YKPN.
[8] Irala, LR 2007. "Corporate Performance Measure in India: An Empirical Analysis". SSRN Working Paper Series WP-2007/01 / A. Retrivied December. SSRN: ??? ssrn. com / abstract: 964 375.
[9] Irala, LR 2005. "Economic Value Added: The Right Measure of Managerial Performance". Indian Journal of Accounting and Finance. Volume 19. Issue No. 2. April-Sept. pp. 31-43.
[10] Kasmir. 2013. Banks and Other Financial Institutions. Depok: PT RajaGrafindo Persada.
[11] Dates, S. and A. K. Sharma. 2011. "Association of EVA and Accounting Earnings with Market Value: Evidence from India. Asia - Pacific Journal of Business Administration ". Volume 3. Issue No. 2. pp. 83-96.
[12] Nachrowi, D. and Hardius, U. 2006. Popular and Practical Approach. Econometrics for Economic and Financial Analysis. London: Institute for Publishers UI.
[13] Patel, R. and M. Patel. 2012. "The Impact of EVA on Share Price". International Journal of Contemporary Busines Studies. Volume 3. Issue No. 2. pp. 24-34. Available online at http://www.akpinsight.webs.com.
1[4] Peter and Julianti. 2011. Assessment of Financial Performance of PT Bank Central Asia Tbk with EVA Method Using the Period of 2005-2009, As a Corporate [15] Performance Measurement Tool. Scientific Journal of Accounting. No. 5. Year 2nd. May to August. pp. 1-29.
[16] Raiyani, J. R. and N. K. Joshi. 2011. "EVA-Based Performance Measurement A Case Study of the SBI, Bank HFDC". Insight mangement. Volume No. 7. Issue # 1. June. pp. 31-43.

[17] Rakshit, D. 2006. "EVA-Based Performance Measurement: A Case Study of Dabur India Limited". Vidyasagar University Journal of Commerce. Volume 11. Issue No. 3. March. pp. 169-177.
[18] Rose, Peter S. and Sylvia C.H. 2010. "Bank Management and Financial Services, Eight eddition". Singapore: McGraw-Hill.
[19] Ross, Stephen A., Randolph W. Westerfield, and Bradford D. Jordan. 2009. "Fundamentals of Corporate Finance". Singapore: McGraw-Hill International Edition.
[20] Rousana, M. 1997. Utilizing EVA for Assessing the Company in Indonesia Capital Market. No. 4. Th. XXVI.
[21] Sawir, Agnes. 2003. Investment Management. Jakarta: STIE IBII.
[22] Sawir, Agnes. 2001. Analysis of Financial Performance and Corporate Financial Planning. Jakarta: PT Gramedia Pustaka Utama.
[23] Sharma, A. K. and S. Kumar. 2010. "EVA: Literature Review and Relevant Issues". International Journal of Economic and Finance. Vol. 2 (1) .pp.200-220
[24] Shil, Nikhil C. 2009. "Performance Measure: An Application of EVA". International Journal of Business and Management. Vol.4 (3). pp. 169-177.
[25] Siva, D. and M. Kumaran Sarvankumar. 2011. "A Recent Analysis with Respect to EVA and Share Price Behaviour of Indian
[26] Banks European". Journal of Economics, Finance, and Administration Science. Issue No. 2. pp, 112-120.
[27] Stewart, B. G. 1994. "EVA: Fact or Fantasy". Journal of Applied Corporate Finance. Volume 16. Issue No. 2-3. pp. 91-99.
[28] Stewart, BG 1991. A Guide for Managers: The Queest for Value. USA: Harper Business.
Sugiyono. 2008. Business Research Methods. New York: Alfabeth.
[29] Thenmozi, M. 2000. "EVA as a Measure of Corporate Performance". The Indian Journal of Commerce ". Volume 52. Issue No. 4. pp. 22-25.
[30] Van Horne, J. and John M. Wachowicz, Jr. Principles of Financial Management, Book One, Ninth Edition. Heru Sutojo translation. Jakarta: Salemba Four, 1994
[31] Wallace, JS 1997. "Adopting Residual Income - Based Compensation Plans: Do You Get What You Pay For?". The Journal of Contemporary Business Studies. Volume 24. pp. 275-300.
[32] Walsh, C. 2003. "Key Management Ratios, Master of the Management Metrics that Drive and Control Your Business, Third Edition". New York: McGraw-Hill.
[33] Weetman, P. 2003. "An Introduction Financial and Management Accounting, Third Edition". United Kingdom: Prentice Hall.
[34] Widarjono, A. 2007. Econometrics: Theory and Applications. Yogyakarta: Ekonisia FE UII.
[35] Windsor, D. 2008. Berle-Dodd debate. In Encyclopedia of Business Ethics and Society, ed. Robert W. Kolb. Vol. 1. 162-165. Thousand Oaks. CA: Sage Publications.
[36] Worthington, A. C. and T. West. 2004. "The Australian Evidence Concerning The Information Content of EVA". Australian Journal of Management. Vol. 29 (2) pp. 201-224.
[37] Young S., D. and Stephen F. O'Byrne. 2001. "EVA and Value-Based Management - A Practical Guide to Implementation". New York: McGraw-Hill.
[38] http://www.bi.go.id
[39] http://www.finance.yahoo.com
[40] http://www.idx.co.id

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