Inflation, Time of Debt Repayment and Firms' Performance: The Evidences from Food and Beverage Companies

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Abstract

This research is investigating the effects of macroeconomic variable on the performance of beverage industries in Indonesia which is listed in Indonesian stock exchange in last five years from 2012 until 2016. The inflation is one of the macro variables in the company that can influence the company's value. The penal data of ten different food and beverage firms listed at Indonesia stock exchange are selected as sample for this research. The test was adopted to examine return on equity as the dependent variable that reflects to firms' performance and inflation, time of debt repayment, as the independent variables. The data were taken by using purposive sampling method with level significant of 5%. The result of multiple linear regression analysis indicated there was a positive significant impact of debt repayment duration to return on stakeholder, meanwhile for Inflation was insignificant impact to the return on stakeholder.

***Keywords*:** Inflation, time of debt repayment, return on stakeholder, and effectiveness

Introduction

The food and beverage sector provides its investors with a variety of investing opportunities ranging from major soft drink companies to major diversified food companies. To determine whether a stock in this sector is appropriate to purchase for a portfolio, it is necessary to understand the company's long-term debt and find how long for a firm or a company can pay their account payable.

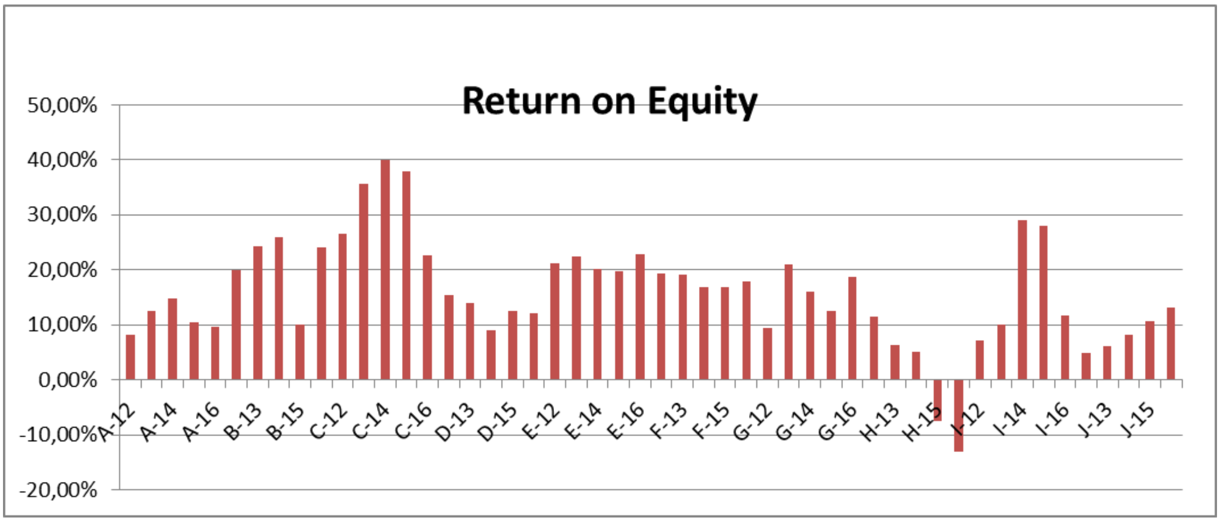
It has been reported that the lack of a financial plan is one of the most common reasons for business failure. Financial planning is an important part in the beverage and food business because the beverage and food industry has higher percentage of cost of sale than other industries [5]. Because of the high-cost nature of the business, the profitability of firms may be related to the level of interest expenses that are incurred due to the firms' debt use. The outcome of these strategies appeared differently from sectors to sector and country to country. This study analyzed whether inflation and day payable outstanding as time of debt repayment variable are able to influence the important variables of return on stakeholder.

Return on stakeholder is one of the most important factors for company to maintain in a competitive environment. It refers to the possibility that the company will be successful financially. In order to measure the stock return performance, return on equity has been used in this study as a proxy of return on stakeholder. Return on equity is the amount of net income returned as a percentage of shareholder equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested [6].

The researcher used the data from ten food and beverage companies listed on the Indonesia Stock Exchange that have the largest total assets of food manufacturers in last five years from 2012 until 2016. The study is focused on Inflation and time of debt repayment in this research to see how much influence those variables to the return on stakeholder.

Return on Stakeholder

The dependent variable in this research is return on stakeholder that related to equity. Return on Stakeholder is a ratio that measures the effectiveness of the company's performance viewed from gains or profits obtained by utilizing the capital or stakeholder owned. It is an ability of a company or institution to make a profit within a specified period by using the asset, and the amount of net income returned as a percentage of equity's holder. Return on stakeholder has been expressed as one of a good measurement of profitability, therefore many researchers are used this method [1].



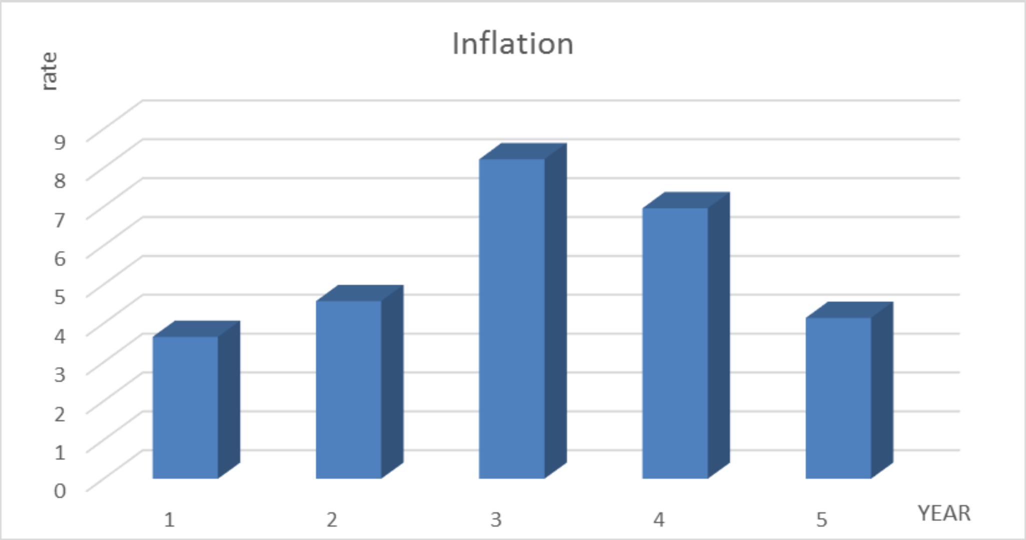
Source: secondary data from idx that has been processed by author

Graph 1:
Average Return on Equity of Food and Beverage Sector

From graph 1, it can be seen that the industries' average of return on stakeholder increased from 14% in 2012 to 19% in 2014, then back to 14% in 2016.

Inflation

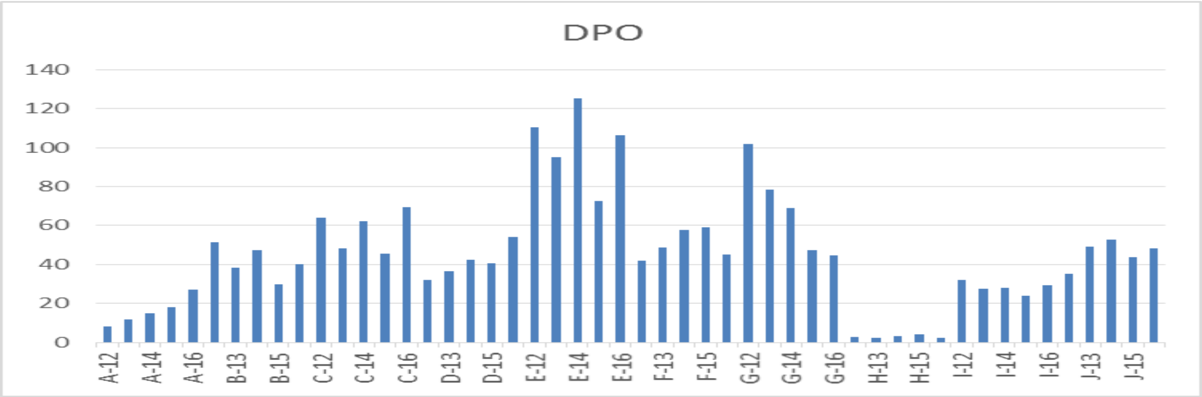
Inflation describes the condition in which the price of goods has increased and the value of the currency weakens and may result in a worsening of the overall economic conditions. According to [3] a brief definition of inflation is the tendency of price for ascending in general and continuously. Term of their continuous upward trend also needs to be underlined. The increase in the price of one or two things is not called inflation, unless the increase is extended to (or result in increases) most of the prices of other goods. [10] stated inflation has a significant impact on the level of interest because it will reduce the purchasing power of the currency and lower real investment returns.



Graph 1:
Inflation Rate

Time of Debt Repayment

Time of debt repayment as a proxy independent variable is to find how long for a firm or a company can pay their account payable [7]. It describes how long it takes a company to pay its invoices from trade creditors, such as supplier.



Source: secondary data from idx that has been processed by author)

Graph 3:
Debt Repayment

From graph 3, it showed that this ratio in period 2012-2016 was fluctuated and increased to 48.26.

Literature Review

The previous research [4] studied inflation and sectorial growth. They studied time series data from 1972 to 2010 of three major sectors; these sectors are agriculture, manufacturing and services. They concluded that the inflation is negative relation for manufacturing sector but have positive relation with services and agriculture sectors. [11] concluded that Inflation rate has significant positive relationship with manufacturing companies' performance in

Pakistan. Besides, [9] resulted the inflation rate have positively insignificant with performance of manufacturing performance. According to [2], Time of debt repayment has positive significant effect toward profitability.

Research Method

Three main hypotheses have been formulated in order to test the main research question. They were tested in all companies involved by using descriptive analysis and statistical analysis to interpret the data. The purpose of descriptive analysis is to define the condition of the company from the data acquired by the researchers. Statistical analysis is to process the data with the assist of SPSS 23 as statistical tool to run the data. Based on the statement of problem and theoretical framework above, the hypothesis that tested in this research can be stated as follows:

Hypothesis 1: there is a significant relation between inflation and return on stakeholder of the company

Hypothesis 2: there is a significant relation between time of debt repayment and return on stakeholder of the company

Hypothesis 3: Inflation and time of debt repayment have simultaneous influence toward return on stakeholder

Data Analysis

In this research, the population is taken from ten leading food and beverage companies listed in Indonesian stock exchange that have met the requirement by applying purposive sampling technique. It used cross-sectional data was taken from secondary data that published in IDX that cover the period from 2012-2016.

The method of present study is correlation to determine the relation between different variables using correlation coefficient. The determination of square of correlation coefficient is a standard that describes the relation between independent and dependent variable. The value of this coefficient indicates how many changes in dependent variable can be explained by independent variable. Descriptive statistic has been used to analyze data including central and scatter indices. Descriptive statistic is statistic that used to data analysis that explain with description or data picture that already submitted and make it with conclusion that applies to public or generalization.

Multiple Regression

Based on the result of assumption classic tests result it found that the data on this research has resulted normally and indicated no multicollinearity, heteroscedasticity, and autocorrelation problems that happened. Thus it meets the requirements to perform multiple regression analysis and perform hypothesis testing. The equation formula is:

$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \ldots + \beta_n X_n$$

From table 1, it conclude the multiple regression equation for the dairy food companies as follows,

$$RST = 0.053 + 0.007 IFL + 0.002\ TDR$$

Where,

IFL: Inflation

TDR: Time of Debt Repayment

RST : Return on Stakeholder

Result and Discussion

T-test and F-test are used in this research to conduct a hypothesis testing. The purpose of T test is to define whether each independent variable has partial significant influence toward dependent variable. The purpose of F-test is to define whether all independent variables have simultaneous influence toward dependent variable [8].

Significant Simultaneous Test (F Test)

Significant Simultaneous Test is taken by comparing the significance value of F_{table} and F_{count}. The results: if $F_{count} \leq F_{table}$, Ho accepted Ha rejected, for $\alpha \geq 0.05$, and if $F_{count} \geq F_{table}$, Ho rejected Ha accepted, for $\alpha \leq 0.05$

Where:

Ho = there is no significant impact of independent variables toward dependent variable
Ha = there is significant impact of independent variables toward dependent variable

Table 1:
ANOVA

Anova
F = 6.113 Sig = 0.04

Source: Adjusted by Authors, processing result on secondary data SPSS 23

Based on the table result the Fcount 6.113> F table 4.7 with the sig. value of f test is 0.04 which is <0.05. The researcher can reject Ho and accept Ha. It means all independent variables affect significantly toward dependent variable.

Significant Partial Test (T Test)

Table 2.
Multiple Regression
Coefficients[a]

Mpdel		Unstandardized Coefficients		T	Sig	VIF
		B	Std Error			
1	(constant)	0.053	.046	1.139	.260	
	IFL	0.007	.005	0.941	.152	1.000
	TDR	0.002	.000	3.373	.001	1.000

a. Dependent Variable RST
Source: Adjusted by Author, processing by SPSS 23

The first hypothesis states that inflation has insignificant toward return on stakeholder. It can be seen from table 2 that the sig. value 0.15 > 0.05 which means Ho was accepted and Ha was rejected. Compare to graph 1and 2, it can be concluded the increasing of inflation in this country has no significant impact to return on stakeholder.

However, the sig. value of TDR 0.001 < 0.05 which means Ho was rejected and Ha was accepted. It means time of debt repayment has positive significant impact toward return on equity. In this result find out that if payment to suppliers will take more time, the return on stakeholder will increase, because they can use the cash to pay other liabilities or purchase assets. Therefore, the higher number of TDR will increase the return on stakeholder of company so the higher ratio is the better performance of company. This result is in accordance with the result of [2].

Coefficient Multiple Determination Test (R^2)

R^2 is adopted to show how far the independent variables used in the regression equation which is able to interpret a dependent variable, and r square that has been corrected called adjusted r square will adjust if there is an additional independent variable [8].

Table 3.
Auto correlation Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.457[a]	.265	.192	,05201	.779

a. Predictors: (Constant): IFL, TDR
b. Dependent Variable RST

Source: Adjusted by Author, processing by SPSS 23

For the coefficient of determination, the R Square show 0.27 that means that all independent variables which are inflation and days payable outstanding 27% influence simultaneously toward return on equity. The rest is influenced by other variables which are not examined in this research.

Conclusion and Recommendation.

In this paper, we specified an empirical framework to investigate the impact of inflation as macroeconomic variable and the capability to pay debt on the performance of food and beverage industries in Indonesia which is listed in Indonesian stock exchange in last five years from 2012 until 2016. According to these finding we conclude that inflation has insignificant toward return on stakeholder. Therefore, the first hypothesis confirms that food inflation is not statistically significant affecting the firms' performance that related to return on stakeholder. This result is not in line with the previous studies. [11] concluded that Inflation rate has significant positive relationship with manufacturing companies' performance in Pakistan. Moreover, [4] concluded that the inflation is negative relation for manufacturing sector but have positive relation with services and agriculture sectors.

However, high inflation will discourage productivity growth, lead to inefficient capital allocation, depress company valuation, and carry the seed of future recessions. It is suggested that to protect these companies against the adverse effect of inflation, these firms must consider the risk of inflation to their business, then analyze the real cost and prices. Therefore, these firms can create the suitable strategies to protect their gross margins and prepare their investment program. The fact that sustained production of food stuff is the most important thing to keep the price low. As the result, the consumers still have the capability the buy food.

The second hypothesis is about the time of debt repayment. Time of debt repayment is a part of the important decisions in financial management. The increasing of debt repayment duration of food and beverage companies in Indonesia during 20012-2016 experiences fluctuation with increasing trend. The result indicated that debt repayment duration has positive significant impact toward return on stakeholder. It means if payment to suppliers will take more time, the profitability will increase. However high time of debt repayment may indicate the companies have significant financial problem. It might be happened because the management is poor and has the cash flow problem.

Therefore, to keep an optimal firms' performance, companies' manager should maintain the time of debt repayment by planning the leverage payment duration. Moreover, they must adopt proper strategies to manage the leverage. Managers can have appropriate policies and methods to control time of debt repayment to improve the performance of the company.

Besides, these companies must select a funding source leverage properly to manage the operation of business efficiently.

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