The Effect of Inflation Rate and Foreign Exchange on Company Value at Bank Mandiri Tbk

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Abstract

The global economic crisis in 2008 still has an impact on the Indonesian capital market. The impact of the crisis was reflected in the correction of stock prices by 40-60 percent from the initial position in 2008. Two of the main impacts of stock price fluctuations in the capital market due to the global economic crisis in 2008 were the inflation rate and volatile foreign exchange rates. The research method used is the ex post facto method. Data collection is done by recording observations, interviews, and literature research. The hypothesis is that there is an influence of the inflation rate and foreign exchange rates on the value of the company PT Bank Mandiri (Persero) Tbk. The analysis is in the form of simple and multiple linear regression analysis, correlation coefficient analysis, coefficient of determination analysis, and hypothesis testing. The result is that there is a moderate relationship with a positive correlation between the inflation rate and foreign exchange rates on the value of the company with a correlation value (R) of 0.595 and linear regression analysis with the equation $Y = 319.972 + 71.431X1 + 0.843X2$ besides that obtained Kd of 0.354 and distribution Fhitung 15.639 > Ftabel 3.162 means Ho is rejected and Ha has accepted means that overall the inflation rate and foreign exchange rates together affect the value of the company at PT. Bank Mandiri (Persero) Tbk

Keywords: Inflation Rate, Foreign Exchange Rate, Company Value

1. Introduction

Investments through the capital market in addition to providing results, also contain risks. The size of the risk in the capital market is greatly influenced by the state of the country, especially in the economic, political, and social fields. Circumstances within the company can also affect the rise or fall of stock prices [1].

The monetary crisis which later became an economic crisis has devastated the Indonesian economy which was originally experiencing rapid economic growth, giving rise to inflation [2]. Inflation arises due to pressure from the supply side (cost push inflation), from the demand side (demand pull inflation), and from inflation expectations. Factors in the occurrence of cost push inflation can be caused by the depreciation of the exchange rate, the impact of foreign inflation, especially in trading partner countries, increases in commodity prices regulated by the government (administered prices), and occurrence (negative supply shocks) due to natural disasters and disturbances distribution. The cause of demand pull inflation is the high demand for goods and services relative to their availability. In the macroeconomic context, this condition is described by real output that exceeds potential output or total demand (aggregate demand) that is greater than the capacity of the economy. Meanwhile, the factor of inflation expectations is influenced by the behavior of the public and economic actors, whether they tend to be adaptive or forward looking [3]. This is reflected in the behavior of price formation at the level of producers and traders, especially at the time of religious holidays (Eid, Christmas and New Year) and the determination of the regional minimum wage (UMR) [4].

The indicator that is often used to measure the inflation rate is the Consumer Price Index (CPI) [5], [6]. Changes in the CPI from time to time show price movements of the packages of goods and services consumed by the public. Since July 2008, the package of goods and services in the CPI basket has been carried out on the basis of the 2007 Cost of Living Survey (SBH) conducted by the Central Bureau of Statistics (BPS). Then, BPS will monitor price developments for these goods and services on a monthly basis in several cities, in traditional and modern markets for several types of goods/services in each city. As a result of inflation that continues to increase and the increase is uncontrollable, it affects all sectors of the economy [7], [8]. Particularly in the capital market, stock prices fluctuated greatly, as did the stock price index of industrial sectors on the Indonesia Stock Exchange.

The company's ability to generate profits in its operational activities is the main focus in assessing company performance (company fundamental analysis). This is because besides being an indicator of the company's ability to fulfill obligations to funders, company profits are an element in the creation of company value that shows the company's prospects in the future [9].

The higher the company's ability to earn profits, the greater the return expected by investors. Therefore, companies that have a high ratio of return on assets will be in demand by investors. Thus the ratio of return on assets (Return On Assets) can affect the value of the company [10], [11].

The rise and fall of stock prices in the capital market is an interesting phenomenon to discuss with regard to the issue of the rise and fall of the company's value itself. The global economic crisis that occurred in 2008 had an impact on the Indonesian capital market, as reflected in the corrected decline in share prices of up to 40-60 percent from their initial position in 2008 caused by the action of releasing shares by foreign investors who needed liquidity and exacerbated by the "bandwagon" action. " from domestic investors who are busy releasing their shares. These conditions literally affect the value of the company because the value of the company itself is observed through the prosperity of shareholders which can be measured through the company's share price in the capital market [12]–[14].

Based on the description above, the researcher is interested in conducting research with the title "The Influence of Inflation Rates and Foreign Exchange Rates on Firm Value at PT. Bank Mandiri (Persero) Tbk."

2. Research Methods

Inflation is a measure of economic activity which is also often used to describe national economic conditions. Inflation can be more clearly defined as an economic measure that provides an overview of the increase in the average price of goods or services produced by an economic system [15].

The oldest theory that discusses inflation, but in its development this theory has been refined by economists at the University of Chicago, so that this theory is also known as the monetarist model. This theory emphasizes the role of the money supply and public expectations regarding price increases in the emergence of inflation. The rationale for this inflationary model from Keynes, that inflation occurs because people want to live beyond the limits of their economic capabilities, causing the public's effective demand for goods (aggregate demand) to exceed the amount of goods available (aggregate supply), the result will be inflationary gaps [16], [17].

Based on the nature of inflation is divided into three levels, namely:

1. Moderate Inflation
   This condition is characterized by a slow increase in the inflation rate and a relatively long time [18].
2. Moderate Inflation (Galloping Inflation)
   This condition is characterized by sizeable price increases (usually double digits or even triple digits) and sometimes occurs in a relatively short time and has an accelerating nature. That is, the prices for this week or month are higher than last week or month and so on. The effect on the economy is more severe than creeping inflation [19].
3. High Inflation (hyper inflation)
   Inflation is the worst consequence. Prices went up five or six times. People no longer have the desire to save money because the value of money has fallen so sharply that they want to exchange it for goods [20].

The impact or consequences of inflation in an economy are as follows [21], [22]:

1. Inflation can encourage a redistribution of income among members of society, which affects economic welfare, because the redistribution of income that occurs will cause one person's real income to increase, but the income of another person to fall.
2. Inflation can cause a decrease in economic efficiency. Because inflation can overturn resources from productive investment to unproductive investment, thereby reducing the productive capacity of the economy.
3. Inflation can cause changes in output and employment, in a more direct way by motivating firms to produce and get people to work more or less than they do.
4. Inflation can create an unstable environment for economic decisions. If consumers expect the inflation rate to rise in the future, this will encourage them to buy goods and services on a large scale.

According to the Regulation of the Minister of Finance No. 114/PMK.04/2007 Article 1 what is meant by the exchange rate is the price of the rupiah currency against foreign currencies [23]. The definition of exchange rate is: Exchange rates are market clearing prices that equilibrate supplies and demands in the foreign exchange market.

Types of exchange rates can be divided into three types of transactions, namely:

1. Buying and selling rates.
   The buying rate (bid rate) is the rate at which banks are willing to buy a currency, while the selling rate (offer rates) is the rate offered by banks to sell a currency and is usually higher than the buying rate. The difference between the buying rate and the

selling rate is called the bid-offer spread or trading margin [24].

2. Cross Rate.

The cross exchange rate is the exchange rate between two currencies determined by using another currency as a comparison. This happens because the two currencies, one or both, do not have an active foreign exchange market, so not all currencies are determined by other currencies. For example, it is rare to find rupiah exchange rates in Swedish krona, but exchange rates for both currencies are always available in USD. The exchange rates for each of these currencies can be compared in USD, so that the exchange rate between the Rupiah and the Krona can be determined [25].

3. Spot Rate and Forward Rate.

Spot exchange rates are currency rates at which foreign currencies can be bought or sold by delivery or delivery on the same day or a maximum of 48 hours. Forward exchange rate is the rate determined now for delivery of a certain amount of currency in the future under a forward contract [26], [27].

Originally, the company theory was based on the assumption that the company's purpose or goal is to maximize current or short-term profits. However, based on observations, companies often sacrifice short-term profits to increase future or long-term profits. Because both short-term and long-term profits are very important, the theory of the firm (theory of the firm) now postulates that the main purpose or objective of the firm is to maximize the wealth or value of the firm (value of the firm). This is reflected in the present value of all expected future company profits [28], [29].

There are various types of values that are sometimes rather difficult to distinguish from one another. The types of values are as follows:

1. Liquidating Value

An amount that can be realized if one or a group of assets is sold (separated from the company) [30].

2. Going Concern Value

Selling value of assets from a company that is still running to the old company. Usually greater than the liquidating value [31].

4. Book Values

The accounting value of an asset [32].

5. Market Value

The value is taken from the larger value between the liquidating value and going concern value [33].

6. Fair Value

Fair value is usually called intrinsic value or reasonable value [34].

Research Hypothesis

Ho : $\rho = 0$, meaning that there is no significant effect between the Inflation Rate and Foreign Exchange Rates on Firm Value at PT. Bank Mandiri (Persero) Tbk.

Ha: $\rho \neq 0$, meaning that there is a significant influence between the Inflation Rate and Foreign Exchange Rates on Firm Value in PT. Bank Mandiri (Persero) Tbk.

Variables are used to answer research objectives (1) regarding the Inflation Rate, (2) concerning Foreign Exchange Exchange Rates, (3) knowing the development of the Value of Go Public Companies.
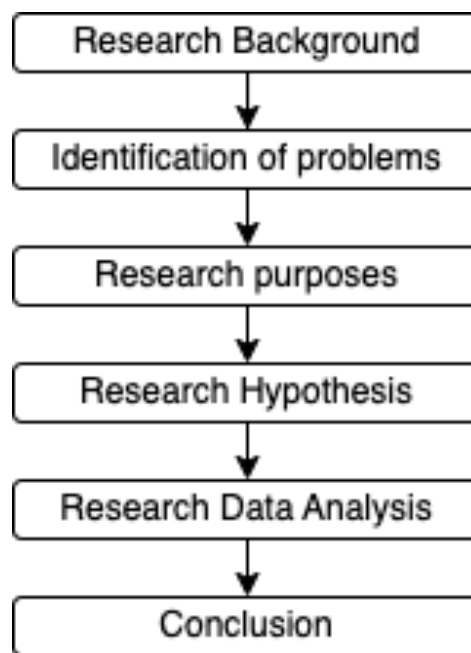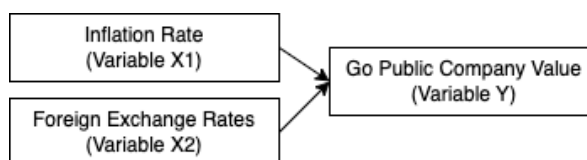

Figure 1 Research Framework

Figure 2 The Research Method Paradigm

3. Results and Discussions

1. Simple Regression Analysis

$Y = 7151,01 + 250,11X_1$

The regression equation means that if there is no inflation rate ($X_1 = 0$ %) that occurs, then the company value will be Rp.7151.01, it is known that the regression coefficient (b) is 250.11 meaning that every 1% increase in the inflation rate will result in the company's value increasing by Rp. 250.11.

The regression equation means that if there is no change in foreign exchange rates that occur, then the value of the company will decrease by Rp. 217.03
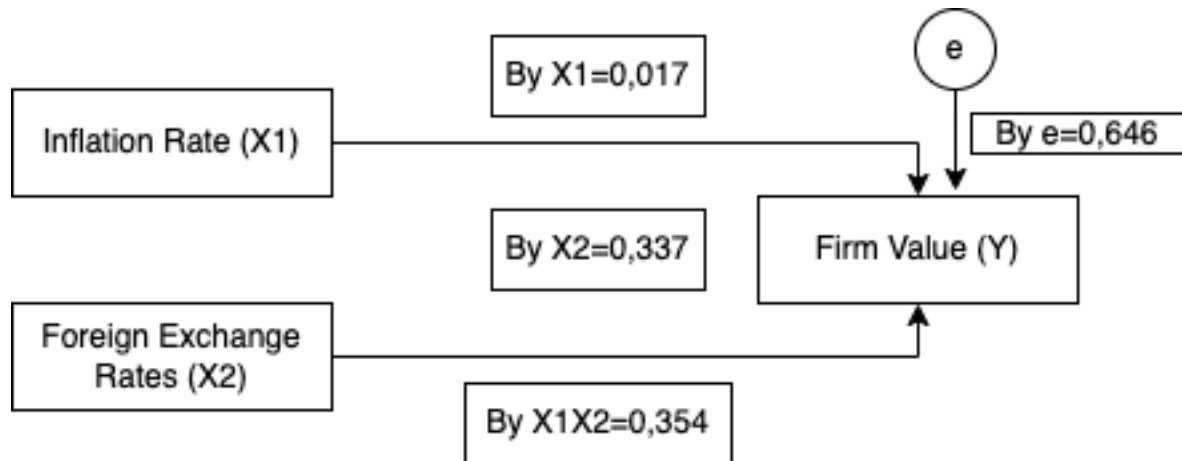
Figure 3 Framework and Analysis Results

units, whereas if there is a change in foreign exchange rates of Rp. 1/US$ then the value of the company will increase by 0.874 units

2. Multiple Regression Analysis
   The multiple regression equation means that if there is no inflation rate and foreign exchange rates simultaneously, then the company value will be -Rp. 319.972, whereas if:
   a) There is an increase in the inflation rate of 1% and the foreign exchange rate does not change, the company's value will increase by IDR 71,431.
   b) There was an increase in the foreign exchange rate of Rp. 1/US$ and the value of the inflation rate is assumed not to change, the company's value will increase by Rp. 0.843.

3. Correlation Analysis
   The results of the correlation analysis between the inflation rate and firm value are (partial correlation), this shows a strong, low and unidirectional relationship between the inflation rate (X) and firm value (Y).
   The result of the correlation analysis between foreign exchange rates and firm value is (partial correlation), this shows a moderate and unidirectional relationship between foreign exchange rates (X) and firm value (Y).
   The results of the correlation analysis between the inflation rate and foreign exchange rates with firm value are R = 0.595 (simultaneous correlation), this shows a strong, moderate and unidirectional relationship between the inflation rate (X1) and foreign exchange rates (X2) and firm value (Y).

4. Determinant Coefficient Analysis
   This shows that the inflation rate and foreign exchange rates have an effect on firm value of 0.354 and the remaining 0.646 is influenced by other

factors such as the company's financial condition and political situation. The total effect of the variables X, X on Y which is the sum of 0.017 + 0.337 = 0.354.

5. Hypothesis Test
   $$t_{hitung} = 1,913$$
   With respect to $t_{hitung} = 1,913 < t_{tabel} = 2,0021$, H_a is rejected and H_o accepted, meaning that the inflation rate does not significantly affect firm value at $\alpha = 5\%$.

   $$t_{hitung} = 5,587$$
   With respect to $t_{hitung} = 5,587 > t_{tabel} = 2,0021$, then H_a accepted and H_o rejected, meaning that foreign exchange rates have a significant effect on firm value.

   $$F_{hitung} = 15,639$$
   With respect to $F_{hitung} = 15,639 > F_{tabel} = 3,162$, then H_a accepted and H_o rejected, meaning that the rate of inflation and foreign exchange rates simultaneously affect the value of the company.

4. Conclusion

Based on the results of the discussion regarding the effect of the inflation rate and foreign exchange rates on firm value at PT. Bank Mandiri (Persero) Tbk., the researchers drew the conclusion that the rate of inflation in Indonesia experienced a movement of ups and downs that varied each year. the highest average inflation rate was in 2013, which was 6.97% and the lowest average inflation rate was in 2012, which was 4.28%. Likewise, the value of the maximum inflation rate was in 2013 of

8.79%. Meanwhile, the lowest inflation rate was in 2015 of 2.35%. This happened because it was influenced by several factors such as the depreciation of the exchange rate, the impact of foreign inflation, especially in trading partner countries, increases in commodity prices regulated by the government (administered prices), and negative supply shocks due to natural disasters and distribution disruptions, and the high demand for goods and services relative to their availability.

The results of the correlation analysis between the rate of inflation and foreign exchange rates with firm value are obtained. This shows a moderate and unidirectional influence between the inflation rate and foreign exchange rates on firm value. The result of this determinant coefficient is 0.354, meaning that the inflation rate has an effect on company value of 0.017 and foreign exchange rates have an effect on firm value of 0.337, the remaining 0.646 is influenced by other factors such as the company's financial condition and political situation. The results of the F test are as follows

$$F_{hitung} = 15,639 > \quad F_{tabel} = 3,162, \quad \text{then} \quad H_a$$

accepted and H_o rejected, meaning that the inflation rate and foreign exchange rates have a significant effect on firm value.

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