

## ECONOMIC EXPOSURE DURING THE COVID - 19

Oleh :

**Rengga Madya Pranata,**

Universitas Buana Perjuangan Karawang

rengga.madya@ubpkarawang.ac.id

**Muhammad Iqbal Nurfauzan,**

STIE STMY Majalengka

muhammadiqbalnurfauzan@gmail.com

**Wildan Army Abdillah**

Politeknik Triguna Tasikmalaya

wildanarmy43@gmail.com

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### Abstract

*This research was conducted to see the economic exposure of various industrial sector manufacturing companies listed on the Indonesian stock exchange during the Covid-19 pandemic in the time span used is Q4 2019 to Q3 2020. With the number of samples used were 30 companies that had data. which will be used. Testing in this study uses multiple regression to see the influence of factors that can affect economic exposure. From the results obtained in this study. Show that the model used can be used to measure factors that help increase or decrease economic exposure, although if partially company size cannot be a determinant of economic exposure during this pandemic, only liquidity and market to book ratio can only be determinants of economic exposure. part of the company during the Covid-19 pandemic.*

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*Keyword :*

*exposure economic, firm size,*

*liquidity, MTBR, covid-19*

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## 1. INTRODUCTION

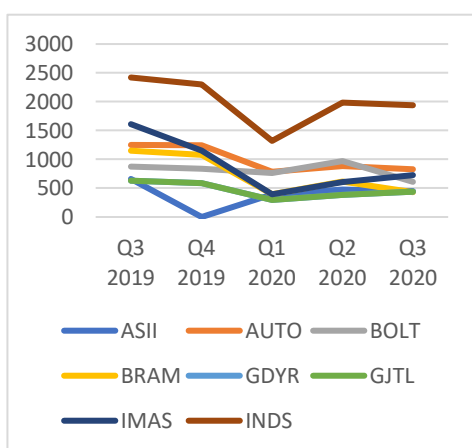
Currently, the whole world is experiencing a very devastating economic shock, as a result of the Covid-19 pandemic. Especially for our country Indonesia, with the decline in the rupiah exchange rate which weakened against the US dollar. According to Katadata (2020), at the opening of trade, the rupiah weakened by 0.09% to IDR 15,960 per US dollar compared to the previous closing and continued to depress 3.7% to a level of IDR 16,550 per US dollar. Following the impact of the Covid-19 pandemic. This proves that the

Covid pandemic has become an economic problem for several countries.

This weakening of the exchange rate will have a negative impact on trade, especially for multinational companies, where these trading companies rely on foreign exchange values as a means of trading transactions. This multinational company is a company that has or is an affiliate outside the company's domicile (Eitman, 2007).

If this exchange rate continues to decline, the company will continue to incur losses and result in risks, especially on economic exposure because economic exposure will occur as a result of random changes in exchange rates (Chan et al, 2005). The occurrence of this economic exposure will have an impact on changes in the stock returns of each company (Adler & Simon, 1986). If we can see it in Figure 1. It shows a drastic decline in the stock returns of each company. This indicates that the economic exposure that occurs has a profound impact on companies, especially manufacturing companies in various industrial sectors.

Figure 1 Stock Return



Source: Investing.com

Various industrial companies experience high economic exposure because many of the listed companies are categorized as multinational companies. Where the company carries out export and import activities in carrying out its business activities, especially during the Covid-19 pandemic. From the above problems, there must be a study on economic exposure, especially during this pandemic,

because it will provide information for companies to properly manage their risk management in order to reduce the impact of these economic exposures (Pantzali, 2001).

In order to reduce the impact of the economic exposure, this study considers the factors that can affect the company's economic exposure. The size of the company is a very influential factor on the company's economic exposure (Chou 2016, Ameer, 2010, and Lin et al. 2008; Majid et al 2015), because the size of the company when there is appreciation or depreciation can be a factor that can affect economic exposure (Chou 2016).

Another factor that can be a determining factor affecting economic exposure is liquidity (Bartram, 2004). Economic exposure can occur through various channels, including reducing liquidity (Gnangnon 2019). As for other research, it shows that liquidity affects economic exposure (Kurniawati and Anggraeni, 2008; and Lin et al. 2008). The last factor in this study is to use the market to book ratio, where the market to book ratio has a significant effect on a company's economic exposure (Sumaji 2019).

## 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Economic exposure shows the impact of the percentage change in exchange rates and other factors on the percentage change in the company's cash flow which is a reflection of the company's value (Saphiro, 1996). Economic

exposure consists of operating exposure and transaction exposure. Meanwhile Chan et al (2005) defines economic exposure to the effect of random changes in exchange rates on the company's competitive position, future sales, costs, cash flow. "

Economic exposure can indicate the extent to which the present value of a firm's future cash flows is affected by fluctuations in exchange rates. In short, economic exposure shows the exchange impact of fluctuations in the company's cash flow rate which is a reflection of the company's value (Madura, 2013). Therefore, companies must study the economic exposure and its impact for the company show is very important because it can provide several lights for companies to choose correctly, a risk management instrument to reduce the impact of economic exposure (Pantzali, 2001).

The Rupiah exchange rate or also known as the Rupiah exchange rate is a comparison of the value or price of the Rupiah currency with other currencies. Trade between countries where each country has its own medium of exchange requires that there be a ratio of the value of a currency to other currencies, which is called the foreign exchange rate or exchange rate (Salvatore, 2008).

Exchange rates are divided into nominal exchange rates and real exchange rates. The nominal exchange rate is the value that a person uses when exchanging one country's currency for another country's currency. While the real value (real exchange rate) is the value used by

someone when exchanging goods and services from a country with goods and services from other countries (Mankiw, 2000).

Liquidity is what shows the company's ability to pay its short-term debts (liabilities) that are due, or the ratio to determine the company's ability to finance and fulfill obligations (debt) when billed (Kasmir, 2016). According to Hasibuan (2004) explains that Liquidity is the company's ability to fulfill all short-term financial obligations.

Salvatore (2008) explains that the exchange rate has a very important function in the economy of a country because the exchange rate is one of the factors that support the smooth running of international trade carried out by that country with other countries. Many companies always experience the impact of economic exposure from movements or changes in exchange rates (Chow et al., 1997; Miller and Reuer 1998).

Economic exposure shows the exchange impact of fluctuations in the company's cash flow rate which is a reflection of the company's value (Madura: 2013). One of the main explanations for the relationship between exchange rate volatility and firm value is through imports and exports in international trade (Allayannis and Ofek, 2001)

Stock returns and exchange rate changes. Most of the previous studies on economic exposure show that MNCs, exporters, and manufacturing industries are not significantly

affected by exchange rate movements (Al-Shboul and Alison., 2009; Bartram and Bodnar., 2012; Bodnar and Gentry., 1993; Jorion., 1990).

Liquidity is what shows the company's ability to pay its short-term debts (liabilities) that are due, or the ratio to determine the company's ability to finance and fulfill obligations (debt) when billed (Kasmir, 2016). Chow and Chen (1998) show that companies with low liquidity have high economic exposure, Bartram (2004) reveals that the main determinant of economic exposure is company liquidity, Gnanon (2019) a country's economic exposure can have negative impacts can occur through various channels, among others by reducing liquidity.

### 3. METHODS

In this study the population used was various industrial sector manufacturing companies listed on the IDX, with the selected sample being 30 companies using data from the beginning of the Covid-19 occurrence from Q4 2019 - Q3 2020. In this study using two multiple linear regressions, which first to see the economic exposure of a company can be seen with the model.

$$R_{it} = \beta_0 + \beta_1 \Delta ER_{itu} + e$$

Where  $R_{it}$  is a stock return that can be searched by means of  $R = \frac{P_{it} - P_{it-1}}{P_{it-1}}$  and  $\Delta ER_{itu}$  is the change in the rupiah exchange rate against the US dollar which is calculated by means of

$\Delta ER_{itu} = \frac{ER_{it} - ER_{it-1}}{ER_{it-1}}$  (Sumaji 2019). And the second model in this study is to look at the factors that can affect economic exposure

$$\Delta ER_{st} = \beta_0 + \beta_1 SIZE + \beta_2 LIQUIDITAS + \beta_3 MTBR + \epsilon$$

Where  $\Delta ER_{st}$  is the economic exposure obtained from the coefficient of model 1. Size is the size of the company obtained from the formula  $SIZE = Ln(Total Assets)$ , for liquidity is measured using the current ratio calculated by  $Current Ratio = \frac{Current\ asset}{Current\ Debt}$  while for MTBR it is the market to book ratio calculated by  $MTBR = \frac{Stock\ Market\ Prices}{Book\ value}$  Before getting the results of the previous regression the data had been tested for normality, multicollinearity, heteroscedasticity and autocorrelation.

### 4. RESULT AND DISCUSSION

Before discussing the main findings of this study, the researcher presented descriptive statistics of the variables in Table 1. From the data in Table 1, it shows that the lowest economic exposure value is -, 154 while the highest value is 0.238 with an average of - 0.03910 and a standard deviation of 0.076292. These findings indicate that the stock returns of various companies are strongly influenced by changes in foreign currencies at different degrees. These companies are affected positively and negatively by changes in foreign currencies, which are indicated by the positive and negative values of economic exposure. The lowest and highest firm size values are 10,250

and 19,720 respectively, while the mean and standard deviation values are 14.81675 and 1.731104. These numbers indicate that, although the various companies studied in this study have different sizes, they are almost the same size as indicated by the smaller value of the firm size standard deviation. Liquidity has the lowest and highest values of 0.100 and 7,650 with an average value of 2.26958 and a standard deviation of 1.667899. These numbers indicate that the liquidity of various companies is different from one another. The Market to Book Ratio has the lowest value of -2,620, the highest value of 4,400, an average value of 0.93933 and a standard deviation of 1.048725. The data shows that the market to book ratio has high data fluctuation.

Table 1 Deskriptif Statistik

Variabel	Minimum	Maksimum	Mean	Standar Deviasi
Economic Exposure	-1.154	.238	-.03910	.076292
Firm Size	10.250	19.720	14.81675	1.731104
Likuidity	.100	7.650	2.26958	1.667899
Market to Book Ratio	-2.620	4.400	.93933	1.048725

Table 2 Matriks Corelation

	Ukuran Perusahaan	Likuiditas	Market to Book Ratio
Firm Size	1	-0.1831	-0.2190
Likuidity	-0.1831	1	0.1066
Market to Book Ratio	-0.2190	0.1066	1.0

From the data obtained in Table 2, it shows that there is no correlation between variables where to see from the correlation between these variables, the results obtained in

tests carried out between variables do not have results that exceed 0.08 of the variables of company size, liquidity, and market to book. this ratio, or it can be concluded that the variables used are free of correlation symptoms.

Table 3 Regression Results

Variabel	Unstandardized Coefficients		t	Sig
	B	Std Error		
C	-.042	.024	-1.775	.079
Firm Size	.004	.005	.799	.426
Likuidity	.012	.003	3.917	.000
Market to Book Ratio	.014	.006	2.402	.018
Adjust R <sup>2</sup> = .165; Fsig = .000 <sup>b</sup>				

From the data above, it shows that the model used in this study shows that the model can be used in factors that can affect economic exposure. Or clearly, the economic exposure of various industrial sector manufacturing companies in Indonesia during the Covid-19 pandemic, company size, liquidity, and market to book value can be factors that influence it, if all these factors are together. The current economic exposure of a company can be disrupted due to all these factors, although to different degrees.

However, if partially there are factors that cannot directly influence economic exposure, namely company size. In the results of the tests carried out, firm size cannot affect economic exposure with a greater level of significance than specified.

This is different from what Chou (2016), Ameer (2010), Lin et al (2008), and Majid et al. al (2015). The size of the company which is valued in the total assets of the company during this pandemic period cannot be used as a reference for how the company's economic exposure is disrupted.

In contrast to company liquidity, in this study it was found that company liquidity helps or can worsen economic exposure (Chow and Chen, 1998). Liquidity can be a factor that affects economic exposure because companies must be able to pay debts, both short and long term, which are due (Kasmir, 2016). Because the company does not only have domestic debt, but must also have debt abroad. The results obtained are that if the company's liquidity is high, it will also increase a company's economic exposure. This is in line with research conducted by Bartram (2004), Gnangnon (2019), Kurniawati and Anggraeni, (2008), Lin et al (2008), and Shabri et al (2015), which shows that liquidity can be a determining factor of economic exposure.

As for the market to book ratio, the results obtained indicate an influence on the company's economic exposure. The higher the market to book ratio of a company can also help increase its economic exposure, the results of this study are also in line with the results obtained by Sumaji (2019).

## 5. CONCLUSION

Economic exposure to various industrial sector manufacturing companies during the Covid-19 pandemic, from what has been previously described, the results are obtained where the model used in the study can help to see the factors that can affect the exposure of economists at this time, although there are still many factors that can be used. used to measure this economic exposure. However, when the company simply cannot focus on all the factors described above, policy holders can only control liquidity and the market to book ratio, because the research results show separately that these two factors have the most influence on economic exposure during this pandemic. . The author recommends the use of other factors if this research will be developed by other parties.

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