Determinants of Islamic Bank Share Prices Fluctuation During The Covid 19 Pandemic (Case Study: The BTPN Syariah Bank Shares)

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Abstract. *The Covid-19 pandemic has caused a decline in the performance of the national economy. However, the share price of Islamic banks, especially the BTPN Syariah Bank (BTPS), has continued to grow. This study aims to identify and evaluate the variables affecting BTPS stock price fluctuation, using The Vector Error Correction Model (VECM). The results show that in the short term, only the Jakarta Composite Index variable had a significant effect on the stock price of BTPS. While in the long term, the variables of Price to Book Value (PBV), Trading Volume Activity (TVA), GDP, Bank Indonesia (BI) Reference Interest Rate, and the Jakarta Composite Index had a significant effect on BTPS stock price. Based on the Impulse Response Function (IRF) analysis, the stock price of BTPS responded negatively to shocks in GDP, TVA, and the exchange rate. Meanwhile, the shocks of Earning Per Share, PBV, BI Reference Interest Rate, and the Jakarta Composite Index were responded positively by BTPS share price. Based on the Forecast Error Variance Decomposition analysis, PBV gave the highest contribution in explaining the diversity of BTPS stock prices fluctuation.*

Keywords: *Covid-19, BTPS Shares, VECM, Internal Factors, External Factors*

Abstrak. *Pandemi Covid-19 menyebabkan penurunan perekonomian nasional. Namun, harga saham bank syariah, khususnya saham PT. Bank BTPN Syariah (BTPS) tetap tumbuh. Penelitian ini bertujuan untuk mengetahui faktor yang memengaruhi perubahan harga saham BTPS, dengan metode Vector Error Correction Model (VECM). Hasil penelitian menunjukan bahwa dalam jangka pendek, hanya variabel Indeks Harga Saham Gabungan yang berpengaruh signifikan terhadap harga saham BTPS. Sementara pada jangka panjang, variabel Price to Book Value (PBV), Trading Volume Activity (TVA), PDB, Suku Bunga Acuan Bank Indonesia (BI), dan Indeks Harga Saham Gabungan berpengaruh secara signifikan terhadap harga saham BTPS. Berdasarkan analisis Impulse Response Function (IRF), harga saham BTPS merespon negatif adanya guncangan PDB, TVA, dan nilai tukar. Sementara guncangan Earning Per Share, PBV, Suku Bunga Acuan BI, dan Indeks Harga Saham Gabungan direspon positif oleh harga Saham BTPS. Berdasarkan analisis Forecast Error Variance Decomposition, PBV memberikan kontribusi tertinggi dalam menjelaskan keragaman perubahan harga saham BTPS.*

Kata kunci: *Covid-19, Saham BTPS, VECM, Faktor Internal, Faktor Eksternal*

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Introduction

According to Bank Indonesia's 2020 Indonesian Economic Report (2021), the Covid-19 outbreak, which started spreading quickly throughout Indonesia in March 2020, prompted the Indonesian government to implement measures to contain its spread, including Large-Scale Social Restrictions. However, the consequences of this strategy weakened the national economy.

On the other hand, based on a report from the Financial Services Authority (2021), the total assets of the Islamic Finance Industry grew by 22.7 percent in 2020. In December 2019, the total assets of the Islamic Finance Industry were IDR 1,468 trillion, and in December 2020, it grew to IDR 1,802 trillion (not including the market capitalization value of Islamic shares). The Islamic Finance Industry is divided into three sectors: the Islamic Capital Market, Islamic Banking, and the Non-Bank Islamic Finance Industry. Among the three sub-sectors, the Islamic Capital Market has the largest asset contributor, IDR 824 trillion in 2019 and IDR 1,077 trillion in 2020, followed by Islamic Banking, IDR 538 trillion in 2019 IDR 609 trillion in 2020. The last is the Non-Bank Islamic Finance Industry, with a contribution of IDR 106 trillion in assets in 2019 and IDR 116 trillion in 2020.

In terms of the capitalization value of Islamic shares, according to the Financial Services Authority (2021), reported that the market capitalization value of Islamic shares in December 2019 had reached IDR 3,744 trillion, while as of December 2020, it was at IDR 3,344 trillion. Then, the market capitalization of the Jakarta Composite Index (JCI) which also fell from Rp 7,265 trillion in December 2019 to Rp 6,968 trillion in December 2020.

The capitalization value of Islamic shares decreases annually, but its monthly growth shows the opposite trend. According to monthly data, the capitalization value of Islamic shares was at IDR 3,139 trillion in February 2020 and dropped to IDR 2,668 trillion in March 2020 (decreased 14.35 percent from February 2020). Meanwhile, at the same period, the market capitalization of the JCI was at IDR IDR 6,304 trillion and dropped to IDR 5,247 trillion in March 2020 (decreased 16.76 percent from February 2020). So, the decline in the JCI market capitalization when the first case of Covid-19 was discovered (March 2020) was deeper than the decline in Islamic stock market capitalization. Therefore, from April to December 2020, Islamic shares capitalization value recovered with positive trending growth (From IDR 2,899 trillion in April 2020 to IDR 3,344 in December 2020).

The Banking Sector is the second biggest contributor to the Islamic Financial Industry asset contribution after the Islamic Capital Market Sector. During 2019-2020 Islamic Finance Industry assets grew rapidly, and the capitalization of Islamic shares started with positive trending growth in April 2020. This phenomenon is extraordinary and essential to note since the COVID-19 Pandemic is spreading nearly globally, including Indonesia, and has caused the economic performance declined. Given these circumstances, Islamic shares became an attractive investment option for investors due to their high growth rate in times of economic downturn.

As of December 2020, three Islamic banks have been listed on the Indonesia Stock Exchange: BRI Syariah Bank (BRIS), BTPN Syariah Bank (BTPS), and Panin Dubai Syariah Bank (PNBS). Following the performance of each issuer, BTPN Syariah Bank has the best performance, with the highest earnings-per-share value and the lowest non-performing-financing, compared to BRIS and PNBS, respectively.

Table 1. BTPS, BRIS, and PNBS Performance

Islamic Banks	EPS (IDR)		NPF (Percentage)	
	2019	**2020**	**2019**	**2020**
BTPS	182	111	1.36	1.91
BRIS	7.62	25.45	5.22	3.24
PNBS	0.55	0.005	3.81	3.38

Source: Secondary Data, Proceed (2021)

Then, if the performance of BTPS shares is compared to the performance of the JCI, it does show better performance. In January 2019, the stock price of BTPS was at IDR 1,955 per share and grew 91.8 percent to IDR 3,750 per share at the end of December 2020. On the other hand, the JCI was at IDR 6,287 in January 2019 and fell 4 percent to IDR 6,036 at the end of December 2020. During the COVID-19 Pandemic, especially on April 21, 2020, BTPS touched the price of IDR 1,995 per share (increased 2 percent from January 2019) while the JCI was at IDR 4,513 (decreased 28.2 percent from January 2019).

Based on prior studies, stock price fluctuations are influenced by both internal and external factors. Karim (2015) defined internal factors as variables relating to business circumstances such as management performance and company prospects. Meanwhile, external variables are related to macroeconomic and market circumstances.

The company's internal variables consist of EPS and Price to Book Value (PBV). EPS was selected because there is a strong connection between banking

stock prices in Indonesia and Earnings per Share (EPS). The PBV variable was selected since it has been shown to significantly influence stock prices (Antara & Suryatini, 2019) (Daniswara & Daryanto, 2019).

On the external side, the variables consist of Trading Volume Activity (TVA), macroeconomic factors, and the Jakarta Composite Index (JCI). According to Mamduch et al. (2016), trading volume significantly impacts stock prices. Interest rates, exchange rates, and GDP were selected as macroeconomic indicators since they are linked to the capital market (Kewal, 2012). Suwito (2020) showed that the JCI significantly impacts stock prices. Based on this background, this study aims to identify and evaluate the variables that affected BTPS stock prices in 2019-2020, as well as to analyze the time it takes for BTPS stock prices to stabilize after internal and external shocks, and also to examine the main drivers of BTPS stock price.

The results of this study are expected to be a guide for investors in investing in Islamic banking stocks and policymakers such as the government, banking regulators, especially Bank Indonesia, and Financial Services Authority.

Literature Review

Two variables influence stock prices, namely Internal and external influences. Internal variables include Earning-Per-Share (EPS) and Price to Book Value (PBV). Then, external variables include trading volume activity (TVA), gross domestic product (GDP), exchange rates, Bank Indonesia reference interest rates, and the Jakarta Composite Index (JCI).

Tandelilin (2010) defines EPS as the value of net income ready to be paid to investors per share. According to Prayogo & Lestari (2018) and Talamati & Pangemanan (2015), there is a positive and significant connection between earnings-per-share and stock price. But Islam et al. (2014) and Segoro & Andrian (2016) discovered something else that EPS has no connection to stock prices.

According to Antara & Suryatini (2019), PBV is a benchmark that represents investors' opinions on a business. So, the impact of PBV on stock prices is positive and statistically significant, which has been found by Antara & Suryatini (2019) and Daniswara & Daryanto (2019).

According to Setyawan (2006), trading volume is calculated by dividing the number of shares exchanged by the total number of outstanding shares. Mamduch et al. (2016) found that trading volume had a statistically significant beneficial impact on stock prices. This is because the greater the trading volume activity of

stock, the higher the interest in the stock. According to Mamduch et al. (2016), there is a strong positive connection between TVA and stock prices. However, there may be a negative correlation between trading volume and stock prices. This is because the rule of supply and demand governs the stock market.

Mankiw (2006) defined a gross domestic product as total national revenue and spending on all commodities and services. Real and nominal GDP are the two kinds of GDP. These figures may be seen in two ways: revenue and spending. On the expenditure side, gross domestic income is calculated by combining consumption, investment, government expenditures, and net exports. So, the impact of GDP on stock prices is positive and statistically significant (Luthfiana, 2017). However, Adiyadnya et al. (2016) and Jahfer & Inoue (2017) showed GDP's negative and significant impact on stock prices.

The exchange rate indicates the value of a country's currency (Krugman, 2005). A bear market in developing nations causes investors to transfer their investments to the US dollar, which is a safe-haven investment, according to Maharaj et al. (2019). The negative connection between the danger of a fall in asset prices and the US dollar shows the safe-haven quality of the US currency. According to Yahya and Muhammad (2011), Pratama & Azziz (2018), Alam et al. (2020), and Sutrisno (2017), the exchange rate versus the US dollar has a negative and substantial impact on stock prices. According to Nurein and Menacer (2017), the exchange rate versus the US Dollar may positively and substantially impact the price of Islamic Banking Stocks.

According to Samuelson & Nordhaus (2004), interest is the amount of money owed by a borrower over time, expressed as a percentage of the amount loaned. However, Islamic banking does not utilize interest rate instruments since Islam prohibits usury. According to Tandelilin (2010), investors choose interest-based investment products when interest rates are high because they provide a guaranteed return. According to several studies, including Yahya & Muhammad (2011), Pratama & Azziz (2018), Jahfer & Inoue (2017), and Alam et al. (2020), the interest rate has a negative and substantial impact on stock prices. However, as shown by Nurlina (2017), Nurein & Menacer (2017), Hajdrah et al. (2018), and Ilyanto (2020), there may be a positive connection between interest rates and banks stock values.

According to Suwito (2020), the JCI movement is an essential indication for investors to purchase, hold, or sell shares. Because the JCI represents the fundamentals of the Indonesian economy, an improvement in the Indonesian economy will have a favorable effect on stock market movements as assessed by the JCI.

Methods

This research utilized secondary data, namely weekly time-series data from January 2019 through December 2020. It uses data from the closing price of the BTPN Syariah shares (BTPS), Earnings per Share (EPS) of BTPS, Price to Book Value (PBV) of BTPS, Trading Volume Activity (TVA) of BTPS, Gross Domestic Product (GDP), USD/Rupiah Exchange Rate, Bank Indonesia Reference Interest Rate, and The Jakarta Composite Index (JCI). This study uses weekly data because, according to Basuki (2016), time-series data can only be analyzed if there are at least 50 units of observation. By selecting weekly data, 105 units of observation will be obtained.

PBV is calculated by dividing the total equity by the understanding shares volume. After that, EPS is calculated by dividing the total Net Profit by the understanding shares volume. Total equity and total Net profit of BTPN Syariah comes from the BTPN Syariah Quarterly Financial Report, and the understanding shares volume comes from the Indonesia Stock Exchange. Data for BTPS trading volume was obtained from Yahoo Finance and the Indonesia Stock Exchange. The BTPS share price closing data and the Jakarta Composite Index (JCI) come from Yahoo Finance. Then macroeconomic statistics from Indonesia, such as the Gross Domestic Product, Bank Indonesia interest rates, and US Dollar to Rupiah exchange rate, come from Statistics Indonesia and Bank Indonesia.

The analytical method used in this study is a quantitative analysis by the Vector Error Correction Model (VECM) technique. According to Juanda & Junaidi (2012), estimating the VECM requires multiple sets of pre-estimation testing. Pre-estimation tests include Data Stationarity, Optimum Lag, VAR Stability, and Cointegration. Pre-estimate experiments were performed to ensure reliable VECM estimation findings.

Mathematically, the implementation of the model in this study are as follows:

$$
\begin{pmatrix} \Delta LnBTPS_t \\ \Delta LnEPS_t \\ \Delta PBV_t \\ \Delta TVA_t \\ \Delta LnGDP_t \\ \Delta LnKURS_t \\ \Delta BI\_RATE_t \\ \Delta LnJCI_t \end{pmatrix} = \begin{bmatrix} \alpha_{10} \\ \alpha_{20} \\ \alpha_{30} \\ \alpha_{40} \\ \alpha_{50} \\ \alpha_{60} \\ \alpha_{70} \\ \alpha_{80} \end{bmatrix} + \begin{bmatrix} \alpha_{11} & \cdots & \alpha_{18} \\ \vdots & \ddots & \vdots \\ \alpha_{81} & \cdots & \alpha_{88} \end{bmatrix} \begin{bmatrix} \Delta LnBTPS_{t-1} \\ \Delta LnEPS_{t-1} \\ \Delta PBV_{t-1} \\ \Delta TVA_{t-1} \\ \Delta LnGDP_{t-1} \\ \Delta LnKURS_{t-1} \\ \Delta BI\_RATE_{t-1} \\ \Delta LnJCI_{t-1} \end{bmatrix} + \begin{bmatrix} e_{1t} \\ e_{2t} \\ e_{3t} \\ e_{4t} \\ e_{5t} \\ e_{6t} \\ e_{7t} \\ e_{8t} \end{bmatrix}
$$

Wherein:

LnBTPS = Natural logarithm of the closing price of BTPS Shares (IDR)

LnEPS = Natural logarithm of *Earning per Share* of BTPS (IDR)

PBV = *Price to Book Value* of BTPS (Ratio)

TVA   = *Trading Volume Activity* of BTPS (Percent)

LnGDP   = Natural logarithm of Gross Domestic Bruto (IDR)

LnKURS = Natural logarithm of USD to IDR exchange rate (IDR)

BI_RATE = Bank Indonesia Reference Interest Rate (Percent)

LnJCI   = Natural logarithm of The Jakarta Composite Index (Index)

Results and Discussion

Pre-Estimation test Result

Based on the Augmented Dicky Fuller stationarity test, it can be seen that only the EPS of BTPS and TVA of BTPS stocks are stationary at the level. At the same time, other variables are not stationary at the level levels. Then the data stationarity test is carried out at first difference, and it is found that all the variables in this study are stationary.

Table 2. Data Stationary Test Result

Variable	Level			First Difference		
	t-ADF	Mac Kinnon Critical Values	Prob*	t-ADF	Mac Kinnon Critical Values	Prob
LN BTPS	-2.047073	-3.453601	0.5686	-9.992607	-3.454032	0.0000*
LN EPS BTPS	-5.754676	-3.453601	0.0000*	-11.47863	-3.454032	0.0000*
PBV BTPS	-2.020767	-3.453601	0.5830	-10.06717	-3.454032	0.0000*
TVA BTPS	-4.318254	-3.453601	0.0044*	-12.0202	-3.454032	0.0000*
LN GDP	-2.119296	-3.453602	0.5287	-7.694075	-3.454032	0.0000*
LN KURS	-3.265854	-3.454471	0.0779	-8.346329	-3.454032	0.0000*
BI RATE	-2.988804	-3.453601	0.1404	-11.04492	-3.454032	0.0000*
LN JCI	-1.091162	-3.453601	0.9250	-8.749917	-3.454032	0.0000*

The * sign indicates a stationary variable at a 5% significance level

After the data stationarity test, the next step is the optimum lag test. The (*) sign in table 3 indicates the selected lag candidate based on the specified criteria. In this study, the selected lag is a lag based on the Swarz Information Criterion (SC) criteria, so the selected lag is lag one.

Table 3. Lag Optimum Test Result

Lag	LogL	LR	FPE	AIC	SC	HQ
0	342.4168	---------	1.40E-13	-6.895191	-6.682844	-6.809329
1	1101.867	1377.972	8.32E-20	-21.23438	-19.32325*	-20.46161*
2	1162.341	99.7514	9.17E-20	-21.16168	-17.55178	-19.70201
3	1249.298	129.0895	6.10E-20	-21.63500	-16.32632	-19.48843
4	1336.634	115.2478	4.30e-20*	-22.11616	-15.1087	-19.28269
5	1396.074	68.63201	5.92E-20	-22.02215	-13.31591	-18.50177
6	1452.824	56.16494	9.90E-20	-21.87266	-11.46764	-17.66538
7	1581.795	106.3678*	4.57E-20	-23.21227	-11.10847	-18.31809
8	1675.306	61.69801	5.94E-20	-23.82074*	-10.01817	-18.23966

Table 4. Johansen Cointegration Test Result

Trace Test				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.43574	196.8197	187.4701	0.0152
At most 1	0.340107	137.879	150.5585	0.2069
At most 2	0.301137	95.06419	117.7082	0.5387
At most 3	0.238692	58.15927	88.8038	0.8978
At most 4	0.131135	30.06944	63.8761	0.9951
At most 5	0.057873	15.59104	42.91525	0.9974
At most 6	0.052021	9.450666	25.87211	0.9462
At most 7	0.037606	3.948089	12.51798	0.7496
Maximum Eigenvalue Test				
Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.43574	58.94066	56.70519	0.0294
At most 1	0.340107	42.81484	50.59985	0.2551
At most 2	0.301137	36.90491	44.4972	0.263
At most 3	0.238692	28.08983	38.33101	0.4491
At most 4	0.131135	14.4784	32.11832	0.9624
At most 5	0.057873	6.140378	25.82321	0.9998
At most 6	0.052021	5.502577	19.38704	0.9737
At most 7	0.037606	3.948089	12.51798	0.7496

The VAR model in this study has a modulus value in the range of 0.500875 to 0.993346. The analysis uses the Impulse Response Function (IRF) and Forecast Error Decomposition Variance (FEVD) methods can be carried out and will produce accurate analysis.

In this study, cointegration testing has been carried out using the Johansen cointegration test to see whether there is a cointegration relationship between variables. Then, After the cointegration test, it can be seen that there is at least one cointegration rank, so the estimation chosen is the VECM estimation method.

Estimation VECM Result

The VECM estimate findings indicate a 0.628957 adjustment mechanism from short to long term, indicating the BTPS stock price will be adjusted 0.628957 towards long-term equilibrium. So only the JCI variable has a short-term impact. PBV, TVA, GDP, Bank Indonesia Reference Interest Rates, and the JCI are long-term factors that impact BTPS stock price.

Table 5. VECM Estimation Result

Variable	Long-Term	
	Coefficient	t-Statistics
LN_BTPS	1.0000000	
LN_EPS	0.0022667	[-0.72880]
PBV	0.1412473	[-33.4238]*
TVA	-0.009085	[3.22130]*
LN_GDP	-0.453613	[4.80838]*
LN_KURS	0.060466	[-0.48165]
BI_RATE	0.0971996	[-4.69715]*
LN_JCI	-0.1073245	[2.26916]*
	Short-Term	
CointEq1	-0.628957	[-2.01941]*
D(LN_BTPS(-1))	0.081488	[0.17239]
D(LN_EPS(-1))	-0.016949	[-0.84926]
D(PBV(-1))	-0.053461	[-0.50361]
D(TVA(-1))	0.00285	[0.26145]
D(LN_GDP(-1))	0.142058	[0.13866]
D(LN_KURS(-1))	-0.37962	[-0.70360]
D(LN_JCI(-1))	0.676415	[2.33481]*
D(BI_RATE(-1))	-0.077643	[-0.64309]

Company Internal Factors Influence on BTPS Share Price

The VECM results showed that in the short term, there is no company internal factors that have a significant influence on the stock price of BTPS. While in the long term, only PBV has a significant effect. The results of the VECM estimation in this study found that there is a positive effect of EPS on BTPS stock prices in the long term. Still, empirically there is insufficient evidence that EPS has a significant effect. Meanwhile, in the short term, EPS also has no significant effect on the stock price of BTPS. The results of this study support the research of Islam et al. (2014) and the research of Segoro and Andrian (2014), which found similar results.

The insignificant effect of EPS in the long term and short term in this study indicates that other factors influence the movement of BTPS stock prices. Islam et al. (2014) stated in their research that EPS does not fully reflect the dynamics of changes in stock prices; when EPS rises, it does not necessarily increase stock prices. Even in his research, several companies respond to the opposite. This indicates that several factors influence stock prices, such as macroeconomic factors, company policies, stock market conditions that are bearish or bullish, as well as the level of investor confidence in the company.

In the short term, PBV does not have a significant effect. However, in the long term, PBV has a positive and significant impact on BTPS's share price, which means that any increase in PBV will have an impact in the form of an increase in BTPS' share price, assuming other variables remain (*ceteris paribus*). The results of this study support the research of Antara & Suryatini (2019) and the research of Daniswara & Daryanto (2019), which found similar results.

This positive and significant relationship indicates high investor confidence in BTPS shares. This is because the ongoing Covid-19 pandemic has suppressed the economy in various sectors. The pressure on the economy causes investors to choose investment instruments that have haven properties owned by Islamic stocks as stated by Azad et al. (2018) because, in his research, it was found that Islamic stocks have a low risk when there is instability in the economy so that Islamic stocks become an alternative for investors to diversify investment risk. Islamic stocks own this low-risk characteristic because, according to Hussein and Omran (2005) in Azad et al. (2018), Islamic stocks have a good performance during a bear market. This is also in line with Bahemia (2018) research, which found that when a shock occurs, Islamic banks have better performance than conventional banks, so Islamic banks are more resilient than conventional banks.

Company External Factors Influence on BTPS Share Price

The results of the VECM estimation in this study indicate that TVA has a positive but not statistically significant effect in the short term. However, in the long term, TVA has a negative and significant impact on BTPS's stock price, which means that any increase in TVA will lower BTPS's stock price, assuming other variables are fixed (*ceteris paribus*). The results of this study contradict the results of research by Mamduch et al. (2016) but can be explained.

The negative effect of TVA on BTPS's stock price can occur because the stock trading mechanism that occurs in the stock exchange applies the law of supply and demand. If the supply of shares increases, it will lower the share price and increase trading volume, *ceteris paribus*. So if there is an offer (selling action) on a stock that increases with a large volume, it will pressure the stock price to decrease. This is in line with the findings of Sheleifer et al. (1992) in their research, which stated that when there is a sale or purchase action by investors in large numbers, it will also have a large impact on stock prices.

In the VECM estimation in this study, it is found that GDP has an insignificant effect on stock prices in the short term. Meanwhile, in the long term, GDP has a negative and significant effect on BTPS stock prices. A decline in GDP will increase BTPS stock prices, assuming other variables remain (*ceteris paribus*). The results of this study contradict the research conducted by Luthfiana (2017) but are in line with the research of Adiyadnya et al. (2016) and research by Jahfer & Inoue (2017).

The negative relationship between GDP and BTPS stock prices (investment) is indeed an anomaly, but considering the COVID-19 Pandemic, which caused the government to impose Large-Scale Social Restrictions, thus suppressing the economy in various sectors, which can be seen through Indonesia's economic growth as measured by GDP decreased for three consecutive quarters (YoY) in 2020. Hence, investors tend to switch to investment instruments that have haven properties to minimize losses and risks when the economy is unstable. These haven characteristics are owned by Islamic stocks, as stated in the research of Azad et al. (2018). Islamic stocks own this haven nature because Islamic stocks have good growth performance when the market declines trend or is called a bearish market, as found by Hussein and Omran (2005) in Azad et al. (2018).

The results of the VECM estimation in this study indicate that in the short term and long term, the exchange rate does not significantly affect the stock price of BTPS. The results of this study are in line with the research of Adiyadnya et al. (2016), who found the same thing, namely that there was no significant relationship

between the exchange rate and banking stock prices. This insignificant effect of the exchange rate on BTPS shares can occur because when there is instability in the economy, such as what has occurred due to the current Covid-19 pandemic, investors turn to investment instruments that have haven characteristics to protect their investment value from possible declines in value. According to Maharaj et al. (2019), The US dollar has haven characteristics, which is indicated by a negative relationship between the risk of a decline in asset values and the US dollar when there is instability in the economy.

But on the other hand, Islamic stocks also have haven properties, as stated by Azad et al. (2018). In his research, it was found that Islamic stocks have a low risk when there is instability in the economy, so Islamic stocks are also an alternative for investors to diversify investment risk. This is also in line with Bahemia (2018) research, which found that Islamic banks are more resilient than conventional banks when a shock occurs. So it can be concluded that the insignificant influence of the US Dollar exchange rate on BTPS shares can be caused by the characteristics of both of them, which are safe havens when the economy is in instability.

The VECM estimation results in this study found a positive and significant effect between Bank Indonesia interest rates and BTPS stock prices. An increase in Bank Indonesia's benchmark interest rate will positively affect BTPS stock prices. Or in other words, an increase in the Bank Indonesia Reference Interest Rate will cause the stock price of BTPS to increase, assuming the other variables remain constant (*ceteris paribus*). The results of this study are in line with those found by Hajdrah et al. (2018). Similar results are also found in the research by Nurein & Menacer (2017), which found a positive and significant relationship between interest rates and stock returns of Islamic banks.

This finding indicates that Islamic banks' interest rates and share prices have a consistent relationship. This happens because interest rates are related to Islamic bank margins. In principle, Islamic banks do not use interest rates because Islam forbids usury, but in determining margins, Islamic banks consider the interest rates that apply at the time of the contract.

At BTPN Syariah, the contract that dominates the financing distribution contract is the Murabaha contract. In this contract, the Islamic bank will set a margin when the contract is agreed on whose amount will not change until the financing is paid off so that the amount of profit earned by Islamic banks is certain (will not change) until payment of financing. The determination of the Murabaha margin for Islamic banks is determined by reference from the Asset Liability Management Committee (ALCO) team, taking into account the prevailing Bank

Indonesia benchmark interest rate and inflation expectations (Isnaliana, 2015). So it can be concluded, in determining the margin of Islamic banks, it can be in line with the benchmark interest rate of Bank Indonesia as found by Anik (2017), who found a positive and significant relationship between the reference interest rate of Bank Indonesia and the income of the Murabaha margin at Islamic banks.

This Islamic bank margin is certainly related to the book value of shares because one equity component is retained earnings. If this component of retained earnings increases, it will cause the company's equity to increase. The increase in the value of the company's equity causes the company's value as measured by book value also to increase. If the company's value increases, it can be said that the company is growing, then this will encourage investors to buy a stock so that in the end, the share price will increase and increase the Price to Book Value (PBV). This increase in PBV indicates a high level of investor confidence in a company that continues to grow, causing other investors to be moved to enter and invest in a stock. This relationship is in line with what has been discussed in the previous discussion, that PBV has a positive and significant relationship to the stock price of BTPS. In addition, that analysis is based on the fact that BTPN Syariah equity continues to grow during the Covid-19 Pandemic as indicated by the change in the category of BTPN Syariah, which was initially at BUKU (Commercial Banks Group of Business Activities) II Bank to BUKU III Bank with the issuance of the Financial Services Authority decision S-144/PB.34/2020 dated July 7, 2020.
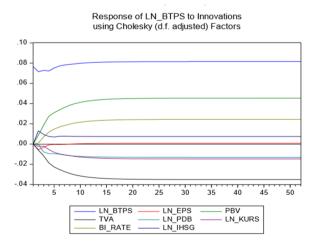
The results of the VECM estimation in this study found a positive and significant effect between the JCI and the stock price of BTPS in the short term. This positive and significant influence supports the research of Suwito (2020), which finds the same result, namely the JCI has a positive and significant effect on the price of banking shares listed on the Indonesia Stock Exchange. This is in following the opinion of Hanafi (2015), which stated that the JCI is closely related to the activities of foreign inflows and foreign outflows. When the fundamentals of the Indonesian economy show good performance, it creates a high inflow of capital so that it can provide a positive sentiment for the JCI and vice versa. However, in general, the flow of foreign capital in or out has a short-term effect. So that in the short term, any increase in the JCI will cause an increase in BTPS shares, assuming the other variables are fixed (*ceteris paribus*).

However, in the long term, the VECM estimation results show the opposite relationship, namely the finding of a negative and significant relationship between the JCI and the stock price of BTPS, which means that any decrease in the JCI will cause the stock price of BTPS to increase, assuming the other variables remain

constant (ceteris paribus). This negative relationship indicates that investors will pay attention to stock market trends in the long term. When the stock market conditions are bearish, investors will choose investments with hedging properties to minimize losses owned by Islamic stocks, Azad et al. (2018). Islamic stocks own this hedging nature because when market conditions are bearish, Islamic stocks have a better performance, as found by Hussein and Omran (2005) in Azad et al. (2018).

In Islamic bank stocks, especially BTPS shares, the phenomenon contained in the research of Azad et al. (2018) and Hussein and Omran (2005) are in line with what happened during the research period because if you look at the performance of BTPS shares compared to the performance of the JCI, it does show better performance, because if the performance of BTPS shares is compared to the JCI since the beginning of the period research, in January 2019 the stock price of BTPS was still at IDR 1,955 per share and grew 91.8 percent to IDR 3,750 per share at the end of December 2020, while the JCI was at IDR 6,287 in January 2019 and fell 4 percent to IDR 6,036 in January 2019. end of December 2020. Then during the COVID-19 Pandemic, especially on April 21, 2020, BTPS touched the price of IDR 1,995 per share (increased 2 percent from January 2019) while the JCI was at IDR 4,513 (decreased 28.2 percent from January 2019).

Impulse Response Function Analysis Result

Figure 1. Impulse Response Function Analysis Result

In the first week, the EPS shock of one standard deviation had no impact on BTPS's share price, but in the second week, it did. It grew steadily over the

next three weeks, stabilizing at 0.00074 percent from the 27th week. That aligns with Talamati and Pangemanan's (2015) and Prayogo and Lestari's (2018) study findings that EPS positively impacts BTPS stock prices.

The BTPS share price has reacted favorably to the PBV shock of one standard deviation in the second week and steadily rose in the third week until it achieved stability in the 26th week with a positive response of 0.0453 percent. These findings support the findings of Antara and Suryatini (2019) and Daniswara and Daryanto (2019), who showed a favorable relationship between PBV and BTPS share prices.

BTPS' stock price did not react to a one standard deviation TVA shock in the first week but did in the second week, and the response progressively declined in the third week until it stabilized in the 17th week with a negative response -0.035 percent.

BTPS' stock price did not react to a one standard deviation GDP shock in the first week but did in the second week, and the response progressively declined in the third week until it stabilized in the 20th week that the stock price of BTPS stabilized with a negative reaction of -0.0132 percent. These findings support the findings of Adiyadnya et al. (2016) that discovered a strong negative relationship between banks' stock prices and GDP. After that, according to Jahfer & Inoue (2017), stock prices are negatively related to the GDP.

Its stock price did not react to a one standard deviation exchange rate shock in the first week but did in the second week. It continued to decline in the third week until it stabilized in the 22nd week when it finally responded negatively -0.0147 percent. Pratama and Azziz's (2018) study supports the exchange rate's detrimental impact on stock prices.

The stock price of BTPS did not react to Bank Indonesia's benchmark interest rate shock of one standard deviation in the first week but did in the second week, and steadily rose in the third week until it achieved stability in the 16th week with a positive response of 0.024 percent. Such a good reaction bolsters Hajdrah et al.'s study (2018). So, according to Nurein & Menacer (2017), there is a strong positive connection between Islamic bank interest rates and stock returns.

Its stock price did not respond to the JCI shock of one standard deviation in the first week but does in the second week when it did, and then fell to 0.006932 percent in the fifth week, before rising again in the 6th week to reach stability in the 9th week with a positive response of 0.0074 percent. The JCI's positive impact on stock prices is supported by Suwito (2020).

BTPS stock prices were affected by themselves 100 percent in the first week. From the second week, additional variable shocks started to influence the variety of

BTPS stock prices, and the BTPS stock price variable's contribution to influencing itself continued to decrease.
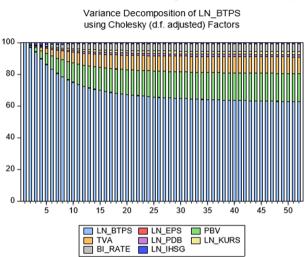
Figure 2. Forecast Error Variance Decomposition (FEVD) Analysis Result

In the last period of observation, BTPS's share price influenced itself at 62.89 percent, followed by PBV at 17.65 percent, TVA at 10.55 percent, and the Bank Indonesia Reference Interest Rate at 4.99 percent. Other factors (Exchange Rate, GDP, JCI, and EPS) contributed less than 4 percent to the BTPS Shares price.

Conclusion

To con, VECM indicates that in the short term, only the JCI variable had a significant effect on the stock price of BTPS. While in the long term, the variables of PBV, TVA, GDP, Bank Indonesia Reference Rate, and JCI have a significant effect on BTPS stock price.

IRF analysis showed that shocks in the EPS variable responded positively and stable at 27th week, shocks in the PBV variable responded positively and stable from the 26th week, shocks in the TVA variable responded negatively and stable at 17th week, shocks in the GDP variable responded negatively and stable at 20th week, shocks in the exchange rates variable responded negatively and stable at 22nd week, shocks in the Bank Indonesia Reference Interest Rate variable responded positively and stable at 16th week, shocks in the JCI variable responded positively and stable from the 9th week.

According to the FEVD analysis, the BTPS stock price influenced the PBV variable at 17.65 percent, TVA at 10.55 percent, and the Bank Indonesia Reference Interest Rate at 4.99 percent. The results of the FEVD analysis can be used as a guide for investors to observe changes in the PBV, Bank Indonesia Reference Interest Rate, and TVA variables, which are the three factors that have the greatest impact on fluctuations in the stock price of BTPN Syariah (BTPS).

According to the result of this study, the stock price of BTPS is negatively impacted by GDP and negatively affected by GDP shocks. The BTPS shares continued to rise even when the GDP growth slowed because of the Covid-19 Pandemic. In addition, the BTPN Syariah Bank's performance has improved. As a result of the Financial Services Authority's decision S-144/PB.34/2020, July 7th 2020, the BTPN Syariah Bank has moved from BUKU II to BUKU III. This growth reflects the growth of Islamic bank equity during the pandemic, reducing the national economy's performance.

Therefore, the Government, banking regulators, specifically the Financial Services Authority and Bank Indonesia, are strongly advised to work together to strengthen Islamic banks that can withstand economic shocks. As a result, the national economy will be more resilient.

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