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Effects of Monetary Policy on Inflation and National Economy Based on Analysis of Bank Indonesia Annual Report

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Abstract.This study focuses on analysis (1) money supply effect, previous period money supply, the level of SBI (Bank Indonesia Certificate), the exchange rate, and the economy on inflation in Indonesia (2) The effect of inflation, domestic investment, previous period domestic investment, foreign investment, previous period foreign investment, and economic labor in Indonesia. Time series data using the simultaneous analysis model equation of the Two-Stage Least Squared (TSLS) method. The results of the study concluded that (1) the money supply had a significant and positive impact on inflation, the money supply in the previous period had a significant and positive impact on inflation, the SBI rate had a significant and negative effect on inflation, the exchange rate had a significant and positive effect on inflation. Meanwhile, the national economy has no significant and positive effect on inflation. If the money supply increases, inflation will increase. If the money supply in the previous period increased, inflation would also increase. If the SBI interest rate rises, inflation will depreciate. If the exchange rate rises, inflation will appreciate. If the level of the national economy rises, inflation will appreciate. (2) Domestic investment, previous period domestic investment, foreign investment, previous period foreign investment, and labor have a significant effect on the economy in Indonesia, while the inflation rate has no significant effect on the economy in Indonesia

Keywords. Monetary Policy, Inflation, National Economy

Intorduction

Bank Indonesia as the national central bank uses the SBI benchmark interest rate instrument in controlling inflation in Indonesia. According to Baroroh in Hudaya (2011: 28), the relationship between the SBI interest rate and the inflation rate will encourage a short-term interest rate increase in the money market. Likewise, long-term interest rates, where producers will respond to rising interest rates by reducing their investment capital. So the results of domestic production (output) also declined along with the decline in the level of domestic inflation. Inflation is an economic phenomenon that has a wide impact on the national economy. This phenomenon will cause a continuous increase in price levels (Mc Eachern, 2000: 133). Inflation can have a positive or negative impact on the economy

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depending on the effects it causes. This situation tends to occur in developing countries with agrarian-style economic structures. Failure or shocks in the country will cause fluctuations in domestic market prices and inflation in the structure of the national economy (Baasir, 2003: 265). The global economy in 2018 is marked by the uncertainty of the world triggered by three unfavorable developments, namely: slower world economic growth, faster FFR rising, and high uncertainty on global financial markets. This uncertainty was responded by various countries by optimizing monetary and fiscal policies. Structural reforms continue to strengthen sustainable economic growth. Another case with the momentum of Indonesia's economic growth in 2018 remains solid amid slowing global economic growth. The growth of the national economy is supported by the high level of domestic demand. Increased economic growth has a positive impact on reducing unemployment, poverty, and social inequality.

The less conducive global economy put pressure on Indonesia's payments balance in 2018, especially Quarter II and III. The synergy of policies of Bank Indonesia, the Government, and related authorities could strengthen the performance of the balance of payments so that the balance of payments in the fourth quarter of 2018 recorded a surplus, and the pressure on the rupiah was controlled. Policy responses can lead to strong external resilience. This response was also carried out in conjunction with structural improvements in inflation and helped to push the inflation rate in 2018 to remain low in the range of 3.5 - 1%.

Besides being influenced by the rate of inflation, the national economy is also influenced by other factors, namely: investment and labor. According to Todaro (2000: 137), there are three main factors or components in the economic growth of each nation, all of which are capital accumulation covering all forms or types of new investments in land, physical equipment, and human resources. New investment as capital stock can be used as a tool to restore the economy. Domestic and foreign capital investment are solutions to meet investment needs. The low level of national inflation in 2018 is supported by controlled inflation in various regions. The realization of inflation in most regions is within the national inflation target range of 3.5 - 1%. The development of regional inflation was accompanied by a pattern of movement in the national inflation target. The national inflation rate is supported by the realization of low inflation in Sumatra and Java. The development of the inflation in Sumatra during 2018 was in the declining range so that by the end of 2018 the inflation was far lower than the historical average. The realization of inflation in various regions in Java was quite low, which was in the range of 3%, including the DKI Jakarta area which has a large share in the formation of national inflation. Meanwhile, inflationary pressures in eastern Indonesia tended to be stronger, especially in Central Sulawesi, Papua, West Papua, North Kalimantan and Central Kalimantan due to the effects of natural disasters and food supply constraints.

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Table 1. World Economic Growth (%)

Countries / Group of Countries	2015	2016	2017	2018 *)
World	**3.5**	**3.3**	**3.8**	**3.7**
Developed Countries	**2.3**	**1.7**	**2.4**	**2.3**
USA	2.9	1.6	2.2	2.9
Japan	1.3	0.6	1.9	0.8
Europe	2.1	2	2.4	1.8
England	2.3	1.8	1.8	1.4
Developing Countries	**4.3**	**4.4**	**4.7**	**4.6**
Asia	6.8	6.5	6.5	6.5
China	6.9	6.7	6.8	6.6
India	7.6	8	6.3	7.3
Middle East and North Africa (MENA)	2.4	5.2	2.2	2.4
Latin America	0.3	-0.6	1.3	1.1

*) Based on country releases until February 19, 2019. Data USA and India are IMF projections
Source: WEO January 2019, each release state

Table 2. Domestic Economic Growth (%)

Components of Gross Domestic Product	2014	2015	2016	2017	2018 i	2018 ii	2018 iii	2018 iv	2018 total
Domestic Demand *)	**4.62**	**4.94**	**4.39**	**5.13**	**5.86**	**5.44**	**5.81**	**5.41**	**5.62**
Private Consumption	5.28	4.84	5.04	4.98	5.01	5.23	5.07	5.20	5.13
Household Consumption	5.15	4.96	5.01	4.94	4.94	5.16	5.00	5.08	5.05
Consumption of LNPRT	12.19	-0.62	6.64	6.93	8.10	8.75	8.59	10.79	9.08
Government consumption	1.16	5.31	-0.14	2.13	2.71	5.20	6.27	4.56	4.80
Investments	5.66	3.00	4.99	5.69	8.38	8.35	6.53	10.93	8.52
GFCF	4.45	5.01	4.47	6.15	7.94	5.85	6.96	6.01	6.67
Building	5.52	6.11	5.18	6.24	6.16	5.02	5.66	5.02	5.45
Non-Building	1.58	1.93	2.43	5.90	13.56	8.33	10.73	8.96	10.31
Changes in Inventory **	0.48	-0.59	0.23	-0.07	0.35	0.98	-0.02	1.53	0.71
**Net Exports ** **	**-0.24**	**0.94**	**0.13**	**0.31**	**-1.16**	**-1.22**	**-0.98**	**-0.58**	**-0.98**
Exports	1.07	-2.12	-1.66	8.91	5.94	7.65	8.08	4.33	6.48
Imports	2.12	-6.15	-2.41	8.06	12.64	15.17	14.02	7.10	12.04
Gross Domestic Product	**5.01**	**4.88**	**5.03**	**5.07**	**5.06**	**5.27**	**5.17**	**5.18**	**5.17**

* Domestic Demand is Consumption Expenditures (Private + Government) and Gross Domestic Fixed Capital Formation
** Consumption of Gross Domestic Product

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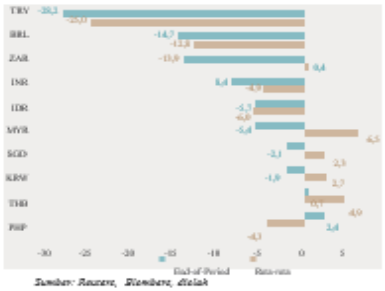
Table 3. Indonesia's Balance of Payments (USD billion)

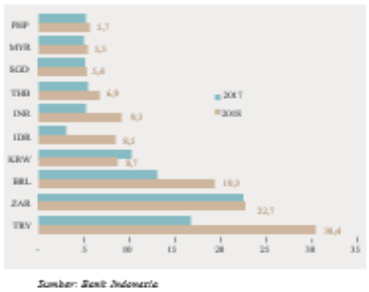
Details of	2016	2017					2018				
		i	ii	iii	iv	total	i*	ii*	iii*	iv*	total
i. Current Account	**-17.0**	**-2**	**-4.4**	**-4.2**	**-5.6**	**-16.2**	**-5.3**	**-7.9**	**-8.6**	**-9.1**	**-31.1**
a. Goods, net	**15.3**	**5.6**	**4.8**	**5.3**	**3.1**	**18.8**	**2.3**	**0.3**	**-0.5**	**-2.6**	**-0.4**
1. Exports	144.5	40.8	39.2	43.4	45.6	168.9	44.4	43.7	47.7	44.9	180.7
2. Imports	-129.2	-35.1	-34.3	-38.1	-42.5	-150.1	-42.1	-43.5	-48.2	-47.5	-181.2
b. Services, net	**-7.1**	**-1.1**	**-2**	**-2.1**	**-2.1**	**-7.4**	**-1.6**	**-1.8**	**-2**	**-1.6**	**-7.1**
c. Primary Income, net	**-29.6**	**-7.7**	**-8.1**	**-8.6**	**-7.8**	**-32.1**	**-7.5**	**-8.0**	**-7.9**	**-7.0**	**-30.4**
d. Secondary Income, net	**4.5**	**1.1**	**1.0**	**1.1**	**1.2**	**4.5**	**1.4**	**1.6**	**1.8**	**2.0**	**6.9**
ii. Capital & Financial Transactions	**29.3**	**6.7**	**5.3**	**9.6**	**7.1**	**28.7**	**2.3**	**3.3**	**3.9**	**15.7**	**25.2**
a. Capital Transactions	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.1**
b. Financial Transactions	29.3	6.7	5.3	9.6	7.1	28.7	2.1	3.3	3.9	15.7	25.1
1. Direct Investment, net	16.1	2.6	4.5	7.0	4.4	18.5	4.8	2.5	4.6	2.0	13.8
2. Portfolio Investment, net	19.0	6.5	8.1	3.8	2.6	21.1	-1.1	0.1	-0.1	10.4	9.3
3. Financial Derivatives, net	-0.0	-0.1	0.0	-0.0	-0.1	-0.1	0.1	0.0	0.1	-0.2	-0.1
4. Other Investment, net	-5.8	-2.5	-7.3	-1.2	0.2	-10.7	-1.5	0.7	-0.7	3.5	2.0
iii. Total (i+ ii)	**12.4**	**4.6**	**1.0**	**5.4**	**1.6**	**12.5**	**-3.1**	**-4.6**	**-4.7**	**6.5**	**-5.9**
iv. Net Difference Calculation	**-0.3**	**-0.1**	**-0.2**	**-0.0**	**-0.6**	**-1.0**	**-0.8**	**0.3**	**0.3**	**-1.1**	**-1.3**
v. Overall Balance Sheet (iii + iv)	**12.1**	**4.5**	**0.7**	**5.4**	**1.0**	**11.6**	**-3.9**	**-4.3**	**-4.4**	**5.4**	**-7.1**
vi. International Reserves and Related	**-12.1**	**-4.5**	**-0.7**	**-5.4**	**-1.0**	**-11.6**	**3.9**	**4.3**	**4.4**	**-5.4**	**7.1**
Memorandum :											
1. Position of International Reserves	116.4	121.8	123.1	129.4	130.2	130.2	126.0	119.8	114.8	120.7	120.7
2. In the Import and Payments Foreign Debt	8.4	8.6	8.8	8.6	8.3	8.3	7.7	6.9	6.3	6.5	6.5
3. Current Account / Gross Domestic Product (%)	-1.82	-0.84	-1.73	-1.61	-2.16	-1.60	-2.07	-3.01	-3.28	-3.57	-2.98

* preliminary figures ** very temporary figures
Source: Bank Indonesia

Grafik 1. Perubahan Nilai Tukar



Grafik 2. Volatilitas Nilai Tukar



Grafik 3. Realisasi Inflasi IHK dan Sasaran Inflasi

Monetary policy is focused on maintaining the stability of the rupiah exchange rate, amid the uncertainty of the global economy which tends to increase. Economic developments up to the third quarter of 2018 show symptoms of rising FFR in the United States and the uncertainty of global financial markets has reduced foreign capital inflows to various developing countries, including Indonesia. This condition certainly affected the structure of the domestic monetary policy. A widening level of the current account deficit and reduced foreign capital inflows have reduced the performance of the balance of payments and increased pressure on the rupiah exchange rate. This challenge is particularly evident in Quarter II and III of 2018, so it needs to be responded quickly because it will disrupt the stability of the national economy, financial system, and the momentum of economic recovery.

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Theoretical Framework

A. Factors that influence inflation :

1. Influence of the Amount of Money Supply on Inflation

   According to Mankiw (2006:81), countries with high money growth have high levels of inflation tendencies and vice versa. This is consistent with the quantity theory that increases in a 1% money growth rate it causes a 1% increase in the inflation rate.

2. The Effect of SBI Interest Rates on Inflation

   According to Baroroh in Hudaya (2011: 28), the relationship between SBI interest rates and the rate of inflation will encourage an increase in short-term interest rates on the money market. Likewise, long-term interest rates, where producers will respond to rising interest rates by reducing their investment capital. So the results of domestic production (output) also declined along with the decline in the level of domestic inflation.

3. Effects of Exchange Rates on Inflation

   The weakening of the rupiah exchange rate makes the price of imported goods increase due to the need for more rupiah to obtain imported goods. This is also the case with imported production raw materials. This will increase the price of domestic production which results in inflation. Depreciation of the rupiah against foreign currencies increased the value of exports. Cheaper domestic goods prices attract foreigners to increase the amount of demand for goods so that the price slowly rises causing inflation (Sipayung: 2013: 337).

B. Factors That Affecting the National Economy

1. Effect of Investment on the Economy

   According to Todaro (2000: 137), there are three main factors or components in the economic growth of each nation, all of which are capital accumulation covering all forms or types of new investments in land, physical equipment, and resources human power. New investment as capital stock can be used as a tool to restore the economy. Domestic and foreign capital investment are solutions to meet investment needs. Capital accumulation occurs when a portion of income is saved and reinvested to enlarge output and future income. The procurement of new factories, machinery, equipment, and raw materials increases the physical capital stock of a country and this allows for an increase in output in the future.

2. The Effect of Labor on the Economy

   According to Pratama (2008: 136), the addition of labor factors is very influential on increasing output. The problem is: how much additional labor will increase output. It depends on how quickly "The Law of Diminishing Return (TLDR)" occurs. While sooner or later the process is determined by the quality of human resources and the relationship with the progress of production technology. As long as there is a synergy between labor and technology, the addition of labor will spur economic growth.

3. Inflation and Economic Causality

   According to Maqrobi (2011: 2), in an economy, inflation and economic growth are interrelated. If the level of inflation is high then it can cause slowing economic growth, on the contrary, relatively low and stable inflation can encourage economic growth. Likewise, high economic growth can trigger high inflation through an increase in aggregate demand.

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C. Previous Research

The results of previous studies conducted by Primawan Wisda Nugroho and Maruto Umar Basuki (2012) entitled "Analysis of Factors Affecting Inflation in Indonesia". By using the OLS method it is concluded that the GDP and SBI variables have a positive and significant effect on the inflation rate, the JUB (M2) variable has a negative and significant effect on inflation while the exchange rate variable has a positive and not significant effect on inflation. Then, the results of research conducted by Chandra Budi (2009) entitled "Analysis of the Effect of SBI Interest Rates on Macroeconomic Variables in Indonesia". By using descriptive methods through several regression analysis tools, it is concluded that the SBI interest rate has a positive and significant effect on the rupiah exchange rate & inflation, but not significantly on the JUB, the SBI interest rate has a negative and not significant effect on GDP. The results of a study conducted by Fery Andrianus & Niko Amelia (2006) entitled "Factors affecting Inflation in Indonesia". By using the OLS method and the Partial Adjustment Model it is concluded that the influence of the interest rate is very dominant on inflation in Indonesia compared to the exchange rate. Then a subsequent study by Hertiana Ikasari (2005) entitled "Determinants of Inflation (Classical Approach)". By using the ECM (Error Correction Model) method it is concluded that in the short term, the base money variable does not significantly influence the inflation rate, on the other hand, the Real GDP variable has a significant effect on the inflation rate. The base money variable in the previous quarter had a significant effect on the inflation rate, while the Real GDP variable in the previous quarter had no significant effect on inflation. In the long run, the base money variable has no significant effect on the inflation rate, on the contrary, the Real GDP variable has a significant effect on the inflation rate.

Research Methods

The data in this study came from secondary data obtained by several sources including Indonesian Financial Economic Statistics (SEKI) and National Economic Reports from various editions published by Bank Indonesia, the Central Statistics Agency (BPS), and the Investment Coordinating Board (BKPM) various editions.

A. **Stationary Test**

Table 4. Stationary Test Results Research Variable

Name Variable	Level	Value Probability
Economic(Y)	1st difference	0.0000
Inflation (Inf)	1st difference	0,0003
Amount of Money Supply (M2)	1st difference	0.0000
Amount of Money Circulating of the Previous Period (M2t-1)	1st difference	0.0000
SBI Interest Rate (R)	1st difference	0,0006
Exchange rate (E)	1st difference	0.0000
Domestic Investment (Id)	2nd difference	0.0000
Domestic Investment of the Previous Period (Idt-1)	2nd difference	0.0000
Foreign Investment (Ia)	1st difference	0.0045
Foreign Investment of the Previous Period (Iat-1)	2nd difference	0.0000
Labor (L)	2nd difference	0.0032

Source: Results of Data Processing Eviews 6, n = 48, α = 0.05

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B. Cointegration Test

Table 5. Cointegration Test Results

Remarks	Coefisient	Std. Error	t-Statistic	Probability
RESIDUAL1 (-1)	-1.404732	0.140247	-10.01613	0.0000
RESIDUAL2 (-1)	-0.863319	0.147459	-5.854640	0.0000

Source: Results of Data Processing Eviews 6, n = 48, α = 0.05

Table 5 is known that in the equation RESIDUAL 1 (-1), as well as the RESIDUAL equation 2 (-1) the probability is small than α = 0.05. Each equation in this study is cointegrated or explained to each other. Although the variables in this study each equation are stationary to a different degree it is still co-integrated, namely, there is a long-term relationship or balance between these variables. Thus the equation no longer contains the problem of spurious regret (spurious regression).

C. Granger Causality Test

Table 6. Granger Causality Test Results

Hypothesis	F-Statistic	Probability of
INF Granger Cause Y	4.86693	0.0071
Y Granger Cause INF	6.98677	0.0028

Source: Results of Data Process Eviews 6, n = 48 α = 0.05

Granger Causality Test Results in Table 6 obtained inflation probability value (INF) to the economy (Y) is small than α = 0.05. While the economic probability value (Y) to inflation (INF) is also small than α = 0.05. So that Ho is rejected and Ha is accepted, this means that the inflation variable and the national economy have a two-way or mutually influential relationship.

D. Identification Test

Table 7. Identification Test Eq

Eq	Kk	m-1	Results	Identification
INF	6-4	2-1	2> 1	Overidentified
Y	7-5	2-1	2> 1	Overidentified

Sources: Data Sports Results Eviews 6, n = 48 α = 0.05

The results of the identification test using the order condition for the above equation can be concluded that all existing equations are overidentified, so to estimate the parameters of the equation is using Two Stages Least Squared (TSLS) method. So the estimation of the coefficient will still not be biased because this is the advantage of the method.

E. Reduce Form

The results of the reduced form equation (1) and (2) are as follows:

$$INF_t = \prod 0 + \prod 1\ LogM2_t + \prod 2\ LogM2_{t-1} + \prod 3\ R_t + \prod 4\ LogE_t + \prod 5\ LogId_t + \prod 6 LogId_{t-1} + \prod 7\ LogIa_t + \prod 8\ LogIa_{t-1} + \prod 9\ LogL_t + \prod 10 \mu_t$$

Technium Social Sciences Journal
Vol. 10, 423-435, August 2020
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$$LogY_t = \Pi_0 + \Pi_1\ LogM2_t + \Pi_2\ LogM2_{t-1} + \Pi_3 R_t + \Pi_4 LogE_t + \Pi_5\ LogId_t + \Pi_6\ LogId_{t-1} + \Pi_7 LogIa_t + \Pi_8 LogIa_{t-1} + \Pi_9 LogL_t + \Pi_{10}\mu_{1t}$$

Results reduce form can be seen that the endogenous variable is inflation and the economy, while the exogenous variable is the amount of money in circulation, the money supply in the previous period, SBI interest rates, exchange rates, domestic investment, domestic investment in the previous period, foreign investment, foreign investment in the previous period and labor.

Result and Discussion

A. Inflation Model

The results of the estimation of the inflation equation processed using eviews 6 can be shown in Table 7. From the estimations made, the inflation equation model is obtained as follows:

$$INFt = -86{,}476 + 2{,}232 logM2t + 3{,}477 logM2t\text{-}1 - 0.993 Rt + 3{,}303 logEt + 2.888 logYt$$

The estimation of the simultaneous inflation (INF) model is influenced by the money supply, the money supply in the previous period, the SBI interest rate, the exchange rate, and the economy.

Table 8. Estimation Results of the Inflation Equation
Dependent Variable: INFT
Method: Two-Stage Least Squares

Variab le	Coefficient	Std. Error	t-Statistic	Prob.
C	-86.47655	35.27101	-2.451774	0.0341
LOG(M2T)	2.232431	0.748050	2.984334	0.0036
LOG(M2T1)	3.477334	1,495934	2.324523	0.0415
RT	-0.993544	0.209501	-4.742428	0.0000
LOG(ET)	3.303861	1.285809	2.569481	0.0021
LOG(YT)	2.888058	25.68294	0.112450	0.9110
R-squared	0.603056	Mean dependent var		8.309792
Adjusted R-squared	0.555801	S.D. dependent var		3.663314
S.E. of regression	2.441536	Sum squared resid		250.3660
F-statistic	12.55107	Durbin-Watson stat		0.646033
Prob(F-statistic)	0.000000	Second-Stage SSR		256.6432

Source: Results of data processing eviews

B. National Economic Equation Model

The estimation results of the economic equation can be shown in table 9. From the estimation made, the economic equation model is obtained as follows:

$$logYt = -13{,}384 - 0.004 Inft + 0.029 logIdt + 0.013 logIdt\text{-}1 + 0.005 logIat + 0.005 logIat\text{-}1 + 2{,}587 logLt$$

Technium Social Sciences Journal
Vol. 10, 423-435, August 2020
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Estimated simultaneous economic model (Y) in Indonesia is influenced by inflation, domestic investment, previous period domestic investment, foreign investment, previous investment period, and Labor.

Table 9. Results of Estimates of the Economic Equation

Variable	Coefficie nt	Std. Error	t-Statistic	Prob.
C	-13.38448	2.654420	-5.042336	0.0000
INFT	-0.004167	0.003351	-1.243756	0.2207
LOG(IDT)	0.029639	0.012892	2.298934	0.0202
LOG(IDT1)	0.013276	0.005204	2.551084	0.0058
LOG(IAT)	0.005256	0.001603	3.277495	0.0078
LOG(IAT1)	0.005807	0.001366	4.249946	0.0080
LOG(LT)	2.587730	0.290269	8.914938	0.0000
Adjusted R-squared	0.955920	S.D. dependent var		0.185672
S.E. of regressi on	0.038982	Sum squared resid		0.062304
F-statistic	170.1526	Durbin-Watson stat		0.976257
Prob(F-statistic)	0.000000	Second-Stage SSR		0.068891

Source: Results of data processing eviews.

C. National Economic Planning Model

Prediction techniques in this study using ARIMA prediction techniques. ARIMA stands for Autoregressive Integrated Moving Average. This estimation model is used to predict the economy (Y) in the form of AR (1), AR (3), AR (4), AR (5) patterns with the first difference as follows:

$$DYt = a + \alpha 1 \beta Yt\text{-}1 + \alpha 3\ \beta Yt\text{-}3 + \alpha 4 \beta Yt\text{-}4 + \alpha 5 \beta Yt\text{-}5$$

The estimation results of the model for forecasting the economy over the next 5 years are:

$$D\ (YT) = 921.787150944 - 0.543561417213 * D\ (YT\ (-1)) + 0.0300913466234 * D\ (YT\ (-3)) +$$

$$0.902341621765 * D\ (YT\ (-4)) + 0.583791263659 * D\ (YT\ (-5))$$

The estimation of the model shows that the economic outlook in Indonesia continues to increase over the next 5 years. As for the influence of the Amount of Money Supply, the Amount of Money Supply in the Previous Period, the SBI Interest Rate, the Exchange Rate, and the national economy on inflation in Indonesia are explained as follows:

The money supply, the money supply in the previous period, the SBI interest rate, the exchange rate, and the economy together, have the same significant effect on inflation in Indonesia. Partially, the money supply has a significant and positive influence on inflation in Indonesia. There is a significant and positive influence between the money supply to inflation indicating that inflation in Indonesia is determined by the money supply in the same direction. If the money supply increases, inflation will rise. Vice versa, if the money supply decreases, inflation will also fall. An increase in the money supply in the community causes many to hold money and this drives domestic demand to increase. Increased domestic demand was

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Vol. 10, 423-435, August 2020
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www.techniumscience.com

triggered by the rising consumptive character of society. If the consumptive character of the community increases but is not offset by an increase in the number of goods produced, the price of domestic goods will rise due to a scarcity of these goods. If the community continues to increase their expenditure, prices will rise in general and there will be inflation in the long run, which has the potential to disrupt the national economy. The results of this study are in line with the theory put forward by Mankiw (2006: 81) stating that countries that have high money growth tend to have high inflation while countries that have low money growth tend to have low inflation.

SBI interest rates have a partial and significant negative effect on inflation in Indonesia. An increase in SBI interest rates will reduce inflation. The decline in inflation was caused by the public being more motivated to save money in banks in the form of deposits and savings because they expect a favorable return. Therefore an increase in SBI interest rates will be followed by a reduction in the money supply. This will cause a decrease in the demand for goods and services due to people's reluctance to buy goods and services because saving money in a bank is more profitable than spending money. Furthermore, the decline in demand for goods and services will trigger a decline in prices so that it can reduce inflation. The results of this study are in line with research conducted by Hudaya (2011: 68) conducting a causality test between SBI interest rates and inflation. The results of his research indicate that there is a causal relationship between SBI interest rates and inflation. The exchange rate partially has a significant and positive effect on inflation in Indonesia. If the value of the rupiah against the US dollar weakens then inflation will rise, and if the value of the rupiah against the US dollar strengthens then inflation will fall. This is because when the rupiah exchange rate depreciates, the price of imported goods will rise, causing the cost of imported raw materials to rise. Rising costs of imported raw materials cause production output to decline. The results of this study are in line with research by Andrianus (2006: 180) which states that changes in the exchange rate of the rupiah or the strengthening value of the US dollar against the rupiah will cause inflation in Indonesia.

The influence of the national economy on inflation in Indonesia is not significant. An increase in the economy is not always followed by rising inflation and vice versa. A slowdown in the economy is not always accompanied by a fall in inflation. A declining economy can cause inflation to rise, this is due to a decrease in national output due to rising world oil prices which trigger an increase in prices of goods & services in general, resulting in reduced production of domestic goods and services. From the demand side, an increase in aggregate demand in the short-run results in an increase in an output that occurs in the short term prices are rigid and the economy is not in full employment conditions yet so that the increase in aggregate demand does not produce inflation.

Foreign investment partially has a significant and positive effect on the national economy. This positive and significant influence indicates that foreign investment does indeed affect the economy in Indonesia. Increasing foreign investment will lead to an increase in the economy in Indonesia because foreign investment has been one of the important sources of financing (capital) for Indonesia and can make a significant contribution to development through asset transfer and management, knowledge, and technology transfer to drive the Indonesian economy. The results of this study are in line with research by Syaparuddin and Heri Hermawan (2005: 14) which states that foreign direct investment (FDI) has a positive impact, although not significantly to PDB. However, this research is not in line with research conducted by Kustituanto and Istikomah in Serwedi (2002) which states that in

Technium Social Sciences Journal
Vol. 10, 423-435, August 2020
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www.techniumscience.com

the short and long term, PMA does not affect economic growth. This is due to (1) Country Risk the small domestic market which causes a low rate of return from the capital and the lack of supporting facilities & infrastructure (transportation, skilled labor, and technology); (2) the development of PMA is still hampered by the complicated management, bureaucracy and lack of coordination between related departments; (3) the lack of information on sources of funds that can be used to finance the project; (4) the low quality of human resources, so this affects the purpose of implementing foreign investment in a country (transfer of assets) and (5) increasing fierce competition between countries in attracting foreign investment by both developed and developing countries. Partially, Labor has a significant and positive effect on the economy in Indonesia. If the number of workers increases, the economy will increase because of an increase in the number of workers can be used as input in the process of producing goods & services. Increased production of goods and services will imply an increase in the economy. The results of this study are supported by the opinion of Todaro (2000: 137) saying that population and labor growth has traditionally been considered a positive factor in spurring economic growth. The greater number of workers means that it will increase the level of production, while greater population growth indicates a larger domestic market size.

National Economic Planning Period 2014 - 2018

Prospects for the Indonesian economy for the next 5 years show an increase every year. Economic developments have averaged 5.5% from 2014 to 2018. The ARIMA model (1,1,1) can explain the forecast figures for economic development for the next five periods from 2014-2018. There is an increase in the economy every year, but the growth does not experience a significant increase. This occurs because there are still structural problems such as legal uncertainty, labor issues, and investment regulations so that economic growth is largely dependent on consumption needs, while investment and exports are relatively limited.

Conclusion

The money supply, the money supply in the previous period, the SBI interest rate, the exchange rate, and the economy simultaneously have a significant effect on inflation in Indonesia. Meanwhile, overall the amount of money supply has a significant and positive effect on inflation in Indonesia. The money supply in the previous period had a significant and positive effect on inflation in Indonesia. SBI interest rates have a significant and negative effect on inflation in Indonesia. Exchange rates have a significant and positive effect on inflation in Indonesia. The economy does not significantly influence inflation in Indonesia and has a positive direction. Domestic investment, domestic investment of the previous period, foreign investment, foreign investment of the previous period, labor, and inflation simultaneously have a significant effect on the economy in Indonesia. Meanwhile, domestic investment partially has a significant and positive effect on the economy in Indonesia. Domestic investment in the previous period had a significant and positive effect on the economy in Indonesia, Foreign investment has a significant and positive effect on the economy in Indonesia, foreign investment in the previous period has a significant and positive effect on the economy in Indonesia, labor has a significant and positive effect on the economy in Indonesia, and inflation has no significant effect on the economy in Indonesia and has negative direction.

Technium Social Sciences Journal
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References

[1] Baasir, F. (2003). Pembangunan dan Crisis, Jakarta: Pustaka Harapan.
[2] Mankiw, N. G. (2006). Principles of Economics. Pengantar Ekonomi Makro. Third Edition. Alih Bahasa Chriswan Sungkono. Jakarta : Salemba Empat.
[3] McEarhern, W. A. (2000). Ekonomi Makro, Jakarta : Salemba Empat.
[4] Miskhin, F. S. (2001). The Economics of Money Banking and Financial Markets. Pearson Education International, USA or Canada, Edisi 6.
[5] Mishkin, F. S. (2009). Ekonomi Uang, Perbankan, dan Pasar Keuangan. Jakarta : Penerbit Salemba Empat.
[6] Nopirin. (2000). Ekonomi Moneter buku II. Yogyakarta: BPFE.
[7] Rahardja, P., & Manurung, M. (2008). Teori Ekonomi Makro: Suatu Pengantar, Lembaga Penerbit FE UI.
[8] Samuelson, P. A., & Nordhaus, W. D. (2007). Ilmu Makro Ekonomi. Terjemahan, Jakarta: Media Global Edukasi.
[9] Todaro, M. P. (2000). Pembangunan Ekonomi di Dunia Ketiga. Edisi Ketujuh. Jakarta: Erlangga.

Journal Papers

[10] Andrianus, F. & Amelia, N. (2006). Analisa Faktor-faktor yang Mempengaruhi Inflasi di Indonesia Periode 1997:3-2005:2. *Jurnal Ekonomi Pembangunan, 11*(2).
[11] Budi, C., Dwi, H. L., & Komarlina, S. (2009). Analisis Pengaruh Tingkat Suku Bunga SBI Terhadap Variabel Makroekonomi di Indonesia Periode 1990.I-2008.IV. *Jurnal Ekonomi Pembangunan Fakultas Ekonomi Universitas Siliwangi*.
[12] Maqrobi, S., & Pujiatu, A. (2011). Inflasi dan Pertumbuhan Ekonomi : Uji Kausalitas Inflation and Economic Growth: Testing for Causality. *Jurnal Dinamika Keuangan dan Perbankan, 3*(1).
[13] Nugraha, N. M., & Susanti, N. (2019). Investment Decisions Using CAPM in the Coal Mining Sub-Sector Period 2012-2016. *Global Business & Management Research, 11*(1), 266-274.
[14] Nugraha, N. M., & Riyadhi, M. R. (2019). The Effect of Cash Flows, Company Size, and Profit on Stock Prices in SOE Companies Listed on Bei For the 2013-2017 Period. *International Journal of Innovation Creativity and Change, 6*(7), 130-141.
[15] Nugraha, N. M., Widajatun, V. W., & Aji, M. B. (2020). The Analysis of Public Share Ownership and Industrial Groups Against the Implementation of Interest Financial Reporting in The Era Disruption. *International Journal of Psychosocial Rehabilitation, 24*(7), 6623-6630.
[16] Nugroho, P. W., & Basuki, M. U. (2012). Analisis Faktor- faktor yang Mempengaruhi Inflasi di Indonesia Periode 2000:1-2011:4. *Diponegoro Journal of Accounting, 1*(1).
[17] Octavia, D., & Nugraha, N. M. (2020). Pengaruh Keputusan Investasi, Keputusan Pendanaan, Dan Kebijakan Dividen Terhadap Nilai Perusahaan Pada Sektor Aneka Industri Yang Terdaftar Di Bursa Efek Indonesia Periode 2014-2018. *Jurnal Computech & Bisnis, 14*(1), 01-09.
[18] Pratiwi, A. (2013). Determinan Inflasi di Indonesia : Analisis Jangka Panjang dan Pendek. *Jurnal Ilmiah Fakultas Ekonomi dan Bisnis Universitas Brawijaya Malang*.
[19] Sarwedi. (2002). Investasi Asing Langsung Di Indonesia dan Faktor Yang Mempengaruhinya. *Jurnal Akuntansi & Keuangan, 4*(1), 17-35.

[20] Sipayung, P. T. E. (2013). Pengaruh PDB, Nilai Tukar dan Jumlah Uang Beredar terhadap Inflasi di Indonesia Periode 1993-2012. *E-Jurnal Ekonomi Pembangunan Universitas Udayana, 2*(7).
[21] Nugraha, N. M., Herlambang, D., Nugraha, D. N. S., & Amalia, S. (2020). The Influence of Macroeconomic Factors on The Volatility of Composite Price Stock Index: A Study on the Indonesia Stock Exchange. *International Journal of Psychosocial Rehabilitation, 24*(1), 2507-2513.
[22] Nugraha, N. M., Puspitasari, D. M., & Amalia, S. (2020). The Effect of Financial Ratio Factors on the Percentage of Income Increasing of Automotive Companies in Indonesia. *International Journal of Psychosocial Rehabilitation, 24*(1), 2539-2545.
[23] Sutawijaya, A. (2006). Pengaruh Faktor-faktor Ekonomi terhadap Inflasi di Indonesia. *Jurnal Organisasi dan Manajemen, 6*(2).
[24] Susanti, N., Widajatun, V. W., Aji, M. B., & Nugraha, N. M. (2020). Implications of Intellectual Capital Financial Performance and Corporate Values (Studies on Goods and Consumption Sector 2013-2017 period). *International Journal of Psychosocial Rehabilitation, 24*(7), 6588-6599.
[25] Syaparuddin & Hermawan, H. (2005). Hutang Luar Negeri Pemerintah: Kajian Dari Sisi Permintaan Dan Pengaruhnya Terhadap Produk Domestik Bruto Indonesia Periode 1980-2002. *Simposium Riset Ekonomi II Surabaya, 2005, 23- 24 November*.
[26] Widajatun, V. W., Nugraha, N. M., & Ichsani, S. (2019). Kejadian Aksi Teroris Dan Dampaknya Pada Performa Nilai Tukar Dolar Amerika dan Performa IHSG. *Jurnal Muara Ilmu Ekonomi dan Bisnis, 3*(1), 141-155.
[27] Widajatun, V. W., Rahmadzikrishafira, T. F., Nugraha, N. M., & Susanti, N. (2020). Effect of Profitability on Firm Values With Managerial Ownership As a Variable Control (Construction and Building Sub Sector Listed in the Indonesia Stock Exchange for the 2014-2018 Period). *International Journal of Psychosocial Rehabilitation, 24*(7), 7220-7229.

Theses

[28] Hudaya. Afaqa, Analisis Kurs, Jumlah Uang Beredar, dan Suku Bunga SBI terhadap Inflasi di Indonesia Periode 2001-2010. Essay. Universitas Islam Negeri Syarif Hidayatullah Jakarta, 2011.
[29] Ikasari. Hertiana, Determinan Inflasi (Pendekatan Klasik). Thesis. Universitas Diponegoro Semarang, 2005.
[30] Rohim. Fatkhur, Mekanisme Transmisi Kebijakan Moneter Melalui Suku Bunga SBI Sebagai Sasaran Operasional Kebijakan Moneter Dan Variabel Makroekonomi Indonesia. Thesis. Medan: Universitas Sumatra Utara Medan, 2011.