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COMPARATIVE ANALYSIS OF THE INFLUENCE OF SHARIA AND CONVENTIONAL MONETARY INSTRUMENTS ON THE REAL SECTOR: AN EMPIRICAL STUDY OF INDONESIA'S IPI

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Abstract

Indonesia implements a dual monetary policy system, namely conventional and sharia systems that run side by side. The conventional system is a system of interest, while the Sharia system is a system of profit-sharing. The role of the monetary sector in Indonesia's economic growth is very important by minimizing transaction costs or information in financial markets. To ensure the smooth flow of economic activities and enhance the productivity of individuals in the production of goods and services in the real sector. The purpose of this study is to determine the influence of Islamic and conventional monetary instruments on the real sector. This study uses quantitative methods with an Autoregressive Distributed Lag (ARDL) estimation model with the Industrial Production Index (IPI) as the dependent variable. Bank Indonesia Sharia Certificates (SBIS), Sharia Interbank Money Market (PUAS) and financing as independent variables of Islamic monetary instruments, while Bank Indonesia Certificates (SBI), Interbank Money Market (PUAB) and credit as independent variables of conventional monetary instruments. The results of this study show that Islamic and conventional monetary instruments as a whole affect the Industrial Production Index (IPI) as a real sector with an influence of 77% on Islamic monetary instruments and 45% on conventional monetary instruments. In this study, the variables that affect IPI are SBIS, PUAS, financing and interbank while SBI and credit variables do not affect IPI.

Abstrak

Indonesia menerapkan sistem kebijakan moneter ganda yaitu sistem konvensional dan syariah yang berjalan berdampingan. Penerapan pada sistem konvensional dengan sistem bunga sedangkan pada sistem syariah menganut sistem bagi hasil. Peran sektor moneter pada pertumbuhan ekonomi Indonesia sangatlah penting dengan meminimalisir biaya transaksi ataupun informasi di pasar keuangan. Sehingga kegiatan ekonomi berjalan lancar dan dapat meningkatkan produktifitas masyarakat dalam menghasilkan barang dan jasa di sektor riil. Tujuan penelitian ini untuk mengetahui pengaruh dari instrumen moneter syariah dan konvensional terhadap sektor riil. Penelitian ini menggunakan metode kuantitatif dengan model estimasi

Autoregressive Distributed Lag (ARDL) dengan Indeks Produksi Industri (IPI) sebagai variabel dependen. Sertifikat Bank Indonesia Syariah (SBIS), Pasar Uang Antar Bank Syariah (PUAS) dan pembiayaan sebagai variabel independen dari instrumen moneter syariah, sedangkan Sertifikat Bank Indonesia (SBI), Pasar Uang Antar Bank (PUAB) dan kredit sebagai variabel independen dari instrumen moneter konvensional. Hasil dari penelitian ini menunjukkan bahwa instrumen moneter syariah dan konvensional secara keseluruhan berpengaruh terhadap Indeks Produksi Industri (IPI) sebagai sektor riil dengan pengaruh sebesar 77% pada instrumen moneter syariah dan 45% pada instrumen moneter konvensional. Dalam penelitian ini, variabel yang berpengaruh terhadap IPI adalah SBIS, PUAS, pembiayaan dan PUAB sedangkan variabel SBI dan kredit tidak berpengaruh terhadap IPI.

Keywords: Sharia Monetary; Conventional Monetary; Real Sector and Industrial Production Index

INTRODUCTION

The increase in the amount of production of goods and services in a certain period is evidence of the growth of the country's economy. The results of the production of these goods and services are illustrated through the value of a country's national income. Economic growth is characterized by increased production of goods and services, increased per capita output, and changes in economic structure. This is a challenge for a country.[1] The increase in the amount of production of goods and services in a certain period is evidence of the growth of the country's economy. The value of a country's national income serves as an illustration of the result of producing these goods and services. Economic growth is characterized by increased production of goods and services, increased per capita output, and changes in economic structure. This is a challenge for a country.[2]

As the monetary authority, Bank Indonesia has the duty to maintain the value of the rupiah currency, for that the government makes monetary policy. The monetary policy of a central bank or monetary authority is intended to influence real economic activity and prices through the transmission mechanism that occurs.[3] Monetary policy is an important instrument for influencing changes in output. In accordance with Act No. 23 of 1999 concerning Bank Indonesia, the objectives of Indonesia's monetary policy can be broken down into two, namely maintaining rupiah stability and maintaining economic liquidity.[4] Meanwhile, Islamic monetary policy is primarily directed towards achieving the two objectives above in terms of Islamic finance. In the long run, the objective of Islamic monetary policy is to support the main objectives and objectives of public welfare in general.[5]

Indonesia is a country that implements a dual monetary system, where conventional and Islamic systems run side by side. However, there are differences in its application where the conventional system adheres to the interest rate system and the sharia system that adheres to the profit sharing system (profit and lost sharing).[6] Conventional and Islamic system operate simultaneously in Indonesia's dual currency system. However, there are differences in its application where the conventional system adheres to the interest rate system and the sharia system that adheres to the profit sharing system (profit and lost sharing).[7]

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1 Salsabila Nanda, "Pertumbuhan dan Perkembangan Ekonomi," http://brainacademy.id, 2023.

2 Wiwiet Aji Prihatin, Arintoko Arintoko Arintoko, and Suharno Siharno, "Analisis Pengaruh Variabel-Variabel Moneter terhadap Pertumbuhan Ekonomi Indonesia," *Jurnal Ekonomi, Bisnis, dan Akuntansi* 21, No. 3 (September 1, 2019), 17.

3 Isnaeni Octaviani, "Pengaruh Kebijakan Moneter Syariah terhadap Indeks Produksi Industri Tahun 2011-2016", (Jakarta, UIN Syarif Hidayatullah Jakarta, 2017), 120.

4 JDIH BPK RI, "Undang-Undang (UU) Nomor 23 Tahun 1999 tentang Bank Indonesia" (BPK RI, 1999), https://peraturan.bpk.go.id/Details/45332/uu-no-23-tahun-1999.

5 Kharisma Rindang Sejati, "Analisis Pengaruh Instrumen Moneter Syariah terhadap Penyaluran Dana ke Sektor Usaha Mikro Kecil dan Menengah (UMKM) di Indonesia," *JISIP (Jurnal Ilmu Sosial dan Pendidikan)* 2, No. 1 (March 7, 2018), 85.

6 Ahmad Muzaki, "Efektivitas Transmisi Instrumen Kebijakan Moneter Syariah melalui Jalur Pembiayaan Perbankan Syariah pada Sektor Konsumsi di Indonesia Tahun 2009-2018" (Tulungagung, IAIN Tulungagung, 2020), 6.

7 Wulan Asnuri, "Pengaruh Instrumen Moneter Syariah dan Ekspor terhadap Pertumbuhan Ekonomi di Indonesia," *Al Iqtishad* 5, No. 2 (2013), 277.

In an Islamic economy, the monetary sector must have a direct relationship with the real sector, because if the monetary sector does not have a direct impact on the real sector economy, it is certain that the economy is developing within the scope of *ribawi*. In Islam, the monetary sector and the real sector must be balanced, because otherwise it can have a *buble economic impact* that will lead to an economic crisis.[8] Considering this, monetary policy in Islam is basically to keep any money in circulation from accumulating in unproductive sectors or in other words money supply is encouraged to flow into the real sector. That way the market mechanism always has a relatively balanced strength of demand and supply of goods and services.[9]

Islamic banking and conventional banking have the main task as intermediary institutions, namely channeling funds from surplus parties to those who need funds optimally. One of the channels of bank intermediation is through the distribution of funds to the real sector, namely the distribution of funds allocated for investment or business development of macro, small or medium scale communities.[10] Lending to the real sector needs to be increased in an effort to increase the role of national banks as intermediary institutions. To bridge the financial and real sectors, banks must be capable of managing credit and financing channels properly as collectors and distributors of public funds. In addition, banks as the dominant financial institutions in Indonesia should fully support the existence and development of the real sector considering the huge role of the real sector for the economy.[11]

The distribution of funds to the real sector through banking is certainly influenced by many factors, both internal and external factors.[12] From various previous studies, internal factors that affect credit distribution from banks include profitability and rehabilitation factors. Meanwhile, from external factors, credit disbursement from banks is influenced by monetary instruments.

Islamic monetary policy through Islamic bank financing channels is seen as very important because of the dominance of banks in Indonesia's financial system. Islamic bank financing is aimed at real sector economic activities. Therefore, the Islamic bank financing channel is expected to encourage real sector economic growth by increasing the productivity of public goods and services.[13] The real sector is a representation of the level of productivity of the people of a country in creating goods and services. When the level of productivity of a country's people increases, in aggregate it will affect the increase in national income and economic growth of a country. The real sector is also a representation of the level of welfare of the people of a country because it is directly related to the business world.[14]

One of the indicators that can observe the growth of the real sector is the industrial production index (IPI). IPI is one of the macroeconomic parameters that assesses the amount of real production from the manufacturing, mining and other industrial sectors, namely electricity and oil and gas.

Table 1. Development of SBIS, PUAS and Financing

Year	SBIS (Billion)	PUAS (B)	Financing (B)
2016	10.788	960	248.007
2017	10.017	800	285.695

[8] Sugianto, Hendra Harmain, and Nurlela Harahap, "Mekanisme Transmisi Kebijakan Moneter di Indonesia melalui Sistem Moneter Syariah," *Human Falah* 2, No. 1 (2015), 60.

[9] Candy Drajat, "Analisis Pengaruh Kebijakan Moneter Syariah Jalur Pembiayaan terhadap Indeks Produksi Industri Mikro dan Kecil di Indonesia Tahun 2017-2019" (Cirebon, IAIN Syekh Nurjati Cirebon, 2021), 98.

[10] Sugianto, Harmain, and Harahap, "Mekanisme Transmisi Kebijakan Moneter di Indonesia melalui Sistem Moneter Syariah. 67"

[11] Meydianawathi, "Analisis Perilaku Penawaran Kredit Perbankan kepada Sektor UMKM di Indonesia (2002-2006)," *Buletin Studi Ekonomi* 12, No. 2 (2007), 113.

[12] Ida Alqurnia et al., "Studi Economic Policy Uncertainty dan Pasar Keuangan terhadap Perkembangan Pasar Sukuk Indonesia," *Muslim Heritage* 8, No. 1 (2023), 50.

[13] Eva Misfah Bayuni and Popon Srisusilawati, "Kontribusi Instrumen Moneter Syariah terhadap Pengendalian Inflasi di Indonesia," *Amwaluna: Jurnal Ekonomi dan Keuangan Syariah* 2, No. 1 (2018), 27.

[14] Safuridar, "Peranan Instrumen Kebijakan Moneter terhadap Pertumbuhan Ekonomi di Aceh," *Jurnal Samudra Ekonomika* 2, No. 1, (2018), 45.

2018	8.268	1.157	355.182
2019	10.368	855	353.375
2020	11.037	855	306.648

Source: Financial Services Authority and Central Statistics Agency

In the table above, it can be seen that the SBIS variable decreased quite drastically in 2018 and then increased again in 2019. Meanwhile, the variable money market between Islamic banks (PUAS) in 2016-2020 always decreased. On the other hand, total financing at Islamic banks increased only in 2016-2018 for the following year. In 2018, OJK recorded financing of Rp. 355,182 billion. Then in 2019 it decreased by recording total financing of Rp. 353,375 billion. Furthermore, it decreased again in 2020 by Rp. 306,684 billion. Based on data recorded by the Central Bureau of Statistics (BPS) Indonesia, in 2016-2019 the level of the Industrial Production Index (IPI) continued to increase continuously only in 2020 decreased by Rp. 131.90.

The Industrial Production Index (IPI) and Islamic banking financing tend to increase in the same period, attracting researchers to analyze whether there is a positive relationship between Islamic bank financing and the industrial production index (IPI). On the other hand, Islamic monetary instruments such as SBIS and PUAS also tend to increase, this attracts researchers to analyze how the influence of Islamic monetary policy through financing channels on the real sector presented by the industrial production index (IPI).

This research is an expansion of several studies related to Islamic monetary policy variables, in previous research conducted by Isnaeni Octaviani, SBIS variables and financing variables have a positive effect on the real sector. While the PUAS variable has a negative effect on the real sector.[15] In contrast to the research conducted, Setiawan, Febriani[16] and Syafitri[17] concluded that the variables PUAS and financing have a positive effect on the real sector. For the SBIS variable, it is the opposite, which has a negative effect on the real sector.

The purpose of this study is to establish the distinction between Islamic monetary instruments and conventional monetary instruments in the distribution of funds to the real sector. Because not all monetary instruments of monetary policy have a positive effect, this study will provide results that can help readers find out what monetary instruments are influential and which are not. And this study also wants to see further how Indonesian monetary instruments are influential if the variable is seen in more detail because of the existence of two banking systems in Indonesia (sharia and conventional).[18]

From the description above, researchers are interested in conducting research and raising the theme "Comparative Analysis of the Influence of Sharia and Conventional Monetary Instruments on the Distribution of Funds to the Real Sector in Indonesia. Considering that the banking system in Indonesia adheres to a dual banking system, so that monetary instruments also apply dual monetary instrument", namely sharia and conventional monetary instruments. On this basis, it is necessary to measure the impact of monetary instruments on the real sector in Indonesia using two methods. This is important because the policy instruments are different. After calculating the two instruments, the next step is to analyze and compare the results (scores) to draw relevant conclusions. This alternative is ideal as a method of solving emerging problems.

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[15] Octaviani, "Pengaruh Kebijakan Moneter Syariah terhadap Indeks Produksi Industri Tahun 2011-2016", 57.

[16] Eka Febriani, "Pengaruh Sistem Moneter Konvensional dan Syariah terhadap Pertumbuhan Ekonomi Indonesia Periode 2012-2022" (Lampung, UIN Raden Intan Lampung, 2023).

[17] Aulia Syafitri et al., "Efektivitas Instrumen Kebijakan Moneter Syariah dalam Mengendalikan Inflasi di Indonesia," *Jejak Pembelajaran: Jurnal Pengembangan Pendidikan* 8, No. 6 (2024).

[18] Anata Putra, "Comparative Study of Sharia and Conventional Monetary Instruments on Credit Distribution in Indonesia" (Sulawesi Tengah, Universitas Tadulako, 2020).

RESEARCH METHODS

The analysis technique in this study uses Autoregressive Distributed Lag (ARDL). ARDL is a combined analysis method between Autoregressive and Distributed Lag methods. Lag means a past value that will be used to see future values.[19] The Autoregressive (AR) method is a method that uses one or more past data from variable Y, while Distributed Lag (DL) is a regression method that involves data on the present time and past time of variable X.[20] The explanation of each step in the ARDL method will be described one by one from the stationary test to determine the best model for the final results of this study.[21] The following steps are carried out stationary tests, in which the root test of level units is carried out and if the data results are not yet stationary then the stationary test is continued at the first differential level until all stationary data at that level.

STATIONARY TEST ON SHARIA MONETARY INSTRUMENTS

The explanation of the results of the stationary test on Islamic monetary instruments consisting of SBIS, PUAS and financing is as follows:

Table 2. Root test results at level level (IMS)

ADF			
Variable	P-Value	Critical Value	Results
SBIS (X1)	0.7518	0.05	Non-stationary
PUAS (X2)	0.0960	0.05	Non-stationary
Financing (X3)	0.9741	0.05	Non-stationary
IPI (Y)	0.0000	0.05	Stasioner

Source: Processed Data

From table 2 above, it can be seen that the ADF value in the level of each variable of Islamic Monetary Instruments with a significance level of 0.05% indicates a stationary variable, namely the independent variable Industrial Production Index (IPI). While the SBIS variables, PUAS and Financing, are not stationary because the p-value exceeds the critical value. So that the stationary test is carried out at the level of differencing 1 so that it can be continued in the ARDL method.[22] The following are the results of the stationary test on the variables of Islamic monetary instruments at the first level of differentiation:

Table 3. Root test result at difference level 1 (IMS)

ADF			
Variable	Variable	Variable	Variable
SBIS	SBIS	SBIS	SBIS
PUAS	PUAS	PUAS	PUAS
Financing	Financing	Financing	Financing
IPI	IPI	IPI	IPI

Source: Processed Data

[19] Ahmad Suminto and Risma Nada Azkiya, "Analysis of the Influence of Monetary Instrument on the Real Sector: Using Industrial Production Index (IPI) Approach," in *Proceedings of Femfest International Conference on Economics, Management, and Business*, vol. 2 (Ficcoms 2024, Universitas Darussalam Gontor, 2024),

[20] Jumhur, "Penerapan Autoregressive Distributed Lag dalam Memodelkan Pengaruh Inflasi, Pertumbuhan Ekonomi, dan FDI Terhadap Pengangguran di Indonesia," *Jurnal Ekonomi Bisnis dan Kewirausahaan* 9, No. 3 (December 28, 2020), 255.

[21] Ahmad Suminto and Shinta Maharani, "Analisis Pengaruh Corporate Social Responsbility, Islamic Banking Service Quality Dan Corporate Image Terhadap Loyalitas Nasabah Di Bank BRISyariah Kantor Cabang Pembantu Ponorogo," *El-Barka: Journal of Islamic Economics and Business* 3, no. 1 (2020), https://doi.org/10.21154/elbarka.v3i1.2013.

[22] Miftahul Huda et al., "Analysis The Influence of Sharia Capital Market and Sharia Macroeconomic Variables on Indonesia's Economic Growth," *Jurnal Ilmu Ekonomi Dan Bisnis Islam* 5, no. 2 (2023): 113–35.

Based on table 3 above, the results of the root test at the first difference level can be described that the p-value of Islamic monetary instrument variables including SBIS, PUAS and financing, as well as the IPI independent variable is (< 0.05). Therefore, the variable Islamic monetary instrument is fully stationary at the level of difference 1, and data from these variables can be used in the ARDL method as a whole.

STATIONARY TESTS ON CONVENTIONAL MONETARY INSTRUMENTS

The explanation of the results of the stationary test on conventional monetary instruments consisting of SBIS, PUAS and financing is as follows:

Table 4. Root test results at level level (IMK)

ADF			
Variable	P-Value	Critical Value	Results
SBI (X4)	0.7652	0.05	Non-stationary
PUAB (X5)	0.0000	0.05	Stasioner
Credits (X6)	0.8364	0.05	Non-stationary
IPI(Y)	0.0000	0.05	Stasioner

Source: Processed Data

From table 4 above, it can be seen that the ADF value in the level of each variable of Conventional Monetary Instruments with a significance level of 0.05% indicates a stationary variable, namely the Industrial Production Index (IPI) and Interbank Money Market (PUAB) variables, because the p value < 0.05. While the SBI variable has a p value of 0.7652 > 0.05 and credit has a p value of 0.8364 > 0.05, then both variables are not stationary because the p-value exceeds the critical value. So that the stationary test is carried out at the level of differencing 1 so that it can be continued in the ARDL method.[23] The following are the results of the stationary test against the variables of conventional monetary instruments at the first level of differential:

Table 5. Unit root test result at difference level 1 (IMK)

ADF			
Variable	P-Value	Critical Value	Results
SBI	0.0000	0.05	Stasioner
PUAB	0.0000	0.05	Stasioner
Kredit	0.0000	0.05	Stasioner
IPI	0.0002	0.05	Stasioner

Source: Processed Data

Based on table 5 above, the results of the *root test* at the first difference level can be described that the p-value in the variables SBI, PUAB, credit and IPI is 0.000 < 0.05. Then the variable is completely stationary at difference level 1, and the data from the variable can be used in the ARDL method as a whole.

Furthermore, cointegration tests were carried out on all research variables after meeting the requirements on stationarity. The following is a discussion of the results of the cointegration test on the variables of Islamic and conventional monetary instruments that are already stationary.

COINTEGRATION TEST

A cointegration test is a test performed to see whether or not there is a long-term relationship between the independent variable and the dependent variable. This test is a continuation of the unit root test using the Johansen cointegration test method. In this study, the cointegration test to see the long-term relationship between variables is seen from the comparison of trace values and Max-Eigen values between variables. If the Max-Eigen and trace values are greater than the critical values of 1% and 5%,

[23] Miftahul Huda et al., "Analysis of Macroeconomi Factor Effect on the Stock Price Index in Jakarta Islamic Index," *Dialektika: Jurnal Ekonomi Dan Ilmu Sosial* 9, no. 1 (2024).

then the variables are cointegrated. Conversely, if the trace value and Max-Eigen value are smaller than the critical values of 1% and 5%, then the variables used are not cointegrated.[24] Here are the results of the cointegration test:

a. Cointegration Test on Sharia Monetary Instruments

Explanation of the results of the cointegration test on Islamic monetary instruments consisting of SBIS, PUAS and financing with IPI independent variables:

Table 6. Result of cointegration test on sharia monetary instruments

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.729835	76.37392	47.85613	0.0000
At most 1 *	0.459743	30.56865	29.79707	0.0407
At most 2	0.124609	9.018767	15.49471	0.3636
At most 3 *	0.117145	4.360816	3.841465	0.0368

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Based on table 6, the data above shows 3 cointegration equations at level 5%, evidenced by an asterisk (*) at none with a probability of 0.0000, then at most 1 with a probability of 0.0407 and at most 3 with a probability of 0.0368. That is, the SBIS variable as X1 and financing as X3 have a probability value of < 0.05, it is concluded that the variable is not cointegrated. Then at most 2 has a probability value of 0.3636 > 0.05 it can be concluded that the variable PUAS as X2 cointegration occurs. Then a bound cointegration test was carried out on Islamic monetary instruments to be able to see the long term on the variables of Islamic monetary instruments. The following is a discussion of the results of the bound test on Islamic monetary instruments:

Table 7. Cointegration test results for bound test

F-Bounds Test — Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
		Asymptotic: n=1000		
F-statistic	10.18000	10%	2.37	3.2
k	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

Based on table 7, the data above shows that the statistical F value obtained at 10.18000 is greater than the critical value at the level of 1% or 5% and also the levels of I (0) and I (1). So the result is cointegration in long-term relationships. So in this study there is a long-term relationship between Islamic monetary instruments and IPI.

b. Cointegration Test on Sharia Monetary Instruments

Explanation of the results of the cointegration test on conventional monetary instruments consisting of SBI, interbank money and credit with IPI independent variables:

[24] Gunawan Adi Saputro, "Uji Kointegrasi At," https://123dok.com, 2024.

Table 8. The result of cointegration test in conventional monetary instruments

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None	0.396003	39.08567	47.85613	0.2569
At most 1	0.297567	17.90985	29.79707	0.5728
At most 2	0.041675	3.075239	15.49471	0.9634
At most 3	0.030186	1.287356	3.841465	0.2565

Trace test indicates no cointegration at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Based on table 8, the data above shows that none, at most 1, 2 and 3 as variables of conventional monetary instruments, namely SBI as X4, interbank money as X5 and credit as X6 have a probability value of > 0.05. That is, the variables of conventional monetary instruments are concluded with the result of cointegration. Then a bound cointegration test was carried out on Islamic monetary instruments to be able to see the long term on conventional monetary instrument variables. The following is a discussion of the results of the bound test on conventional monetary instruments:

Table 9. The result of cointegration test from bound test on conventional monetary instrument

F-Bounds Test — Null Hypothesis: No levels relationship

Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	9.947926	10%	2.37	3.2
k	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

Based on table 9, the data above shows that the statistical F value obtained at 9.947926 is greater than the critical value at the level of 1% or 5% and also the levels of I (0) and I (1). So the result is cointegration in long-term relationships. So in this study there is a long-term relationship between conventional monetary instruments and IPI.

Stationary tests and cointegration tests have been carried out, the results show that in this study it is known that the root test unit test is stationary at level, differensing 1 and there are no variables that are stationary at differensing 2. Then the cointegration test on Islamic monetary instruments obtained the result that there was no cointegration in the SBIS and financing variables, but in the PUAS variable there was cointegration. And in conventional monetary instruments with SBI, interbank and credit variables, it is obtained that these variables occur cointegration. The results of bound tests on Islamic and conventional monetary instruments have cointegrated results in the long run. Furthermore, optimum lag tests were carried out on all research variables after meeting the requirements on stationarity. The following is a discussion of the results of the optimum lag test on variables of Islamic and conventional monetary instruments that are already stationary.

OPTIMAL LAG TEST

The optimum lag test is performed to determine the optimum lag length to be used for further analysis. The lag in the ARDL model serves to show the effect of time lapse on observation and is useful for eliminating autocorrelation problems in research. In this study, the determination of lag length was used with the Akaike Information Criteria (AIC) approach. The following is a discussion and results of optimum lag testing of research variables that have passed the cointegration test.

a. Optimal Lag Test on Shariah Monetary Instruments

The explanation of the results of the optimum lag test on Islamic monetary instruments consisting of SBI, interbank and credit variables with IPI independent variables is as follows:

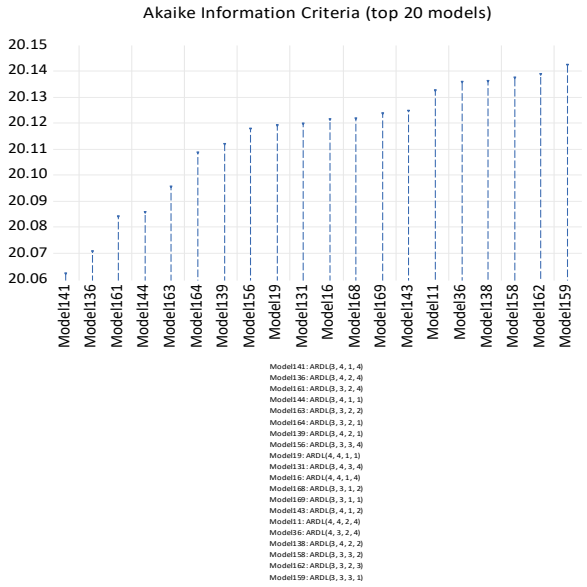

Figure 1. Optimal Lag Graphic

Based on figure 1 there are 20 top models. However, the model suitable for ARDL in variable Islamic monetary instruments is ARDL (3,4,1,4) based on the minimum AIC value or has the smallest error compared to other ARDL models.

b. Optimal Lag Test on Conventional Monetary Instrument

The explanation of the results of the optimum lag test on Islamic monetary instruments consisting of SBI, interbank and credit variables with IPI independent variables is as follows:

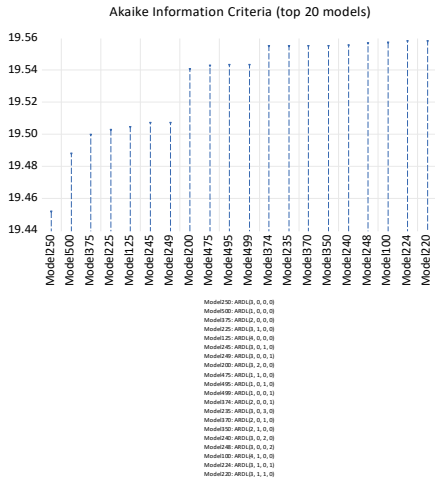

Figure 2. Optimal Lag Graphic

Based on figure 2 there are 20 top models. However, a suitable model for ARDL in conventional monetary instrument variables is ARDL (3,0,0,0) based on the minimum AIC value or has the least error compared to other ARDL models. Furthermore, an assumption test was carried out with several steps in it, namely, normality test, autocorrelation test, heteroscedasticity test and multi-collinearity test on each Islamic and conventional monetary instrument. The following is a discussion and results of the assumption test with steps on research variables.

CLASSICAL ASSUMPTION TEST

Testing of classical assumptions aims to find out whether the estimates obtained in this research are good or not if forecasting is applied. And a model can be said to be good if it is BLUE (Best Linear Unbias Estimator), that is, if it can meet the assumption test or can avoid problems of normality, autocorrelation, heteroscedasticity and multi-collinearity. So, an assumption test is carried out with several step conditions. The following is a discussion and results of the steps in testing assumptions on research variables.

a. Normality Test

The Jarque-Bera method is a method that can be utilized to detect normality problems. The purpose of the normality test is to see if the data is normally distributed. The significance test of the effect of the dependent variable on the independent variable will be valid if the residuals produced are normally distributed. The conclusion is obtained if the Jarque-Bera probability value is more than $\alpha = 0.05$, from these results the data is normally distributed. The following is a discussion of the normality test results:

1) Normality Test on Sharia Monetary Instruments
   The explanation of the results of the normality test on Islamic monetary instruments consisting of SBIS, PUAS and financing variables with IPI independent variables is as follows:

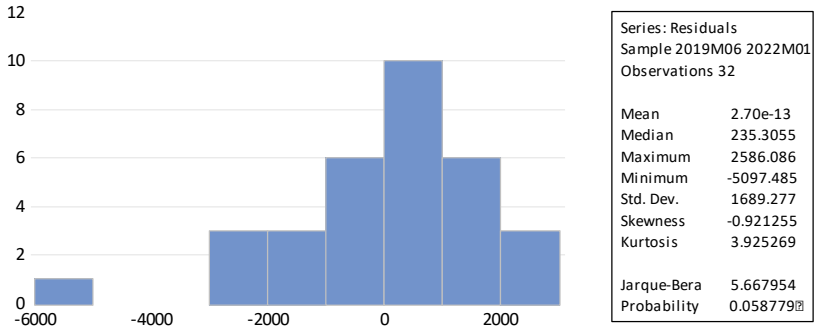

Figure 3. Results of normality test on Sharia Monetary Instruments
Source: BI, OJK and BPS

   Based on figure 3 above, to find out whether residuals are normally distributed or not, it can be seen from the probability value in normality results using the Jarque-Bera test. The result of the normality test graph figure above is the Jarque-Bera probability value of 0.058779 > 0.05. Therefore, the results of the normality test in Islamic monetary instruments are concluded with normal distributed residuals.

2) **Normality Test on Sharia Monetary Instruments**
   The explanation of the results of the normality test on conventional monetary instruments consisting of SBI, interbank and credit variables with IPI independent variables is as follows:

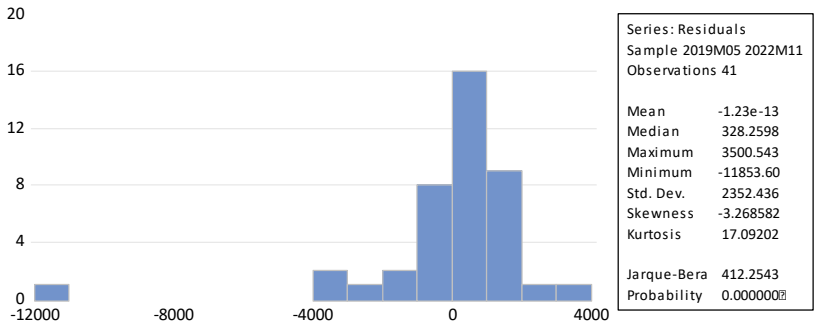

Figure 4. Result of normality test on Conventional Monetary Instruments

   Based on figure 4 above, to find out the residual is normally distributed or not, it can be seen from the probability value in the normality result using the Jarque-Bera test. The result of the normality

test chart image above is the Jarque-Bera probability value on conventional monetary instruments of 0.0000 < 0.05. So the results of the normality test on conventional monetary instruments are concluded with abnormally distributed residuals.

Then the next step is to perform an autocorelitity test after knowing the results of the normality test. The following is a discussion and results of the autocorelitity test on research variables.

AUTOKORELATION TEST

One method that can be used to detect autocorrelation problems is the Bruesch-Godfrey method. The autocorrelation test aims to test whether there is a correlation between the fault of the confounding in period-t and the error of the confounding in period t-1 (previous year). In assessing the decision from the results of the autocorrelation test, if the probability value of Chi-Square is more than α = 0.05, it can be judged that there is no autocorrelation problem. As for if the probability result of Chi-Square is less than α = 0.05, it can be judged that there is an autocorrelation problem. The following are the results of variable processing in the autocorrelation test:

a. Autocorrelation test on Islamic monetary instruments

The explanation of the results of the autocorrelation test on Islamic monetary instruments consisting of SBIS, PUAS and financing variables with IPI independent variables is as follows:

Table 10. Autocorrelation test result on Sharia Monetary Instruments

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	1.501919	Prob. F(2,14)	0.2565
Obs*R-squared	5.653008	Prob. Chi-Square(2)	0.0592

Based on table 10, the autocorrelation test using the Bruesch-Godfrey test obtained a p-value of 0.0592 > α (0.05) means that the conclusion is that Islamic monetary instruments do not autocorrelate residuals.

b. Autocorrelation test on conventional monetary instruments

The explanation of the results of the autocorrelation test on conventional monetary instruments consisting of SBI, interbank and credit variables with IPI independent variables is as follows:

Table 11. Autocorrelation test result on Conventional Monetary Instruments

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	2.661431	Prob. F(2,32)	0.0853
Obs*R-squared	5.847284	Prob. Chi-Square(2)	0.0537

Based on table 11, the autocorrelation test using the Bruesch-Godfrey test obtained a p-value of 0.0537 > α (0.05) means that the conclusion is that conventional monetary instruments do not autocorrelation with residuals.

After conducting an autocorelitity test step whose results did not occur autocorrelation on all variables from Islamic and conventional monetary instruments, heteroscedasticity tests were then carried out. The following is the discussion and results of the heteroscedasticity test on research variables.

HETEROSCEDASTICITY TEST

In the heteroscedasticity test, it aims to test whether in the model there is a variance inequality of residuals between observations of one another. The rule of decision in the heteroscedasticity test, if the probability value F Breusch – Pagan LM Test is more than α = 0.05, then it means that the model

has no heteroscedasticity problem. The following are the results of the processing of research variables in the heteroscedasticity test:

a. Heteroscedasticity Test on Islamic monetary instruments

The explanation of the results of the heteroscedasticity test on Islamic monetary instruments consisting of SBIS, PUAS and financing variables with IPI independent variables is as follows:

Table 12. Result of Heteroscedasticity test on Sharia Monetary Instruments

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	0.905898	Prob. F(15,16)	0.5737
Obs*R-squared	14.69596	Prob. Chi-Square(15)	0.4735
Scaled explained SS	5.373707	Prob. Chi-Square(15)	0.9885

Based on table 12, a P-value of 0.4735 > α (0.05) means that the data that has been tested produces residual non-heteroscedasticity, there is no problem with heteroscedasticity. Therefore, Islamic monetary instruments do not have heteroscedasticity problems.

b. Heteroscedasticity Test in conventional monetary instruments

The explanation of the results of the heteroscedasticity test on conventional monetary instruments consisting of SBI, interbank and credit variables with IPI independent variables is as follows:

Table 13. Results of heteroscedasticity test on Conventional Monetary Instruments

Heteroskedasticity Test: Breusch-Pagan-Godfrey
Null hypothesis: Homoskedasticity

F-statistic	0.639763	Prob. F(6,34)	0.6976
Obs*R-squared	4.159293	Prob. Chi-Square(6)	0.6551
Scaled explained SS	23.01390	Prob. Chi-Square(6)	0.0008

Based on table 13, a P-value of 0.6551 > α (0.05) means that the data that has been tested produces residual non-heteroscedasticity, that is, there is no problem with heteroscedasticity. Therefore, conventional monetary instruments do not have a problem of heteroscedasticity.

After conducting the heteroscedasticity test step which results in no heteroscedasticity problems on all variables of Islamic and conventional monetary instruments, then a multicollinearity test is carried out. The following is the discussion and results of the multicollinearity test on research variables.

MULTICOLINEARITY TEST

The last stage of the assumption test, namely the multicollinearity test, aims to test the presence or absence of correlation between independent variables. A good regression model should not have correlations between independent variables. To detect multicollinearity, it can be seen from the tolerance value or the value of Variance Inflation Factors (VIF). If the VIF value does not exceed 10, it can be concluded that multicollinearity does not occur.

a. Multicollinearity test on Islamic monetary instruments

The explanation of the results of the multicollinearity test on Islamic monetary instruments consisting of SBIS, PUAS and financing variables with IPI independent variables is as follows:

Table 14. Results of multicollinearity test on Sharia Monetary Instruments

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
D(YIPI(-1))	0.032998	2.391658	2.391645
D(YIPI(-2))	0.038407	2.783257	2.783254
D(YIPI(-3))	0.035060	2.545141	2.545104
D(X1)	0.224926	2.099165	1.829511
D(X1(-1))	0.318175	2.979109	2.624213
D(X1(-2))	0.358992	3.362586	2.975446
D(X1(-3))	0.429062	4.024993	3.696589
D(X1(-4))	0.342838	3.272827	3.141323
D(X2)	0.118046	1.626042	1.621849
D(X2(-1))	0.321183	1.969350	1.824326
D(X3)	0.042608	1.969498	1.612944
D(X3(-1))	0.093531	3.602668	2.503910
D(X3(-2))	0.078578	2.557855	1.858720
D(X3(-3))	0.068998	2.265659	1.366885
D(X3(-4))	0.069234	2.455560	1.455353
C	942868.0	5.457045	NA

Based on table 14 above, the value produced by each variable is a condition for the presence or absence of multicollinearity. The following is a description of the results of the multicollinearity test on each variable of Islamic monetary instruments:

1) Variable Y with Industrial Production Index produces a VIF value with a period of 3 periods which in each large period of VIF value < 10.00, then the independent variable IPI does not experience symptoms of multicollinearity.
2) The SBIS variable as X1 has a VIF value that < 10.00 with a period of 4 periods and all values below 10.00, so the SBIS variable does not experience symptoms of multicollinearity.
3) The PUAS variable as X2 has a period of 1 period with a VIF value of < 10.00, then the PUAS variable does not experience symptoms of multicollinearity.
4) The financing variable as X3 has a period of 4 periods with a VIF value of < 10.00, then the financing variable does not experience symptoms of multicollinearity.

b. Multicollinearity test on conventional monetary instruments

The explanation of the results of the multicollinearity test on conventional monetary instruments consisting of SBI, interbank and credit variables with IPI independent variables is as follows:

Table 15. Multicollinearity test results on Conventional Monetary Instruments

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
D(YIPI(-1))	0.023647	1.486706	1.486276
D(YIPI(-2))	0.030966	1.954027	1.954027
D(YIPI(-3))	0.027599	1.742961	1.742954
D(X4)	0.005058	1.545961	1.367851
D(X5)	1.39E-05	1.515854	1.515258
D(X6)	6.60E-05	1.089136	1.077188
C	186824.1	1.176522	NA

Based on table 15 above, the value produced by each variable is a condition for the presence or absence of multicollinearity. The following is an explanation of the results of figure 21:

1) Variable Y with Industrial Production Index produces a VIF value with a period of 3 periods which in each large period of VIF value < 10.00, then the independent variable IPI does not experience symptoms of multicollinearity.

2) The variable X4 as SBI produces a VIF value of 1.367851 < 10.00, then the SBI variable does not experience symptoms of multicollinearity
3) The variable X5 as an interbank has a value of VIF 1.515258 < 10.00, meaning that the interbank variable does not experience symptoms of multicollinearity
4) The variable X6 as financing, has a VIF value of 1.077188 < 10.00, meaning that the financing variable does not experience symptoms of multicollinearity in the data

Therefore, from the results of the multicollinearity test on Islamic and conventional monetary instruments, it can be described that each variable of these instruments does not experience symptoms of multicollinearity. Then the data is safe to enter in the ARDL method.

After conducting an assumption test with the steps, a stability test will then be carried out to complete the steps in the ARDL method. The following is a discussion and results of the stability test.

STABILITY TEST

A stability test is performed to see if the ARDL model estimation is stable. The ARDL model is said to be in a stable state when the CUSUM line is between the 5% significant lines.

a. Stability test on Sharia Monetary Instruments

The explanation of the results of the stability test on Islamic monetary instruments consisting of SBIS, PUAS and financing variables with IPI independent variables is as follows:

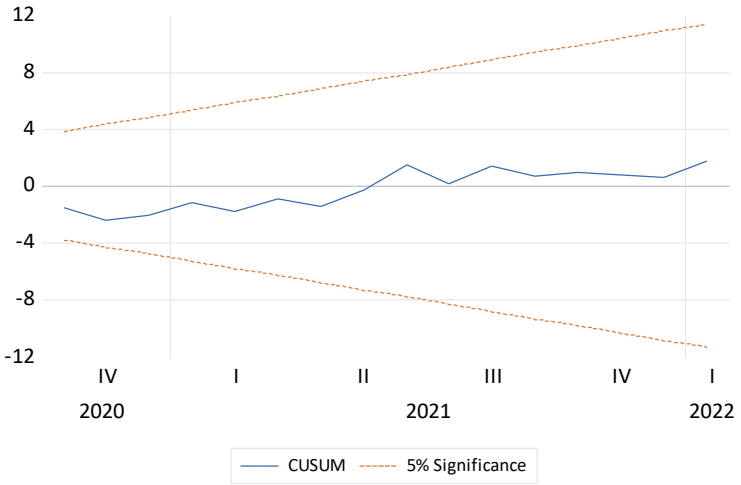

Figure 5. Chart of stability test results on Sharia Monetary Instruments

Based on figure 5 above, the CUSUM line is between the 5% significant lines. Thus, the stability test results show that the estimation of the ARDL model in Islamic Monetary Instruments, is in a stable state because the CUSUM line is between the significant lines of 5%.

b. Stability Test on Conventional Monetary Instruments

The explanation of the results of the stability test on conventional monetary instruments consisting of SBI, interbank and credit variables with IPI independent variables is as follows:

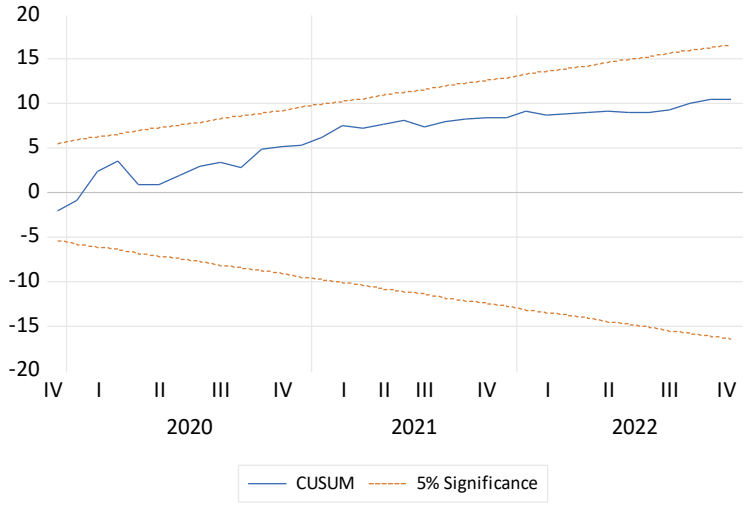

Figure 6. Stability test chart of Conventional Monetary Instruments

Based on figure 6 above, the CUSUM line is between the 5% significant lines. Thus, the stability test results show that the estimation of the ARDL model in Conventional Monetary Instruments, is in a stable state because the CUSUM line is between the significant lines of 5%. After the stability test is carried out, then a partial test (t) is carried out. The following is the discussion and results of the partial test (t) on research variables.

PARTIAL TEST

The t test is widely known as a partial test, the t test is used to test the effect of each variable individually on the dependent variable. The t test can be done by comparing t-count and t-table manually or by looking at the magnitude of the t-count and the probability value of each variable. The following are partial test results from the ARDL model estimation of research variables.

a. Partial Test on Sharia Monetary Instruments

The explanation of the results of the partial test on Islamic monetary instruments, namely SBIS, PUAS and financing, is as follows:

Table 16. Estimated results of Islamic Monetary Instruments ARDL

Fixed regressors: C
Number of models evaluated: 500
Selected Model: ARDL(3, 4, 1, 4)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
D(YIPI(-1))	-0.595214	0.181653	-3.276653	0.0047
D(YIPI(-2))	-0.780867	0.195977	-3.984488	0.0011
D(YIPI(-3))	-0.678032	0.187244	-3.621110	0.0023
D(X1)	0.533235	0.474263	1.124344	0.2775
D(X1(-1))	-1.054163	0.564070	-1.868852	0.0801
D(X1(-2))	1.474584	0.599160	2.461087	0.0256
D(X1(-3))	-0.663648	0.655029	-1.013159	0.3261
D(X1(-4))	-1.337896	0.585524	-2.284956	0.0363
D(X2)	0.222118	0.343579	0.646484	0.5271
D(X2(-1))	-1.710134	0.566730	-3.017547	0.0082
D(X3)	-0.288720	0.206418	-1.398719	0.1810
D(X3(-1))	-1.037316	0.305829	-3.391821	0.0037
D(X3(-2))	-0.297495	0.280317	-1.061281	0.3043
D(X3(-3))	0.306220	0.262674	1.165781	0.2608
D(X3(-4))	0.389689	0.263124	1.481009	0.1580
C	1369.108	971.0139	1.409977	0.1777

Based on table 16 above, it is concluded that the variables of Islamic monetary instruments that affect the industrial production index are:

1) The IPI variable (Y) in a period of 3 consecutive years has a probability value of < 0.05, then the result is significant and has an influence on the IPI variable itself.
2) The variable X1 (-2) (SBIS) 2 years ago had a probability value of 0.0256 < 0.05, so statistically the results are significant and influential on the Industrial Production Index (IPI). So, the Bank Indonesia Sharia Certificate instrument in the past 2 years affected the Industrial Production Index.
3) The variables X1 (-4) (SBIS) and 4 years ago have a probability value of 0.0363 < 0.05, so statistically the results are significant and influential on the Industrial Production Index (IPI). So, the Bank Indonesia Sharia Certificate instrument 4 years ago affected the Industrial Production Index.
4) The variable X2 (-1) (PUAS) one year ago had a probability value of 0.0082 < 0.05, so statistically the results are significant and influential on the Industrial Production Index (IPI). Thus, the Sharia Interbank Money Market (PUAS) instrument one year ago influenced the Industrial Production Index.

The variable X2 (-1) (PUAS) one year ago had a probability value of 0.0082 < 0.05, so statistically the results are significant and influential on the Industrial Production Index (IPI). Thus, the Sharia Interbank Money Market (PUAS) instrument one year ago influenced the Industrial Production Index

b. Partial Test on Conventional Monetary Instruments

The explanation of the results of the partial test (t) on conventional monetary instruments, namely SBI, interbank and credit is as follows:

Table 17. Results of ARDL estimates on Conventional Monetary Instruments

Fixed regressors: C
Number of models evaluated: 500
Selected Model: ARDL(3, 0, 0, 0)
Note: final equation sample is larger than selection sample

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
D(YIPI(-1))	-0.697051	0.153775	-4.532938	0.0001
D(YIPI(-2))	-0.453955	0.175972	-2.579707	0.0144
D(YIPI(-3))	-0.444157	0.166131	-2.673537	0.0114
D(X4)	-0.038480	0.071122	-0.541039	0.5920
D(X5)	-0.007777	0.003728	-2.086187	0.0445
D(X6)	-0.002558	0.008125	-0.314885	0.7548
C	-60.41307	432.2315	-0.139770	0.8897

Based on table 17 above, it is concluded that the variables of conventional monetary instruments have no effect on the industrial production index. Because the probability value on X4 as SBI is 0.5920 > 0.05, on X6 as a credit is 0.7548 > 0.05. So, SBI and credit variables have no effect on IPI. While the probability value of X5 as an interbank is 0.0445 < 0.05, the interbank variable has an influence on IPI.

After a partial test, then a simultaneous test was carried out to determine the influence of the variable as a whole. The following is the discussion and results of simultaneous tests on research variables.

SIMULTAN TEST

The F test is used to see the influence of independent variables as a whole or simultaneously. The F test also tests whether the regression model is significant or insignificant to the model. The F test is performed by comparing the F count with the F table or the probability value with the significance

value. The following is an explanation of the results of the F test on the variables of Islamic and conventional monetary instruments against the Industrial Production Index.

a. Simultaneous Test (F) on Islamic Monetary Instruments

The explanation of the results of the partial test (F) on Islamic monetary instruments, namely SBIS, PUAS and financing is as follows:

Table 18. Simultaneous test results (F) of Islamic Monetary Instruments

P-Value	Critical Score α=5%	Results
0.0061	0.05	Significant

Based on table 18 above, the probability value of 0.0061 < 0.05, the variables of Islamic Monetary Instruments, namely SBIS, PUAS and financing as a whole are significant and affect the Industrial Production Index (IPI) variable as variable Y of this study.

b. Simultaneous Test (F) on Conventional Monetary Instruments

The explanation of the results of the partial test (F) on conventional monetary instruments, namely SBI, interbank and credit is as follows:

Table 19. Simultaneous test results (F) of Conventional Monetary Instruments

P-Value	Critical Score α=5%	Results
0.0013	0.05	Significant

Based on table 19 above, the probability value of 0.0013 < 0.05, the variables of conventional Monetary Instruments, namely SBI, interbank money and credit as a whole are significant and affect the Industrial Production Index (IPI) variable as variable Y of this study.

After a simultaneous test (F), followed by a coefficient of determination (R2) test to determine the amount of influence exerted on each monetary instrument. The following is the discussion and results of the coefficient of determination test on research variables.

COEFFICIENT OF DETERMINATION TEST (R2)

The coefficient of determination (R2) is carried out to see how much influence the independent variable has on the dependent variable. The value of R2 ranges from 0-1 where when R2 approaches 0, the influence of the independent variable on the dependent is smaller and vice versa when the value of R2 is close to 1, the influence of the independent variable on the dependent variable is greater. The following are the results of the Test of the Coefficient of Determination of Islamic Monetary Instruments:

Table 20. Test Results of the Coefficient of Determination of Islamic Monetary Instruments

R-squared	0.779243	Mean dependent var	-41.78125
Adjusted R-squared	0.572284	S.D. dependent var	3595.374
S.E. of regression	2351.374	Akaike info criterion	18.67024
Sum squared resid	88463342	Schwarz criterion	19.40311
Log likelihood	-282.7238	Hannan-Quinn criter.	18.91316
F-statistic	3.765203	Durbin-Watson stat	2.546200
Prob(F-statistic)	0.006137		

*Note: p-values and any subsequent tests do not account for model selection.

From the test results, the coefficient of determination R2 in Islamic monetary instruments is 0.7792, which means that the variables SBIS, PUAS, financing affect the Industrial Production Index (IPI) by 77.92% while the remaining 22.08% is influenced by variables from other Islamic monetary

instruments that are not included in the model. Then here is a discussion of the results of Conventional Monetary Instruments.

Table 21. Test Results of Coefficient of Determination of Conventional Monetary Instruments

R-squared	0.455333	Mean dependent var	3.097561
Adjusted R-squared	0.359216	S.D. dependent var	3187.516
S.E. of regression	2551.575	Akaike info criterion	18.68106
Sum squared resid	2.21E+08	Schwarz criterion	18.97362
Log likelihood	-375.9618	Hannan-Quinn criter.	18.78760
F-statistic	4.737250	Durbin-Watson stat	1.997405
Prob(F-statistic)	0.001322		

*Note: p-values and any subsequent tests do not account for model selection.

Then from the test results the coefficient of determination R2 in conventional monetary instruments is 0.4553 which means that the variables SBI, interbank money, credit affect the Industrial Production Index (IPI) by 45.53% while the remaining 54.47% is influenced by variables from other conventional monetary instruments that are not included in the model.

DISCUSSION

Based on the results of the ARDL test on the processed data, namely SBIS, PUAS, financing, SBI, PUAB, and credit to IPI. Most have influence on IPI and others have no influence. The following is an explanation of the results of the ARDL estimation test on the variables of each Islamic and conventional monetary instrument.

a. Sharia Monetary Instruments

This study examines the influence of Islamic monetary instrument variables on the real sector. With variable Islamic monetary instruments, namely SBIS, PUAS and financing against real sector variables, namely the Industrial Production Index (IPI). The results of the ARDL model on Islamic monetary instruments on these variables are as follows:

1) The SBIS variable as X1 in this study has significant results in years 2 and 4, so there is an influence of SBIS on IPI. This is evidenced in research Harahap[25] which also examines the influence of SBIS on the real sector with the result that SBIS has an impact and influence on the real sector and research Pradesyah[26] with the results of research that SBIS has a significant effect on the real sector.
2) The variable X2 as PUAS in this study had significant results on IPI one year ago, so there is an influence on PUAS on IPI. As in the research Riani[27] with the results of the study that the PUAS variable has a significant influence on the real sector. And research Puswanti also examined the influence of PUAS on the real sector with significant results.[28]
3) The variable X3 as financing in this study had significant results on IPI one year ago, so there is an influence on financing on IPI. As in the research Andiansyah[29] with the conclusion of

[25] Isnaini Harahap and Khairina Tambunan, "The Effect of SBI and SBIS as Monetary Instruments on the Indonesian Economy," *Share: Jurnal Ekonomi dan Keuangan Islam* 11, No. 1 (June 30, 2022), 90.

[26] Riyan Pradesyah and Yuyun Triandhini, "The Effect of Third Party Funds (DPK), Non Performing Financing (NPF), and Indonesian Sharia Bank Certificates (SBIS) on Sharia Banking Financing Distribution in Indonesia," *International Journal of Business, Economics, and Social Development* 2, No. 2 (2021), 72.

[27] Ririn Riani and Imron Hr, "The Influence of Monetary Policy Instruments on Economic Growth in Indonesia: Comparison between Islamic and Conventional Monetary Instruments" 4, No. 2 (2022), 1.

[28] Pradesyah and Triandhini, "The Effect of Third Party Funds (DPK), Non Performing Financing (NPF), and Indonesian Sharia Bank Certificates (SBIS) on Sharia Banking Financing Distribution in Indonesia", 1.

[29] Farma Andiansyah et al., "Pengaruh Instrumen Keuangan Syariah terhadap Pertumbuhan Ekonomi Indonesia," *Al-Masraf: Jurnal Lembaga Keuangan dan Perbankan* 7, No. 1 (June 16, 2022), 70.

the research resulting in sharia financing having a positive effect on the real sector. And in research Harahap[30] which examines the effect of financing on real sector GDP, the results of which explain that financing has a positive effect on the real sector.

b. Conventional Monetary Instruments
   1) The variable X4 as SBI in this study had insignificant results on IPI. Therefore, SBI in this study has no influence on IPI.
   2) Variable X5 as interbank money The result of this study is that the interbank variable has an influence on IPI. As in Rusanti's.[31] With the results of the study that interbank money is significant to IPI. Therefore, interbank money has an influence on the real sector. And as in the research of Ardi.[32] With the results of research that interbank money has significant results and has an influence on the real sector. And in the study Ariani[33] which examines the effectiveness of monetary policy with interbank variables and has significant negative value results on the real sector.
   3) The variable X6 as credit for the results of this study is insignificant. Thus, credit variables have no effect on IPI in this study.

From the results of the discussion and discussion above, it can be concluded that the results of a comparative analysis of the influence between Islamic monetary instruments and conventional monetary instruments on the real sector are that Islamic monetary instruments have more influence on the real sector with the Industrial Production Index approach. Because from the results of the study, IMS has an appropriate probability value and the results on variables from Islamic monetary instruments, namely SBIS, PUAS and financing also have probability values that are in accordance with the limits of critical values in statistics.[34]

Although conventional monetary instruments also have appropriate probability values, the overall meaning of IMK affects the real sector.[35] However, in the variables of IMK, namely SBI, interbank money and credit, only interbank variables affect the IPI as a dependent variable of the real sector. Meanwhile, SBI and credit variables have no effect on IPI. Thus, Islamic Monetary Instruments and Conventional Monetary Instruments both have an influence on the rill sector. However, greater influence is generated by Islamic Monetary Instruments by 77%, while Conventional Monetary Instruments only have an influence of 45%. Therefore, Sharia Monetary Instruments must be further developed in order to increase the production index of Indonesian industry.

CONCLUSION

Based on the results of research and discussion, the article entitled "Comparative Analysis of the Effect of Sharia Monetary Instruments and Conventional Monetary Instruments on the Real Sector: with an Industrial Production Index approach in Indonesia 2019-2022" has the following conclusions: *First* Based on the results of test F, Islamic Monetary Instruments have a probability value of 0.0061

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[30] Muhammad Arfan Harahap and Muhammad Hafizh, "Pengaruh Pembiayaan Bank Syariah, Suku Bunga dan GDP terhadap Uang Beredar di Indonesia," *Al-Sharf Jurnal Ekonomi Islam* 1, No. 1 (2020) 64.

[31] Ega Rusanti et al., "Instrumen Studi Komparatif Kebijakan Moneter Konvensional dan Islam dalam Pengendalian Inflasi," *Jurnal Asy-Syarikah: Jurnal Lembaga Keuangan, Ekonomi dan Bisnis Islam* 2, No. 2 (September 25, 2020), 414.

[32] Yolanda Argi Utami and Thomas Andrian, "Analisis Mekanisme Transmisi Kebijakan Moneter melalui Saluran Harga Aset pada Sektor Riil," *Jurnal Kajian Ekonomi dan Pembangunan* 4, No. 2 (June 1, 2022), 77.

[33] Nur Ariani Aqidah et al., "Analisis Efektivitas Transmisi Kebijakan Moneter Melalui Instrumen Syariah dan Konvensional dalam Memengaruhi Inflasi di Indonesia," *Owner* 6, No. 3 (July 1, 2022), 2345.

[34] Larisa Yarovaya, Ahmed H. Elsayed, and Shawkat Hammoudeh, "Determinants of Spillovers between Islamic and Conventional Financial Markets: Exploring the Safe Haven Assets during the Covid-19 Pandemic," *Finance Research Letters* 43 (2021).

[35] Dede Sahudin, "Pengaruh Transmisi Kebijakan Moneter Syariah dan Konvensional terhadap Sektor Riil" (Jakarta, UIN Syarif Hidayatullah Jakarta, 2024).

< 0.05. Therefore, the variables of Sharia Monetary Instruments, namely SBIS, PUAS and financing, affect the real sector with the variable Industrial Production Index. *Second* Based on the results of the F test on Conventional Monetary Instruments, it can be described that instruments from conventional monetary have a probability value of 0.0013 < 0.05. Therefore, the variables of Conventional Monetary Instruments, namely SBI, interbank money and credit, affect the real sector with the variable Industrial Production Index. *Third* Based on the results of the coefficient of determination test on the two monetary instruments, it can be described that Islamic monetary instruments have an influence of 77.92% and the influence comes from SBIS, PUAS and financing variables which are variables of Islamic monetary instruments. While conventional monetary instruments have an influence of 45.53%, where the influence comes from SBI, interbank and credit variables as conventional monetary instrument variables.

Based on the results of research and discussion, the following can be suggested: *First* It is necessary to pay attention to decisions in the use of appropriate monetary instruments, both Islamic and conventional monetary policies, to be used in influencing in particular the Industrial Production Index (IPI) and generally economic growth. Because from the results of this study, it can be seen that Islamic and conventional monetary instruments both affect the Industrial Production Index. *Second* The need for an economic strategy that can increase the volume of sharia-based transactions and further purify the Islamic economic system, so it is expected that the percentage of Islamic economic share in economic growth will be even greater. Given its great potential and as is well known that the Islamic economy is a usury-free economy so that it is resistant to economic instability. By conducting seminars for those who do not know the world of Islamic economics, especially Muslims and also economic actors who already understand how Islamic economics works in order to disseminate knowledge information about Islamic economics in particular. *Third* Implementing Islamic and conventional monetary policies that are in accordance with economic circumstances and can assist in sustainable economic growth activities. Implementing more policies from Sharia monetary policy would be safer and in line with the majority of Indonesian countries, which are Muslims, which would be better.

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