Adaptive Expectation Stability Model in Controlling Inflation and Unemployment in Heaven Earth Countries

Fredi Alwi^{1*}, Wahyu Indah Sari², Lia Nazliana Nasution³ ¹⁻³Panca Budi Development University, Indonesia

Author Correspondence: wahyuindahsari@dosen.pancabudi.ac.id*

Abstract. Adaptive Expectation Stability Model in controlling Inflation and Unemployment in Heaven Earth Country, which functions to see the picture of Inflation and Unemployment conditions in the following year. This study aims to Analyze Gross Domestic Product, Interest Rates and Money Supply affecting Inflation and Unemployment in the short, medium and long term and Analyze the differences in Inflation and Unemployment before and during the Covid 19 pandemic in Heaven Earth Country. This type of research is quantitative analysis using secondary data in time series from 2006 to 2021 (time series) and cross-sections obtained from the World Bank and BPS. The data analysis techniques used are the VAR method and Difference Test. Analysis Results The results of the VAR analysis show that past variables (t-1, t-2) have contributed to the current variables, both for the variables themselves or for other variables. In the medium and long term. and for the results of the Difference Test there is a significant difference during and before covid 19 by the country of Heaven Earth. Suggestions in this study, To stabilize the Inflation and Unemployment rates, government policies are needed to increase interest rates which have an impact on reducing the inflation rate from this decrease in the inflation rate also has an impact on unemployment where when inflation falls, many industrial sectors need more workers to get maximum production results which of course will reduce the Unemployment rate.

Keywords Inflation, Unemployment, Adaptive Expectations, Heaven Earth

1. INTRODUCTION

Unemployment is one of the main problems in Indonesia. The unemployment problem is closely related to economic growth. If economic growth exists, it will directly absorb labor. However, if economic growth each year is only able to absorb less labor than the number of job seekers, it will cause the remaining job seekers to not get jobs so that the number of unemployed in Indonesia will increase, (Ariefta, 2014). An unemployment rate that is too high will affect the national stability of each country. So that each country tries to maintain the unemployment rate at a reasonable level.

In macroeconomic theory, the problem of unemployment is discussed in the Labor Market which is also related to the balance between wage rates and labor. The natural unemployment rate is a natural level of unemployment that cannot be eliminated. This means that if the unemployment rate is at most 2-3%, it means that the economy is in a condition of full employment (Sadono Sukirno, 2008) is the purpose of the study? Why are you conducting the study? The main section of an article should begin with an introductory section that provides detailed information about the paper's purpose, motivation, research methods, and findings. The introduction should be written in relatively nontechnical language, yet clear enough for an informed reader to understand the manuscript's contribution.

Inflation Stability in a country's economy is a focus in every country because a stable inflation rate can provide positive changes to the economy in terms of maintaining the country's condition, so that by maintaining inflation stability, unemployment can be overcome or overcome. To maintain inflation stability, namely through monetary policy with the help of using monetary economic variables or instruments such as interest rates (SB), money supply (JUB) and exchange rates (KURS). This monetary policy is a policy of the monetary authority or central bank in the form of controlling the size of the monetary economy to achieve the desired economic development. Litteboy and Taylor (2006, in Natsir, 2008) state that monetary policy is all efforts or actions of the central bank to influence monetary developments such as money in circulation, interest rates to achieve certain economic goals including economic growth, price stability, employment (unemployment) and balance of payments. And fiscal policy is an important policy to overcome unemployment. The choice of Heaven Earth Country (Indonesia) is because it has abundant natural wealth, not only its nature, but also its cultural wealth. The problem phenomenon in this study is by looking at the response of monetary policy variables (Interest Rates, Money Supply and Gross Domestic Product) to Inflation and Unemployment in Heaven Earth Country in the research period from 2006 to 2021.



Source: www.worldbank.org

Figure 1. Inflation Heaven Earth Country

Based on the figure it is known that there was a decrease in inflation growth in the heaven on earth country (Indonesia) which fluctuated in 2006-2021, and the worst inflation during that period occurred in 2014, which was 8.38% from the previous year of 4.3%. This resulted in the Indonesian economy experiencing economic turmoil. In addition to inflation which is an urgent problem, there are also other variables such as unemployment which during the Covid 19 Pandemic was stated to have soared due to the poor economy.



Source. www.worlubalik.org

Figure 2. Unemployment Country Heaven Earth

Based on the figure it is known that there was a massive fluctuation from 2006 to 2010 and there was a decline again in the period 2011 to 2015 and experienced an increase in 2016, namely 7.3% and increased sharply in 2021, namely 7.07%. This is of course due to the Covid pandemic which resulted in many workers being laid off.



Source: www.worldbank.org

Figure 3. Heaven Earth State Interest Rate

Based on the figure it is known that there were fluctuations from 2006 to 2021, and a significant decline occurred in the period from 2016 to 2018 and increased again from 2014 to 2016, then decreased again in 2021. This was due to the global economic crisis which had an impact on Indonesian interest rates.



Source: www.worldbank.org

Figure 4. The amount of money in circulation of Heaven Earth Country

Based on the table and graph above, it is known that there has been an increase from 2006 to 2021. This is due to the increasing public consumption and also the large amount of budget issued by the government in efforts to tackle Covid-19 and economic recovery efforts.



Source: www.worldbank.org

Figure 5. Heaven Earth Country GDP

Based on the table and graph above, it is known that there has been an increase from 2006 to 2021, namely from 365 million USD to 1097 million USD. This is because many MSMEs have started to grow in the digital era that utilize e-commerce as a platform for operations and this is what makes GDP increase.

2. LITERATURE REVIEW

According to Lipsey (1997), inflation is an average increase in prices at all levels of goods/services. Meanwhile, Mankiw (2000) stated that the inflation rate is the total increase in the price level of goods, services and production factors. Inflation occurs when there is an imbalance between aggregate demand and supply where aggregate demand is greater than aggregate supply. Monetaryists state that inflation is a monetary phenomenon where the inflation rate occurs due to the growth of the money supply, where the shift in aggregate supply is responded directly to by a shift in aggregate demand, causing an increase in prices (Hervino, 2011). Meanwhile, Keynesians have relatively the same views as monetarists who emphasize inflation on aggregate demand and the relationship between the money market and the goods market which also needs attention to the level of money supply. However, Keynesians also have views on instability in the economy, including in terms of fighting inflation and unemployment, and also require fiscal policies other than monetary that are well coordinated between the two. According to Keynes, active government intervention is also needed to overcome macroeconomic problems (Case and Fair, 2007).

According to Suparmoko (2007) unemployment is the inability of the workforce to obtain work according to what they need or want. So it can be concluded that unemployment is a condition in which someone who is already included in the workforce has not yet found a

job and is trying to find a job. Meanwhile, according to the Central Statistics Agency (BPS) in the employment indicator, unemployment is a population that is not working but is looking for work or is preparing a new business or a population that is not looking for work because they have been accepted to work but have not started working. According to Murni (2006) unemployment is a person who does not have a job or does not have an income. Sukirno (2008) explains that unemployment is a condition in which a person who is included in the workforce wants to get a job but has not been able to get it.

According to Mishkin (2008:4) states that interest rates are the cost of borrowing or the price paid for the loan funds. (Darmawi, 2005) in Efni (2007:3), states that interest rates are the price that must be paid by borrowers to obtain funds from lenders for a certain period of time. Wiyani and Andi Wijayanto (2005) also in Efni (2007) state that interest is a reward given to someone for a certain amount of loan or savings, where the amount is determined in the form of a percentage. The interest rate determines the amount of savings or investment. If there is an increase in interest rates, it will reduce the desire of the public and investors to invest but will actually increase the supply of savings.

According to Tong & Andjaswati, (2008) showed that the amount of money in circulation is the total money supply in an economy at a certain time (usually one budget year). According to Fidaus & Maya, (2011) the theory of the amount of money in circulation is that the stock of money in circulation in a country's economy will determine the rate of prices of goods. There is a relationship between changes in the amount of money in circulation and changes in national income. Economic fluctuations are more due to changes in the amount of money in circulation, which is an important factor that causes changes in national income receipts. It can be concluded that if the amount of money in circulation increases, national income will increase with a positive correlation.

GDP is the value of goods and services in a country produced by production factors owned by citizens of that country and foreign countries (Sukirno, 1999). According to Mankiw (2007), Gross Domestic Product (GDP) is the market value of all final goods and services produced in the economy during a certain period of time. GDP is an economic variable that occupies the most important position of the various macroeconomic variables that exist to measure the economic performance of a country. As is known, GDP measures the expenditure and income of goods and services in a country's economy (Tedy Herlambang, et al., 2002).

Gross Domestic Product (GDP) is divided into two; nominal GDP (or called GDP at Current Prices) and real GDP (or called GDP at Constant Prices). Nominal GDP describes the added value of goods and services that are calculated using prices that apply each year. Nominal GDP does not reflect the real economic welfare, because it does not show the real availability of goods and services needed by consumers, companies, or the government. While real GDP shows the added value of goods and services calculated using prices that apply in a particular year as a basis. Real GDP is better than nominal GDP for measuring economic prosperity because it calculates expenditure on goods and services and will not be affected by price changes. GDP at current prices can be used to see shifts and economic structures, while constant prices are used to determine economic growth from year to year (Mankiw, 2007).

3. METHODS

This study uses an associative/quantitative approach. According to Rusiadi (2016) "Associative/quantitative research is research that aims to determine the degree of relationship and pattern/form of influence between two or more variables, where with this research a theory will be built that functions to explain, predict and control a symptom," To support quantitative analysis, the VAR analysis method is used, where this model is able to explain the long-term reciprocal relationship of economic variables as endogenous variables. Data analysis techniques are steps or research processes where the collected data is processed to answer the problem formulation. In this study, the data analysis techniques used are four quantitative analysis methods, namely the VAR method (vector autoregression). VAR Analysis Model are: $INFt = \beta 10 + \beta 11PNGt-p + \beta 12SBt-p + \beta 13JUBt-p + \beta 14PDBt-p + \beta 15INFt-p + et1...1 PNGt$ $= \beta 20 + \beta 21SBt-p + \beta 22JUBt-p + \beta 23PDBt-p + \beta 24INFt-p + \beta 25PNGt-p + et2...2 SBt = \beta 30$ $+ \beta 31JUBt-p + \beta 32PDBt-p + \beta 33INFt-p + \beta 34PNGt-p + \beta 45SBt-p + et3...3 JUBt = \beta 40 +$ $<math>\beta 41PDBt-p + \beta 42INFt-p + \beta 43PNGt-p + \beta 44SBt-p + \beta 45JUBt-p + et4....4 PDBt = \beta 50 +$ $<math>\beta 51INFt-p + \beta 52PNGt-p + \beta 53SBt-p + \beta 54JUBt-p + \beta 55PDBt-p + et5....5$

4. RESULTS

VAR analysis is used to see the simultaneous relationship (interrelated or mutually contributing) between the variables studied, as exogenous variables and endogenous variables by including the element of time (lag).

	INF	PNG	PDB	SB	JUB
INF(-1)	0.406907	0.269668	0.629576	0.100209	-0.358436
	(0.92153)	(0.16206)	(0.69254)	(0.83707)	(0.25825
	[0.44156]	[1.66395]	[0.90908]	[0.11971]	[-1.38792
PNG(-1)	3 963036 (1.15791) [3.42257]	0.539880 (0.20364) [2.65119]	0.339693 (0.87019) [0.39037]	-3.479930 (1.05179) [-3.30858]	(0.32450 [2.85722
PDB(-1)	-0.320245	0.010151	-0.035402	0.516517	-0.535970
	(0.45695)	(0.08036)	(0.34341)	(0.41507)	(0.12806
	[-0.70083]	[0.12632]	[-0.10309]	[1.24440]	[-4.18538
SB(-1)	0 837422	0.311886	0.672358	-0.289185	-0.04942
	(1.00969)	(0.17757)	(0.75880)	(0.91716)	(0.28296
	[0.82938]	[1.75641]	[0.88608]	[-0.31531]	[-0.17468
JUB(-1)	-0.487532 (0.48558) [-1.00401]	0.142334 (0.08540) [1.66673]	-0.310181 (0.36492) [-0.84999]	0434577 (0.44108) [0.98526]	(0.13608 [4.12699
с	-0.487930	-7.039254	7.560750	4.441205	17.9709
	(19.2571)	(3.38666)	(14.4721)	(17.4922)	(5.39671
	[-0.02534]	[-2.07853]	[0.52244]	[0.25390]	[3.32998
R-squared	0 804837	0.909655	0.327204	0.738021	0.912030
Adj. R-squared	0 696413	0.859464	-0.046572	0.592477	0.86316
Sum sq. resids	69.76107	2.157617	39.39970	57.55999	5.47885
S.E. equation	2.784103	0.489628	2.092306	2.528943	0.78023
F-statistic	7.423055	18.12365	0.875400	5.070771	18.66290
Loglikelihood	-32.81177	-6.741233	-28.52689	-31.36991	-13.7304
Akaike A/C	5.174903	1.698831	4.603585	4.982655	2.63072-
Schwarz SC	5.458123	1.982051	4.856805	5.265875	2.91394-
Mean dependent	6.418914	4.910000	4.851614	5.329616	39.4240
S.D. dependent	5.052935	1.306085	2.045223	3.961529	2.10925
Determinant resid cow Determinant resid cov Log likelihood Akaike information crit	ariance	0.834970 0.064927 -85.91174 15.45490			

Table 1. VAR Output Results

Table 2. VAR Estimation Results



Source: E-views

The VAR results above show the contribution of each variable to other variables. Furthermore, a summary of the largest contributions of one and two of each variable to other variables; The largest contribution to Inflation is Unemployment of the previous period and the second largest contribution is Interest Rate of the previous period. The largest contribution to Unemployment is Unemployment itself of the previous period and the second largest contribution is Interest Rate of the previous period. The largest contribution to GDP is Interest Rate of the previous period and the second largest contribution is Inflation of the previous period. The largest contribution to SB is GDP of the previous period and the second largest contribution is JUB of the previous period. The largest contribution to JUB is Unemployment of the previous period and the second largest contribution to JUB is Unemployment

Paired Samples Statistics						
		Mean	N	Std. Deviation	Std. Error Mean	
Pair 1	Inflation Before	3.0292	12	.34073	.09836	
	Inflation Durino	2.0358	12	.63318	.18278	

Table 3. Inflation Difference Test Output



Source: SPSS

The criteria for accepting and rejecting the hypothesis are as follows: 1) Ho is rejected and Ha is accepted if sig (2-tailed) $< \Box = 0.05$. 2) Ho is accepted and ha is rejected if sig (2tailed) > = 0.05 Based on the output of the SPSS 24 program assistance above, the following results are obtained: The average Inflation value in Heaven on Earth before the Covid-19 pandemic was 3.0292 and during the pandemic the Inflation rate appreciated to 2.0358. The sig (2-tailed) value for the Heaven on Earth Inflation variable is 0.003, which means> $\Box =$ 0.05. This shows that there is a significant difference in Inflation before and during the Covid-19 pandemic in Heaven on Earth.

Table 4. Unemployment Difference Test Output

Paired Samples Statistics							
		Mean	X	Std. Deviation	Std. Error Mean		
Pair 1	Unemployed Sefore	5.1142	12	.06288	.01815		
	Unemployed During	6.1158	12	.85650	.24725		

		Pair	ed Samp	oles Test	6			
	Paired Differences							
	Mean	Std. Deviatio n	Std. Error Mean	95% Confidence Interval of the Difference				Sig. (2-
				Lower	Upper	t	df	tailed)
Pair Unemployed Sefore Unemployed During	1.001 67	.82339	.23769	-1.52483	47851	4.214	11	.00

The criteria for accepting and rejecting the hypothesis are as follows: 1) Ho is rejected and Ha is accepted if sig (2-tailed) $\langle = 0.05.2 \rangle$ Ho is accepted and ha is rejected if sig (2-tailed) $\rangle = 0.05$ Based on the output of the SPSS 24 program assistance above, the following results are obtained: The average value of Unemployment in Heaven on Earth before the Covid-19 pandemic was 5.1142 and during the pandemic the rate of Unemployment appreciated to 6.1158. The sig (2-tailed) value for the Heaven on Earth Unemployment variable is 0.001 which means> = 0.05. This shows that there is a significant difference in Unemployment before and during the Covid-19 pandemic in Heaven on Earth.

5. DISCUSSION

Based on the results of the Vector Auto Regression (VAR) analysis of Inflation and Unemployment with the largest contribution being PNG in the previous period and the second largest contribution being SB from the previous period. In this case, it means that to reduce Inflation and Unemployment, the government also needs to reduce SB. This is in accordance with previous research (Dogan, 2012) stating that inflation and unemployment have a relationship, and are consistent with the Phillips Curve. However, this is contrary to (Vermeulen, 2017) that the unemployment rate does not depend on aggregate demand and high inflation or deflation can harm employment and can harm economic growth, because the rise and fall of inflation depend on the unemployment rate. There is also research that contradicts previous research, namely (Pratiko & Racmawati, 2013) showing that the unemployment rate does not have a significant effect on inflation and Research.

In this case, the COVID-19 no longer just a health problem, but can affect global economic problems due to the pandemic and the implementation of the Lockdown. The development of Fiscal and Monetary policies has also been hampered by COVID-19, such as Inflation, Unemployment, Gross Domestic Product, Interest Rates and Money Supply. Which causes an increase in Inflation and Unemployment during Covid-19. The following are the results of the scheme of the results of the different test variables of Inflation and Unemployment:





During the Covid-19 pandemic, the inflation rate in Heaven Earth has decreased and the results show that there is a significant difference in inflation before and during the Covid-19 pandemic in Heaven Earth. Where the decrease in inflation during the pandemic resulted in a slowdown in the domestic economy. During the current pandemic, many companies are laying off employees without realizing it, causing inflation to decrease in the short term. Inflation in Indonesia has weakened during the Covid-19 pandemic along with the increase in the consumer price index in Indonesia (Sari, 2020). This condition makes people's purchasing power low, which causes low inflation rates. Inflation fell drastically after the start of the Covid-19 pandemic (Shapiro, 2020) Research Different from Heaven Earth. During the pandemic, the inflation rate in Heaven Earth decreased, but the results showed a significant difference in inflation before and during the Covid-19 pandemic in Heaven Earth. Inflation expectations and their volatility are also positively influenced by the Covid-19 pandemic with inflation expectations being used as a link between inflation expectations to avoid risks during the pandemic (Apergis & Apergis, 2020).

During the pandemic, the unemployment rate (PNG) Heaven Earth has increased and shows a significant difference in Unemployment (PNG) before and during the Covid-19 pandemic in Heaven Earth. Where in the conditions of the Covid-19 pandemic, many countries have conducted research (Hanoatubun, 2020) which states that there is difficulty in finding employment, it is difficult to meet daily needs and many difficulties are received from all sectors of the economy because all fields also feel the impact of Covid-19. Research (Russiadi et al., 2020) states that this corona virus is a virus that reduces health and will also reduce economic growth globally or worldwide, because the corona virus or Covid-19 spreads by being transmitted through contact with other people. So that all have an impact on the global economy where the perpetrators themselves are the community. With the increasing number of cases of the corona virus or covid-19, most factories and companies cannot operate normally, rising food prices due to unstable supply so that the supply of labor decreases resulting in declining community income and increasing unemployment in various countries which causes high inflation rates so that economic instability occurs with an indeterminate time prediction. Research (Fahri & Kasnelly, 2019) shows that during the covid-19 pandemic it has an influence on increasing unemployment rates, it is predicted that unemployment will continue to increase during this pandemic until covid-19 passes.

6. CONCLUSION

The largest variable contribution to INF is PNG in the previous year period and then followed by SB in the previous year period. The largest variable contribution to PNG is PNG in the previous year period and then followed by SB in the previous year period. The largest variable contribution to GDP is SB in the previous year period and then followed by INF in the previous year period. The largest variable contribution to SB is GDP in the previous year period and then followed by JUB in the previous year period. The largest variable contribution to JUB

is PNG in the previous year period and then followed by JUB in the previous year period. Then based on the results, it can be concluded that the Inflation and Unemployment variables have a significant effect on the adaptive expectation stability model variables in the short, medium and long term.

During the pandemic, the Inflation rate (INF) experienced a significant decrease in INF Before and During the Covid 19 Pandemic in Heaven Earth Country. And during the Pandemic, the Unemployment rate (PNG) in Heaven Earth Country increased and the results also showed that there was a significant difference in PNG before and during the Covid 19 pandemic in Heaven Earth Country.

LIMITATION

Based on the problem phenomenon of the problems above, this study is limited so that the discussion is more focused and directed and does not deviate from the desired objectives. Thus, the author limits the problem only to the Inflation and Unemployment Control Mechanism in Indonesia with the variables Inflation (INF), Unemployment (PNG), Gross Domestic Product (GDP), Interest Rate (SB), Money Circulation (JUB) is inevitable that your research will have some limitations, and this is normal. However, it is critically important to strive to minimize the scope of these limitations throughout the research process. Additionally, you need to acknowledge your research limitations honestly in the conclusions chapter.

REFERENCES

- Affandi, F. (2016). Analisis pengaruh tingkat inflasi, nilai tukar, BI-rate, dan suku bunga bank konvensional terhadap margin bagi hasil deposito mudarabah perbankan syariah di Indonesia periode 2010-2015. AtTawassuth, 1(1), 45–72.
- Ariefianto, D. (2012). Ekonometrika: Esensi dan aplikasi dengan menggunakan Eviews. Jakarta: Erlangga.
- Boediono. (2001). Ekonomi moneter (3rd ed.). Yogyakarta: BPFE.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? Strategic Management Journal, 21, 1105–1121.
- Ekah, U. J., & Iloke, J. (2022). Performance evaluation of key performance indicators for UMTS networks in Calabar, Nigeria. GSC Advanced Research and Reviews, 10(01), 047–052.

Ekananda, M. (2004). Ekonomi internasional. Jakarta: Erlangga.

- Ezenwakwelu, C. A., Akpan, E. E., & Ogbogu-Asogwa, O. I. (2021). Enabling service innovation through dynamic capabilities: Insight from telecommunication firms. International Journal of Business and Management Invention, 10(5), 54–63.
- Fenski, M. D. (2018). Penerapan metode autoregressive distributed lag (ARDL) dalam memodelkan persentase penduduk miskin terhadap tingkat pengangguran terbuka di Provinsi Lampung periode 2011–2017. Prosiding Seminar Nasional Metode Kuantitatif, 95–104.
- Ferdiansyah, F. (2011). Analisis pengaruh jumlah uang beredar (M1), suku bunga SBI, nilai tukar suku bunga deposito terhadap tingkat inflasi. Media Ekonomi, 19(3), 43–68.
- Fincham, J. (2008). Response rates and responsiveness for surveys, standards, and the journal. American Journal of Pharmaceutical Education, 72(2), 1–3.
- Harjanto, T. (2014). Pengangguran dan pembangunan nasional. Jurnal Ekonomi, 2(2), 67-77.
- Haryanto, T. P. (2013). Pengaruh pengeluaran pemerintah terhadap pertumbuhan ekonomi kabupaten/kota di Provinsi Jawa Tengah tahun 2007–2011. Economics Development Analysis Journal, 2(3), 148–158.
- Indriani, D. R. (2011). Pengaruh pengeluaran konsumsi dan investasi pemerintah terhadap pertumbuhan ekonomi di Indonesia. Ekono Sains, IX(2), 95–105.
- Irmayanti, & Bato, A. R. (2017). Pengaruh tenaga kerja dan pengeluaran pemerintah. Jurnal Ekonomi, 4(1).
- Langi, T. M., & Masinambow, V. (2014). Analisis pengaruh suku bunga BI, jumlah uang beredar, dan tingkat kurs terhadap tingkat inflasi di Indonesia. Jurnal Berkala Ilmiah Efisiensi, 14(2), 44–58.
- Langi, T. M., Masinambow, V., & Siwu, H. (2014). Analisis pengaruh suku bunga BI, jumlah uang beredar, dan tingkat kurs terhadap tingkat inflasi di Indonesia. Jurnal Berkala Ilmiah Efisiensi, 14(2), 44–58.
- Mahendra, A. (2016). Analisis pengaruh jumlah uang beredar, suku bunga SBI dan nilai tukar terhadap inflasi di Indonesia. JRAK, 2(1), 1–12.
- Nasution, L. N., Nasution, D. P., & Lubis, A. I. F. (2020). Efektivitas kebijakan fiskal dan moneter dalam mengatasi kemiskinan di Provinsi Sumatera Utara. Jurnal Kajian Ekonomi Dan Kebijakan Publik (JEpa), 5(1), 73–77.
- Novalina, R. A. (2018). Leading indicator stabilitas ekonomi di negara Civit (China, India, Vietnam, dan Indonesia), pendekatan panel ARDL. Kajian Ekonomi dan Kebijakan Publik, 4(1), 1–12.
- Priatna, I. A. (2020). Analisis vector autoregression (VAR) terhadap hubungan pengangguran dan inflasi dalam perekonomian Indonesia. Vol. 7(2), 90–97.
- Sari, W. I., & Daulay, M. (2017). The analysis of global economic and financial stability control using arbitrage pricing and contagion theories.

- Sari, W. I., Novalina, A., & Sanny, A. (2022, December). Optimizing monetary policy transmission through the emerging market interest rate channel. In Proceeding of the International Conference on Economics and Business (Vol. 1, No. 2, pp. 523–535).
- Sedyaningrum, M., & F, N. (2016). Pengaruh jumlah nilai ekspor, impor dan pertumbuhan ekonomi terhadap nilai tukar dan daya beli masyarakat di Indonesia. Vol. 34(1), 114–121.
- Slamet, K. B. (2020). Pengaruh jumlah uang beredar terhadap inflasi dan suku bunga, serta terhadap investasi dan pertumbuhan ekonomi di Indonesia. Jurnal Ekonomi dan Bisnis Airlangga, 30(1), 39–48.
- Sukirno, S. (2004). Pengantar teori makro ekonomi. Jakarta: PT Raja Grafindo Persada.
- Suryadi. (2006). Model hubungan kausal kesadaran, pelayanan, kepatuhan wajib pajak dan pengaruhnya terhadap kinerja penerimaan pajak. Keuangan Publik, 4(1), 105–121.
- Susanto, E. R. (2017). Pengaruh inflasi dan pendidikan terhadap pengangguran dan kemiskinan. Inovasi, 13(1), 19–27.
- Tamunan, T. T. (2001). Perekonomian Indonesia: Teori dan temuan empiris. Jakarta: Ghalia Indonesia.
- Wahab, S. S. (2015). Pengaruh upah dan pertumbuhan penduduk terhadap tingkat pengangguran di Kota Makassar. Iqtisaduna, 1(1), 35–54.
- Wilis, R. (2015). Analisis pengaruh upah minimum, investasi, dan pengeluaran pemerintah terhadap penyerapan tenaga kerja berdasarkan pendidikan. El-Dinar, 3(1), 12–26.