Research Article

Pebri Kurniawan[1]*, Ukhti Ciptawaty[2], I Wayan Suparta[3], Arivina Ratih Y.T[4], Heru Wahyudi[5]

Analysis of the Influence of Migration of Indonesian Workers (TKI) Abroad on Indonesia's Economic Growth

*Corresponding Author: **Pebri Kurniawan**: University of Lampung, Indonesia; pebrik1041@gmail.com
Ukhti Ciptawaty: University of Lampung, Indonesia; Ciptawaty@gmail.com
I Wayan Suparta: University of Lampung, Indonesia; wayan.suparta@feb.unila.ac.id
Arivina Ratih YT: University of Lampung, Indonesia; arivinaratih@gmail.com
Heru Wahyudi: University of Lampung, Indonesia; heruwahyudi@feb.unila.ac.id

Abstract: *This research aims to analyze the influence of migration of Indonesian Migrant Workers (TKI) abroad on Indonesia's economic growth. This type of research is quantitative research. This research uses secondary data sourced from World Bank and BP2MI data. The data used in this research is time series data from 1983-2019. The method used in this research is the Autoregressive Distributed Lag (ARDL) model data analysis method. The research results show that in the short-term migrant workers abroad have a positive and significant effect on Indonesia's economic growth, while remittances in the short term have a negative and significant effect on Indonesia's economic growth. Meanwhile, in the long term, migrant workers abroad and remittances have an insignificant negative effect on economic growth in Indonesia.*

Introduction

Indonesia is a developing country and is increasingly active in carrying out development in various fields, including the economic sector. Currently, the development of the Indonesian economy is increasingly rapid along with the increase in Indonesia's gross domestic product (GDP) income. National development in Indonesia aims to achieve increased economic growth, which in the end can improve the welfare and standard of living of the Indonesian people. Indonesia's economic growth continues to experience fluctuations to date. The following is the development of Indonesia's economic growth:
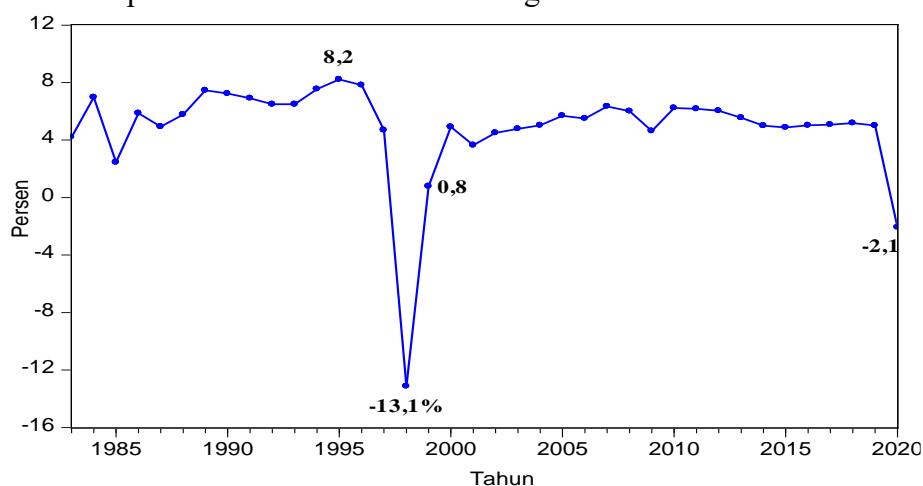

Figure 1. Indonesia's Economic Growth 1983-2020
Source: World Bank (2023)

The picture above shows that Indonesia's economic growth during 1983-2020 experienced fluctuations. It can be seen that GDP growth over a period of 38 years experienced the highest growth in 1995, namely growing by 8.2 percent. However, in 1998 GDP growth decreased to minus, this was caused by the global economic crisis which had an impact on the economic slowdown of every country, including Indonesia. In 1998 the Indonesian economy slumped to -13.1 percent. Not only in 1998, in 2020 Indonesia's economic growth returned to minus. This is caused by the Covid-19 virus outbreak which has spread throughout the world, weakening the world economy.

The ups and downs of economic growth in Indonesia cannot be separated from various factors that influence it. Theoretically, economic growth is influenced by human capital, natural resources, physical capital and human capital (Mankiw 2009). As one of the factors that influence economic growth, human resources, especially the productive age population, have a very important role in determining economic growth. Currently, Indonesia's population has reached 268 million people and is one of the countries with the fourth largest population in the world. Indonesia, the country with the fourth largest population in the world, can take advantage of its large population to improve its economy. However, the large population combined with the high annual birth rate leads to relatively high population growth.
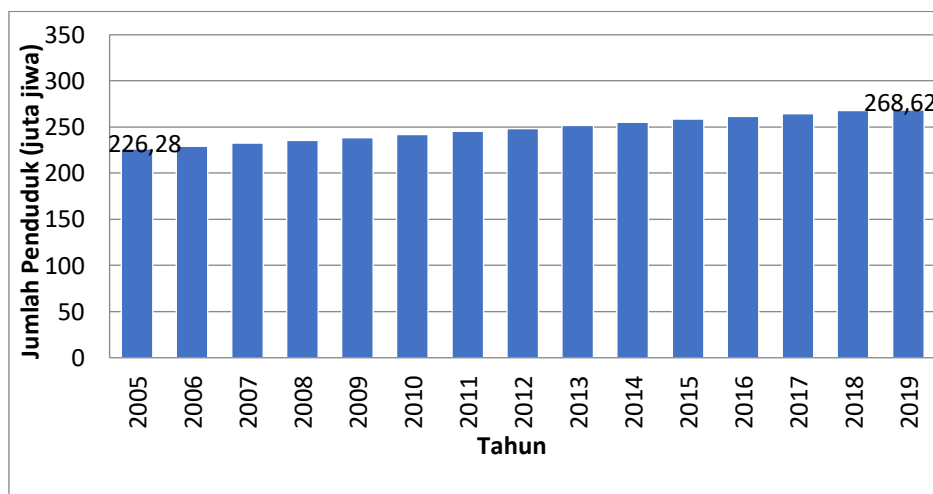

Source: Central Statistics Agency (2023)
Figure 2. Total Population of Indonesia 2005-2019

The relatively high population growth rate, coupled with strong growth in the working age population, if utilized properly can boost the economy. However, population growth is not accompanied by high employment opportunities. Therefore, there is an urgent need to expand employment opportunities. High population growth causes a rapid increase in the number of workers, while the ability of developing countries to create new jobs is very limited (Arsyad 2004). Problems related to population growth are increasing unemployment and poverty rates.

Of course, an increase in the unemployment rate needs to be watched out for because if this happens it will create a situation where a country will experience persistent unemployment, meaning that unemployment will continue to increase. Therefore, it is necessary to anticipate problems that may arise in the future, including international labor migration, by taking advantage of the openness and availability of job opportunities in the international labor market.

The phenomenon of international migration in search of better jobs has been going on since the end of the 19th century. Singapore and Malaysia have become destination countries for Indonesian migrant workers (TKI) who work abroad. Then, around the 1980s, Saudi Arabia became the third destination country for migrant workers, especially female migrant workers. The following is what the placement of migrant workers abroad is:
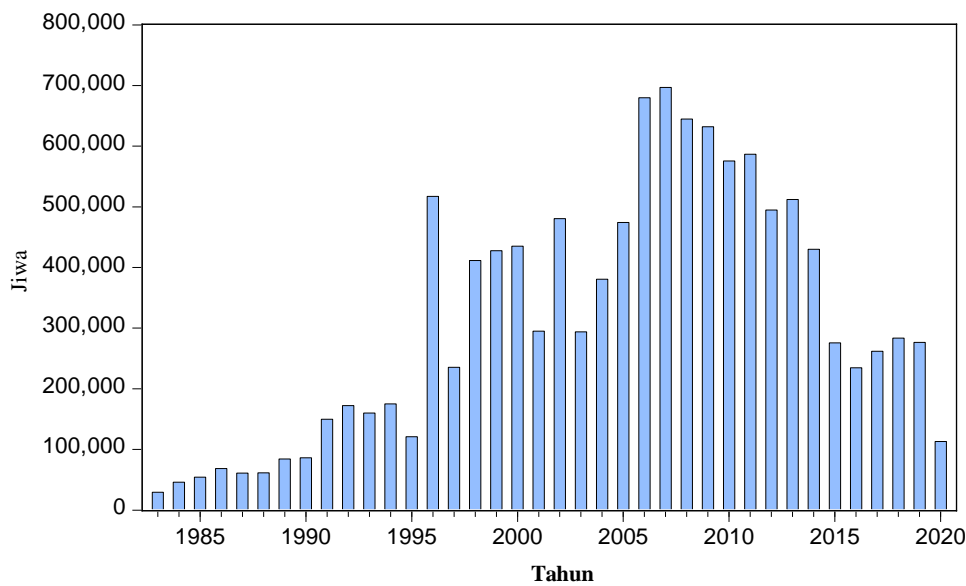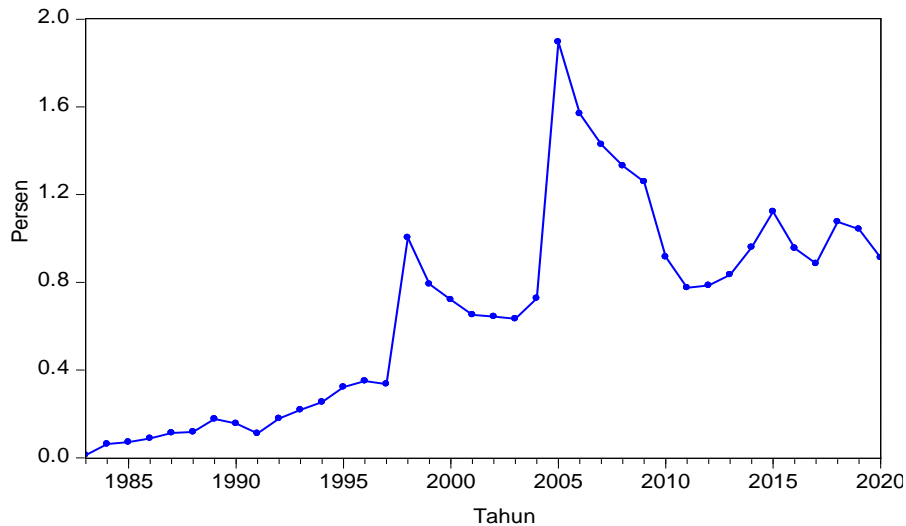

Source: BP2MI (2023)

Figure 3. Placement of Indonesian Workers Based on Destination Country
Years 1983-2020 (in soul)

Based on the picture above, it can be seen that the movement graph of the position of Indonesian workers (TKI) abroad has experienced many fluctuations. From 1983 to 2007, the number of ITK positions abroad tended to increase, then from 2007 to 2020, the number of ITK positions abroad gradually decreased. During the period 1983 to 2020, the average number of workers migrating abroad was 313,641.3 people. In that period, the highest number of overseas migrant worker placements occurred in 2007 with 696,746 people and the lowest number of positions occurred in 1983 with 29,291 people. The year with the highest increase in sending migrant workers abroad was 1996, an increase of 3.28%, an increase of 396,283 people compared to 1995. However, from 2007 to 2020, sending migrant workers abroad tended to decline. This happened due to the ban on sending migrant workers abroad, including to Malaysia and Saudi Arabia.

The increase and decrease in the number of Indonesian workers abroad (TKI) also shows that the ability to create jobs in Indonesia is still limited. Apart from limited job opportunities, the wage gap is also one of the factors that motivates Indonesian workers to look for work in the international labor market. Wages for Indonesian workers are still relatively low compared to abroad.

The increasingly improving global economy coupled with rapid economic growth in Asia Pacific countries such as Singapore, Malaysia, Taiwan, Hong Kong and South Korea has increasingly increased the interest of Indonesian Migrant Workers (TKI) to work abroad. The increase in migrant workers to various countries in the Asia Pacific has an impact on the macro economy in Indonesia (Afriska, Zulham, and Dawood 2019). This impact occurs because the receipts from remittances or remittances are used by the families of migrant workers in Indonesia not only to fulfill consumption needs, but are also used for production and investment activities.

Remittances that are classified as capital flows can be categorized at the same level as exports, foreign aid (AID), FDI, and Official Development Assistance (ODA) (Adenutsi 2011). Remittances are a source of money flow, especially for developing countries like Indonesia, which are useful in supporting the country's development. BNP2TKI research results found that TKI remittances contributed 10% of the value of the APBN (State Revenue and Expenditure Budget). The developments in sending remittances to Indonesian Migrant Workers (TKI) abroad are as follows:

Source: BP2MI (2023)

Figure 4. Remittance Movement (Percent per GDP) 1983-2020

The ratio of remittances to GDP has fluctuated during the 1983-2020 period. An increase in remittances as a percentage of GDP occurred in 1998 and 2005. The increase in 1998 was due to an increase in the number of immigrant workers following the economic crisis. TKI chose to work abroad with the aim of getting a higher salary, because during the 1998 economic crisis, the national economy was very bad. With the high salaries received, remittances will contribute a high percentage to GDP.

However, on the other hand, high remittances can cause demand for domestic currency to increase, causing appreciation of the national currency and possibly reducing export competitiveness (Karagoz, 2009). Chami, Fullenkamp, and Jahjah (2003) explain that sending large amounts of money will also cause moral hazard problems. Households that receive remittances will use this money as a substitute for wages, which can lead to a reduced desire to work again, which can have a negative impact on a country's economic performance.

Method

Types of Research and Data Sources

The type of research used in this research is quantitative research. This type of quantitative research can be interpreted as a type of research that is based on the philosophy of positivism, used in researching certain populations or samples, collecting data using research instruments, and analyzing quantitative statistical data with the aim of testing predetermined hypotheses.(Sugiyono, 2013). This research uses secondary data. Secondary data is data obtained from collecting various sources. The data in this research comes from World Bank and BP2MI data. The data used in this research is data on Indonesian economic growth, placement of migrant workers, and remittances in the form of time series data from 1983-2019.

Data analysis method

The analytical method used in this research is the Autoregressive Distributed Lag (ARDL) model data analysis method which was analyzed and tested using the Eviews 9 program. The choice of this method is in accordance with the aim of this research, namely to analyze the influence of migration of Indonesian Migrant Workers (TKI) abroad. country and remittances on Indonesia's economic growth in the short and long term, and see how big the influence of Indonesian Migrant Workers (TKI) abroad and remittances are on Indonesia's economic growth in the short term to the long term.

The Autoregressive Distributed Lag (ARDL) model is a model developed by Pesaran, Shin, and Smith (2001). The ARDL model is a model that makes static theory dynamic in econometrics because regression models usually ignore the influence of time, but the ARDL model takes into account time in variables and their relationship with values in the past (Gujarati & Porter, 2014). This means that the ARDL model is a model that includes past variables, both past independent variables and past dependent variables in the regression analysis.

Some of the advantages of using the Autoregressive Distributed Lag (ARDL) model compared to using other methods are as follows:

a. In managing data with the ARDL model, stationary levels of the same order are not very important. This is different from other methods such as VAR and VECM where the stationarity of the data must be in the same order. However, this ARD model cannot be used when the data is stationary at the 2nd Difference level.

b. While some methods require data with a large number of samples, this is different from the ARDL method. This model can be used even if the number of samples is only small, the results will still be appropriate and accurate.

c. The ARDL method can obtain short-term and long-term estimates simultaneously, which can avoid autocorrelation problems.

In general, the Autoregressive Distributed Lag (ARDL) model equation can be written as follows:

$$\Delta Y_t = \beta_0 + \sum_{i=1}^{n} \beta_1 \Delta Y_{t-1} + \sum_{i=0}^{n} \beta_2 \Delta X_{t-1} + \varphi_1 y_{t-1} + \varphi_2 x_{t-1} + \mu_t$$

Where:

β_1, β_2	= Short-term ARDL coefficient
φ_1, φ_2	= Short-term ARDL coefficient
μ_t	= *Term error*

Based on the basic ARDL model in the equation above, the model used in this research can be written as follows:

$$\Delta EG_t = \beta_0 + \sum_{i=1}^{n} \beta_1 \Delta EG_{t-1} + \sum_{i=1}^{n} \beta_2 \Delta TKI_{t-1} + \sum_{i=1}^{n} \beta_3 \Delta REM_{t-1} + \beta_4 TKI_{t-1} + \beta_5 REM_{t-1} + \mu_t$$

Where:

E.G	= Economic Growth
migrant workers	= Indonesian Workers
BRAKE	= Remittance

Δ	= Difference between data changes this year and the previous year
β_0	= Constant
β_1 , β_2	= Coefficient
μ_t	=*Term error*

Data Analysis Procedures

1. Stationarity Test

The data stationarity test is carried out before performing time series data regression to see whether all the variables used in the research are stationary or not. Data is said to be stationary if the stationarity test does not contain unir roots or unit roots. If the variable is not stationary, differencing needs to be carried out until the result is that the variable is stationary. The stationarity test in this research used the Augmented Dickey-Fuller (ADF) or Unit Root Test.

2. Optimum Lag Test

This test is carried out to determine the lag that will be used in implementing the next test. Determining the optimum lag is very important because the lag length is expected to be appropriate so as to obtain the dynamics of the system to be modeled. If the lag is too long, it will result in more parameters having to be estimated, which can reduce the ability to reject H0, because adding too many parameters will reduce the degrees of freedom. Determining the optimal lag length can be done in several ways, such as looking at information on AIC (Akalke Information Criterion) and SC (Schwarz Criterion). The criterion that has the smallest AIC and SC values is the lag used.

3. Cointegration Test

Cointegration is a long-term relationship between variables. This test was developed on the basis of the perception that although the data is not individually stationary, when a linear combination of two or more time series data is carried out it will become stationary, just like the stationarity test. The cointegration test also has several types. In this research, the cointegration test used is the Bound Test.

4. ARDL Model Estimation

This research was conducted using the Autoregressive Distributed Lag (ARDL) analysis method which was popularized by Pasaran, Shin, and Shin (2001). This method is used to see, estimate and analyze the influence of the research variables Indonesian Workers (TKI) abroad, and remittances on Indonesia's economic growth both in the long term and in the short term. This method includes past variables in making estimates and also to see the optimum lag that can be used.

5. Classical Assumption Testing

a. Normality test

The normality test is a test that aims to find out whether the dependent variable and independent variables in the regression model have normally distributed residues or not (Ghozali 2018). In this research, the normality test used is the Jarque-Bera Test (JB test) by looking at the probability value.

b. Autocorrelation Test

The autocorrelation test is a test that aims to find out whether there is a correlation (relationship) between this year's residuals and the previous year's error rate (Basuki and Prawoto 2016). The autocorrelation test in this study was carried out using the Breusch-Godfrey Langrange Multiple test method by comparing the Obs*R-squared probability value with the critical value.

a. Heteroscedasticity Test

The heteroscedasticity test is a classic assumption test that is used to test whether in the regression model there is inequality in the variance of the observed residuals. If the variance from one residual to another observation is constant, it is called homoscedasticity and if the variance is not constant or changes, it is called heteroscedasticity (Basuki and Prawoto 2016). The heteroscedasticity test in this study was carried out using the Harvey Test method by comparing the Obs*R probability values -squared with critical values.

b. Multicollinearity Detection

The multicollinearity test is a test carried out to determine whether there is a significant relationship (correlation) between two or more independent variables in the regression model (Basuki and Prawoto 2016). Multicollinearity detection in this study was carried out using the VIF (Variance Inflation Factor) test. In this multicollinearity test, if the Contered VIF value for each independent variable in the test results is less than 10, it can be stated that there is no multicollinearity problem.

6. Model Stability Test

To test the stability of the Autoregressive Distributed Lag (ARDL) model in this research, the CUSUM (Cumulative Sum Of Recursive Residuals) test and the CUSUMQ (Cumulative Sum Of Squares Recursive Residuals) test were used. The CUSUM and CUSUMQ Stability Tests are based on the cumulative value of the number of recursive residuals. The cumulative recursive residual value is then plotted with the 5% critical line band (Widarjono, 2018). If the cumulative recursive residual value is within the critical line band, it indicates that there is stability of the estimated parameters within the research period, conversely, if the cumulative recursive residual value is outside the critical line band, it indicates that there is parameter instability within the research period.

7. Short Term and Long Term ARDL Estimates

After obtaining the ARDL estimation model with the best lag in seeing the influence of Indonesian Workers (TKI) and remittances on economic growth, the model was tested to see the short-term and long-term models. In the short-term and long-term model estimation results, the error correction value (CointEg(-1)) can also be seen. The error correction value (CointEg (-1)) is used to see the balance adjustment from the short-term to the long-term model.

Results and Discussion

1. Data Stationarity Test

The following are the results of stationarity testing at level level using the Augmented Dickey Fuller (ADF) method:

Table 1. Unit Root Test Results - Augmented Dickey Fuller at Level

Variable	T-statistic value	*Augmented Dickey Fuller*(ADF)	Information

	ADF	Prob.	Value α=5%	
E.G	-4.175370	0.0023	0.05	**Stationary**
migrant workers	-2.297861	0.1781	0.05	Not Stationary
BRAKE	-1.879097	0.3381	0.05	Not Stationary

Source: Data processed using Eviews 10 (2023)

Based on the results of the unit root test used at level level, it shows that TKI and REM have unit root problems or are not stationary at level level. Meanwhile, the EG variable is stationary at all levels, it can be seen from the probability value of 0.0023 which is smaller than the critical value of 0.05. Therefore, further stationarity testing is needed by conducting a unit root test at the 1st Difference level to ensure that all variables are stationary.

Table 2. Unit Root Test Results - Augmented Dickey Fuller on 1st Difference

Variable	T-statistic value ADF	*Augmented Dickey Fuller*(ADF)		Information
		Prob.	Value α=5%	
E.G	-5.905049	0.0000	0.05	**Stationary**
migrant workers	-8.833869	0.0000	0.05	**Stationary**
BRAKE	-6.591275	0.0000	0.05	**Stationary**

Source: Data processed using Eviews 10 (2023)

Based on the results of the unit root test at the 1st Difference level, the results show that all variables are stationary and there are no longer unit root problems. This can be seen from the probability of all variables whose values are smaller than the critical value of 0.05.

2. Bounds Cointegration Test
The following are the results of cointegration testing using the Bounds Test method:

Table 3. Cointegration Test Results

F-Statistics	*Critical Value*α = 5%		Information
	I0 (Lower Bound)	I1 (Upper Bound)	
6.312268	3.79	4.85	**Cointegration occurs**

Source: Data processed using Eviews 10 (2023)

Based on the results of the Bounds Test cointegration test, the F-Statistic value is 6.312268. These results are above the critical value I1 (upper bound) of 4.85, which indicates that there is cointegration or a long-term relationship between the variables. These results can also be used in seeing how long the model is in the equation to see long-term balance.

3. Optimum Lag Test
The results of the optimum lag test carried out using the Akaike Information Criteria (AIC) approach are as follows:

Akaike Information Criteria (top 20 models)
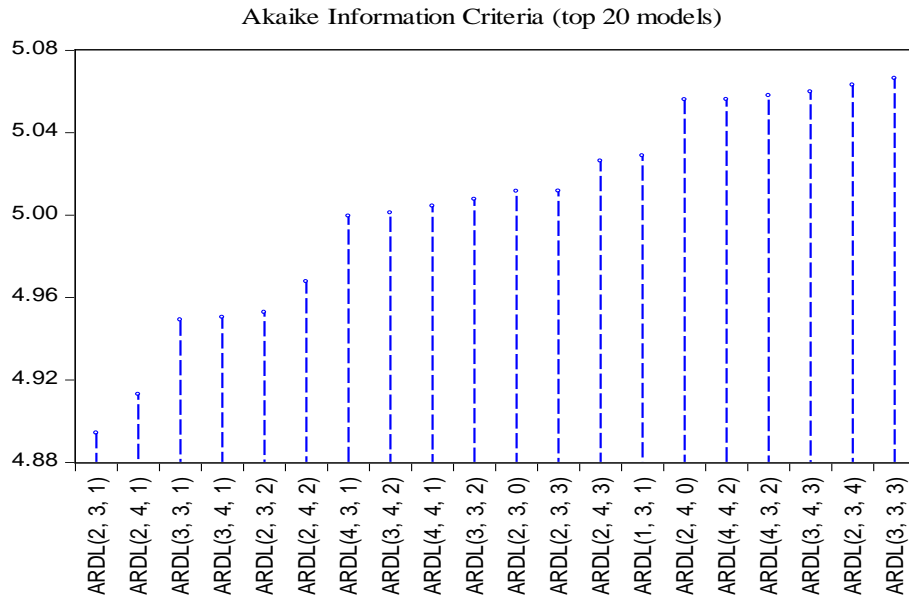
Source: Data processed using Eviews 10 (2023)

Figure 5. Optimum Lag

Based on the results of the optimum lag test using the Akaike Information Criteria (AIC) approach on the image, the results obtained were the 20 best lag models that can be used in the research model. The best optimum lag used in this research is the ARDL(2,3,1) model lag. The ARDL (2,3,1) model lag was chosen because it has the smallest error compared to other ARDL model lags, namely only 4.894.

4. ARDL Model at Best Lag

The estimation results of the ARDL (2,3,1) model are as follows:

Table 4. ARDL Model Estimation Results (2,3,1)

Variable	Coefficient	t-Statistics	Prob.
EG(-1)	0.582141	4.123251	**0.0003**
EG(-2)	-0.282061	-2.055104	**0.0500**
migrant workers	2.931204	2.215047	**0.0357**
TKI(-1)	-1.972344	-1.228108	0.2304
TKI(-2)	-7.574859	-4.770258	**0.0001**
TKI(-3)	5.927400	4.187200	**0.0003**
BRAKE	-4.604206	-2.390185	**0.0244**
BRAKE(-1)	4.418555	2.255702	**0.0327**
C	12.45783	1.039743	0.3080

Source: Data processed using Eviews 10 (2023)

$$\widehat{EG}_t = 12{,}458 + 0{,}582EG_{t-1} - 0{,}282EG_{t-2} + 2{,}931TKI_t - 1{,}972TKI_{t-1} - 7{,}575TKI_{t-2} + 5{,}927TKI_{t-3} - 4{,}604REM_t + 4{,}419REM_{t-1}$$

Based on the ARDL model (2,3.1) the results show that there are several variables that have a significant influence on economic growth because they have probability values below a=0.05 including EG(-1), EG(-2), TKI, TKI(-2) TKI(- 3), REM, and REM(-1). Meanwhile, there are two variables that have an insignificant effect on the best lag model, namely the TKI(-1) variable.

5. Classic Assumption Test

a. Normality test

Table 5. Normality Test

Jarque-Bera Value	Prob.	*Critical Value*α= 5%	Information
2.103201	0.349378	0.05	**Residuals are normally distributed**

Source: Data processed using Eviews 10 (2023)

Based on the test results above, the Jarque-Bera value is 2.103201 with a probability of 0.349378. Because the probability value is 0.349378 > 0.05 then H0 is accepted which means that the residual is normally distributed.

b. Autocorrelation Test

Table 6. Autocorrelation Test

Obs*R-Squared Value	Prob.	*Critical Value*α=5%	Information
3.231435	0.1987	0.05	**There is no autocorrelation**

Source: Data processed using Eviews 10 (2023)

Based on the test results above, the Obs*R-Squared value is 3.231435 with a probability of 0.1987. Because the Obs*R-Squared probability value is 0.1987 > 0.05, H0 is accepted, which means that in the model there is no autocorrelation problem.

c.Heteroscedasticity Test

Table 7. Heteroscedasticity Test

Obs*R-Squared Value	Prob.	*Critical Value*α=5%	Information
10.02857	0.2630	0.05	**There is no heteroscedasticity**

Source: Data processed using Eviews 10 (2023)

Based on the test results above, the Obs*R-Squared value is 10.02857 with a probability of 0.2639. Because the Obs*R-Squared probability value is 0.2630 > 0.05, H0 is accepted, which means the model does not contain heteroscedasticity problems.

d. Multicollinearity Detection

Table 8. Multicollinearity Detection

| Variable	*Coefficient of Variance*	*Centered*VIF
EG(-1)	0.019933	1.237368
EG(-2)	0.018837	1.180266
LNTKI	1.751162	4.960141
TKI(-1)	2.579241	8.011498
TKI(-2)	2.521537	8.967126
TKI(-3)	2.003923	8.482748
BRAKE	3.710621	4.128893

BRAKE(-1)	3.837046	4.485760
C	143.5598	NA

Source: Data processed using Eviews 10 (2023)

Based on the test results using the Variance Inflation Factor (VIF), it can be seen that the independent variable has a VIF value of less than 10. So it can be concluded that there is no multicollinearity problem or there is no linear relationship between the independent variables.

6. Model Stability Test

The stability test results of the ARDL model (2,3,1) can be seen based on the following image:
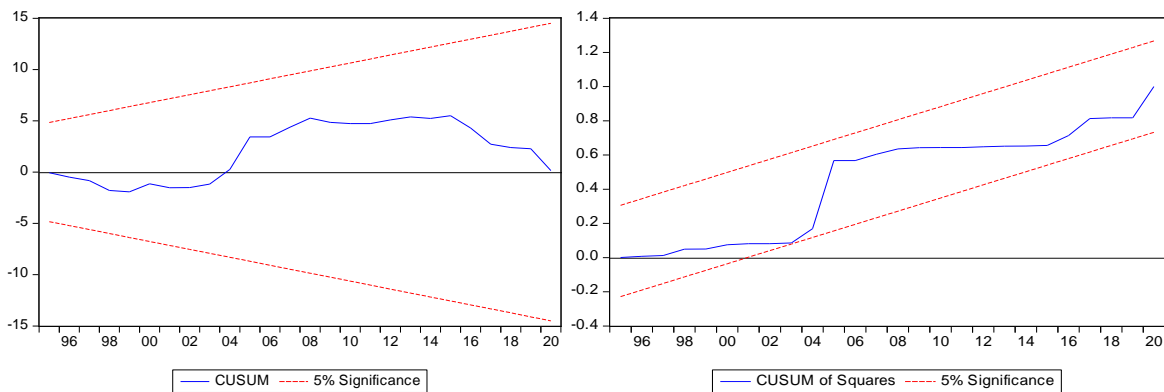
Source: Data processed using Eviews 10 (2023)
Figure 6. CUSUM Test and CUSUMQ Test

Based on the results of the stability test of the ARDL model (2,3,1) in the figure above, the results show that the model is in a stable state and is suitable for use as a reference in determining long-term relationships in the ARDL model. It can be seen from the stability test results which show that the CUSUM line (blue) and CUSUMQ line (blue) are still between the significance line $\alpha = 5\%$ (red).

7. Short Term and Long Term ARDL Models

Table 9. Short Term ARDL Model

Variable	Coefficient	t-Statistics	Prob.
D(EG(-1))	0.282051	2.055104	**0.0500**
D(TKI)	2.931204	2.215047	**0.0357**
D(TKI(-1))	7.574859	4.770258	**0.0001**
D(TKI(-2))	-5.927400	-4.187200	**0.0003**
D(REM)	-4.604205	-2.390175	**0.0244**
CointEg(-1)	-0.699920	-4.306252	**0.0002**

Source: Data processed using Eviews 10 (2023)

The short-term ARDL model estimation results in the table above explain that:
- Variable EG(-1) = value 0.28205, meaning that every time there is an increase in economic growth in the previous year, it will increase economic growth by 0.282051 percent in the current year.

- The TKI variable = value 2.931204, meaning that every time there is an increase in the placement of 1 TKI abroad this year, it will increase economic growth by 2.931204 percent in the current year.
- The TKI variable (-1) = value 7.574859, meaning that every time there is an increase in the placement of 1 TKI abroad in the previous year, it will increase economic growth by 7.574859 percent in the current year.
- The TKI variable (-2) = value -5.927400, meaning that every time there is an increase in the placement of 1 TKI abroad in the previous 2 years, it will reduce economic growth by 5.927400 percent in the current year.
- The variable REM = -4.604205 means that every time there is an increase of 1 percent in remittances sent this year, it will reduce economic growth (EG) by 0.282051 percent in the current year.
- The short-term ARDL model estimation results above show a CointEg(-1) value of -0.699920 with a probability of 0.0002. The speed of adjustment value is obtained from (1/0.699920), namely 1.428. With the error correction coefficient (CointEq(-1)) which is significant at α = 5%, this shows that if there is a shock from the TKI and remittance variables, economic growth in Indonesia will react to dampen the change (shock) and its value will fall by 69. 99 percent. Then the adjustment in the short-run model towards the equilibrium of the long-run model will be achieved in 1.428 years.

Table 10. Short Term ARDL Model Estimates

Variable	Coefficient	t-Statistics	Prob.
migrant workers	-0.983824	-0.667418	0.5104
BRAKE	-0.265246	-0.109093	0.9140
C	17.798932	-1.041834	0.3071

Source: Data processed using Eviews 10 (2023)

The long-term ARDL model estimation results in the table above explain that:
- The TKI variable = value -0.983824, meaning that every time there is an increase in the placement of 1 TKI abroad this year, it will reduce economic growth by 0.983824 percent in the current year.
- The variable REM = -0.265246 means that every time there is an increase of 1 percent in remittances sent this year, it will reduce economic growth by 0.265246 percent in the current year.

The Influence of Indonesian Workers (TKI) Abroad on Economic Growth

Based on the results of the short-term TKI model estimation, the probability result is 0.0357, thus stating that TKI abroad and economic growth have a significant influence with a coefficient value of 2.931204. So it can be concluded that Indonesian Workers (TKI) abroad have a positive and significant influence on Indonesia's economic growth in the short term. Where every time there is an increase in the sending of 1 migrant worker abroad, economic growth can increase by 0.0357 percent. These results are in line with research conducted by(Afriska et al. 2019)and (Kumar, 2013), the wages received by migrant workers abroad are greater than the wages at home. These wages are then sent to their country of origin and then used for consumption, investment, business and education activities.

Meanwhile, based on the long-term estimation results in this research, the TKI variable shows a probability result of 0.5104 and a coefficient of -0.983824, thus stating that between Indonesian Migrant Workers (TKI) abroad and economic growth has an insignificant negative influence in the long term. long. Where every time there is an increase in the sending of 1 migrant worker abroad, economic growth can be

reduced by 0.9838 percent. These results are not in accordance with the proposed hypothesis but are in line with research conducted byAfriska et al. (2019). In the long term, sending migrant workers abroad can have a negative impact. Continuous deliveries can lead to Indonesia's dependence on providing employment opportunities in other countries, while Indonesia's ability to provide employment opportunities within the country is still limited.

The Effect of Remittances on Economic Growth

Based on the results of the short-term model estimation in this research, remittances show a probability result of 0.0244, thus stating that remittances and economic growth have a significant influence with a coefficient of -4.604206. So it can be concluded that remittances have a negative and significant influence on Indonesia's economic growth in the short term. Every time remittances are sent by 1 percent, it will reduce economic growth by 4.6042 percent. These results are in line with research conducted by Chami (2009),(Karagoz 2009), And(Jawaid and Raza 2012). The high level of remittances sent to the country of origin can cause a moral hazard problem. Households receiving remittances in their country of origin use remittances as wages for work (labor income), this causes a decrease in the desire of families receiving remittances in their country of origin to work, which can have a negative effect on economic activity.

Meanwhile, based on the long-term estimation results in this research, the remittance variable shows a probability result of 0.9140 and a coefficient of -0.265246, thus stating that remittances and economic growth have an insignificant negative influence in the long term. Every time remittances are sent by 1 percent, it will reduce economic growth by 0.2652 percent. These results are in line with research conducted by (Kurniawan, 2020). Remittances sent by Indonesian Migrant Workers (TKI) to recipient households in countries of origin with very high marginal propensity consumption will stimulate additional consumption by recipient households compared to investing.

Conclusion

Based on the aim of this research, namely to analyze the influence of migration of Indonesian Migrant Workers (TKI) abroad on Indonesia's economic growth, the conclusions obtained are as follows:

1. In the short term, the results of this research show that the variable Indonesian Workers (TKI) abroad has a positive and significant influence on Indonesia's economic growth. Meanwhile, in the long term, Indonesian Workers (TKI) abroad have a negative and significant impact on Indonesia's economic growth.

2. In the short term, the results of this research show that the remittance variable has a negative but not significant effect on Indonesia's economic growth. Meanwhile, in the long term, remittances also have a negative but not significant effect.

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