ANALYSIS OF THE IMPACT OF INTEREST RATE, EXCHANGE RATE, MONEY SUPPLY, AND FOREX RESERVE ON INFLATION IN INDONESIA, MALAYSIA, PHILIPPINES, CHINA, AND AUSTRALIA

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Abstract

This research aims to analyze whether the Interest Rate, Exchange Rate, Money Supply, and Foreign Reserves influence inflation in Asian countries and Australia over 10 years. In this research, researchers have determined the dependent variable is Inflation which will be tested with 4 Independent Variables, namely Interest Rate, Exchange Rate, Money Supply, and Foreign Reserve from Indonesia, Malaysia, the Philippines, RR China, and Australia. The data in this research is secondary data obtained from the World Bank, SEKI, and Central Bank websites, namely Bank Indonesia, Bank Negara Malaysia, Bangko Sentral ng Pilipinas, People Bank of China, and Reserve Bank of Australia for the period 2013 - 2022. This research was tested using the panel data regression method with the best model being the Random Effect Model. The results of this research are that overall, Interest Rate, Exchange Rate, Money Supply, and Foreign Reserves affect inflation. When viewed individually using the LSDV (Least Square Dummy Variable) method, it is found that in Indonesia, the Interest Rate and Money Supply have an influence on inflation, but the Exchange Rate and Foreign Reserves have no influence on inflation. In Malaysia, Interest Rate, Exchange Rate, and Foreign Reserve influence inflation, but Money Supply does not influence inflation. In the Philippines and RR China, Interest Rate, Exchange Rate, Money Supply, and Foreign Reserves do not influence inflation. In Australia, Money Supply and Foreign Reserves influence inflation, but the Interest Rate and Exchange Rate do not influence inflation.

Keywords: Inflation, Interest Rate, Foreign Exchange Rate, Gross Domestic Product

INTRODUCTION

Bank Indonesia stated that to achieve a healthy economy, Indonesia needs to maintain the stability of the rupiah value. One of the crucial factors in maintaining the stability of the value of the rupiah is controlling the inflation rate. Inflation is a general and sustained increase in prices over a certain period (Annisari & Anggraini, 2022). Inflation is one of the economic problems that is paid attention to by all state agencies because it is a factor that can cause economic shock fluctuations which influence the level of production costs and the structure of social welfare (Mahendra, 2016).

One real case of inflation is when the government increases fuel prices. The effect of increasing fuel prices has a big impact on increasing the price of each output, such as rice, oil, and so on because fuel is the cost of transporting these raw materials. If fuel prices rise, suppliers will increase the prices of the raw materials they sell. And of course, businesses that buy raw materials from these suppliers will make decisions to increase the price of their output or adjust the quality or quantity of output according to previous costs and sell their output at the same price. From this situation, we can conclude that the main cause of inflation is an imbalance between excessive aggregate demand in the economy, which cannot be adjusted to aggregate supply in Indonesia (Ningsih and Kristiyanti, 2017).

The inflation situation during the pandemic and the impact of the war between Russia and Ukraine brought very unique and challenging economic challenges for the country, especially for Indonesia. During the pandemic, unprecedented economic dynamics occurred, where global market uncertainty and instability increased significantly. Countries experience inflationary pressures caused by global supply disruptions, production declines, and unexpected currency exchange rate fluctuations (Bakrie, 2022).

Not only that, the war between Russia and Ukraine also had a tremendous impact on the global economy. The increase in world oil prices and agricultural commodities, such as wheat, has dramatically affected the costs of production and distribution of raw materials in Indonesia and other countries. The government's action to increase fuel prices in reaction to the sharp rise in world oil prices put further pressure on local inflation rates. In light of the economic difficulties caused by epidemics and world wars, examination of the impact of

monetary policy, including interest rates, currency exchange rates, money supply, and foreign exchange reserves, has become especially important (Hakim, 2022).

Inflation has positive and negative effects on a country's economy, and one of the negative impacts that may arise is the country's currency falling in value, which will affect people's purchasing power and cause a decline in living standards. This will happen if inflation is too high. If inflation becomes unstable it will also have an impact on economic actors because it will be difficult for them to make economic decisions. Researchers are interested in determining the research topic because they want to test several factors that can have an impact on the inflation rate. Therefore, researchers have determined inflation to be the dependent variable that will be used as material for testing this research (Mahendra, 2016).

Several policies can influence the rate of inflation in the country's economy. One of the actions taken to overcome this situation is through monetary policy implemented by the National Central Bank. The Central Bank implements monetary policy, a macroeconomic measure, to manage the country's economic operations, especially through limiting the amount of money in circulation (Setyawan, 2010).

The Central Bank hopes to control the inflation rate so that it remains stable and has the desired impact. There are many monetary policy tools available to Bank Indonesia, Indonesia's central bank, such as the Reserve requirement which plays a role in regulating the money supply, as well as the Reference Interest Rate known as the BI 7 Day Reverse Repo as a reference interest rate that must be applied by banks to determine the level credit interest offered to the public (Mahendra, 2016).

One of the Central Bank's tools for monetary policy is the benchmark interest rate (Katmas & Indarningsih, 2022). The aim is to maintain currency value stability and serve as a guide for banks in determining interest rates on loans (credit and financing) and savings (savings and deposits). The Central Bank makes choices that influence the interest rate mechanism. Banking interest rates will increase in line with the increase in the Central Bank's benchmark interest rate. To get a better interest rate, this provides incentives to consumers to prefer saving at the bank. This also causes the circulation of money in society to decrease

which will have an impact on inflation pressure where the pressure will decrease (Mahendra, 2016).

In the current era of digitalization, all kinds of new forms of money have emerged, one of which is QR (quick response) payment which has the characteristics of easier and safer payments because there is no longer a need to use paper money in transactions, so it is proven that economic income has increased in income and for MSMEs in Indonesia has become more prosperous (Nurhaliza, 2023). Based on this theory, researchers are interested in using Money Supply as the third independent variable which will be tested against the dependent variable of the research, namely inflation.

As long as a country's economy is still running, inflation will always occur. The implementation of monetary policy by the central bank is one technique to ensure that inflation is always maintained safely and under control. Researchers are also interested in testing the impact of the factors that have been described on Central Banks in Indonesia and other countries, namely Malaysia, the Philippines, China, and Australia.

RESEARCH METHOD

This research will use quantitative descriptive techniques as its methodology. Secondary data sources in the form of papers, journals, and previous research findings will be used in this research as references. A country's inflation rate is the only dependent variable, while the Interest Rate (IR), Foreign Exchange Rate (ER), Money Supply (M2), and Forex Reserve (FR) are the four (4) independent variables. The observation period is ten (10) years and the frequency is quarterly (4) data so that each variable has forty (40) amounts of data. Secondary data was obtained from Public Reports uploaded on the websites of the World Bank, Central Bureau of Statistics, People's Bank of China, Reserve Bank of Australia, Bangko Sentral ng Pilipinas, Bank Negara Malaysia, and Bank Indonesia.

This research aims to estimate the influence of the Interest rate, Foreign exchange rate, Money Supply, and Foreign Exchange Reserve on Inflation in Asian Countries and Australia by testing data using the multiple regression method. The results of this analysis will show what factors have an influence on inflation in Asian countries and Australia. 5

countries in Asia and Australia were chosen as research objects, namely Indonesia, Malaysia, the Philippines, China, and Australia.

Researchers determined how the five countries tested were Indonesia, Malaysia, the Philippines, RR China, and Australia, of course with a selection process with the requirements for the object of observation. The researcher determined that the object to be tested was Indonesia and 4 surrounding countries with the condition that they must have the same monetary instrument data as the research and be an Indonesian partner country. Observationally, the countries that have this data are Malaysia, Thailand, the Philippines, and China. Singapore was not included because researchers could not find data from the country's Interest Rate Variable. However, because Thailand has had a stable interest rate value for 10 years data processing cannot be carried out, the researchers determined that the country that is suitable to replace Thailand according to the research object selection criteria is Australia because the data for the four variables are available on the web and the distance is closer to Indonesia compared to India and Japan. So the countries tested in this research were Indonesia, Malaysia, the Philippines, RR China, and Australia.

RESULTS AND DISCUSSION

Stationarity Test

Stationarity test is carried out to avoid spurious regression. This spurious can be seen from the F-test, t-test, and coefficient of determination (R2), showing that the independent variable can explain the dependent variable, even though that is not the case. Using panel data (cross-section and time series) will result in a larger sample size. However, if the number of samples is increased, it tends to bring the risk of structural changes, especially data that has a long series, so there is a greater chance of heterogeneity occurring for a large number of cross sections.

Therefore, it is necessary to conduct a variable stationarity test on panel data (panel unit root test). In research that is full of economics, the variables used are generally not stationary at the level I(0) or the original data, usually stationary at the first difference I(1). Panel data regression stationarity tests can use the Levin, Lin & Chu (LLC), Augmented

Dickey-Fuller (ADF), and Philips-Peron (PP) methods. The significance of the LLC probability value is important for the overall stationarity test (Pool), namely N (number of observations) times T (number of periods) while the significance of the ADF or PP probability value is to see the stationarity of each observation. Based on the results of stationarity testing using the Levin, Lin & Chu (LLC) method, it is known that all variables used in this research are stationary at level I(0) or the original data.

Table 1.

Results of the Stationarity Test of the Levin, Lin & Chu Method at Level I (0)

Variable	T statistics	P-value	Decision
$Inflation_{it}$	-12.0264	0.0000	Stationary
$Interest\ Rate_{it}$	-4.88368	0.0000	Stationary
$Foreign\ Exchange_{it}$	-9.31136	0.0004	Stationary
$Money\ Supply_{it}$	-13.0551	0.0000	Stationary
$Foreign\ Exchange\ Reserve_{it}$	-7.43336	0.0000	Stationary

Source: Processed Data, 2022 (E-views 10.0)

Model Selection Test

Chow Test

Chow test is a test to determine the Fixed Effect or Random Effect model that is most appropriate to use in estimating panel data.

Hypothesis:

H0: Common Effect

H1: Individual Effect

Decision-making:

If the Prob value is < 0.05 (Alpha 5%) then H0 is rejected

If the Prob value is > 0.05 (Alpha 5%) then H0 fails to be rejected

Table 2.

Chow Test Results

Chi-Square Cross-Section	Prob	Decision
80.785954	0.0000	Individual Effects

Source: Processed Data, 2022 (E-views 10.0)

Based on the test results, it was discovered that the prob value of the Chi-Square Cross-section was smaller than 0.05 (alpha 5%) so it was decided that it was better to estimate using individual effects (Random Effect Model or Fixed Effect model). Therefore, we continued to test the two individual effects, the name of which was best estimated using the Hausman Test.

Hausman Test

Hypothesis:

H0: Random Effect

H1: Fixed Effect

Decision-making:

If the Prob value is <0.05 (Alpha 5%) then H0 is rejected

If the Prob value is > 0.05 (Alpha 5%) then H0 fails to be rejected

Table 3.

Hausman Test Results

Chi-Square Cross-Section	Prob	Decision
95.060463	0.0000	Random Effect Model

Source: Processed Data, 2022 (E-views 10.0)

The Hausman test results on the model show that the model is better estimated with the Random Effect Model because it has a probability value from the Cross Section Chi Square greater than 0.05 (alpha 5%).

Hypothesis Testing

Table 4.

Estimated Results

Variable	Dependent Variable: Inflation Rate			
	Coefficient	**Std Error**	**T-Stat**	**Prob**
Constant	1.084482	0.391254	2.771813	0.0061
Interest Rate$_{it}$	0.582232	0.117469	4.956453	0.0000
Exchange Rates$_{it}$	-3.483683	1.024973	-3.398806	0.0008
Money Supply$_{it}$	0.000810	0.000449	1.804621	0.0727
Foreign Reserve$_{it}$	-1.31E-06	3.02E-07	-4.322585	0.0000
Goodness of Fit Model				
Rsquare	0.654780			
Adj Rsquare	0.640320			
Fstat	45.28374			
Prob Fstat	0.000000			

Source: Processed Data, 2022 (E-views 10.0)

H1: The interest rate has a significant effect on the inflation rate in Indonesia, Malaysia, the Philippines, the People's Republic of China and Australia

The interest rate has a coefficient value of 0.582232, which means that if the interest rate results are one unit, then on average the inflation rate will increase by 0.582232, assuming ceteris paribus. Based on the test results, it was found that the probability value was 0.0000 < 0.05 (alpha 5%), so H1 was accepted and it could be concluded statistically that at a 95% confidence level, there was a positive influence of the interest rate on the inflation rate.

H2: The exchange rate has a significant effect on the inflation rate in Indonesia, Malaysia, the Philippines, the People's Republic of China and Australia

The exchange rate has a coefficient value of -3.483683, which means that if the exchange rate results are one unit, then on average the inflation rate will decrease by 3.483683, assuming ceteris paribus. Based on the test results, it was found that the probability value was 0.0008 < 0.05 (alpha 5%), so H2 was accepted and it could be concluded statistically that at a 95% confidence level, there was a negative influence of the exchange rate on the inflation rate.

H3: Money supply has a significant effect on the inflation rate in Indonesia, Malaysia, the Philippines, the People's Republic of China and Australia

Money supply has a coefficient value of 0.000810, which means that if the money supply results are one unit, then on average the inflation rate will increase by 0.000810, assuming ceteris paribus. Based on the test results, it was found that the probability value was 0.0727 < 0.10 (alpha 10%), so H3 was accepted and it could be concluded statistically that at a 90% confidence level, there was a positive influence of money supply on the inflation rate.

H4: Foreign Reserves have a significant effect on the Inflation Rate in Indonesia, Malaysia, the Philippines, the People's Republic of China and Australia

Foreign Reserve has a coefficient value of -1.31E-06, which means that if the Foreign Reserve Yield is one unit, then on average the Inflation Rate will decrease by 1.31E-06, assuming ceteris paribus. Based on the test results, a probability value of 0.0000 < 0.05 (alpha 5%) is obtained, so that H4 is accepted and it can be concluded statistically at a 95% confidence level that there is a negative influence of Foreign Reserves on the Inflation Rate.

Table 5.

Test Results for the Effect of Independent and Dependent Variables on Country

Country	Variable	Coefficient	Std Error	T-Stat	Prob
Indonesia	IR	1.081638	0.188618	5.734531	0.0000

	FOREX	7.626350	20.86890	0.365441	0.7152
	M2	0.235155	0.059861	3.928385	0.0001
	CADEV	-3.73E-05	2.40E-05	-1.554564	0.1219
Malaysia	IR	1.631437	0.781631	2.087221	0.0383
	FOREX	-58.26830	21.78832	-2.674291	0.0082
	M2	-0.040731	0.163868	-0.248559	0.8040
	CADEV	0.000138	4.67E-05	2.953650	0.0036
Philippines	IR	-0.070711	0.082853	-0.853455	0.3946
	FOREX	-25.85863	30.48552	-0.848227	0.3975
	M2	-0.028312	0.050978	-0.555388	0.5793
	CADEV	9.42E-07	6.98E-06	0.134966	0.8928
China	IR	0.043829	0.243833	0.179750	0.8576
	FOREX	-475.9211	12921.10	-0.036833	0.9707
	M2	-0.000261	0.000356	-0.732956	0.4646
	CADEV	-7.66E-08	3.95E-07	-0.194056	0.8464
Australia	IR	0.222417	0.188894	1.177472	0.2406
	FOREX	-0.898600	0.971701	-0.924770	0.3564
	M2	0.030763	0.010983	2.800844	0.0057
	CADEV	4.93E-05	2.20E-05	2.244517	0.0261

Source: Processed Data, 2022 (E-views 10.0)

Test Results of the Effect of Independent to Dependent Variables in Each Country Variables that Influence Inflation in Indonesia

Based on the results of testing the Effect of Independent Variables on Dependents in Indonesia, the probability value of the Interest Rate is 0.0000 with a coefficient value of 1.081638, following the provisions where the probability value is 0.0000 > 0.05 (Alpha 5%) then it is proven that the Interest Rate has a positive influence on inflation in Indonesia. The results of this data processing are in line with the results of research from Sari & Yeniwati (2019) where the result is that the Interest Rate has a positive influence on Inflation.

According to researchers, this is because the Monetary policy managed by Bank Indonesia uses an Interest Rate Instrument known as the BI-7 Day Reverse Repo rate which functions to control inflation in the last 10 years and it is proven that when the Central Bank raises interest rates it will increase prices will have a positive effect on inflation.

Exchange Rates in Indonesia have a probability value of 0.7152 and a coefficient value of 7.626350, following the provisions. Where the probability value is 0.0000 > 0.05 (Alpha 5%) it is proven that the Forex Rate has no influence on inflation in Indonesia. This is not in accordance with the theory used as a reference in previous research, namely that the exchange rate has a negative influence on inflation from research conducted by Ningsih & Kristiyanti (2017).

According to researchers, in Indonesia, the exchange rate may not be influenced because there are more dominant internal factors such as increasing domestic demand, and increasing production costs compared to the exchange rate factor which can be seen from the export-import side. In Indonesia, Money Supply has a probability value of 0.0001 and a Coefficient value of 0.235155, in accordance with the provisions where the probability value is 0.0000 > 0.05 (Alpha 5%), it is proven that Money Supply has a positive influence on Inflation in Indonesia. The results of this data processing are in line with the results of research from Hesti (2021) where the result is Money Supply has a positive influence on inflation.

According to researchers, it has been proven that the amount of money circulating in society in Indonesia also has a positive influence on inflation because in the last 10 years it has been proven that the amount of rupiah in Indonesia when it increases will have a positive impact on inflation and in 2019-2022 there was a pandemic which resulted in there is an economic recession and there is a decrease in the amount of money circulating in society so that what happens is that inflation pressure becomes weaker too.

For Forex Reserve it has a probability value of 0.1219 and a coefficient value of -3.73E-05. following the provisions where the probability value is 0.0000 > 0.05 (Alpha 5%) meaning that the Forex Reserve in Indonesia has a negative direction and has no influence on inflation in Indonesia. The results of this data processing contradict the results of research

from Ristiya (2023) where the Forex Rate and Forex Reserve have a negative influence on inflation.

According to researchers, Bank Indonesia has a Forex Rate whose function is to support the implementation of monetary policy operations in maintaining the value of foreign currency, which is the reason why the Forex Reserve coefficient value in Indonesia has a negative value. However, from this research, it can be seen that the Forex Rate does not influence Inflation because it is likely that Indonesia has more dominant Internal Factors that influence Inflation compared to External Factors such as the Forex Reserve.

Variables that Influence Inflation in Malaysia

Based on the results of testing the Effect of Independent Variables on Dependents in Malaysia, the probability value of the Interest Rate is 0.0383 and the coefficient value is 1.631437. following the provisions where the probability value is 0.0000 > 0.05 (Alpha 5%) meaning that in Malaysia the Interest Rate has a positive influence on inflation. This is in line with the research results of Rahmawati & Hidayat (2017) where the results of their research also proved that the interest rate influences inflation.

According to researchers, why in Malaysia does the Interest Rate have a positive influence? This means that if the Central Bank increases interest rates it will increase prices so that it will have a positive effect on inflation and vice versa. This is because the Central Bank of Malaysia, namely Bank Negara Malaysia, has a policy of using interest rates to maintain inflation stability which originates from internal factors related to public demand and supply.

Based on the results of testing the Effect of Independent Variables on Dependents in Malaysia, the Probability Value of the Exchange Rate is 0.0082 and the Coefficient value is -58.26830, in accordance with the provisions where the probability value is 0.0000 > 0.05 (Alpha 5%) meaning that in Malaysia Exchange Rate has a significant negative influence on Inflation. This is in line with the research results from Ningsih & Kristiyanti (2017) where the results of their research also proved that the Exchange Rate has a negative influence on inflation.

According to the researcher, the results of this data processing are supported because Bank Negara Malaysia also maintains its exchange rate by maximizing the appreciation of the value of its currency by paying attention to external factors that influence inflation, such as increasing the trade surplus, which means the country's exports are more than the country's imports, resulting in The increasing demand for the ringgit currency will have an impact on the country's inflation, which will be less according to the coefficient value of the results, namely that there is a negative relationship between these two variables.

Based on the results of testing the Effect of Independent Variables on Dependents in Malaysia, the Probability Value of the Money Supply is 0.8040 and the Coefficient value has a value of -0.040731. following the provisions where the probability value is 0.0000 > 0.05 (Alpha 5%) meaning that in Malaysia Money Supply has a negative direction but there is no influence on inflation in Malaysia. This is not in line with the research results from Hesti (2021), where the research results prove that money supply affects inflation.

According to researchers, this could happen because inflation in Malaysia is more dominated by the influence of external factors such as the increasing value of export commodities in Malaysia compared to internal factors in Malaysia such as the amount of money circulating in society so that there is no influence at all on inflation.

Based on the results of testing the Influence of Independent Variables on Dependents in Malaysia, the Probability Value of Forex Reserve is 0.0036 and the coefficient value is 0.000138. in accordance with the provisions where the probability value is 0.0000 > 0.05 (Alpha 5%) meaning that in Malaysia the Forex Reserve has a positive influence on inflation. This is in line with research results from Ristiya (2023) where the results of their research also proved that Forex Reserve influences inflation, but in the direction of this research, Forex Reserve has a positive influence while Ristiya has a negative influence.

According to researchers, these results indicate that if Forex Reserves increase, inflation will increase. This means that the Forex Reserve in Malaysia can have a positive relationship, Malaysia can use its Forex Reserve to help consumer factors in its country and cause the money supply to increase so that it can influence inflationary pressures.

Variables that Influence Inflation in the Philippines

Based on the results of testing the Effect of Independent Variables on Dependents in the Philippines, the probability value of the Interest Rate is 0.3946, the Forex Rate is 0.3975, the Money Supply is 0.5793 and the Forex Reserve is 0.8928. in accordance with the provisions where the probability value is 0.0000 > 0.05 (Alpha5%), Data test results prove that Interest Rate, Forex Rate, Money Supply, and Forex Reserve do not influence inflation. These results are not in line with research by Rahmawati & Hidayat (2017), Ningsih & Kristiyanti (2017), Hesti (2021), and Ristiya (2023) where Interest Rate, Forex Rate, Money Supply, and Forex Reserve influence inflation.

According to researchers, this proves that in the Philippines inflation is not affected by the four variables tested even though Philippine monetary policy also plays interest rates as an instrument. However, despite this, the Philippines in 10 years based on data has had a fairly stable inflation rate taking into account the scarcity of supply of goods and services in the Philippines itself so this could be the reason why these 4 variables do not have a significant influence on inflation.

Results Variables that Influence Inflation in China's RR

Based on the results of testing the Effect of Independent Variables on Dependents in China, the probability value of the Interest Rate is 0.8576, for the Forex Rate it is 0.9707, Money Supply is 0.4646 and for Forex Reserve it is 0.8464. From the test results, it was found that the probability value was 0.0000 > 0.5 (Alpha 5%) so it was concluded that these four variables did not influence China.

This shows the same results as the results of research from Ningsih & Kristiyanti (2017) which showed that the Interest Rate does not influence Inflation. However, the results of the data processing are not like the results of research from Sipayung & Sri Budhi (2013) Where is Forex. The rate influences Inflation, Aditya (2020) Where Money Supply has an influence on Inflation Rate and Senen (2023) Where Forex Reserve influences Inflation.

According to researchers, why in China inflation cannot be influenced by these four variables because it could be because Monetary Policy in China does not use these four

variables to maintain inflation. One of China's monetary policies is that they use a Fixed Exchange Rate system where prices are set by the government or central bank which ties the exchange rate of a country's official currency to another country's currency or the price of gold. These standards provide greater certainty for exporters and importers and help the government maintain low inflation.

Variables that Influence Inflation in Australia

Based on the results of testing the Effect of Independent Variables on Dependents in Australia, the probability value of the Interest Rate is 0.2406 and has a Coefficient value of 0.222417, the Interest Rate has no influence on inflation in Australia. These results are not in line with the research results from Rahmawati & Hidayat (2017) where the interest rate influences inflation.

According to researchers, based on the coefficient value, proves that if the interest rate rises, inflation will also rise. This is following theory because Australia also uses the country's interest rate, known as the Official Cash Rate, which is managed by the Reserve Bank of Australia and is used to influence banking and other interest rates. However, in this study the Interest Rate in Australia did not have a high influence, this could be because there was minimal response from the public or companies to adjust their level of spending or investment in Australia considering that Australia is already classified as a developed country.

Based on the results of testing the Effect of Independent Variables on Dependents in Australia, the probability value of the Exchange Rate is 0.3564 and has a coefficient value of -0.898600. The Exchange Rate has no influence on inflation in Australia. These results are not in line with research results from Ningsih & Kristiyanti (2017) that the Forex Rate influences Inflation.

According to the researcher, based on the coefficient results, it is stated that if the Exchange Rate increases, the Inflation Rate will decrease. This is following theory because Australia is a developed country where export commodities are higher than imports, so the Australian Dollar has a stable trend and is experiencing appreciation. However, in this research, inflation in Australia was not affected by the Exchange Rate, allowing for the

elasticity of goods and services to be less responsive to the exchange rate so that the impact on inflation was minimal.

Based on the results of testing the Influence of Independent Variables on Dependents in Australia, the probability value of Money Supply is 0.0057 and has a coefficient value of 0.030763. in accordance with the provisions where the probability value is 0.0000 > 0.05 (Alpha 5%), in Australia the variable that influences inflation is Money Supply. These results are in line with previous research, namely from Hesti (2021) that money supply influences country inflation.

According to the researcher, based on the coefficient results, it is stated that if the Money Supply increases, the Inflation Rate will also increase. This is in accordance with theory because the Australian Central Bank, namely the Reserve Bank of Australia, always monitors the amount of money circulating in Australia to maintain the stability of the value of their currency. Here the role of the Reserve Bank of Australia is to respond if inflation is under pressure, then they will reduce the amount of money in circulation with a money absorption policy, namely when the Central Bank absorbs liquidity in the Bank. It is hoped that the amount of money will decrease and will have an impact on reducing inflationary pressures. However, if inflation is weakening so that economic conditions are weakening, the Reserve Bank of Australia will implement a Money Injection policy where the RBA will inject liquidity into banks so that the money supply will increase and will put pressure on the country's inflation.

Based on the results of testing the Influence of Independent Variables on Dependents in Australia, the probability value of Forex Reserve is 0.0261 and the coefficient value is 4.93E-05. in accordance with the provisions where the probability value is 0.0000 > 0.05 (Alpha 5%), in Australia the variable that has a positive influence on inflation is the Forex Reserve. These results are in line with previous research, namely from Ristiya (2023), where the results of their research are that the Forex Reserve influences country inflation, but the direction is not appropriate because in that research the results were positive, while the research from Ristiya was negative.

According to researchers, these results indicate that if Forex Reserves increase, inflation will increase. This means that the Forex Reserve in Australia can have a positive relationship, it is possible that if Malaysia uses its Forex Reserve to help consumer factors in its country and cause the money supply to increase, it can influence inflationary pressures. The Forex Reserve can be used as a liquidity injection in banking so that it will cause the money supply to increase which will have an impact on the country's inflation.

CONCLUSION

This research examines inflation which is influenced by the Interest Rate, Exchange Rate, Money Supply, and Forex Reserve in Indonesia, Malaysia, the Philippines, China, and Australia. The data used in this research is Cross Section and Time Series data. This data uses Variable Data in five countries with a 10-year quarterly period (2012-2023). The data was processed using the Panel Regression method and using the Eviews application.

After testing the data using the panel regression method, researchers have found the results that the interest rate has a significant positive influence on the country's inflation rate. In terms of results in each country, the interest rate influences inflation in Indonesia and Malaysia. However, for China, the Philippines, and Australia the Interest Rate does not influence inflation. From the ranking results of the Sig. value, Indonesia has the highest results compared to other countries, which means that for Indonesia the Interest Rate is the most significant factor in inflation among the 5 countries.

The Exchange Rate variable is proven to have a negative influence on the foreign exchange rate on the inflation rate. In terms of results for each country, the Forex Rate influences Malaysia. while the Forex Rate has been proven to not have a significant effect in Indonesia, the Philippines, Australia, and China. Based on the Sig value ranking results, it can be seen that among the five countries, Malaysia is the country where the Forex Rate is a factor that has the most significant influence on inflation compared to the other five countries.

For the results of the Money Supply variable, the test results show a positive influence of Money supply on the Inflation Rate. For the results for each country, Money Supply

influences inflation in Indonesia and Australia. However, for China, Malaysia, and the Philippines, money supply has no influence on inflation in their countries. Based on the ranking results of the sig. values, it can be seen that Indonesia is a country where money supply is the factor that has the most influence on inflation compared to 5 other countries.

For the Forex Reserve Variable Results, the results show that there is a negative influence of the Foreign Exchange Reserve on the Inflation Rate. On a per-country basis, the Forex Reserve has an influence on inflation in Malaysia and Australia. while in Indonesia, China, and the Philippines the Forex Reserve has no influence on inflation in their countries. In terms of sig value, Malaysia is proven to be a country where the Forex Reserve factor has the strongest influence on inflation compared to 5 other countries.

In summary, it can be proven that the variables tested on inflation that have a strong influence are in Indonesia, Malaysia, and Australia. However, these four variables in China and the Philippines have no influence at all on inflation in their countries

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