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The Influence of Foreign Direct Investment, Portfolio Investment, Remittance Receipts, Exchange Rates on Economic Growth in 10 APEC Countries

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A B S T R A C T

This research aims to analyze the influence of foreign direct investment, portfolio investment, remittance receipts, exchange rates on the economic growth of 10 APEC countries (Australia, Canada, China, Chile, Japan, Malaysia, Mexico, New Zealand, the Philippines and Russia). This research method uses panel data regression analysis, the data used is secondary data obtained from the World Bank Website. The research results show that partially foreign direct investment (x1) has a positive and significant effect on the economic growth of 10 APEC countries. Portfolio investment (x2) has a negative and insignificant effect on the economic growth of 10 APEC countries. Remittance receipts (x3) have a negative and insignificant effect on the economic growth of 10 APEC countries. The exchange rate (x4) has a negative and insignificant effect on the economic growth of 10 APEC countries. This research provides important insights into how various types of investment and other economic factors interact to influence economic growth in APEC countries. By understanding these relationships, policymakers can design more effective strategies to attract investment, leverage remittances, and maintain exchange rate stability to promote sustainable economic growth.

Keywords: *Foreign Direct Investment, Portfolio Investment, Remittance Receipts, Exchange Rates And Economic Growth*
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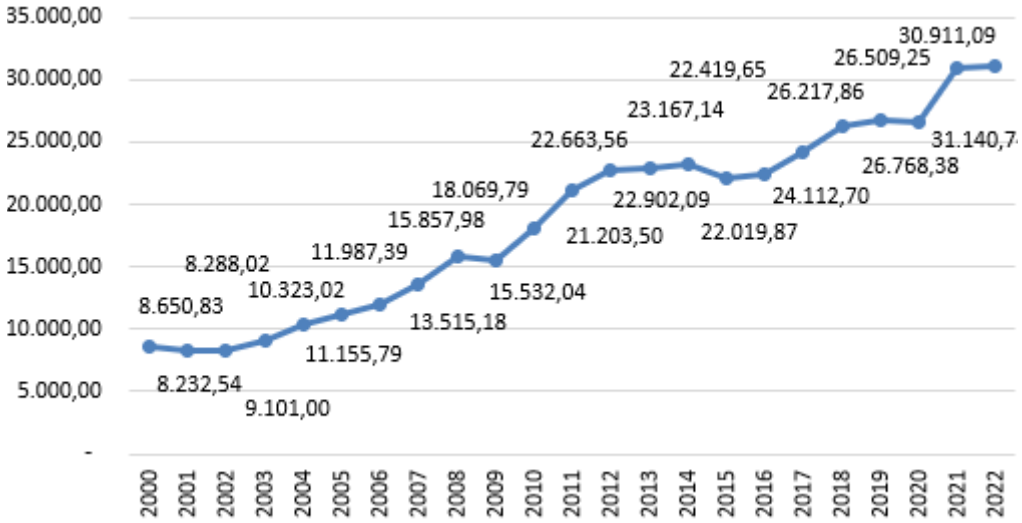
INTRODUCTION

Economic growth is one of the important indicators of a country's economy from time to time and this means that economic growth is used to measure the economy from the current period to the next period (Tambunan et al., 2019). Economic growth is defined as the process of long-term growth in output per capita. In other words, increasing production per capita means increasing welfare as well as increasing consumer choice of goods and services and people's purchasing power (Muda et al., 2019).

development of the world economy, countries are increasingly required to expand their market networks in international trade (Muttaqin, 2018). rapid development of the international economy, the economic relations of countries are interconnected or influenced by each other. This increases the trade in goods and the outflow of funds and capital abroad (Nirawati, 2023).

Figure 1 Explains the average percentage of economic growth rates in 10 APEC countries over a period of 22 years, namely from 2000-2022 which experienced cooling. the horizontal axis de-



Source: World Bank, 2024

Figure 1.
Economic Growth of 10 APEC Countries 2000-2022 USD

Economic growth a country and region are certainly different. Some countries and regions experience rapid economic growth, while other countries and regions experience a slowdown. This situation arises because each country is different in its ability to carry out the process of producing goods and services. If economic growth is good, life in the country will be better, and people's activities in meeting their needs can contribute to the country's economic growth in the long term. When economic growth is good, people's lives become better, their needs are met, and their incomes (Amdan & Sanjani, 2023). With the rapid

picts the year while the vertical axis depicts the high economic growth in the 10 APEC countries. The highest average percentage of economic growth for the 10 APEC countries that will occur in 2022 is 31,440.74 USD. Meanwhile, the lowest percentage of economic growth occurred in 2000, amounting to 8,232.54 USD. The average percentage of economic growth in 10 APEC countries is 18,728.23 USD. This shows that although it fluctuates, it continues to increase from year to year. Economic growth in APEC (Asia-Pacific Economic Cooperation) countries is high because it is caused by several factors, for example

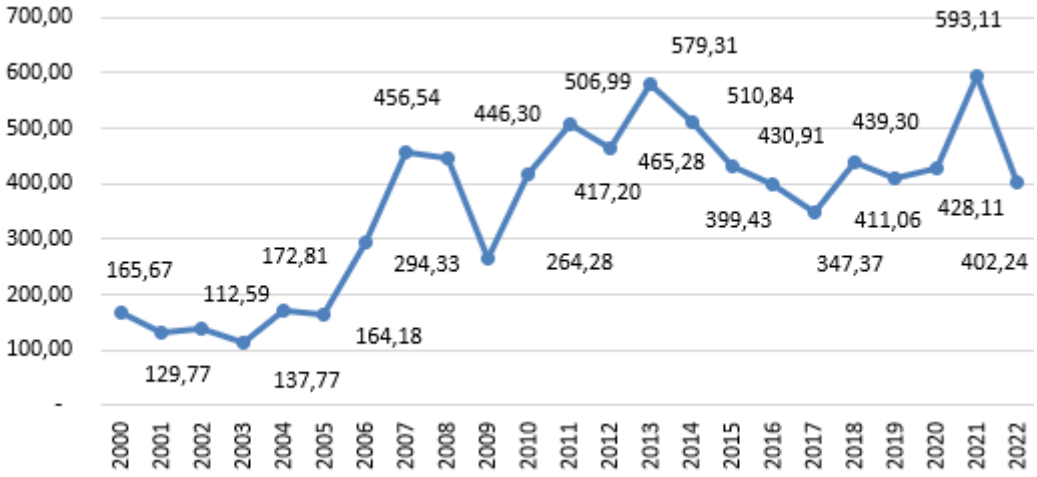
increased trade and investment, infrastructure and capacity development, increased education and human resources, as well as regional economic cooperation, as is known. APEC aims to encourage economic growth and improve prosperity in the Asia Pacific region by encouraging and facilitating trade that is driven by freer and more open investment. Therefore, this will increase the circulation of goods and services and encourage economic growth in APEC countries.

In an era of increasing globalization, regional economic cooperation is becoming increasingly important in driving economic growth national. Joining APEC has opened up greater opportunities in international trade for countries with large populations and rapidly growing economies. This is in line with APEC's goal of promoting economic growth and improving prosperity in the Asia-Pacific region. Over the past few decades, APEC has become one of the most influential players in the global economy. In this regional forum, member countries have worked together on various initiatives to promote stable economic growth in the Asia-Pacific region. The Asia-Pacific Economic Cooperation (APEC) is a regional forum consisting of 21 member countries in the Asia-Pacific region. Since its establishment in November 1989, APEC has emerged as one of the leading regional forums on global economic issues. APEC also contributes to further promoting economic growth and developing cooperation to achieve common economic goals through economic cooperation, trade, investment and human resource development within the APEC framework, countries have the opportunity to expand their markets and increase investment (Ramadan, 2024).

The first step to encourage economic growth is investment, both domestic and international (Faizin, 2019). Low capital stock and lack of investment in production equipment cause economic growth to be unable to be increased. In addition, lack of capital causes a decrease in labor productivity. Therefore, government revenue is low and savings as capital formation are low. Every country's efforts to encourage economic growth, including expanding the investment sector. Investment is the first step in productive activities and is an important factor in increasing economic growth(Alvaro, 2021). Foreign Direct Investment (FDI) includes providing loans or taking over shares in companies outside the home country (Hindra, 2015). Foreign investment can encourage economic growth and equality. Thus, the active role of the population in employment coverage and employment opportunities can be increased (Bintoro, 2022).

First, foreign direct investment provides the host country with quality capital and encourages increased investment and production to achieve economic growth. Second, the advanced production technology and management experience brought by foreign direct investment facilitate the optimization of the production efficiency of enterprises in the host country, thereby also promoting economic growth. Similarly, study,Nguyen (2022),Zeng (2021) which states that foreign direct investment has a significant impact on Indonesia's economic growth. Different from study(Jufrida et al., 2016).The research results show that foreign direct investment (FDI) has a positive but insignificant influence on Indonesia's economic growth. While research (Nadzir & Kenda, 2023), which states that foreign investment partially has no impact on economic growth and foreign direct investment does not have a significant impact on economic growth. Foreign investment is not comparable to economic growth. The relatively high increase in investment is also not in line with the trend of GDP growth which is not too large.

Figure 2 explains the average Foreign Direct Investment Inflow in 10 APEC countries over a period of 22 years, namely from 2000-2022 which experienced freezing. The horizontal axis depicts the year in which foreign investment inflows occurred, while the vertical axis depicts the high level of foreign investment inflows in 10 APEC countries. The highest FDI occurred in 2021 amounting to 593,108 USD. Meanwhile, the lowest FDI occurred in 2003 amounting to 112,589 USD. The average FDI inflow was 359.80 USD. The high flow of Foreign Direct Investment (FDI) in APEC member countries is caused by several factors, for example the existence of supportive trade and investment policies, supported by a large and diverse market, increased innovation and technology and the hope of economic and political stability which encourages investor confidence. in investing capital.



Source: World Bank, 2024

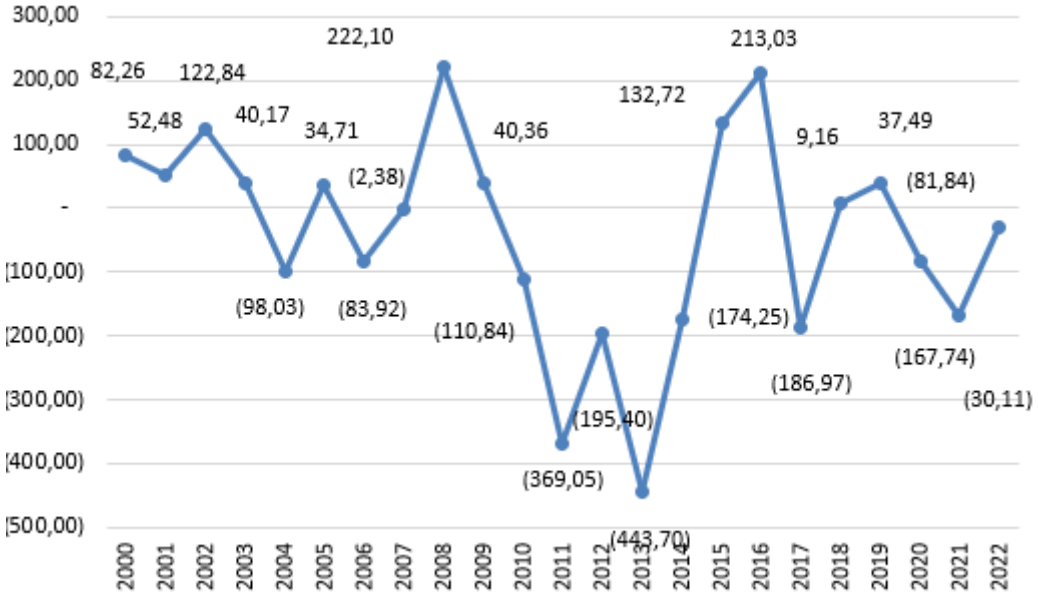
Figure 2.
Incoming Current FDI 10 APEC Countries 2000-2022 USD

Portfolio Investment variables affect economic growth according to research Revelation (2019), Portfolio Investment has a significant positive direct influence on the Indonesian economy. Capital inflows in the form of Portfolio Investment, if not managed properly, can reduce capital (Wardhono, 2020). High economic productivity causes an increase in the value of stocks in a country. Therefore, the higher the value of a country's stocks, the more investors invest in the country's stocks in the form of a portfolio. Therefore, economic growth has a positive impact on portfolio investment. Along with increasing economic growth, Portfolio Investment also increases because investors are increasingly interested in investing in countries with good economic growth. Interest rates are an important factor for investors who make Portfolio Investments in a country because they represent the rate of return on assets. The amount of Portfolio Investment required depends on the bank's interest rate, and a decrease in the rate of return on other assets in the banking sector can cause assets to be diverted to other more profitable sectors, including investment assets in the form of a portfolio. namely ownership of stocks, securities, bonds or other securities assets. Therefore, international interest rates have a negative impact on investment. In other words, when international interest rates rise, investment falls and vice versa (Prastiwi, 2020).

Figure 3 explains the average investment portfolio in 10 APEC countries over a period of 22 years, namely from 2000-2022 which experienced winter. The horizontal axis depicts the year the investment portfolio occurred, while the vertical axis depicts the height of the investment portfolio in the 10 APEC countries. Explains that the Portfolio Investment of 10 APEC countries experienced fluctuations from 2000 to 2022. The highest PI occurred in 2008 amounting to 222,100 USD. The lowest PI occurred in 2007 at -2,381 USD. The average PI is 41.61 USD. The combination of a high savings surplus, well-developed financial markets, supportive government policies, and other factors such as currency stability and low political risk make Japan an attractive destination for portfolio investment.

Remittance receipt globally is one of the most important sources of international income, even surpassing in some cases the flow of foreign direct investment (FDI) due to the high active participation of labor and migrant workers, income. Remittances can be a source of government income (Handoyo et al., 2020). Remittances have received attention in the international finance literature because of their size and potential to drive economic development. By transmitting monetary policy through the exchange rate channel. Remittances are expected to increase economic growth and other macro variables (Nirmala, 2022). The positive impact of remittances on development is due to the multiplier effect on consumption, the development of financial institutions that process remittances, the use of remittances as foreign exchange, and debt that helps individuals in the country where the remittances are made to overcome credit constraints on the role of remittances as an alternative means will be reduced (Meyer, 2017).

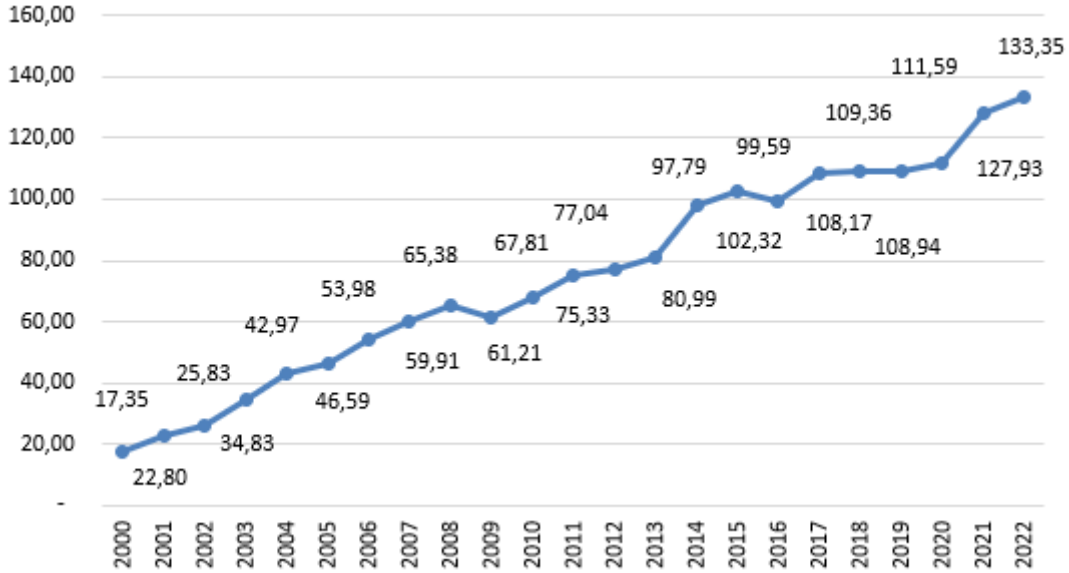
Research result (Artina, 2022) & Putri (2016) shows that remittance has a positive and significant effect on economic growth. Remittance generated by immigration has the potential to increase government revenue, encourage the development of the financial sector, and thus stimulate economic growth. However, this is different from the research (Romlin, 2020), have



Source: World Bank, 2024

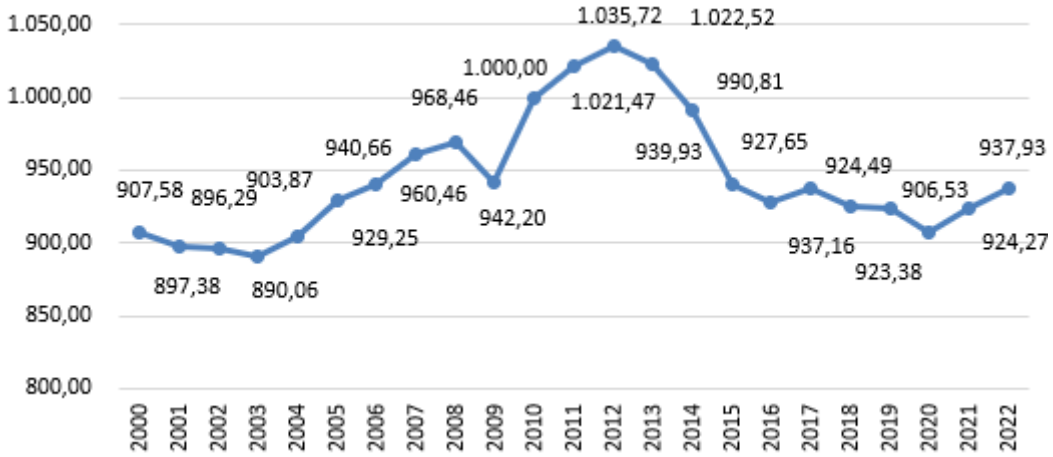
Figure 3.
Portfolio Investment (PI) Rate of 10 APEC Countries 2000-2022 USD

a negative and significant impact on economic growth. Remittances weaken productivity and growth in low-income countries. This is because most remittances are spent on consumption, which tends to be dominated by foreign goods compared to productive investment (Meyer, 2017).



Source: World Bank, 2024

Figure 4.
Remittance Receipts (RR)10 APEC Countries 2000-2022 USD



Source: World Bank, 2024

Figure 5.
Exchange Rates (ER) of 10 APEC Countries 2013-2022 USD

Explains that the Remittance Receipts of 10 APEC Countries have fluctuated from 2000 to 2022. The highest RR occurred in 2022 at 133,350 USD. The lowest RR occurred in 2000 at 17,351 USD. The average RR was 75.26 USD.High migration factors, increasing cost of living, supportive government policies, low costs, culture, and lack of access to financial services have caused remittance receipts to increase. Another important factor to consider is exchange rate. Exchange rate fluctuations in a currency can affect the competitiveness

of a country's exports and imports. A weakening domestic exchange rate can encourage exports and increase government revenue. However, on the other hand, an unstable exchange rate can disrupt economic stability and affect overall economic growth (Monita et al., 2024). Study (Syamsuyar & Ikhsan, 2017) & (Nauli et al., 2024) rupiah exchange rate has a positive and significant influence on economic growth. Different from research (Wiriani, 2020),the exchange rate has a negative and insignificant effect on economic growth whereas. This is because the appreciation of the exchange rate and the depreciation of the rupiah affect commodity prices, especially imported raw materials and domestic products, which ultimately causes an increase in commodity prices and a decrease economic growth.

Explains that exchange rates10 APEC countries experienced fluctuations from 2000 to 2022. The highest ER occurred in 2012 at 1035,725 USD. The lowest ER occurred in 2003 at 890,060 USD. The average ER is 944,70 USD.

Based on the explanation of several phenomena mentioned above, the researcher is interested in analyzing and finding out what can cause an increase or decrease.economic growth (EG) in APEC countries, further research is needed regarding The influence of foreign direct investment, portfolio investment, remittance receipts, exchange rates on economic growth in 10 APEC countries. This study is different from previous studies because it uses four independent variables covering APEC countries. While the previous title used two variables with a scope of ASEAN countries.

METHODOLOGY

This type of research is research that uses secondary data, namely data collected and received from other parties that is processed or published as prepared information. Secondary data refers to data collected by individuals and not by researchers conducting research. Secondary data is data taken from World Bank Data which is panel data with 22 years of time series data, namely 2000 to 2022 and 10 cross section data, resulting in 230 observations. This research is an interpretive research from the association, namely explaining the influence of the variables Foreign Direct Investment, Portfolio Investment, Remittance Receipts and Exchange Rates which are the independent variables (X) for the Economic Growth Variable in 10 APEC Countries which is the dependent variable (Y). In accordance with the title and problems discussed, this research is descriptive research which aims to provide an overview and description of the variables studied, then interpret the existing data in the form of numbers. The analysis tool used is E-view 9 using the panel data regression analysis method. Panel data regression analysis is a regression model that uses a data structure in the form of panel data to determine the influence of one or more predictor variables on a response variable. Panel data is a combination of cross-sectional data and time series data. In general, the panel data regression model equation is as follows:

$$EC_{it} = \alpha + \beta_1(FDI)_{it} + \beta_2(PI)_{it} + \beta_3(RR)_{it} + \beta_4(ER)_{it} + \varepsilon_{it}$$

where EC is economic growth, FDI is foreign direct investmnt, PI is portfolio investment, RR is remittance receipts, ER is exchange rate and ε_{it} is inercept

Panel Regression Model Estimation Method

According to (Parasati, 2020) the estimation method uses regression techniques for data panel, common effect model or pooled less square (CEM), fixed effect model (FEM) and random effects model (REM).

Fixed Effects Model (FEM) means intersection, this model shows that individuals

Table 1.
Operational Definitions

No	Variable	Definition	Measurement Variable	Scale	Unit
1	Economic growth (PE)	Economic growth is a change in the level of economic activity that applies from one year to the next (Iztihar, 2018).	Data on GRDP per capita at constant prices in 10 APEC Countries	Nominal	USD
2	Foreign direct investment (FDI)	Foreign direct investment is the international flow of capital in which businesses move from one country to another. Foreign investment can take the form of joining a foreign company, establishing a branch or new company in another country, or acquiring an existing foreign or domestic company in another country.	Data on Foreign direct investment in 10 APEC Countries obtained from world bank	Nominal	USD
3	Portfolio Investment (PI)	Portfolio Investment is an investment that only involves financial assets, such as national currency bonds. This investment in securities is carried out by financial institutions such as banks, investment funds, pension foundations, and so on.	Data on portfolio investment of capital in 10 APEC Countries obtained from world bank	Nominal	USD
4	Remittance Receipts (RR)	Remittance is the process of sending money, goods, and development ideas from the destination area of migration to the area of origin. This is an important tool in the socio-economic life of the community. Remittances are considered important from an economic perspective because they are considered capable of improving the family economy and the progress of the receiving community According to Curson (1981) in (Primawati, 2011),	Data on remittance receipts of capital in 10 APEC Countries obtained from world bank	Nominal	USD
5.	Exchange rate (ER)	Exchange rate, is the amount of domestic currency that must be paid to obtain one unit of foreign currency.	Data on exchange rate of capital in 10 APEC Countries obtained from world bank	Nominal	USD

do not changes (constant) with time. Therefore, the fixed effects model assumes that the slope coefficient does not change over time (continuously) or is independent. The approach used is the Ordinary Least Square (OLS) method the estimate. The advantage of this method is that individual and temporal effects can be distinguished and this method does not require the use of the assumption of uncorrelated error components with independent variables.

The random effects model (REM) is a method for estimating panel data in which variables confounders (residuals) can be associated between individuals (entities) over time. Model this assumes that the error term is always present and can be correlated between series time and cross section. The approach used is Generalized Least Squares (GLS) as the

estimation method. This method is suitable for panel data when the number of people more than the available period.

The common effect model (CEM) is the simplest model for estimating panel data model parameters. That is, combining time series data and cross-sectional data into one unit without thinking about time and differences individual (substance). The approach used is the Ordinary Least Square method (OLS) as the estimation method. Common effects models ignore dimensional differences individual and temporal. In other words, the data behavior between individuals is the same even though in different time periods.

Choosing a Panel Data Model

According to (Parasati, 2020) of the three panel data method approaches, steps the next step is to sort and choose the best model for analyzing panel data. The tests carried out were based on the Chow test, Hausman test and Lagrangian test multiplier.

The Chow test is used to compare the common effect model and the Fox model effect and calculated based on the results of the fixed effect model regression. This test hypothesis is:

H_0 : Common Effect Model

H_a : Fixed Effect Model

By using ChiSquare statistical considerations, the basis for rejecting H_0 is that if the probability of the Chow test result is greater than 0.05, then H_0 is accepted and H_a was rejected, so the test was completed only with the Chow test. On the other hand, if the probability of the Chow test result is lower than 0.05, then H_0 is rejected and $H_a$is accepted, so the test continues to the Hausman Test.

The Hausman test compares the Fixed Effect Model and the Random Effect Model. Results the Hausman test can be carried out if the Chi-square cross-section probability value of the test Chow is smaller than 0.05. Hausman's test hypothesis is as follows:

H_0: Random Effect Model

H_a: Fixed Effect

Basic Model of Rejection; If the probability of the Hausman test result is greater than 0.05, then H_0 is accepted and H_a is rejected. However, if the probability of the Hausmant test result is more smaller than 0.05, H_0 is rejected and H_a is accepted, so the Lagrange Multiplier test must be carried out again.

Test Lagrange Multiplier can be carried out if the Chi-square cross-section probability value from the Test Hausman is smaller than 0.05. The Lagrange Multiplier test compares the effects random and general effects models. The hypothesis in this research is as follows:

H_0: Common Effect Model

Ha: Random Effect Model

Random rejection of H_0. By using ChiSquare statistical considerations, if the probability of the Lagrange Multiplier test result is greater than 0.05, then the Lagrange test Multiplier.

Hypothesis testing is used to test statements statistically and interestingly conclusion about its validity. Hypothesis or hypothesis is a term used to describe previous statements or assumptions that will be tested the truth. The purpose of hypothesis testing is to provide a basis for gathering data to determine whether to admit or reject the truth this hypothesis (Ghozali & Ratmono, 2017).

1. Determination Coefficient Test (Adjusted R2). The ability of the model to explain the variation of the dependent variable with value between zero and one ($0 < R\ 2 < 1$) is measured. The small Adjusted R2 value shows that independent variables cannot provide nearly all the information needed to predict variations in the dependent variable (Ghozali & Ratmono, 2017).

2. Model Feasibility Test (F Statistical Test. According to Ghozali (2018), the F statistical test is used to show that each The independent variables entered into the model influence the dependent variable

significantly overall. The test criteria have a significance level of 0.05. The significance value is above 0.05 shows that the research model is suitable for use; significance value below 0.05 shows that the research model is not suitable for use.

3. Individual Parameter Significance Test (t Statistical Test). The influence of the dependent variable and independent variable is each measured through t statistical test (Ghozali, 2018). The inspection process is carried out in accordance with standards: values significance less than 0.05 indicates acceptance of the hypothesis, while the value a significance of more than0.05 indicates rejection of the hypothesis (Ghozali & Ratmono, 2017).

According to Alamsyah, (2022), the analysis steps for this research are as following.

1) Analyze the characteristics of the response and predictor variables.
2) Conduct descriptive statistical analysis.
3) Carry out tests to select a panel regression model as follows:
a. Performing the Chow Test
b. Performing the Hausman Test
c. Performing the Lagrange Multipiler (LM) Test
4) Uji Classical assumption analysis : normality, heterokedastisity, Multikolonierity
5) Carry out estimates using appropriate methods Fixed Effect Model (FEM), Random Effect Model (REM), Common Effect Model (CEM).
6) There is no need to test classical assumptions if you use the REM (Random Effect Model). This is because the random effect panel model estimation method uses the generalized least squares (GLS) method, which does not need to meet classical assumptions.
7) Test the significance of panel regression model parameters.
8) Test the assumption that the residuals are identical, independent and normally distributed.

RESULTS AND DISCUSSION

In Table 2 above, it can be seen that the economic growth variable has the lowest value of 8,232.54 and the highest value of 31,140.74 with an average value of 18,728.23 and a foreign exchange standard (level of data distribution) of 7,4373.76. The Foreign Direct Investment variable has the lowest value of 112.59 and the highest value of 593.8 with an average value of 359.8 and a data distribution level of 148.97. The Investment Portfolio variable has the lowest value of -443.7 and the highest value of 222.1 with an average value of -41.61 and a level of data spread of 65.74. The Remittance Receipts variable has the lowest value of 17.35 and the highest value of 133.35 with an average value of 75.26 and a level of data distribution of 34.25. The Exchange Rates variable has the lowest value of 890.06 and the highest value of 1,035.72 with an average value of 944.7 and a data distribution level of 42.78.

$$Y_{it} = 1184.717 + 35.53148X1_{it} - 0.962024X2_{it} - 6.562722X3_{it} - 5.736350X4_{it} + e_{it}$$

The regression results above can be interpreted as follows, the coefficient value of β0 is 1184.717 if foreign direct investment (x1), portfolio investment (x2), remittance receipts (x3), and exchange rates (x4) are constant or X = 0, then economic growth (y) is 1184.717. The coefficient value β1 = 35.53148, meaning that if foreign direct investment (FDI) increases by 1%, economic growth also increases by 35.53148. A positive coefficient means that there is a relationship between foreign direct investment (FDI) and economic growth, because the higher the foreign direct investment (FDI), the higher the economic growth. The coefficient value of β2 = -0.962024 This means that if the investment portfolio increases by 1%, economic growth will decrease by -0.962024. A negative coefficient means that there is a

Table 2.
Descriptive Statistics

	N	Min	Max	Mean	Std. Dev
FDI	230	112.59	593.11	359.8	148.97
PI	230	-443.7	222.1	-41.61	65.74
RR	230	17.35	133.35	75.26	34.25
ER	230	890.06	1,035.72	944.7	42.78
EG	230	8,232.54	31,140.74	18,728.23	7,473.76

Source: Processed by researchers, 2024

Table 3.
Pooled Least Square Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1184.717	828.8071	1.429425	0.1543
X1	35.53148	2.675614	13.27975	0.0000
X2	-0.962024	1.635339	-0.588272	0.5569
X3	-6.562722	13.80923	-0.475242	0.6351
X4	-5.736350	7.963460	-0.720334	0.4721

Source: Processed by researchers, 2024

Table 4.
Fixed Effect Model Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	20.205245	(9,215)	0.0000
Cross-section Chi-square	140.357147	9	0.0000

Source: Processed by researchers, 2024

relationship between portfolio investment and economic growth, because the higher the investment portfolio, the lower the economic growth. The coefficient value of β3 = -6.562722 This means that if remittance receipts increase by 1%, economic growth also decreases by 6.562722. A negative coefficient means that there is a relationship between remittance receipts and economic growth, because the higher the remittance receipts, the lower the economic growth. The coefficient value of β4 = -5.736350 This means that if the exchange rate increases by 1%, economic growth will also decrease by -5.736350. A negative coefficient means that there is a relationship between exchange rates and economic growth, because the higher the exchange rate, the lower the economic growth.

The research described below is analyzed using a panel data regression model. The results of the model estimation using the fixed effect, random effect and common effect approaches are as presented in the figure below. Before being analyzed further, the results of the model estimation are then selected for one of the best model estimation approaches through a model specification test.

Using the Chow test, the result is a p-value of 0.0000 which is smaller than the significance value of 5% or p-value 0.0001 ≤ α (5%) so that H_0 is rejected, meaning the regression model used is the Fixed Effect model.

By using the Hausman test, a p-value of 0.1062 is obtained which is smaller than the significance value of 5% or a p-value of 0.1062 > α (0.05) so that H_0 is accepted, meaning the regression model used is a random effect model.

This test is conducted to test the significance of each variable, namely Foreign Direct Investment, Portfolio Investment, Remittance Receipts, and Exchange Rates with decision making by comparing the Tcount value with T-table. The T-table

Table 5.
Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	7.626730	4	0.1062

Source: Processed by researchers, 2024

Table 6.
Lagrange Multiplier Tests for Random Effects

	Test Hypothesis Cross-section	Time	Both
Breusch-Pagan	407.2985 (0.0000)	1.101353 (0.2940)	408.3999 (0.0000)
Honda	20.18164 (0.0000)	-1.049453 --	13.52850 (0.0000)
King-Wu	20.18164 (0.0000)	-1.049453 --	16.43602 (0.0000)
Standardized Honda	24.70711 (0.0000)	-0.930548 --	11.10023 (0.0000)
Standardized King-Wu	24.70711 (0.0000)	-0.930548 --	15.24847 (0.0000)
Gourierioux, et al.*	--	--	407.2985 (< 0.01)
*Mixed chi-square asymptotic critical values:			
1%	7.289		
5%	4.321		
10%	2.952		

Source: Processed by researchers, 2024

Based on 2, namely the Chow test and the Hausman test, the results of the best model to be used, namely the Fixed Effect model, have been obtained, so it can be concluded that the Lagrange Multiplier (LM) test does not need to be carried out.

Based on the results of the three the fixed effect, random effect and common effect approaches, it can be concluded that the model used in this study is the random effect approach (REM) model or the Hausman test.

value is obtained if the number of samples (n) is 230 then the number of variables is 1 dependent variable and 3 independent variables with a confidence level of 5%, then the T-table value is 1.992543. In this t-statistic test (partial test) it has a criterion if T-count > T-table then there is a partial influence while Tcount <T-table then there is no partial influence. Foreign Direct Investment (X1) obtained a T-count value of 13.27975 with a probability value (significance) of 0.0000. Thus, H_a is accepted

and H_0 is rejected, because the probability value is smaller than the value of α = 0.05 (0.0000 < 0.05), then, Foreign Direct Investment individually has a significant effect on economic growth. While T-count < T-table (13.27975 > 1.970377) means that it can be concluded that the Foreign Direct Investment variable individually has a positive effect on testing at a confidence level of α = 5%.

Portfolio Investment (X2) obtained a Tcount value of -0.588272 with a probability value (significance) of 0.5569. Thus, H_a is rejected and H_0 is accepted, because the probability value is greater than the value of α = 0.05 (0.5569 > 0.05), then, portfolio investment individually has no significant effect on economic growth. While T-count < T-table (-0.588272 < 1.970377) means that it can be concluded that the portfolio investment variable individually has a negative effect on testing at a confidence level of α = 5%. Remittance Receipts (X3) obtained a T-count value of -0.475242 with a probability value (significance) of 0.635. Thus H_a is rejected and Ho is accepted, because the probability value is greater than the value of α = 0.05 (0.635 > 0.05) then, Remittance receipts individually have no significant effect on economic growth. While T-count < T-table (-0.475242 < 1.970377) means that it can be concluded that the Remittance receipts variable individually has a negative effect on testing at a confidence level of α = 5%. Exchange Rates (X4) obtained a Tcount value of -0.720334 with a probability value (significance) of 0.4721. Thus, H_a is rejected and H_0 is accepted, because the probability value is greater than the value of α = 0.05 (0.4721 > 0.05), then, Exchange Rates individually have no significant effect on economic growth. While T-count > T-table (2.863422 > 1.970377) means that it can be concluded that the Exchange Rates variable individually has a negative effect with testing at a confidence level of α = 5%. Based on the results of the regression analysis above, the Adjusted R-squared value is 0.428344. or if presented as 42.83%, which means that foreign direct

Table 7.
Results of the Fixed Effect, Random Effect and Common Effect Approaches

TestSummary	Probability	Results
Fixed Effect	0.0000	Passed
Random Effect	0.1062	Passed
Common Effect	0.0000	Not pass

Source: Processed by researchers, 2024

Table 8.
REM Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1184.717	828.8071	1.429425	0.1543
X1	35.53148	2.675614	13.27975	0.0000
X2	-0.962024	1.635339	-0.588272	0.5569
X3	-6.562722	13.80923	-0.475242	0.6351
X4	-5.736350	7.963460	-0.720334	0.4721

Source: World Bank, 2024

investment (x1), port folio investment (x2), remittance receipts (x3), and exchange rates (x4) together are able to provide an explanation of variations in economic growth (y) for the period 2000-2022 of 42.83% while the remaining 57.17% is an error (residual) explained by other variables that are not included in the model estimation.

Based on the regression results, the coefficient of the Foreign Direct Investment variable is 35.53148. Because the significance value (0.0000) is smaller than the significance level of 0.05, it can be concluded that the variable "Foreign Direct Investment" has a positive and significant effect on Economic Growth. Statistically, this means that for every 1% increase in Foreign Direct Investment, the level of economic growth increases by 35.53148%.

This is supported by research conducted by Agustini (2017), which states that the Foreign Direct Investment (FDI) variable has a positive and significant effect on the magnitude of economic growth in districts/cities in West Kalimantan. In addition (Winarni, 2020), in his research also stated that foreign direct investment (FDI) has a positive and significant effect on economic growth in Central Java province. Foreign Direct Investment (FDI) has a positive effect on economic growth which can have implications through factors of increasing capital flows, where FDI will have an impact in the form of increasing capital flows in the country, then this will be used by the country in manufacturing investment, technology, and increasing human resources. This will then contribute to increasing production capacity and economic efficiency (Gandhi, 2022).

In addition, there are other factors that cause FDI to have a positive effect on economic growth, for example in the form of technology and knowledge transfer, this is obtained through the presence of foreign companies that bring best practices, as well as innovation and technology that will later increase productivity in the local sector, this is very useful especially for developing countries that may still experience limited access to the latest technology, increased FDI will also increase income and purchasing power of the community, which will later trigger increased domestic consumption and increased economic growth. job creation, increased exports, and macroeconomic conditions (Khalifar, 2020).

This result is in accordance with the theory of the Solow growth model, which explains that investment plays an important role in increasing the capital stock of each worker, thus contributing to productivity growth. Solow shows that increasing investment can produce long-term economic growth. The Solow growth model explains that investment contributes to economic growth through capital accumulation and increased productivity (Koyongian et al., 2019).

Solow said that, there is investment in the category of physical capital (factories, machines and infrastructure) which is the main factor driving economic growth. Where this investment will increase the stock of capital used for production, then will increase economic output. In addition, there is the influence of Savings, where this model illustrates that a high Savings Rate can produce more investment. If the proportion of income saved in the form of investment increases, it will lead to much higher output growth. This also means that the higher the savings rate, the greater the economy's ability to invest (Khalifar, 2020).

The Harrod-Domar theory also supports the idea that investment is needed to achieve economic growth. Harrod and Domar argue that sufficient investment can produce sustainable growth in national income (Ma'ruf & Wihastuti, 2008).

Based on the regression results, the coefficient of the Portfolio Investment variable is -0.962024. Because the significance value obtained (0.5569) is greater than the significance level of 0.05, it can

be concluded that the "Portfolio Investment" variable has a negative and insignificant effect on Economic Growth. Statistically, this means that every 1% increase in Portfolio Investment, the Economic Growth rate decreases by 0.962024%.

Portfolio investment can have a negative impact on economic growth, for example it can cause macroeconomic instability. In this case, it is caused by portfolio investment which is generally short-term, which is accompanied by the influx of foreign capital which can still have an impact on the appreciation of the exchange rate to exceed fundamental conditions, which will then have implications for asset price bubbles and increased vulnerability of financial markets and high inflationary pressures.

This result is in accordance with the Modern Portfolio Theory (MPT) proposed by Harry Markowitz, which discusses the importance of diversification used to reduce risk. According to Harry, in the context of portfolio investment, if not managed properly, the diversification used will not always guarantee the expected return and can hamper economic growth (Febriyanto, 2018).

Uncertainty in the global economy affects financial decisions. Rising interest rates can have a negative impact on bank accounts. When interest rates rise, borrowing costs increase, and investors' willingness to invest in the capital market decreases. In addition, high inflation can reduce people's purchasing power and reduce the need for bank loans (Suhendra & Istikomah, 2016).

Based on the regression results, the coefficient of the remmitance receipts variable is -6.562722. Because the significance value obtained (0.6351) is greater than the significance level of 0.05, it can be concluded that the "Remmitance Receipts" variable has a negative and insignificant effect on economic growth. Statistically, this means that every 1% increase in remmitance receipts, the economic growth rate decreases by 6.562722%.

Research conducted by Handoyo et al., (2020), remittance variables have a negative relationship to Indonesia's economic growth in the short term, but are not significant. Research conducted by (Anetor, 2019), according to the long term, remittances have a negative impact but are not significant. Income earners rely on loans as a source of income, which can reduce work motivation. This can reduce worker productivity and the economy in general. Higher prices can increase demand for the domestic currency, increasing the value of the currency. This reduces the competitiveness of exports, as domestic goods become more expensive in world markets, thereby hampering economic growth.

Based on the regression results, the coefficient of the Exchange Rates variable is -5.736350. Because the significance value obtained (0.4721) is greater than the significance level of 0.05, it can be concluded that the "Exchange Rates" variable has a negative and insignificant effect on Economic Growth. Statistically, this means that every time the Exchange Rates increase by 1%, the Economic Growth rate decreases by 5.736350%.

Research conducted by (Sianipar, 2019), which states that the exchange rate has a negative and significant impact on Indonesia's economic growth. Any increase in the exchange rate will result in a decline in economic growth, especially because the resulting instability triggers foreign investors to withdraw their investments. In addition, research conducted by (Sasono, 2020), also stated that the exchange rate has a negative and insignificant effect on economic growth. This is because the weakening of the exchange rate can cause an increase in the price of imported goods which has a negative impact on the economy.

The results of the above study are in accordance with the theory put forward

by John Maynard Keynes, according to this theory, Keynes stated that the occurrence of exchange rate fluctuations can create uncertainty in the economy. This uncertainty will then slow down investment and consumption, which will later have a negative effect on economic growth (Sabar & Kuslin, 2018).

Furthermore, there is also a theory put forward by Milton Friedman, which states that the exchange rate can cause distortion in the economy, so that it can cause delayed economic growth. Friedman said that slow and inflexible exchange rate adjustments can worsen and inhibit economic growth (Jannah et al., 2024).

In Keynesian theory, Keynes argued that exchange rate fluctuations cause economic instability. These shocks can discourage investment and consumption, which in turn can have a negative impact on economic growth. Keynes emphasized the importance of exchange rate stability to support sustainable economic growth (Sabar & Kuslin, 2018). Friedman argued that a fixed monetary system could cause problems in the economy and slow growth. He cited the example of slow and easy exchange rate adjustments that could worsen economic conditions and hinder growth.

CONCLUSIONS

The conclusion from the results and discussion of this research states that simultaneous testing shows that the variables Foreign Direct Investment, Portfolio Investment, Remittance Receipts, and Exchange Rates jointly influence economic growth, but each variable has a different influence. Meanwhile, if a partial test is carried out, it is stated that the Foreign Direct Investment (X1) variable partially has a positive and significant effect on economic growth in 10 APEC countries (Australia, Canada, China, Chile, Japan, Malaysia, Mexico, New Zealand, the Philippines and Russia). where if foreign investment increases, then economic growth will also increase. In contrast, the variables Portfolio Investment (X2), Remittance Receipts (X3), and Exchange Rates (X4) have an insignificant negative effect on economic growth in 10 APEC countries (Australia, Canada, China, Chile, Japan, Malaysia, Mexico, New Zealand, Philippines and Russia) where if the investment portfolio, remittance receipts and exchange rate increase then economic growth will decrease.

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