Formosa Journal of Multidisciplinary Research (FJMR)
Vol. 4 No. 8, 2025: 3709-3720

Analysis of the Effect of Investment, Consumer Expenditure and Trade Balance on Economic Growth in East Java Province

Febrina Situmorang[1], Wiwin Priana Primandhana[2*]
Universitas Pembangunan Nasional Veteran Jawa Timur, Indonesia
Corresponding Author: Wiwin Priana Primandhana
wiwinpp.ep@upnjatim.ac.id

A R T I C L E I N F O
Keywords: Investment, Consumer Spending, Trade Balance, Economic Growth, East Java

Received : 16, July
Revised : 30, July
Accepted: 22, August

A B S T R A C T
This study aims to determine the extent to which investment, consumer spending, and the trade balance influence economic growth in East Java Province. East Java was selected as the research object because it is one of the provinces with a significant economic contribution in Indonesia and has dynamic economic conditions influenced by both domestic and global factors. This research employs a quantitative approach using secondary time series data from 1999 to 2023. The analysis was carried out using multiple linear regression with the help of SPSS software, supported by classical assumption tests and hypothesis testing to ensure the validity of the results. Based on the analysis, the three independent variables significantly affect economic growth, both partially and simultaneously.

DOI: https://doi.org/10.55927/fjmr.v4i8.415
ISSN-E: 2829-8896
https://npaformosapublisher.org/index.php/fjmr

INTRODUCTION

As a developing country, Indonesia actively and systematically implements planned and gradual development, while continuing to pay attention to efforts to achieve equity and stability. In general, economic growth can be defined as an increase in the capacity to produce goods and services in a country over time. Economic growth plays a crucial role in the development of a country because it reflects an increase in production capacity and the general welfare of the community. When a country's economy grows, national income tends to increase and create a positive effect on per capita income. This allows the community to gain better access to basic needs such as education, health services, and decent housing. Economic growth also encourages the creation of new jobs in various sectors, thereby reducing unemployment and improving the standard of living of the population. In addition, economic growth contributes significantly to increasing state revenue through taxes and levies, which ultimately strengthens the government's fiscal capacity to finance infrastructure development and social programs.

However, in recent years, East Java's economic growth has shown significant fluctuations, mainly due to the impact of the COVID-19 pandemic, global dynamics, and changes in economic structure. In the years before the pandemic, East Java consistently recorded relatively stable economic growth above the national average. Indonesia's economic growth remained stable from 2014 to 2019. However, when the COVID-19 pandemic hit in 2020, East Java's economy experienced a significant contraction, reflected in a sharp decline in GDP due to mobility restrictions, reduced industrial activity, and weakened consumer purchasing power. Following the pandemic's subsidence, East Java did show signs of economic recovery. However, this recovery was not evenly distributed across all sectors. Sectors such as tourism, transportation, and trade experienced a slow recovery, while the manufacturing and agricultural sectors recovered relatively faster.

Global dynamics such as global inflation, rising global interest rates, geopolitical conflicts, and commodity price fluctuations also affect the stability of exports and the investment climate in East Java. In addition, changes in the economic structure also pose their own challenges. East Java is currently experiencing a shift from resource-based sectors to the service and creative industries. While this indicates progress, such changes require adjustments in terms of labor, investment, and adaptive policies. Imbalances in this transition process could lead to fluctuations in economic growth rates. Stable economic growth opens opportunities for new investments, which in turn can strengthen the economic foundation for the future.

When economic growth trends are positive, investment flows tend to increase in line with the creation of a more conducive business climate. Investor interest usually increases when economic growth is optimal, as it is considered to offer greater profit prospects. Investment, or capital investment, is expenditure on the purchase of capital goods and production equipment to increase capacity to produce the goods and services needed by the economy.

Therefore, high and sustainable economic growth rates are generally supported by increases in investment. Investment is the first step in the production process and is a factor that supports economic growth. Thus, investment is essentially also the first step in the economic development process.

Consumer spending or household consumption is the largest component of Regional Domestic Product (RDP) in Indonesia, including in East Java. High consumer spending reflects the level of community welfare, which in turn drives demand for goods and services and provides stimulus for various economic sectors (Afiftah et al., 2019). High consumer spending encourages businesses to increase their trading activities to meet the growing market demand. Increased consumer spending directly strengthens the trade sector, as more products are bought and sold to meet the continuously rising demand. Consumer spending plays a central role as the primary driver of economic growth in East Java, given its significant contribution to aggregate demand and economic activity across various sectors. The increase in household consumption directly drives production, trade, and services, creating a widespread multiplier effect in the regional economy.

After understanding how crucial consumer spending is in driving East Java's economy, it is important to examine external factors that also have a significant influence on regional economic growth, one of which is the trade balance. Interprovincial and international trade play a vital role in increasing regional income and absorbing local production. East Java Province, with major ports such as Tanjung Perak in Surabaya, holds a strategic position in inter-island and international trade. However, dependence on global market conditions and trade regulations are external factors that are often difficult to control. Trade openness encourages the inflow of capital into the country.

According to Sadono Sukirno (2006), the trade balance is the difference between the value of a country's exports and imports of goods in a given period. If exports exceed imports, there is a surplus; conversely, if imports exceed exports, there is a deficit. One of the factors that influence the trade balance is Gross Domestic Product (GDP). GDP is an indicator that reflects the total value of final output of goods and services produced in a country during a certain period, including production by residents and non-residents, without distinguishing whether the output will be used for the domestic market or exported (Todaro and Smith, 2008).

One factor that affects the trade balance is the exchange rate, which is the comparison of a country's currency against foreign currencies. When a currency weakens (depreciates), exports become cheaper and tend to increase the trade surplus. Conversely, when the currency strengthens (appreciates), imports increase, potentially leading to a trade deficit. Another factor is an economic crisis, which refers to a situation where a country's economy weakens. If this occurs in Indonesia's major export destinations, competitiveness and demand for export products decline, resulting in reduced exports and a trade deficit.

East Java's trade balance may show a surplus or deficit, and conditions may fluctuate due to changes in the volume and value of exports and imports. Potential issues include dependence on certain commodities, declining competitiveness of export products, increased imports of consumer goods, or the impact of international trade policies on East Java's export and import performance.

LITERATURE REVIEW

Economic Growth Theory

The Harrod-Domar theory was developed independently by Roy Harrod and Evsey Domar, but is often combined due to their similar concepts. The Harrod-Domar growth theory is presented separately. Harrod explained his theory in 1939 in an economics journal. Domar presented his theory in 1947 based on the same theory. The Harrod-Domar theory analyzes the requirements needed by a country for its economy to grow and develop in the long term.

This theory plays an important role in the formation of investment. Investment is considered an important factor in the economy because it has two roles in influencing the economy: as income and as a means of increasing capital stock. This theory is a development of Keynes' theory. Based on the idea that Keynes' analysis was considered incomplete because it did not address long-term economic issues, Harrod-Domar sought to analyze the conditions necessary for the economy to grow and develop steadily in the long term.

The Harrod-Domar theory is an economic model that highlights the relationship between savings, investment, and economic growth. The Harrod-Domar theory argues that capital formation is viewed as an expenditure that can increase an economy's capacity to produce goods and services, as well as an expenditure that will increase effective demand throughout society. Thus, if capital formation occurs in a certain period, then in the following period, the economy will have the ability to produce more goods and services.

Investment Theory

This theory developed based on the views of economic growth analyses, according to classical economists and developed in the 1950s. The pioneer of neo-classical economic theory was Robert Solow. His main ideas are outlined in a journal article entitled “A Contribution to the Theory of Economic Growth” (1956). Solow's partner was Trevor W. Swan, a prominent Australian economist known for his work “Economic Growth and Capital Accumulation” (1956). The development of neo-classical theory draws on the perspectives of classical economists.

According to the theory proposed by Solow-Swan, economic growth depends on the availability of production factors such as labor, capital accumulation, and population growth. The analysis underlying this theory assumes that the economy is in a state of full employment and full utilization of its production factors. This means that economic growth depends on capital accumulation, population growth, and technological progress. The capital-output ratio can vary to produce a certain amount of output, using different combinations of labor and capital. If a lot of labor is used, then less capital is needed. However, if a lot of capital is used, then less labor is needed.

According to this theory, interest rates and income levels will determine the level of savings. At a certain technical level, interest rates will determine investment. If opportunities for investment increase, for example, due to technological advances, the increased demand for investment will cause interest rates to rise, which in turn will increase the amount of savings. The increase in investment causes prices of goods to rise. The rise in prices and interest rates limits investment to projects with the highest profit margins. Ultimately, investment demand decreases, causing interest rates and prices of capital goods to fall again.

Keynes' Theory of Consumption

John Maynard Keynes' Consumer Expenditure Theory focuses on how household consumption expenditure is influenced by national income levels and other economic factors. In this theory, Keynes argues that consumer spending is not only determined by individual income levels, but also by psychological factors, expectations about the future, and economic uncertainty. Keynes developed this consumption theory in his book The General Theory of Employment, Interest, and Money (1936). The consumer spending theory he proposed includes several important concepts that describe the relationship between income and consumption.

One of the key concepts in Keynes' consumer spending theory is Marginal Consumption or Marginal Propensity to Consume (MPC), which refers to the proportion of each additional income that will be consumed by households. According to Keynes, even if a person's income increases, they will not spend all of that additional income on consumption. Part of this additional income will be saved. The keystone of Keynes' theory is that MPC tends to be higher for households with low incomes than for households with high incomes. In other words, consumers with low incomes tend to spend a larger proportion of their income on consumption, while those who are wealthier are more likely to save (Haryanto, 2013).

Trade Balance Theory

The trade balance, as the difference between a country's exports and imports, is the basis of the Classical Theory of International Trade proposed by Adam Smith and David Ricardo. This theory serves as the primary foundation for explaining why countries engage in trade and how the patterns of goods and services flows ultimately shape their trade balances.

Adam Smith, through the concept of absolute advantage, argued that a country would prosper if it focused on producing and exporting goods that it could produce at a lower absolute cost than other countries. Conversely, the country would import goods whose production costs were higher. This directly affects the composition of the trade balance, where surpluses tend to occur in sectors with absolute advantage.

Building on Smith's ideas, David Ricardo introduced a more revolutionary concept: comparative advantage. Ricardo demonstrated that international trade remains beneficial even if one country has an absolute advantage in producing all types of goods. What matters most is the opportunity cost of production. Each country will have a comparative advantage in producing goods with the lowest opportunity cost. By specializing in the production of these goods and exchanging them in the international market, both countries will gain greater benefits than if they tried to produce everything themselves. In the context of the balance of trade, Ricardo's theory explains that it is this specialization based on comparative advantage that drives the volume of exports and imports, resulting in a balance of trade structure where exports are dominated by comparatively efficient products and imports fill the needs that are inefficient to produce domestically.

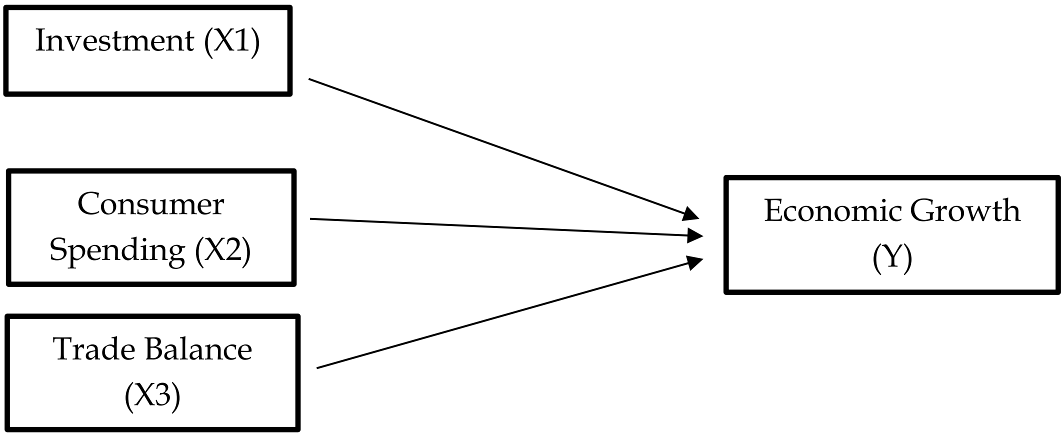


Figure 1. Conceptual Framework

METHODOLOGY

The researcher used a quantitative approach because the data used consisted of numbers. The research was conducted in East Java Province. The reason for conducting the research in this province was because East Java Province is one of the economic centers on the island of Java and has the highest economic growth rate on the island. The research timeline begins with the data collection period, which spans several years—the past 25 years from 1999 to 2023 and extends through the analysis and report writing phases, which may take several months. This study utilizes secondary data, which is data not sourced directly from primary sources but rather pre-existing data obtained from indirect sources.

Multiple Linear Regression Analysis

$Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + e$

Explanation:

Y: Economic growth

a: Constant

β1 , β2 , β3 : Independent variable coefficients

X1: Investment

X2: Consumer spending

X3: Trade

e: Error

$Y = 4.534 - 0.035\ X1 + 0.001\ X2 + 0.000\ X3$

β0: Constant equal to 4.534. If the values of Investment, Consumer Spending, and Trade Balance are zero, then economic growth is predicted to be 4.534%.

β1: Regression coefficient for investment equal to -0.035. For every 1% increase in investment, economic growth will decrease by 0.035%, assuming other variables remain constant. The negative sign indicates that the variable has an

inverse effect on economic growth; if investment increases, economic growth tends to decrease.
β2 = The regression coefficient for consumer spending is 0.001, meaning that every 1 Rp increase in consumer spending will increase economic growth by 0.001%. The positive sign indicates that the variable has a direct effect on economic growth. Thus, if consumer spending increases, economic growth tends to increase as well.
β3 = The regression coefficient for the trade balance is 0.000, meaning that every increase in the trade balance of 1 US dollar will decrease economic growth by 0.000 units. The positive sign indicates that the variable has a direct effect on economic growth; if the trade balance increases, economic growth tends to increase as well.

RESEARCH RESULT

Classical Assumption Test

1. Normality Test

The Normality Test aims to test whether the variables in the panel regression model are normally distributed or not. This test uses the Kolmogorov-Smirnov test based on the following assumptions:
a. If the probability value is > 0.05, the data is normally distributed
b. If the probability value is < 0.05, the data is not normally distributed

Table 1. Normality Test Results

a. Asymp.Sig.(2-Tailed)	Unstandardized Residual
	0.135

Source: Data processed using SPSS 27

2. Multicollinearity Test

Multicollinearity testing is one of the tests in regression analysis that aims to determine whether there is a very strong relationship (high correlation) between independent variables in a regression model. One way to detect the presence or absence of multicollinearity is to use the Tolerance & VIF method.

Table 2. Multicollinearity test results

Variabel	Tolerance	Terms	VIF	Terms	Description
Investasi (X1)	0.164	≥ 0,10	6.116	≤ 10	No Multicolineartity
Pengeluaran Konsumen (X2)	0.158	≥ 0,10	6.340	≤ 10	No Multicolineartity
Neraca Perdagangan (X3)	0.618	≥ 0,10	1.618	≤ 10	No Multicolineartity

3. Heteroscedasticity Test

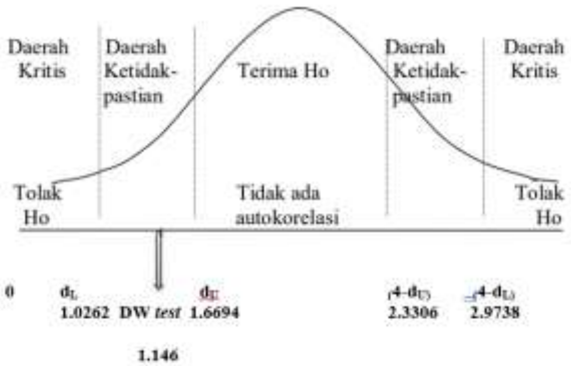
The heteroscedasticity test is one of the tests in regression analysis that aims to determine whether there is inequality in the variance (diversity) of the residuals in the regression model. The heteroscedasticity test in this study uses the Glejser test.

Table 3 Heteroscedasticity test results

Variabel (Y)	Sig 2-tailed (X1)	Sig 2-tailed (X2)	Sig 2-tailed (X3)	Terms	Condition
Economic Growth	0.683	0.462	0.501	≥ 0,05	No heteroscedasticity

4. *Autocorrelation Test*

The autocorrelation test is one of the classical assumption tests in regression analysis used to determine whether there is a relationship (correlation) between the residuals of one observation and the residuals of another, especially in time series data. If autocorrelation occurs, the regression results can be misleading because the standard error becomes invalid. The following are the results of this study conducted using the Durbin Watson test.



Based on the Durbin-Watson calculation results, the DW test value of 1.146 is between dL and dU, which is greater than 0. Thus, it can be interpreted that there is no autocorrelation in this test model because the DW test value is in the uncertainty region. To further confirm the presence or absence of autocorrelation in this study, the researcher conducted a Run test, with the following results:

Table 4. Autocorrelation Test Results

	Unstandardized Residual
Asymp. Sig. (2-tailed)	.668

From the table, the asymp.Sig. (2-tailed) value is 0.668, which is greater than 0.05, so we can conclude that there is no autocorrelation.

Hypothesis Testing

1. *T-test*

Table 5. T Test

Model	Statistic T	Sig
Investment	-76.714	0.001
Consumer Spending	27.094	0.001
Trade Balance	-170.873	0.001

2. ***F-Test***

Table 6. F Test

Model	df	F hitung	F tabel	Sig
Regression	3	11154.302	3.07	.001
Residual	21			
Total	24			

Based on the tests conducted, a sig value of 0.001<0.005 and an Fcount value of 11154.302>Ftable 3.07 were obtained, so it can be concluded that simultaneously, the independent variables (investment, consumer spending, and trade balance) affect the dependent variable (economic growth) in East Java province.

3. ***Coefficient of Determination***

R	R Square	Adjusted R Square
1.000[a]	0.999	0.999

Based on the results of the coefficient of determination test obtained from data processing using SPSS, it shows that the influence between the investment variable (X_1), consumer spending (X_2), and the trade balance (X_3) on economic growth (Y) yielded an adjusted R-square value of 0.999. Therefore, it can be concluded that the magnitude of the influence of the independent variables (X) on the dependent variable (Y) is 99%.

DISCUSSION

The Effect of Investment (X1) on Economic Growth (Y) in East Java

Based on the results of data analysis, the partial test shows that the investment variable has a significant negative effect on economic growth in East Java Province. This phenomenon can be explained by referring to the neo-classical investment theory developed by Robert Solow (Solow-Swan Model), which suggests several possible causes for this finding. First, high investment values do not necessarily reflect good investment quality. If investment is not directed toward productive sectors or experiences budget leaks, such as stalled or inefficient projects, its impact on economic growth can be negative. Second, foreign direct investment (FDI) may not contribute optimally to the local economy if it does not fully involve local labor or uses capital-intensive technology without significant multiplier effects.

Third, there is a possibility of investment distribution inequality, where investment funds are only absorbed in certain regions or sectors, such as the property or mining sectors, which have less of a broad impact on the economy as a whole. Finally, the lag effect must be considered, where the impact of an investment is not immediately visible in the current year but is only felt several years later.

The Effect of Consumer Expenditure (X2) on Economic Growth (Y) in East Java

Based on the data analysis, consumer expenditure has a simultaneous and partial effect, showing a significant positive influence on the dependent variable. This finding is consistent with the consumption theory proposed by John Maynard Keynes, which emphasizes the importance of consumer spending in driving economic growth. According to Keynes, consumer spending is greatly influenced by income levels, such that when income increases, consumers tend to increase their spending on consumption, although the increase in consumption is not as large as the increase in income itself.

The Impact of the Trade Balance (X3) on Economic Growth (Y) in East Java

The negative impact of the trade balance on economic growth can also be explained through the structure and quality of trade itself. One of the main causes may be the imbalance between exports and imports, where imports dominate the economy but have low added value. This means that although many imported goods enter the country, these goods are not productive capital goods that can drive growth (such as industrial machinery), but rather consumer goods that reduce demand for local products.

On the other hand, high exports do not necessarily drive growth if the types of goods exported have low added value, such as raw commodities or semi-finished goods. Such products contribute little to job creation and local community income. Furthermore, exports overly reliant on a single commodity can make the regional economy vulnerable to global price fluctuations, thereby failing to contribute stably to growth. When imports continue to increase without a corresponding increase in domestic production, domestic demand for local goods declines, domestic industries may be pressured, and this directly impacts the decline in GRDP. As a result, although the trade balance appears active in nominal terms (high exports), its contribution to real economic growth becomes negative in substance.

CONCLUSION

1. Simultaneously, the variables of investment, consumer spending, and trade balance have a significant effect on economic growth in East Java Province. This indicates that these three variables collectively have an important contribution in determining the direction of regional economic growth.
2. Partially, the investment variable has a negative and significant effect on economic growth. This result contradicts Robert Solow's neoclassical investment theory, which states that capital accumulation should drive growth. This negative impact can be explained by low-quality, uneven, or unproductive investments, as well as a lag effect that prevents the impact from being felt immediately.
3. The consumer spending variable has a positive and significant impact on economic growth. This finding is consistent with Keynes' consumption theory, which states that consumer spending is the main driver of economic growth, as it creates aggregate demand that triggers production and economic activity.

4. The trade balance variable has a negative and significant effect on economic growth. Although in theory exports can drive growth, this study found that high exports were not matched by growth in the productive sector.

RECOMMENDATION

1. For local governments, particularly the Province of East Java, it is recommended to be more selective in attracting and channeling investments. Investments should be directed toward productive and labor-intensive sectors that can have a tangible impact on economic growth and the well-being of the broader community. The government must also ensure that incoming investments are not only large in nominal terms but also of high quality and sustainable. Therefore, policies are needed to channel investments into productive real sectors that have a multiplier effect on the local economy.
2. Strengthening household purchasing power should be a priority, as consumer spending has proven to have a positive and significant impact on economic growth. Therefore, the government is expected to maintain price stability, expand job opportunities, and increase household income to ensure that household consumption remains stable.
3. The structure of foreign trade needs to be evaluated, particularly regarding the composition of exports and imports. Local governments should encourage exports of high-value-added goods and reduce dependence on raw material exports. On the other hand, imports of non-productive consumer goods should be controlled to avoid undermining the domestic industrial sector. This step is crucial to prevent negative effects such as the Dutch Disease, which could weaken the economy structurally.
4. For future researchers, it is recommended to add other variables that may also influence economic growth, such as government spending, education levels, or inflation. In addition, a time series approach with a longer time period or an inter-regional panel data model can also enrich the analysis results and provide a more comprehensive understanding.

ADVANCED RESEARCH

For further researchers, it is expected to use other variables that affect labor absorption. This research is certainly far from perfect, so further development is needed. The scope of the study should also be expanded by considering the actual conditions that are currently taking place, so that the research results can provide a more relevant and in-depth contribution to the sustainability of future studies.

REFERENCES

Afiftah, A. T., Juliprijanto, W., & Destiningsih, R. (2019). Analisis Pengaruh Pengeluaran Konsumsi Pemerintah Dan Pengeluaran Konsumsi Rumah Tangga Terhadap Pertumbuhan Ekonomi Di Indonesia Tahun 1988-2017. Dinamic: Directory Journal Of Economic, 1(2), 11–22.

Agung, Y. A. (2020). Pendapatan Nasional.

Arfiani, I. S. (2019). Analisis Empiris Hubungan Antara Ekspor, Impor, Nilai Tukar Dan Pertumbuhan Ekonomi Di Indonesia.

Billah, H. M. (2022). Pengaruh Pendapatan Asli Daerah, Dana Alokasi Umum, Inflasi, Dan Investasi Terhadap Pertumbuhan Ekonomi Di Kabupaten Sidoarjo.

Binti, M. T. (2016). Analisa Pengaruh Pertumbuhan Ekonomi Terhadap Penurunan Tingkat Kemiskinan Di Kalimantan Tengah.

Budiyanti Eka. (2017). Dampak Liberalisasi Perdagangan Terhadap Pertumbuhan Ekonomi Di Indonesia.

Deddy Rustiono, S. (2008). Analisis Pengaruh Investasi, Tenaga Kerja, Dan Pengeluaran Pemerintah Terhadap Pertumbuhan Ekonomi Di Propinsi Jawa Tengah.

Debby Christine. (2019). Pengaruh Profitabilitas, Leverage, Total Arus Kas Dan Ukuran Perusahaan Terhadap Financial Distress Pada Perusahaan Property Dan Real Estate Yang Terdaftar Di Bursa Efek Indonesia Tahun 2014-2017.

Dezta Maharani, N., Samsuddin, M. A., Ekonomi,), Ekonomi, F., & Bisnis, D. (n.d.). ANALISIS PENGARUH INVESTASI PENANAMAN MODAL ASING DAN PDRB TERHADAP PENGANGGURAN TERBUKA DI PROVINSI KALIMANTAN BARAT.

Fitriani, S. A., & Hakim, D. B. (2021). Analisis Kointegrasi Keterbukaan

Perdagangan Dan Pertumbuhan Ekonomi Di Indonesia. 12(2), 103 116. Https://Doi.Org/10.22212/Jekp.V12i1.2033

Haryanto, T. P. (2013). Pengaruh Pengeluaran Pemerintah Terhadap Pertumbuhan Ekonomi Kabupaten/Kota Di Provinsi Jawa Tengah Tahun 2007-2011.

Hasoloan, J. (2013). Peranan Perdagangan Internasional Dalam Produktifitas Dan Perekonomian.

Khairani Alawiyah Matondang, Fridayani M. Sitio, Putri Helena Lahagu, & Mhd Rifqi Farhan Hasibuan. (2024). Perbandingan Teoretis Keunggulan Absolut Dan Keunggulan Komparatif: Implikasi Bagi Kebijakan Perdagangan Internasional.

Lestari, H. P. (2022). Pengaruh Pengeluaran Konsumsi Rumah Tangga, Pengeluaran Pemerintah Dan Pendapatan Perkapita Terhadap Pertumbuhan Ekonomi Di Kabupaten Sidoarjo.

Lestari Sukarniati, F. L. N. Z. (2021). Ekonomi Pembangunan Teori dan Praktik di Negara Berkembang (Budi Ashari, Ed.).

Maria Elina, S. E. M. M. (2023). Buku Ajar Pengantar Ekonomi Pembangunan (S. E. , M. M.