



ANALYSIS OF INTERNASIONAL TRADE IN PROMOTING INDONESIA'S ECONOMIC GROWTH PERIOD 1975-2018

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KeyWords

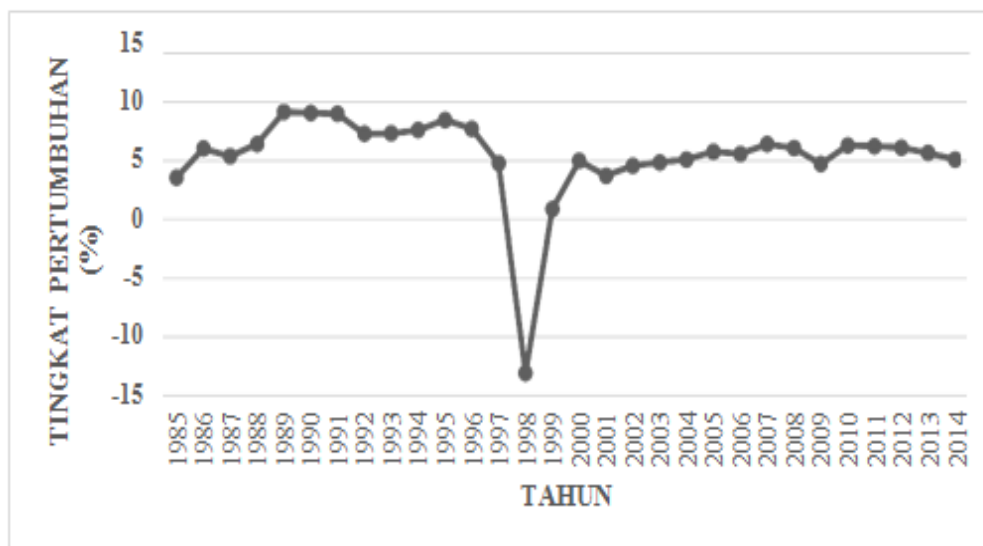
Exchange rates, world oil prices, economic growth, foreign investment, agricultural exports, industrial exports and imports

ABSTRACT

The welfare of the population in Indonesia can be measured through the level of economic growth (GDP). The open economy implemented in Indonesia indicates trade between countries, which in turn has an impact on the rupiah exchange rate, export-import activities, world oil prices, and foreign investment to carry out a policy. As a result of the existence of a trade war between China and America that made Indonesia's economic growth also affected. This study aims to examine how the influence of the exchange rate, world oil prices, China's economic growth, American economic growth, and foreign investment on the level of economic growth in Indonesia through agricultural exports, industrial exports and imports. The data used is the annual time series from 1975 to 2018. In this study using the method of simultaneous regression analysis with E-views program 8. The results of this study indicate that all variables have a significant effect on the level of economic growth in Indonesia except American economic growth. This study suggests that the policies undertaken can stabilize the exchange rate of the rupiah, investment, international trade which in turn has an impact on productivity so that it can increase Indonesia's economic growth.

I. Introduction

Overall economic growth in Indonesia since 1975 has fluctuated, the lowest peak in 1998 of -13.12% due to the impact of the economic crisis due to the weakening of the Thai bath exchange rate against the US dollar which subsequently impacted on the depreciation of a number of currencies in ASEAN countries including the exchange rate, then in the following years economic growth in Indonesia continued to show a positive trend, although it had declined by 4.63% in 2009 due to the impact of the global crisis that occurred in 2008, then in 2010 it increased to by 6.38% but since 2011 economic growth in the State of Indonesia has continued to decline steadily until 2018 to 5.04%. Growth during the New Order government in the 1970s to the mid 1980s reached an average of more than 7% per year, followed by accelerated growth in the manufacturing sector. At that time, the manufacturing sector grew to reach more than 14% per year on average. Conversely, a slowdown in national economic growth that occurred in the mid-1980s, due to falling international oil prices, also caused a slowdown in the manufacturing sector. Luckily, this slowdown did not last long.



Source: *World Development Index*, 2014

Graph 1.1 Growth of Indonesia Year 1985-2014

Economic growth in the country of Indonesia since 1985 can be seen in Graph 1.1 which overall experienced fluctuations, the lowest peak of -13.12% in 1998 due to the impact of the economic crisis due to the weakening of the Thai bath exchange rate against the US dollar which subsequently had an impact on the depreciation of a number of eyes money in ASEAN countries including the exchange rate. Then in the following years economic growth in Indonesia increasingly showed a positive trend, although it had declined by 4.62% in 2009 due to the impact of the global crisis that occurred in 2008. But thanks to the experience of the crisis in 1998, the Government has pursued four policy steps, namely: recovery of private demand, restoration of public confidence, improvement of an efficient banking system and resolution of corporate debt. The result is that until 2008, much progress has been made. These situations include, among others, Indonesia's economic growth in the path of more than 6%, accompanied by an increase in per capita income, sources of growth are increasingly reliant on domestic sources, macroeconomic risk is decreasing and banking is much healthier.

Increased economic growth is an increase in investment which is the key to spurring Indonesia's competitiveness to be more competitive both regionally and globally. In this case, the manufacturing industry plays an important role because it has become a major driver for the economy. The Ministry of Industry noted, the total investment value realization in the manufacturing industry sector in 2018 reached Rp222.3 trillion. Over the past four years, exports from the non-oil and gas processing industry have continued to increase. In 2015, the export value of manufactured products reached USD108.6 billion, rising to USD110.5 billion in 2016. In 2017, non-oil and gas exports were recorded at USD125.1 billion, surging to USD130 billion in 2018 or an increase of 3.98 percent. The increased demand for imports, especially raw materials and capital goods, is in line with the increased investment enthusiasm.

Agricultural export commodities, for example plantation products are one of the agricultural sub-sector production which can be developed into a mainstay sector for foreign exchange income for the country and at the same time can be used as an effort to empower the people's economy. Optimization of resources must be done efficiently so that the quantity and price of products produced can compete, both in the domestic market and in foreign markets.

Exports of Indonesian manufacturing industry products still rely on raw materials and imported capital goods. This causes the efficiency of the products of the manufacturing industry to remain low, and therefore needs to always be considered especially in terms of production efficiency. Although in reality it is still difficult to get out of dependence on imported raw materials and capital goods, but efforts must be made to reduce these imported raw materials and capital goods. If not, then this problem will continue to hamper the progress of the industrial sector in general into the future because it is unable to compete. As a result, not only is there an increase in the use of foreign exchange to import products, but more importantly, it will push production businesses in Indonesia to become markets or consumers of other countries' products in their own country.

After the 1997 economic crisis, the national economy stagnated for the next two to three years. Since the early 2000s, the State of China has recorded high economic growth mainly driven by the progress of its various manufacturing industries. Industrial growth in China is sustained by two factors, namely iron and steel supply, and fuel supply, namely coal. The Chinese state actually has its own coal, but because its various industries are developing faster than the ability of mining companies in China to extract coal, it is

necessary to import coal from outside, one from Indonesia. In order to advance the level of welfare of the population, Indonesia wants to try to build its nation as an independent nation, without assistance from other countries, but in fact it is difficult for Indonesia to continue to survive in the midst of the rapidly growing globalization flow. Under these conditions, Indonesia was finally forced to go along with the flow, which was trying to open up by establishing cooperation with other countries such as conducting international trade, two of which were China and the United States.

One sector that contributes greatly to Indonesia's GDP is the oil and gas sector. The oil and gas sector contributes significantly to Indonesia's economic development (Anwar and Senyonga, 2007). The contribution of the oil and gas industry to the national Gross Domestic Product (GDP) reached US \$ 23.7 billion or 3.3% of the national GDP. The oil and gas sector and all supporting sectors can contribute 62.67% of GDP.

The increase in world oil prices makes the export value of oil producing countries (developing countries) rise, while for importing countries (developed countries) means an increase in production costs. Indonesia's export performance in 2016 has not fully recovered after experiencing a trade balance deficit in several years. This trade balance deficit was helped by Indonesia's palm oil commodity exports. However, at present, the recovery of the crisis of the European Union and the United States of America shows a slow improvement trend coupled with a downward trend in commodity prices on the international market (Yusgiantoro, 2009).

II. Theoretical Review

The exchange rate is the value of a country's currency expressed in the value of another country's currency or the amount of needed to obtain a unit of foreign currency (Sukirno, 1994). Uncontrolled exchange rate fluctuations will cause difficulties in setting policies, especially for businesses that bring in raw materials from abroad or for those who sell their goods on the export market, therefore the policy on currency values to remain in a stable position is one of monetary factors that support the macro economy (Pohan, 2008). Depreciation of the exchange rate will cause the price of foreign goods to be relatively higher than domestic goods. This will increase demand for domestic goods both from domestic demand and from foreign demand for exports which will then trigger domestic productivity so that it can increase output and have an impact on economic growth.

The increase in world oil prices should have an impact on the appreciation of the domestic currency for the group of oil exporting countries and vice versa resulting in the depreciation of the domestic currency for oil importing countries. The greater a country's demand for crude oil to meet its needs, the higher the country's imports so that its trade balance will decline. Conversely, the greater a country's supply of crude oil, the country's oil exports will experience an increase in its trade balance (Afsi Nizar, 2012). A country's energy needs are closely related to the population and level of development, especially industrial development. Current world energy needs are still very dependent on fossil fuels, especially petroleum, this has caused world oil prices to become very important in the trade sector, given the uneven distribution of oil reserves in the world. World oil prices are formed due to the demand and supply of world oil commodities. Many countries are still dependent on other countries to fulfill the oil supply. The difference between oil exports and imports will affect the balance of changes in a country's foreign exchange reserves. If the supply of oil is greater than the demand for oil, it means that the position of the foreign exchange reserve is positive so that it influences the supply of foreign exchange which is higher than the demand for foreign exchange. With enough foreign currencies owned by a country, the domestic exchange rate will be relatively stable due to the positive influence that the government is able to control the exchange rate with sufficient foreign exchange reserves. Therefore, it is very possible for one of the world's oil producing countries, one of which is Indonesia, to obtain multiple benefits from oil exports when world oil prices increase so that it can increase economic growth (GDP).

The linkage of a country's foreign trade activities to the economic growth achieved, can be explained from two sides namely first, how the economic growth created affects the country's trade activities, and second, how the results of trade activities contribute to economic growth. International trade is a motor of growth. Ricardo, one of the classic writers developed the theory of comparative advantage. The essence of this theory is that each country will export goods that have a comparative advantage, that is, goods that can be produced using the factors of production owned by the country in large quantities and import goods with comparative advantages are small. Both countries will benefit from trade. Thus the role of international trade in economic growth is quite large. The increase in trade will enlarge the potential for economic growth. Analysis of the theory relating to exports and economic growth is basically one aspect of economics that provokes quite a long debate. The debates that took place included the hypothesis of export led growth and growth driven exports which questioned whether exports affected economic growth or vice versa economic growth itself that affected exports. The debate about the hypothesis of export led growth and growth driven exports which ultimately obtained a middle ground, among others; (1) Exports will affect economic growth, especially in the case of developing or poor countries which are in dire need of foreign exchange to import capital goods for domestic production. (2) Growth will affect exports in the case of countries that have a comparative advantage in certain trade commodities so that they are able to produce more than they consume (experiencing a surplus in exports). In the case of these countries, economic growth will affect export development.

Investment is one of the most important variables in driving a country's economy. Therefore the governments of each country, both developing and developed countries continue to strive to increase investment in their countries. This explains that in-

vestment is one of the important variables in increasing a country's economic growth. (Hasibuan, 1990). There are three main factors in economic growth, namely: first, capital accumulation, which includes all forms or types of new investments which are black, physical equipment and capital or human resources. Second, population growth, which in the next few years will increase the number of the workforce. And third, technological progress (Todaro, 2000). From these three factors, it can be concluded that the source of economic progress can include a variety of factors. In general it can be said that the main source of economic growth is investment that is able to improve the quality of capital and human and physical resources which will further improve the quality of productive resources and which can increase the productivity of all resources through new discoveries, innovations, and technological advancements (Solomon, 2007).

The increase in production in the manufacturing industry sector is stated to be equal to the number of 4 factors, among others; The increase in domestic demand, which includes direct demand for manufactured industrial products plus the indirect effect of increasing domestic demand for other sectors of the product on the manufacturing industry sector, expansion of exports (growth and diversification) or the total effect of an increase in total exports of manufactured industrial products, Import substitution or the total effect of the increase in the proportion of demand in each sector that is met through domestic production on the output of manufacturing industry, technological changes or the total effect of changes in the input-output coefficient in the economy due to wage increases and the level of income of the manufacturing industry sector.

Harrod and Domar provide a key role for investment in the process of economic growth, especially regarding the dual character of investment. First, investment creates income, and second, investment increases the production capacity of the economy by increasing the capital stock. The first character can be referred to as the demand impact and the second as the investment supply effect, therefore as long as the net investment continues, real income and output will continue to increase (Jhingan, 1994). For many countries including Indonesia, foreign trade, especially exports, has a very strategic role, because exports can be a driving force for the national economy. Exports generate important foreign exchange to finance imports, namely imports of raw and auxiliary materials, and capital goods. These import activities can increase investment or investment both domestically and from abroad. Because through trade relations can occur, an exporter country establishes its company in the importer country through direct investment (Tambunan, 2001). When investment increases, production activities will increase and followed by the creation of employment opportunities in the country so that people's income increases and economic growth occurs next will encourage economic development (Alguacil and Orts, 2001).

III. Research methods

The data collection technique used is library research in which library research is a research method for obtaining information from the literature related to this research, such as research journals, theses, dissertations and other publications relating to this research. Data collection techniques used are direct recording in the form of time series data (time series) within a period of 45 years (1975-2018).

Data analysis technique used for this research model is the analysis of Simultaneous Equation Regression using Eviews-8 software. To estimate the relationship between variables that have been predetermined based on theory. First, the data is processed to be presented as a description and general description for research and simultaneous regression equation analysis. Second, Simultaneous equation regression analysis that will be estimated according to the Reduced Form coefficient. Third, the results of the estimation of the Reduced Form 5 coefficient of simultaneous equations will be analyzed both in the form of direct and indirect relationships with (significant level $\alpha = 0.05$) a number of implications and recommendations as the findings of this study.

The Equation Model of this research can be seen from the following equation:

$$\begin{aligned} Y_1 &= f(X_1, X_2, X_3, X_4, X_5) \\ Y_2 &= f(X_1, X_2, X_3, X_4, X_5) \\ Y_3 &= f(X_1, X_2, X_3, X_4, X_5) \\ Y_4 &= f(Y_1, Y_2, Y_3,) \end{aligned}$$

Where:

- X1 = Exchange Rate (Rupiah / USD)
- X2 = World Oil Prices (Prices)
- X3 = Chinese Economic Growth (Real GDP)
- X4 = United States Economic Growth (Real GDP)
- X5 = Foreign Investment (Billion Rupiah)
- Y1 = Agricultural Export (US \$)
- Y2 = Manufacturing Industry Exports (US \$)
- Y3 = Import (US \$ million)
- Y4 = Indonesian Economic Growth (Real GDP)

IV. Result and Discussion

Describe the results of the research to be obtained, first carried out the method of analysis and hypothesis testing. This is intended to outline the stages in analyzing data with certain methods that will be used to answer the formulation of the problem followed by testing the research hypothesis. Data analysis method in this research is time series regression analysis using eviews-8 software to produce an estimation model.

Description of the results of the study of the relationship between the effects of exchange rates, world oil prices, economic growth in China, economic growth in the United States and foreign investment respectively to economic growth through agricultural exports, industrial exports and imports in 1975-2018 can be shown in the table 1:

Table 1 Results of the Analysis of Relationships Between Variables

Variable Relationship	Coefficients	Prob.	Standar Error	t-Statistic
(X ₁) → (Y ₁)	-4.304576***	0.0202	1.834675	-2.346234
(X ₂) → (Y ₁)	1.231049	0.3090	1.206211	1.020591
(X ₃) → (Y ₁)	-2.268087	0.4561	3.035506	-0.747186
(X ₄) → (Y ₁)	19.16559	0.2633	17.06945	1.122801
(X ₅) → (Y ₁)	-1.478253***	0.0200	0.628592	-2.35169
(X ₁) → (Y ₂)	8.221604*	0.0830	4.711889	1.744864
(X ₂) → (Y ₂)	-7.019524***	0.0248	3.097843	-2.265939
(X ₃) → (Y ₂)	-19.11379***	0.0153	7.795913	-2.451771
(X ₄) → (Y ₂)	50.6105	0.2501	43.83848	1.154476
(X ₅) → (Y ₂)	8.777455***	0.0000	1.614376	5.437057
(X ₁) → (Y ₃)	-0.505345***	0.0010	0.150618	-3.355136
(X ₂) → (Y ₃)	0.173018*	0.0826	0.099024	1.747227
(X ₃) → (Y ₃)	1.263131***	0.0000	0.249201	5.068722
(X ₄) → (Y ₃)	-1.603168	0.2544	1.401323	-1.144039
(X ₅) → (Y ₃)	0.139766***	0.0075	0.051604	2.7084
(Y ₁) → (Y ₄)	0.005752	0.3505	0.006142	0.936492
(Y ₂) → (Y ₄)	0.007422***	0.0000	0.001218	6.094283
(Y ₃) → (Y ₄)	0.519092***	0.0000	0.018175	28.5606

Information:

*** significant $\alpha = 1\%$

** significant $\alpha = 5\%$

* significant $\alpha = 10\%$

a. The effects of Exchange Rates on Indonesia's Economic Growth

Regression results show that the rupiah exchange rate significantly influences the level of economic growth in Indonesia. The depreciation of the exchange rate will cause the price of foreign goods to be relatively higher than domestic goods. This will increase the demand for domestic goods both from domestic demand and from foreign demand for exports which will then trigger domestic productivity so as to increase output and have an impact on economic growth. The exchange rate on Indonesia's economic growth through industrial exports and imports most effectively affects economic growth compared to those originating from agricultural exports, in the sense that changes that occur in economic growth are strongly influenced or are very sensitive to changes in industrial exports and imports compared to the effects of exports agriculture.

b. The Effects of World Oil Prices on Economic Growth Indonesia

Analysis shows that world oil prices have a significantly positive effect on the level of economic growth in Indonesia through industrial exports and imports. And no significant effect through agricultural exports. The world's energy needs are still very dependent on fossil fuels, especially petroleum. Oil is a non-renewable energy resource, this has caused world oil prices to become very important in the trade sector (exports and imports), given the uneven distribution of oil reserves in the world. World oil prices are formed due to the demand and supply of world oil commodities. Many countries are still dependent on other countries to fulfill the oil supply. World oil prices are directly proportional to economic growth, rising world oil prices also affect the increase in economic growth.

c. The Effect of Chinese Economic Growth on Indonesian Economic Growth

As a result of the slowdown in the Chinese economy, Indonesia's exports have been reduced, not only exports, import performance is also expected to slow down compared to last year, which is estimated to grow around 22 percent. For non-

oil and gas imports, the decline in import growth was due to the downward trend in world oil prices after reaching the highest price in mid-2018 which reached 80 US dollars per barrel, while non-oil and gas imports were influenced by investment activities.

In the short term, the slowdown in the Chinese economy which will impact Indonesia's export performance will not have much effect on Indonesia's overall GDP growth. But if it continues, a slowdown in the Chinese economy could prevent Indonesia from achieving higher growth targets. To achieve high growth the two drivers are investment and exports.

d. The Effect of Growth of the American Economy on Indonesia's Economic Growth

Regression results show that the estimated economic growth of the American economy shows no significant effect on Indonesia's economic growth through agricultural exports, industrial exports and imports. This means that any changes to the increase or decrease in American economic growth will not have an impact on Indonesia's economic growth. At present, Indonesia's trade conditions are highly dependent on the United States and China. But the existence of a trade war between the two countries had an impact on the weakening of the US economy. As is known, the country is the country with the largest economy in the world. As a result, the economic downturn of both the US and China affected the entire economy of other countries, including Indonesia. However, the estimation results show that Indonesia's economic growth has no effect on US economic growth through agricultural exports, industrial exports and imports

e. The effects of Foreign Investment on Growth Indonesian economy

Analysis shows that foreign investment on Indonesia's economic growth through industrial exports and imports has a positive effect, and a negative effect through agricultural exports because FDI in Indonesia in the period 1975-2018 has a not too large contribution to GDP. So that the impact on the small influence given by PMA to changes in GDP. In theory, the correlation between investment and economic growth is explained in the Harrod-Domar economic growth model, namely the development of Keynes's theory, which emphasizes the role of savings and investment in determining economic growth. The more savings and investment, the faster the economy will grow. Basically, the entry of foreign investment from other countries provides its own opportunities for developing countries to support development.

This author's findings are in line with the findings put forward by Ditha Rima Kurniasari regarding Analysis of the effect of Investment, Inflation, Rupiah Exchange Rate, and Interest Rate on Indonesia's economic growth. With 15-year secondary data (1996-2009). The results of the study stated that investment significantly influenced the dependent variable of Economic Growth.

Conclusion

The exchange rate, world oil prices, economic growth in China and foreign investment indirectly have a positive effect on Indonesia's economic growth through manufacturing exports and imports. But the exchange rate has a negative effect on Indonesia's economic growth through agricultural exports. while the growth of the American economy does not affect Indonesia's economic growth.

References

- [1] Afdi, Nizar. 2012. *Perencanaan Pembangunan Di Indonesia, Konsep, Model, Kebijakan, Instrumen Serta Strategi*. Airlangga University Press.
- [2] Arsyad. 1997. *Ekonomi Pembangunan*. Yogyakarta: STIE YKPN.
- [3] Anwar & Senyoanga. 2007. *Ekonomi Internasional*. Edisi kedelapan. Terjemahan. Jakarta: Erlangga.
- [4] Goeltom, 1998. *Manajemen Nilai Tukar di Indonesia*. Buletin Ekonomi Moneter dan Perbankan, vol.1 no.2.
- [5] Irham dan Yogi, 2003, *Ekspor di Indonesia*, Pustaka Binaman, Cetakan Pertama, Pressindo, Jakarta.
- [6] Jhingan, M.L. 2008. *Ekonomi Pembangunan dan Perencanaan*. Ed 1. (D. Guritno). Jakarta:Raja Grafindo Persada.
- [7] Krugman, P.R dan O. Maurice. 2004. *Teori dan Kebijakan Ekonomi Internasional*. Edisi Kelima. Jilid 1. Jakarta
- [8] Kuncoro. 1997. *Export-Led Growth Hypothesis in Malaysia: An Investigation Using Bounds Test*". *Sunway Academic Journal*, 2: 13-22.
- [9] Kusukio, 2007. *Faktor-faktor yang Mempengaruhi Impor Bahan Baku Indonesia*. FE Udayana: Denpasar.
- [10] Mankiw, Gregory N. 2006. *Teori Makroekonomi*. 6th Edition. Nurmawan [penerjemah]. Erlangga, Jakarta.
- [11] Mishkin. 2009. *The Economic Of Money, Banking And Financial Market*. Seventh Edition. Colombia: Colombia University: Addison Welsey: Longman Inc.
- [12] Oiconta, N. 2006. *Analisis Ekspor dan Output Nasional di Indonesia: Periode 1980 – 2004 Kajian Tentang Kausalitas dan Kointegrasi*. Tesis. Universitas Indonesia, Depok.
- [13] Pasaribu, R. 2014. *Teori Ekonomi Klasik Vs Keynesian*. Universitas Gunadarma.
- [14] Peter. 2000. *Strategi Bersaing: Teknis Menganalisis Industri dan Pesaing*. Jakarta: Erlangga..
- [15] Pohan, Aulia. 2008. *Potret Kebijakan Moneter Indonesia*. Cetakan Pertama. Pt Raja Grafindo. Jakarta.
- [16] Rustiono, D. 2008. *Analisis Pengaruh Investasi, Tenaga Kerja, Dan Pengeluaran Pemerintah Terhadap Pertumbuhan Ekonomi Di Provinsi Jawa Tengah*. Magister Ilmu Ekonomi Dan Studi Pembangunan Universitas Diponegoro Semarang.
- [17] Salvatore, D. 1970. *Ekonomi Internasional Edisi Kelima*. Penerjemah Haris Munandar. Erlangga, Jakarta.
- [18] Shone R, 1989. *Peranan Perdagangan Internasional Sebagai Salah Satu Sumber Pertumbuhan Ekonomi Indonesia*. www.pasekon.ui.ac.id/sem3/pdf/uswatun%20hasanah.pdf.

- [19] Simorangkir, dkk. 2004. Sistem dan Kebijakan Nilai Tukar. Seri Kebanksentralan No. 12. Jakarta: PPSK Bank Indonesia.
- [20] Soekartawi. 1991. Ekonometri. Jakarta: Ghalia Indonesia
- [21] Sukirno, S. 2003, Pengantar Teori Mikro Ekonomi, Edisi Ketiga, PT. Raja Grafindo Perkasa, Jakarta.
- [22] Sukirno, S. 2004. Makroekonomi Teori Pengantar. PT Raja Grafindo Perkasa, Jakarta.
- [23] Suryana, 2000. Ekonomi Pembangunan Problematika dan Pendekatan. Jakarta: Salemba Empat.
- [24] Todaro, M.P & Stephen C. Smith. 2004. Pembangunan Ekonomi di Dunia Ketiga. Edisi Kedelapan. Jakarta: Erlangga.
- [25] Yusciantoro, 2009. Trade Openness and Economic Growth: A Cross-Country Empirical Investigation. Journal of Development Economics.

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