DETERMINANTS OF INDONESIAN GOVERNMENT EXPENDITURE 1990-2020

Fika Rizki Nandatari [1], Riska Alfina Yulianti [2], Diyah Saras Wati [3], Nunung Zahrotul Hayat [4], Eva Virda Yanti [5], Firsty Ramadhona Amalia Lubis [6], Lestari Sukarniati [7], Nurul Azizah Az Zakiyyah [8]
Ahmad Dahlan University
E-mail: fika1900010005@webmail.uad.ac.id, riska1900010006@webmail.uad.ac.id, diyah1900010045@webmail.uad.ac.id, nunung1900010023@webmail.uad.ac.id, eva1900010013@webmail.uad.ac.id, firsty.ramadhona@ep.uad.ac.id, lestari.sukarniati@ep.uad.ac.id, nurul.azzakiyyah@ep.uad.ac.id

ABSTRACT

This research was conducted to determine the effect and relationship between exchange rate, GDP, inflation, exports and foreign exchange on Indonesian government expenditure in 1990-2020. The data used in this study is annual data or time series. The data in this study were obtained from Bank Indonesia, the World Bank, the Central Statistics Agency and the Indonesian Ministry of Finance. This study uses the Autoregressive Distributed Lag Model (ARDL) method and is processed using Eviews10 software. By using the Maximum Lag Dependent lag of 2. The value of the ECM (Error Correction Regression) test results shows that there is an effect in the short term. From the R-square value, all variables have a correlation of 99% and as much as 1% of the data is explained by variables outside the study. While the results of the test using the ARDL method, the variables that have a long-term effect on government spending are the exchange rate and Gross Domestic Product (GDP).

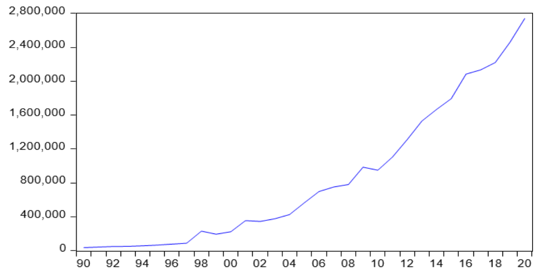
Keywords *: Government Expenditure, Exchange Rate, GDP, Inflation, Exsport, Foreign Exchange Rate*

INTRODUCTION

Indonesia is one of the developing countries that continues to strive to improve development in various aspects such as education, health, transportation, infrastructure and so on. To meet all these needs, the government carries out state expenditures. Government expenditure or government expenditure is a reflection of government policies. If the government has given and decided a policy to buy goods or services, then the government's expenditure on the state expenditure is a cost that must be spent to implement a policy. In the macro scope, government expenditure is one of the variables forming Gross Domestic Product (GDP) apart from the demand in the household sector for consumption goods or services (C), business demand for investment goods (I), government spending for expenditure on goods and services (G) and expenditure on the foreign sector in export and import activities (X-M) which can be systematically formulated by:

$$Y = C + 1 + G + (X-M).$$

Government spending policy or good government is one part of fiscal policy that is part of government intervention in the economy. The function that can be done is to suppress government spending or spending. Therefore, the government can make state expenditures to obtain goods and services in order to meet public needs with the mechanism for the procurement of goods and services.

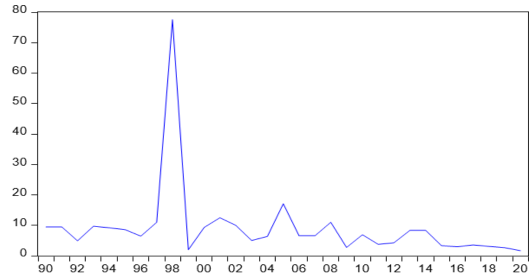


Sumber data: https://www.kemenkeu.go.id/. diolah eviews 10

Figure 1. Indonesian Government Expenditures 1990-2020
PP

The graph above shows that the number of Indonesian government expenditures from 1990 to 2020 is increasing. In 1997, government expenditures amounted to Rp. 89,391 billion, then in 1998 there was a significant increase in the amount of Rp. 230,627 billion. This drastic increase was due to the crisis during the New Order in which the management of state finances was deemed inappropriate. Meanwhile, in 2019 government spending was Rp. 2,461.112 Trillion. Then in 2020 it increased to IDR 2,739,166 Trillion. The increase in government spending in 2020 was caused by the Covid-19 pandemic that occurred in several countries in the world, including Indonesia. The pandemic caused the economy and health to decline. Therefore, the government increases state spending or spending to provide additional budgets in the aspects of health, social assistance, industrial support to overcome the Covid-19 pandemic.

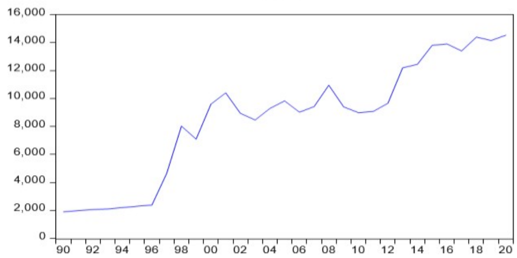
The increase in government spending by the Indonesian government in 1998 and 2020 was caused by external factors and the crisis. In addition, the increase in government spending can also be caused by inflation. Because fluctuating inflation can affect the rate of economic growth due to a high percentage of inflation rate can have a negative effect on the macro economy.



Sumber data: Badan Pusat Statistik Indonesia, diolah Eviews 10

Figure 2. Inflation in Indonesia in 1990-2020 INF

The graph above shows that the inflation rate in Indonesia from 1990 to 2020 continues to fluctuate. However, the highest inflation rate occurred in 1998 where the inflation rate reached 77.6%. The very sharp increase in the inflation rate was due to the monetary crisis during the New Order era which caused the rupiah exchange rate to depreciate. While in 2020 the lowest inflation occurred at 1.7%. The low inflation was due to weakening domestic demand due to the Covid-19 pandemic.



Sumber data : Bank Indonesia, diolah Eviews 10

Figure 3. The Exchange Rate of the Rupiah Against the US Dollar in 1990-2020

The graph above shows the exchange rate or exchange rate in Indonesia from time to time has increased and also fluctuated. However, the highest increase was in the period from 1996 to 1998. In 1997 the exchange rate was Rp. 4,600 and then increased in 1998 to Rp. 8,025. The sharp increase in the exchange rate was caused by the monetary crisis that occurred during the New Order. Whereas. in other years, fluctuations in exchange rates may be caused by inflation, policies taken by the government, differences in interest rates, changes in balance of payments activity and exchange rate expectations that may occur in the future.

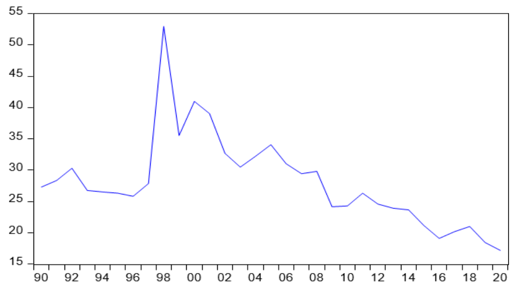


Figure 4. Exports of Goods and Services (% of GDP)

In the graph above, it can be seen that the percentage of the value of exports of goods and services in Indonesia to Gross Domestic Product (GDP) is experiencing a fluctuating trend. The downward trend occurred starting in 1998. Where in 1997 the percentage of export value was 27.9% then increased in 1998 to 53% of GDP. in 2016 which reached 19.1%. Meanwhile, the lowest percentage of the value of exports of goods and services occurred in 2020 which reached 17.2%. This low percentage in 2020 was caused by the weakening of the domestic and foreign economy caused by the Covid-19 Pandemic. The value of Indonesia's exports of goods and services in nominal terms has increased. However, based on the percentage of exports of goods and services to Gross Domestic Product from time to time, there is a downward trend in line with domestic economic growth.

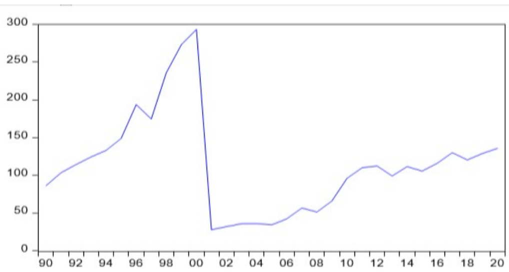


Figure.5 Indonesia's Foreign Exchange Reserves (Billion USD)

Based on the graph above, it shows that the development of Indonesia's foreign exchange reserves from 1990 to 2016 was relatively increasing. In 1996 Indonesia's foreign exchange reserves amounted to 193.9 billion USD. Then in 1997 it decreased due to the economic crisis originating from Thailand which resulted in the depreciation of the rupiah exchange rate so that the demand for money against the rupiah decreased. This has made foreign exchange reserves in 1997 amounted to 174.9 billion USD. Meanwhile, a very significant decrease occurred in 2001 where in 2000 foreign exchange reserves of 293.5 billion USD decreased in 2001 to 28.1 billion USD. The decline in foreign exchange reserves was due to the payment of foreign debt and a decrease in Indonesia's net exports. In 2008 foreign exchange reserves amounted to 51.7 billion USD. This value is lower or its value decreased compared to the previous year due to the global economic crisis originating in America.

Based on the explanation of the background above, there is a need for research to analyze what determinants can have an influence on the level of Indonesian government spending in 1990-2020. Therefore, the author raised the title "Analysis of Determinants of Indonesian Government Expenditures in 1990-2020".

THEORETICAL BASIS

Government Expenditure

Government expenditure is state expenditure which consists of capital, consumption and services. Government spending is the use of state costs and resources used to finance state or government activities to realize overall welfare. Rostow and Musgrave put forward a theory that government spending is divided into 3, namely the first is the initial stage where at this stage the government focuses on the percentage of investment because at this early stage the government is required to provide facilities and infrastructure such as education, health, infrastructure and transportation facilities. In the middle stage, private investment is increasing, therefore, the government tries to provide public goods or services in greater quantities so as not to cause market failure. Then at an advanced stage of development it is no longer providing infrastructure. However, expenditures for the provision of social service programs are within the scope of community life.

There is a theory of government spending that can be explained through the identity of the national income balance, namely Y = C + I + G + (X-M) as the relevance of the government's role in the sustainability of economic growth. Based on this equation, it can be concluded that if spending increases or decreases, it will affect the level of national acceptance. Therefore, the government makes decisions regarding government spending or spending with many considerations and calculations.

In macro theory, government spending has 3 objectives that focus on:
a. Government spending is used to purchase goods or services;
b. Government spending to pay employee salaries;
c. Government expenditure used for transfer payments.

Indonesian government spending is not only a major element in the financing of social programs. However, it also plays a role in increasing and maintaining aggregate expenditure and the country's economic growth. Government expenditure comes from domestic revenues including grants.

Kurs

The exchange rate or exchange rate is a comparison between the value of the currency in a country against the value of the currency of a foreign country. Exchange rate (exchange rate) is an exchange activity between 2 different currencies. The exchange rate changes in the form of appreciation and depreciation. Appreciation is when the value of the Rupiah strengthens against the US Dollar. Meanwhile, depreciation is a decrease in the value of the Rupiah against the value of the US Dollar.

The exchange rate system or exchange rate can be divided into 4, namely:

1) Fixed Exchange Rate, this fixed exchange rate system where the exchange rate is in a constant state and is given the freedom to fluctuate within certain limits.

2) Freely Floating Exchange Rate, this system allows the exchange rate to float freely and is determined by market mechanisms without government intervention.

3) Manage Float Exchange Rate, in this system the exchange rate is in a position between a fixed exchange rate and a free floating exchange rate. This can cause currency values to fluctuate in a short period of time.

4) Pegged Exchange Rate, in countries that implement this system will determine the value of the domestic currency with the value of foreign currencies or other countries such as the US Dollar. Therefore, the value of the currency will become more stable.

The balance of currency exchange rates will continue to trend fluctuations or changes from time to time depending on changes that occur in the demand or supply of the currency. Factors that can affect the demand and supply of the currency. This will also have an effect on fluctuations in the exchange rate of the currency. Several factors can affect changes in currency exchange rates, namely: inflation rates, interest rates, income levels or revenues of a country and the role of the government in controlling currency exchange rates.

Gross Domestic Product (GDP)

Gross Domestic Product (GDP) is one of the indicators in the economy of a country. GDP is a measuring tool for the overall income of goods or services at the end of the period, where the total value of the production of goods and services that occur within a predetermined time and territorial boundaries of the country. The overall market value of goods and services has an impact on the exchange rate or exchange rate.This is in accordance with the Keynes approach where if income increases it will increase a country's imports.

Inflation

Inflation is the tendency of prices to increase continuously. The increase in price in question is an increase in a price which results in some of the prices of other goods also increasing (Boediono, 1997: 55). Inflation is a percentage of how quickly prices increase over a certain period of time. The percentage of inflation is used to measure the severity of the economic problems faced by a country. In countries with rapidly developing economies, it is impossible to avoid a low inflation rate with a range of 2% to 4%. However, it is possible that in the event of economic instability, inflation could increase and be very high in the range of 5% to 10% or even more.

So inflation is a condition when prices have increased sharply (absolutely) continuously over a long period of time. Along with increasing the price, the value of the currency decreases along with the increase in the price.

Exsport

Export is the exchange of goods between countries with one another on the basis of a legal permit by the government. Exports are an important part of a country's balance of payments (Apridar, 2009 in Jamilah, et al 2016). From this opinion, it can be concluded that in theory export is a trade activity to sell goods and distribute goods from within the country into international markets or other countries.

Many countries in the world, including Indonesia, carry out export activities as a source of state revenue to drive the economy and can support the increase in the country's foreign exchange reserves. The foreign exchange is then used to pay for goods and services that enter the country or commonly referred to as imports and is used to finance development in the country. Therefore, an increase in exports will have a positive effect on increasing the country's foreign exchange.

Foreign Exchange Reserves

Foreign exchange reserves are assets or assets stored by the central bank and monetary institutions. Deposits in the form of assets are stored in several reserve currencies such as euros, dollars and yen which are used to finance their obligations, namely in the form of domestic currency issued and as reserve deposits in the form of foreign currencies in the form of securities or precious metals. .

Meanwhile, there are 2 types of foreign exchange reserves, namely:

a. Official foreign exchange rate reserves, namely foreign exchange reserves belonging to the State which are fully the authority and responsibility of the central bank.

b. Country foreign exchange reserves, namely the entire foreign exchange reserves belonging to entities, individuals, financial institutions and other institutions that are included in the national wealth section

According to the World Bank in the economy of a country, foreign exchange reserves are an important component for that country. Among them are foreign exchange reserves that can be used to protect the country's economic conditions from external influences, the level of foreign exchange reserves owned is a factor to assess creditworthiness and credibility to carry out policies in general and liquidity needs can be a tool to maintain exchange rate stability.

Countries that implement a fixed exchange rate system or fixed exchange rate require large amounts of foreign exchange reserves in order to maintain the exchange rate that has been set. This is done in order to be free from the free-floating exchange rate system that causes exchange rate uncertainty. The efforts of monetary institutions in dealing with exchange rate fluctuations are with adequate foreign exchange reserves so that the exchange rate remains in a stable condition

HYPOTHESES

Based on the explanation of the theory above, the hypotheses that can be made for this research are:

H1: Exchange rate (independent) has a positive influence on private investment (dependent) in Indonesia.

H2: GDP (independent) has a positive influence on private investment (dependent) in Indonesia.

H3: Inflation (independent) has a positive effect on private investment (dependent) in Indonesia.

H4: Exports (independent) have a positive effect on private (dependent) investment in Indonesia.

H4: Foreign Exchange Reserves (independent) have a positive influence on private investment (dependent) in Indonesia.

METHOD

The type of fata used in this study is secondary data obtained from the results of research from other parties related to similar research. The data used in this study are time series data within a 30-year period from 1990 to 2020. The data used in this study were obtained by researchers from the official website of the Badan Pusat Statistik (BPS), World Bank Indonesia and financial reports issued by Kementrian Keuangan The data used and the material for analysis of this research is the study of literature related to the research conducted.

In this study, the author uses the dependent variable, namely government spending. Meanwhile, the independent variables used are exchange rate, GDP, inflation, exports and foreign exchange reserves. The testing model using the ARDL method is an infinite lag model that is flexible in nature and can obtain estimates in the long or short term at the same time so as to avoid autocorrelation problems.

The following is a commonly used ARDL equation model:

$$\Delta Yt = Q + \sum_{i-1}^{n} Q1\Delta Yt - 1 + \sum_{i=0}^{n} \Delta X - 1 + \varphi 1YT + \varphi 2Xt - 1 + \mu t \dots \dots \dots \dots$$

Description :

B1, Q2 = Short term coefficient

Φ1, $\varphi 1$ = Long term ARDL coefficient

μ = disturbance error

Y = Government Expenditure

X1 = Kurs

X2 = GDP

X3 = Inflation

X4 = Export

X5 = Foreign Exchange Rate

By using the following analytical methods:

1. Stationary Test
2. Cointegration Test with Bount Test Method
3. Test Autoregressive Distributed Lag (ARDL)

RESULTS AND DISCUSSION

1. Uji Stasioneritas

Before estimating using the ARDL model, there are several diagnostic tests that must be carried out so that the estimated ARDL model can avoid violating the rules on the basic assumptions of econometrics. The first step is to do a stationarity test with Phillips-Perron (PP). the results of this test are in table 1. Based on the stationarity test all variables are stationary at I(1) except for the inflation variable (INF) which is stationary at I(0). Therefore, the ARDL method is considered suitable for this research. From the two equations the results of the regression carried out passed the diagnostic. The assumption of criteria for the ARDL method is that the residuals must be serially independent. The statistical test results show that there is no serial correlation so that the ARDL estimation can be done well.

Table 1. Stationarity test

No	Variabel	T-statistic, PP	Stasioneritas	Prob	Keterangan
1	LOGPP	-7.159834	First difference	0.0000	Stasioner I(1)
2	LOGKURS	-4.232236	First difference	0.0026	Stasioner I(1)
3	LOGGDP	-5.472281	First difference	0.0001	Stasioner I(1)
4	INF	-5.426789	Level	0.0001	Stasioner I(0)
5	EKSPOR	-8.225070	First difference	0.0000	Stasioner I(1)
6	CADANGANDEV	-5.597102	First difference	0.0001	Stasioner I(1)

CONCLUSION

This research is aimed to analyze the effect of exchange rate, Gross Domestic Product (GDP), inflation, exports and foreign exchange reserves on government spending. The data used use time series data or time series, namely the period 1990 to 2020. In this test, the autoregressive distributed lag (ARDL) model is used to examine the effect of the short run and the long run between the determinants of government spending. In addition, in tests using CUSUM and CUSUMQ from these tests, it can be concluded that Indonesian government spending is relatively stable.

The results of the long-term analysis on the exchange rate variable (KURS) have a positive and significant effect on government spending in Indonesia. This is because if the exchange rate of the Rupiah against the US Dollar increases, the price of imported components will increase. In addition, the increase in the exchange rate of the rupiah against the US dollar will have an impact on the payment of the national debt which becomes even greater. The variable gross domestic product (GDP) in Panjang has a positive and significant effect on government spending. The estimated value shows that the greater the GDP, the government will spend to meet domestic capital needs so that more output is produced. This state expenditure causes government spending to increase. Meanwhile, in the short term, the exchange rate variable has a significant short-term effect and a negative effect on government spending. While the variable that affects in the short term is GDP which has a significant and positive effect on government spending because when the government has an increasing growth rate and a lot of output is produced so that GDP also increases because government spending or government spending will increase a country's economic output. The variable of foreign exchange reserves has a significant and negative effect on government spending.

REFERENCES

Apridar. (2007). *Ekonomi Internasional: Sejarah, Teori, Konsep dan Permasalahan dalam Aplikasinya.* Jakarta: Unimal Press.

Boediono, D. (1997). *Ekonomi Makro.* Yogyakarta: BPFE-YOGYAKARTA.

Jamilah, M. Y. (2016). Pengaruh Nilai Tukar, Harga Kopi International dan Produk Kopi Domestik Terhadap Volume Ekspor Kopi Indonesia (Studi Volume Ekspor Kopi Periode 2009-2013). *Jurnal Administrasi Bisnis (JAB), 36*, 1.

Syarifuddin, F. (2016). *Konsep, Dinamika, dan Respon Kebijakan Nilai Tukar di Indonesia.* Jakarta: BI Institute.

Simposium Nasional Akuntansi VIII. Solo, (September), 15–16.

Tempo. (2009). Kronologi Aliran Rp 6,7 Triliun ke Bank Century. https://nasional.tempo.co/read/208353/kronologi-aliran-rp-67-triliun-ke-bank-century. Diakses 22 Oktober 2021.

Undang-Undang Nomor 10 Tahun 1998 tentang Perubahan atas Undang-Undang Nomor 7 Tahun 1992 tentang Perbankan.

Undang Undang RI Nomor 20 Tahun 2008 tentang Usaha Mikro, Kecil, dan Menengah.

Undang-Undang Republik Indonesia Nomor 36 Tahun 2008 tentang Perubahan Keempat atas Undang-Undang Nomor 7 tahun 1983 tentang Pajak Penghasilan.

Undang-Undang Republik Indonesia Nomor 40 Tahun 2007 tentang Perseroan Terbatas.

Umar, S. (2018). Pengaruh Profitabilitas dan Leverage terhadap Alokasi Dana Corporate Social Responsibility dengan Board Gender sebagai Variabel Moderasi. In estheses UIN Malang (Vol. 1, Issue 1).

Vincent, M., & Sari, D. P. (2020). Analisis Pengaruh Timbal Balik Antara Penghindaran Pajak dan Corporate Social Responsibility (CSR). Jurnal Pendidikan Ekonomi Undiksha, 12(2), 203–215.