

FISCAL DECENTRALIZATION SURABYA_CHECK TURNITIN

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Fiscal Decentralization of the Government of the City of Surabaya Indonesia

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Abstract

Surabaya City Government is part of the regional government system in Indonesia which adopts a decentralized system. In line with these various regulations, regional fiscal or financial management consists of three main components, namely Regional Revenue, Regional Expenditure, and Regional Financing. This study aims to calculate the fiscal potential of the City of Surabaya for the 2017-2021 period. Furthermore, to obtain and complete optimal results, research uses a quantitative approach. The results showed that the economic growth of Syria showed good performance. However, in terms of inflation, the numbers also continue to increase. It is recommended to the Surabaya City Government that inflation control must be carried out through various policies that can increase economic growth that can improve people's welfare.

Keywords: government, economic, growth, potential, fiscal

1. Introduction

Surabaya City is the capital of East Java Province, Indonesia as well as the largest metropolitan city in the province. Surabaya is also the second largest city in Indonesia after Jakarta. Surabaya has an area of approximately ± 326.81 km², and 3,158,943 residents in 2019. (Note 1)

Surabaya City Government is part of the regional government administration system in Indonesia, which adopts a decentralized system in regulating and managing government affairs by itself.

The Surabaya City Government is led by a democratically elected Mayor. Meanwhile, as an autonomous region, the Government of the City of Surabaya must be able to provide regional finance consisting of three main components, namely Regional Revenue, Regional Expenditure, and Regional Financing. In this context, the fundamental question is the extent to which the fiscal capacity of the Surabaya City Government, whose mayor is **Tri Sri Rismaharini (Risma)** for the 2017-2021 period.

Research Purposes

This study aims to calculate the fiscal potential of the Surabaya City Government for the 2017-2021 period.

Problem

1. Is the effectiveness and efficiency of fiscal decentralization in the City Government of Surabaya?
2. Is fiscal decentralization in the City Government of Surabaya able to improve the welfare of the people?

2. Literature Review

2.1 Fiscal Decentralization

Fiscal decentralization in Indonesia is still often debated, especially in terms of its effectiveness and efficiency when compared to previous policies or with a centralized system. In this connection, *Martinez-Vazquez and McNab (2001)* suggest that some of the fundamental reasons that governments in developing countries choose to do fiscal decentralization are: (Note 2)

1. With fiscal decentralization, it is expected that government spending will be more efficient.
2. With fiscal centralization recognized as having experienced a failure.

3. The role of local governments will be greater and local governments will not be dictated by the central government.

In Indonesia, fiscal decentralization is based on Law of the Republic of Indonesia Number 33 of 2004 concerning Financial Balance between Central and Regional Government. (Note 3) This law describes decentralization as the transfer of authority of the Central Government to the Government to autonomous Regions to regulate and manage government affairs in the system.

Rodriguez-Po. e danKrijer (2009) stated that fiscal decentralization is expected to improve people's welfare. Thus, what deserves special attention in relation to fiscal decentralization policies in order to be successful is that this policy must be followed by clear and effective authority between the central government and regional governments. The policy must be fair and transparent, especially in terms of transfer of funds from the central government to local governments. (Note 4)

Tiebout's research (1956) found that one of the advantages of fiscal decentralization is that decentralization will increase the economic efficiency of local governments because the government will be better able to provide better services to its citizens. (Note 5)

According to **PranadBardhan (1001)**, a study on fiscal decentralization states that many decentralization policies are not successful, especially in improving the welfare of the community. (Note 6)

Based on the Law of the Republic of Indonesia Number 33 of 2004, regional revenue in the implementation of decentralization consists of regional income and financing, (Note 7) and Other Legitimate Regional Revenue. (Note 8) Meanwhile, the financing comes from the excess of the regional budget calculation; receipt of regional loans, regional reserve funds; and proceeds from the sale of separated regional assets. (Note 9) The amount of this regional revenue will largely determine government spending.

Regional Original Income

Regional Original Income consists of regional taxes, regional levies, proceeds from the management of separated regional assets and other legal regional income.

Balancing Fund

Balancing funds consist of profit sharing funds, general allocation funds and special allocation funds. This balancing fund aims to reduce the fiscal gap between the government and local governments. This balancing fund consists of: Product Sharing Funds, General Allocation Funds, and Special Allocation Funds. The amount of the balance fund for each fiscal year is stipulated in the State Budget.

Local Government Expenditure

Regional government spending is inseparable from regional revenue, because theoretically, spending is a function of regional revenue. The higher the regional income, the higher the level of regional spending. For this reason, the regions try to increase their own local revenue with local governments trying to increase their own local revenue and the balance fund.

Investment

Investment is defined as the accumulated form of an asset with the hope of obtaining future benefits. **Budi Supriyastu (1018)** said that investment in the economy has a very important role, especially in moving the economy. According to **Huang (1009)** states that private investment has a positive impact on economic growth. (Note 10)

Economic Growth

Todaro and Smith (1006) stated that in this case there are three main factors or components that are important in the economic growth of a country or region. *The first* is what is the level of capital accumulation which includes all forms or types of new investment allocated in the economy. *Second* is how much the population growth rate will increase the number of labor force, and *Third* is the level of technological progress that will directly affect the production process and ultimately increase the quantity of production. (Note 11)

Similar to Todaro, Romer's (2001) growth theory focuses on four variables, namely output (Y), capital (C), labor (L) and Knowledge or the effectiveness of labor (K) (Note 12).

Romer's growth model formulation is: (Note 13)

$$Y_t = F(C_t, K_t, L_t)$$

t: represents time

Economic growth can be seen from the demand side and the supply side. In this context, from the side of aggregate demand, an increase in domestic output can be identified by four components of the economy, namely:

C = household consumption expenditures,

J = investment spending by businesses and households,

G = government spending on goods and services, and

X-M = net export (X-M) by Dornbusch, Fischer and Startz, (2004). (Note 14)

This formula was adapted by McCann (2006) for a regional economy known as the Keynesian standard aggregate demand for the region which can be described as follows. (Note 15)

$$Y_r = C_r + I_r + G_r + X_r - I_r$$

Yr: Regional income
 Ir: Regional investment
 Cr: Regional consumption
 Gr: Local government expenditure
 Xr: Regional exports
 Ir: Imports of the region.

The above formula implies that economic growth in the regions is highly dependent on the four components above. This means that economic growth will increase if consumption, investment, government spending, and net exports also increase or the total value of the four components is positive.

3. Research Methods

The data used in this study are secondary data obtained from various sources. This study uses data series for the 2017-2021 period.

The analysis used can be grouped into two, namely descriptive and quantitative analysis.

The quantitative approach used is to use a simultaneous equation model. The structured simultaneous equation model is divided into five blocks consisting of 33 equations, of which 19 equations are structural equations and 14 equations are identity equations. The complete equation can be described as follows:

Fiscal Block Regional Revenue

a. Locally-Generated Revenue

$$T_t = a_0 + a_1 GRDP_t + a_2 BL_t + a_3 TP_t + a_4 T_{t-1} + \mu_{1,t}$$

$$RET_t = b_0 + b_1 GRDP_t + b_2 TP_t + b_3 RET_{t-1} + \mu_{2,t}$$

$$LGR_t = T_t + RET_t + RGWM_t + LGR_{t-1}$$

The estimated values and marks of the expected parameters: $a_1, a_2, a_3, b_1, b_2, b_3 > 0$; $a_4 < 0$; and $0 < b_4, a_5 < 1$.

Information:
 T = Tax
 GRDP = Gross Regional Domestic Product
 BL = Business License
 TP = Total Population
 LGR = Locally-Generated Revenue
 RET = Regional Retribution
 RGWM = Results of Regional Wealth Management
 LGR = Lag. Locally-Generated Revenue

b. Balaiiig Full

$$TPS_t = a_0 + a_1 PCC_t + a_2 NV_t + a_3 TP_{t-1} + a_4 TP_{t-2}$$

$$NTPSE_t = d_0 + d_1 GRDP_t + d_2 TP_t + d_3 NTPSE_{t-1} + u_{t-1}$$

$$GAF_t = e_0 + e_1 GRDPC_t + e_2 FC_t + e_3 GAF_{t-1} + u_{t-1}$$

$$PSF_t = TPS_t + NTPSE_{t-4}$$

$$MF_t = GAF_t + SAF_t + PSF_{t-5}$$

$$FC_t = LGR_t + PSF_{t-10}$$

$$TR_t = LGR_t + MF_t + U_t + F_t$$

The estimated values and marks of the expected parameters: $a_1, d_1, e_1, d_2 > 0$; $a_2, a_3, d_3, e_3 < 0$; and $0 < a_0, a_3, d_0, e_0 < 1$.

Information:

NTPSE = Non-Tax Profit Sharing Equation
 TP = Tax Profit Sharing
 PCC = Per Capita Consumption
 NV = Number of Vehicles
 GRDPC = Gross Regional Domestic Product Per Capita (IDR)
 GRDP = Gross Regional Domestic Product
 MF = Maintenance Fund
 PSF = Profit Sharing Fund
 FC = Fiscal Capacity
 TR = Total Revenue PDRB
 LI = Lag Income
 F = Financing
 GAF = General Allocation Fund
 SAF = Special Allocation Fund

c. Fiscal Gap

$$FC_t = TE_t - FC_{t-1}$$

Regional Expenditure Fiscal Block

$$ES_t = b_0 + b_1 FC_t + b_2 NE_t + b_3 ES_{t-1} + b_4 ES_{t-2}$$

$$SG_t = c_0 + c_1 FC_t + c_2 SG_{t-1} + u_{t-1}$$

$$TE_t = ES_t + SG_t + OS_t$$

$$HGRDP_t = GRDPC_t \cdot 100 / CPI_t$$

$$EG_t = (HGRDP_t - HGRDP_{t-1}) / HGRDP_{t-1} \cdot 100$$

The estimated values and marks of the expected parameter: $b_1, b_2, b_3 > 0$; $b_4 < 0$; and $0 < b_0, c_0, c_1, c_2 < 1$.

Information:

ES = Employee Spending
 FC = Fiscal Capacity
 NE = Number of Employees
 TE = Total Expenses
 SG = Shopping for Goods
 OS = Other Shopping

Block GRDP

$$C_t = h_0 + h_1(GRDP_{t-1} - T_j + h_2 ES_t + h_3 TP_t + h_4 C_{t-1} + u_{8,t})$$

$$PCC_t = C_t / TP_{t-1}$$

$$I_t = i_0 + i_1 GRDP_t + i_2 IR_t + i_3 CS_t + i_4 I_{t-1} + u_{9,t}$$

$$GE_t = j_0 + j_1 TP_t + u_{10,t}$$

$$E_t = k_0 + k_1 GRDP_t + k_2 ERAD_t + k_3 E_{t-1} + u_{11,t}$$

$$I_t = \lambda_0 + \lambda_1 GRDP_t + \lambda_2 ERAD_t + u_{12,t}$$

$$GRDP_t = C_t + J_t + GE_t + E_t - Ir_t$$

$$GRDPC_t = GRDP_t / TP_{t-1}$$

The estimated values and marks of the expected parameters: $h_1, i_1, j_1, k_1, \lambda_1, h_2, k_2, h_3, i_2, i_3, i_4, j_2, k_3, \lambda_2, i_4, i_3, i_4 < 0$; dan $0 < k_1, h_1, i_1 < 1$.

Information:

C = Consumption
 LGR = Locally-Generated Revenue
 TOTREV = Total Revenue PDRB,
 EG = Economic Growth
 T = Tax
 I = Investment
 IR = Interest Rate (Percent)
 CS = Comumity Savings
 GE = Government Expenditure
 E = Export
 ERAD = The Exchange Rate of Rupial against Dollars
 I = Impoll

Block Inflation and Exchange Rates

$$CPI_t = m_0 + m_1 MS_t + m_2 ERAD_t + m_3 RPFO_t + m_4 BET_t + m_5 CPI_{t-1} + u_{13,t}$$

$$INF_t = (CPI_t - CPI_{t-1}) / CPI_{t-1} \cdot 100_t$$

$$ERAD_t = n_0 + n_1 FER_t + n_2 F_t + n_3 ERAD_{t-1} + u_{14,t}$$

$$MS_t = o_0 + o_1 AGRDP_t + o_2 BIC_t + u_{15,t}$$

The estimated values and marks of the expected parameters: $m_1, o_1, m_2, n_2, m_5, n_1 > 0$; $111, o_2, o_3, m_5 < 0$; dan $0 < n_3, n_1 < 1$.

Information:

CPI = Consumer Price Index
 MS = Money Supply (Million Rupiah)
 RPFO = Retail Price of Fuel Oil
 BET = Basic Electricity Tariff
 FER = Foreign Exchange Reserves
 INF = Inflation
 AGRDP = Average Gross Regional Domestic Product
 BIC = Bank Indonesia Certificate

Block HDI, Poverty, and labor

$$HDI_t = p_0 + p_1 ASE_t + p_2 PMW_{1t}$$

$$PP_t = q_0 + q_1 GRDPC_t + q_2 INF_t + q_3 NPP_{t-1} + u_{16,t}$$

$$PW_t = PP_t / TP_t \cdot 100_t$$

$$ASE_t = r_0 + r_1 GRDPC_t + r_2 ASE_{t-1} + u_{17,t}$$

$$L_t = s_0 + s_1 GRDPC_t + s_2 L_{t-1} + u_{18,t}$$

The estimated values and marks of the expected parameters: $p_1, r_1, s_1, p_2, q_2, q_3 > 0$; $q_1, r_2, s_2 < 0$; and $0 < r_3, s_3, q_4 < 1$.

Information:

HDI = Human Development Index
 ASE = Average School Entry
 PMW = Provincial Minimum Wage
 PP = Number of Poor Population
 PW = Poor Workforce
 L = Labor

Identification of Estimation Models and Methods

According to Koutsoyimiis (1978), an econometric approach using a system of simultaneous equations requires that the number of equations be equal to the number of endogenous variables. This requires a complete model identification. (Note 16)

According to Gujarati (1995) the conditions that must be met in the identification process are the order condition of identification, namely that the number of endogenous and exogenous variables that are not included in the equation but are included in other equations in the simultaneous equation system must be equal to or greater than the number of endogenous variables in the equation in the model minus one. (Note 17) The description can be formulated as follows:

$(K - M) \geq (G - 1)$
K = number of variables in the model (endogenous and predetermined variable)
M = the number of endogenous and exogenous variables contained in the identified equation,
G = the number of equations in the model, which is equal to the number of endogenous variables in Model.

1. Based on the order conditions:
2. If $(K - M) > (G - M)$ = then the equation is said to be overidentified.
3. If $(K - M) = (G - M)$ then the equation is said to be exactly / exactly identified.
4. If $(K - M) < (G - M)$ then the equation is said to be unidentified (unidentified).

4. Results of Discussion

Surabaya City Government Final Fiscal Performance

The estimation results from the model that have been compiled are then tested based on economic, statistical and econometric criteria. From the results of the six blocks under study, the following are discussed in detail as follows:

- a. Based on economic criteria, the parameter estimation results of each structural equation in the model compiled are as expected. This is indicated by the sign and the value of the parameter estimation to describe the relationship between endogenous variables and their explanatory variables. Based on this explanation, then statistical criteria are used to test the equations that have been compiled. The estimation results of the model also showed quite good results. The coefficient of determination (R²) for each structural equation is between 0.73 and 0.99, except for the Non-Tax Profit Sharing Equation and the general allocation fund, which are 0.41 and 0 respectively. This shows that in general the explanatory variables used in this study are able to explain between 73 percent and 99 percent of the diversity of the endogenous variables.
- b. The value of the F-test statistic that is generated to test whether the explanatory variables used have a significant effect on the endogenous variables are all less than 0.01. This means that the explanatory variables used in the model together have a significant effect on the endogenous variables. Statistical results of t-test to test whether an individual explanatory variable affects the endogenous variable or not. With an error rate of (a) up to 20 percent, it indicates that most individual explanatory variables have a significant effect on the endogenous variables. However, there are several explanatory variables in the model that do not statistically affect the endogenous variables. Based on the results of testing these parameter estimates, the model used in this study is quite good in explaining the behavior of economic variables on the finance and economy of the Surabaya City Government.

Fiscal Block Regional Revenue Original Regional Revenue

Original regional income comes from local taxes, levies, separated regional assets management, and other legitimate local revenue.

a. Local Tax

The results of the estimation of the regional tax revenue equation parameters are presented in Table I No. 1. It can be seen that local tax revenue in the Surabaya City Government is significantly influenced by the Gross Regional Domestic Product (GRDP).

The estimated parameter of GRDP is 0.007324 and has a positive relationship, which indicates that the increase in GRDP is Rp. 357 million has the potential to increase tax revenue for the Surabaya City Government by Rp. 7.33 million. This shows that the greater the economic capacity of a region, the greater the revenue received by the government in that area. This is reinforced by the business factor of the Surabaya City Government which has

become a business center and business center.

Table 1. Parameters of estimated results of regional tax revenue, regional original income, for taxes, for non-tax results, general allocation funds, employee expenditure, and household consumption, Surabaya 2017-2021

NO	Variable	Estimate Parameter	Prob > t	Information
1	Intercept	-3233481	0,4537	Estimation Results Parameters of the Equation of Local Tax Revenue Original Local Income.
	GRDP	0,007324	0,0053	GRDP = Gross Regional Domestic Product
	BL	60,28327	0,2892	Amount of BL- Business License
	TP	281,5803	0,5817	TP = Total Population (000 people)
	LT	0,318601	0,1936	Lag. T = T _{t-1} Adj-R ² = 0,96832 ; F-Stat = 146,52; Pr > F = < 0,0001; OW = 1,970146
2	Intercept	-210423	0,7159	Estimation Results of Estimated Parameters of the Equation of Original Local Income
	GRDP	0,000134	0,2225	GRDP = Gross Regional Domestic Product (Million IDR)
	TP	34,81372	0,6170	TP = Total Population (000 people)
	LRET	0,559503	0,0194	Lag. RET = Regional Retribution Adj-R ² = 0,96832; F-Stat = 146,52; Pr > F = < 0,0001; OW = 1,970146
3	Intercept	-381604	0,3573	Results of Estimation Parameters of the Tax Profit Sharing Equation.
	PCC	4,976617	0,9487	PCC = Per Capita Consumption (000 IDR)
	NV	0,239028	0,2625	Number Of Motorized Vehicles (unit)
	LTPS	0,755666	0,0169	Lag. TPS = Tax Profit Sharing Adj-R ² = 0,96707; F-Stat = 181,25; Pr > F = < 0,0001; OW = 1,66267
4	Intercept	-14290,1	0,9599	Estimation of Non-Tax Profit Sharing Equation Parameters
	GRDP	0,000052	0,3891	GRDP = Gross Regional Domestic Product (Million IDR)
	TP	4,456293	0,8939	TP = Total Population (000 people)
	LTPS	0,517442	0,0231	Lag. TPS = Tax Profit Sharing Adj-R ² = 0,44813; F-Stat = 5,68; Pr > F = 0,0034; OW = 2,174885
5	Intercept	87091,78	0,2496	Estimation Results of the General Allocation Fund Equation Parameters.
	GRDPC	9,706076	0,2798	GRD per capita (000 IDR)
	FC	-0,04239	0,2375	Fiscal Capacity (Million IDR)
	LGAF	0,751911	<0,0001	Lag. GAF = General Allocation Fund Adj-R ² = 0,64141 ; F-Stat = 11,28; Pr > F = < 0,0001; OW = 2,153374
6	Intercept	-1,034707	0,1997	Estimation Results of Employee Expenditure Equation Parameters.
	FC	0,246921	0,0326	Fiscal Capacity (Million IDR)
	NE	134996,3	0,2037	Number of employees (000 people)
	LES	0,356995	0,1647	Lag Employee Spending Adj-R ² = 0,97853; F-Stat = 276,34; Pr > F = < 0,0001; OW = 2,130631
7	Intercept	-44174,1	0,6527	Estimation Result Parameter Expenditure Equation.
	FC	0,064450	0,0880	Fiscal Capacity (Million IDR)
	LSG	0,966878	<,0001	Lag Shopping for Goods Adj-R ² = 0,98963; F-Stat = 741,62; Pr > F = < ,0001; OW = 2,838366
8	Intercept	-1,493706	0,6051	Estimation Result of Household Consumption Equation Parameters.
	DISP (GRDP-T)	0,411206	<0,0001	Disposable Income (Million IDR)
	PE	0,539245	0,7274	Personnel Expenditure (Million IDR)
	TP	849,9433	0,8012	Total Population (000 people)
	LC	0,323081	0,0177	Lag. C= Consumption Adj-R ² = 0,9990; F-Stat = 5099,77; Pr > F = < ,0001; OW = 2,150053

*Note: F-Stat = The F-statistic; Adj-R² = Adjusted R-Square.

**Data Source: Data processing by Researchers 17 August 2020

b. Regional Retribution

The results of the estimation of the parameters of the regional levy acceptance equation are presented in Table I No. 2. It can be seen that the local retribution receipts in the Surabaya City Government are below.

c. Balancing Fund

Apart from originating from local revenues, the Surabaya City Government also receives transfers of funds from the central government in the form of balance funds consisting of tax and non-tax revenue sharing and general allocation funds. Tax Profit Sharing The results of the estimation of the tax revenue sharing equation parameters are in Table I No. 3.

Non-Tax Profit

Sharing The estimation results of the non-tax profit sharing equation parameters are presented in Table I No. 4. It can be seen that the non-tax revenue sharing of the Surabaya City Government.

General Allocation Fund

The results of the estimation of the parameters of the general allocation funds equation are presented in Table I No. 5. It can be seen that the receipt of general allocation funds. Local capacities and needs usually will not change drastically over time. Apart from that, the relatively stable general allocation funds from time to time will also help the sustainability and centrality of development financing in a region. General Allocation Fund. See table I No. 5. Surabaya City Government Surabaya City Government 2017-2021.

Regional Expenditure Fiscal Block

The structure of regional government spending in this study blocks regional expenditure divided into personnel spending, goods and services expenditures and other expenditures.

a. Employee Spending

The results of the estimation of the employee expenditure equation parameters are presented in Table I No. 6. It can be seen that the expenditure for employees of the Surabaya City Government is significantly influenced by the fiscal capacity and the number of employees owned by the Surabaya City Government. The estimated parameter of fiscal capacity is 0.246921 and has a positive relationship, which means that the increase in the financial capacity of the Surabaya City Government has the potential to increase expenditure for employees. Meanwhile, the estimated number of employees is 134996.3 and has a positive relationship, which means that an increase in the number of employees in the Surabaya City Government will increase spending to pay employees. This is understandable because each new employee recruitment must be followed by a budget to pay the employees.

b. Shopping for goods and services

The results of the estimation of the parameters for the goods and services expenditure equation are presented in Table I No. 7. It can be seen that the expenditure of goods and services by the Surabaya City Government. The estimated parameter of fiscal capacity is 0.064452 and has a positive relationship, which means that an increase in the financial capacity of the Surabaya City Government has the potential to increase spending on goods and services.

Block GRDP

In the economy, gross regional domestic product (GRDP) is very important because this indicator can be used to measure the economic condition of a region. In addition, GRDP is also an indicator that can be used to measure the economic growth of a country, region or region. In macroeconomic theory, GRDP is the identity equation of household consumption, investment, government spending, exports and imports.

a. Household Consumption

The results of the estimation of the total household consumption equation parameters are presented in Table I No. 8. It can be seen that the total household consumption is significantly influenced by disposable income and consumption in the previous year.

The estimated disposable income parameter is 0.411206 and has a positive relationship, which means that an increase in disposable income has the potential to increase its consumption value. From the value of these parameters, it can also be seen that the average city of Surabaya only spends about 41 percent of their disposable income for consumption.

b. Investment

The results of the estimation of the investment equation parameters are presented in Table 2 No. 9. It can be seen that the investment value in the Surabaya City Government is significantly affected by the GRDP and the amount of public savings stored in banks. The estimated parameter of GRDP is 0.253026 and has a positive relationship, which means that an increase in GRDP has the potential to increase the value of the investment that occurs.

The estimation results of these parameters also indicate that the greater the economic capacity of a region, it will encourage investment in that area. One of the sources of funds for investment is from banks, while the credit provided by banks is very much influenced by the amount of public savings they save.

The estimated parameter of public savings is 0.329854 and has a positive relationship, which means that the greater the public savings funds deposited in banks have the potential to increase the value of investment that occurs.

c. Government Expenditure

Even though the value is relatively small, government spending has a very important role in turning the economy in the Surabaya City Government. It is due to the participation of the government as a regulator and controller of all economic activities that occur, as well as distributing the required aspects to all levels of society. See Table 2 No. 10. Estimation Results of the Surabaya City Government Government Expenditure Equation Parameters for 2017-2021.

Surabaya City Government expenditure is influenced by the total expenditure budgeted in the regional expenditure budget. The estimated parameter of total expenditure is 2.530813 and has a positive relationship, which means that an increase in government spending has the potential to increase the role of government spending in the economy.

d. Export of Good and Services

The results of the estimation of the export equation parameters are presented in Table 2 No. 11. It can be seen that the export value of the Surabaya City Government is significantly influenced by GRDP, the rupiah exchange rate against the US dollar and the export value of the previous year.

The estimated parameter of GRD is 0.313411 and has a positive relationship, which means that an increase in GRD has the potential to increase the value of exports of goods and services. The results of the estimation of the parameters also indicate that the greater the economic capacity of a region, it will boost the region's exports.

The estimated parameter of the rupiah exchange rate against the US dollar is 0.313411 and has a positive relationship, which means that the weakening of the rupiah exchange rate against the US dollar has the potential to increase the value of exports of goods and services. This occurs because the weakening of the rupiah against the dollar causes domestic goods to be cheaper than abroad, so producers tend to sell their goods abroad to get bigger profits.

e. Import of Good and Service.

The results of the estimation of the import equation parameters are presented in Table 2. No. 12. In Table 12, the estimated GRD parameter is 0.56832 and has a positive relationship, which means that an increase in GRD has the potential to increase the value of imported goods and services. The estimation results of these parameters also indicate that the greater the economic capacity of a region, it will encourage imports of that region. This occurs because some products are highly dependent on imported goods, so that when demand increases, imports of raw materials will increase.

The estimated parameter of the rupiah exchange rate against the US dollar is 3249.55 and has a negative relationship, which means that the weakening of the rupiah exchange rate against the US dollar has the potential to reduce the value of imports of goods and services. This occurs because the weakening of the rupiah against the dollar causes domestic goods to be more expensive than abroad so that producers tend to sell their goods domestically to get bigger profits.

Block Inflation, Interest Rates and Exchange Rates.

a. Consumer Price Index

The results of the estimation of the parameters of the Consumer Price Index (CPI) equation are presented in Table 2 No. 13. It can be seen that the CPI is significantly influenced by the money supply, the rupiah exchange rate against the United States dollar, and the retail price of fuel.

The estimated money supply parameter is 9.99×10^{-6} and has a positive relationship, which means that the increase in the money supply triggers an increase in the CPI and thus triggers inflation. Meanwhile, the estimated

parameter of the rupiah exchange rate against the US dollar is 0.001294 and has a positive relationship, which means that the weakening of the rupiah exchange rate against the US dollar can trigger inflation. This is because the weakening of the rupiah against the US dollar causes domestic prices to be more expensive than foreign goods, or in other words, domestic prices increase.

The estimation parameter for the retail price of Fuel oil is 0.002287 and has a positive relationship, which means that the increase in retail prices can trigger an increase in the CPI and thus trigger inflation. This is because Fuel oil is one of the main energy sources for the business world, so that the increase in fuel prices will cause an increase in production costs.

As a result, the price of the product also tends to rise to cover production costs.

b. The Exchange Rate of Rupiah against United States Dollar

The results of the estimation of the parameter of the rupiah exchange rate equation against the US dollar are presented in Table 2 No. 14. In Table 14, the estimated inflation rate parameter is 51.78111 and has a positive relationship, which means that inflation can trigger a weakening of the rupiah exchange rate against the US dollar.

Table 2. Estimation results of parameters of the investment equation, government expenditure, exports of goods and services, imports of goods and services, consumer price index, and rupiah exchange rate against United States dollar Surabaya city government 2017-2021

No	Variable	Estimate Parameter	Prob>t	Information
	Intercept	-9066592	0,4545	Estimation Results of Government Investment Equation Parameters GRD (Million Rp) Interest Rate (Percent) Public Savings (Million Rp) Lag Investment Adj-R2 = 0,9903; F-Stat = 480,35; Pr> F = <,0001; DW = 1,634143
	GRD	0,253026	0,0005	
	IR	-57973,4	0,9275	
		0,329854	0,0917	
	LI	0,128068	0,6133	
10	Intercept	-108995	0,7477	Estimation Results of Expenditure Equation Parameters Total expenditure (Million IDR) Adj-R2 = 0,81364; F-Stat = 58,63; Pr> F = <,0001; DW = 0,335896
	TE Total Expenses	2,530813	<0,0001	
11	Intercept	-696127	0,8695	Results of the Estimated Parameters for Exports of Goods and Services GRD (Million Rp) ERAD = The Exchange Rate of Rupiah against Dollars \$ Lag Export Adj-R ² = 0,99574; F-Stat = 1380,45; Pr> F = <,0001; DW = 1,741443
	GRD	0,313411	0,0006	
	ERAD	2962,680	0,0043	
	LE	0,385694	0,0305	
12	Intercept	6943440	0,2626	Estimation Results of the Parameter of the Import of Goods and Services Equation GRD (Million Rp) ERAD = The Exchange Rate of IDR against Dollars \$ Adj-R ² = 0,99142; F-Stat = 909,14; Pr> F = <,0001; DW = 2,372878
	GRD	0,56830	<,0001	
	ERAD	-3249,55	0,0208	
13	Intercept	2,060536	0,0302	Estimation Results of the Consumer Price Index Equation Parameter. MS = Money Supply (Million Rupiah) ERAD = The Exchange Rate of Rupiah against Dollars \$ RPFO = Retail Price of Fuel Oil (IDRO). BET = Basic Electricity Tariff Lag CPI = Consumer Price Index Adj-R2 = 0,9975; F-Stat = 2950,32; Pr> F = <,0001; DW = 1,700095
	MS	9,99x 10-06	0,0562	
	ERAD	0,001294	<0,0001	
	RPFO	0,002287	0,0002	
	BET	0,003272	0,4654=3	
	L CPI	0,675463	<0,0001	
14	Intercept	20,30756	0,9605	Estimation Results of the Equation Parameter for the Rupiah Exchange Rate against the US Dollar. FER = Foreign exchange reserves (Million US \$). Inflation rate (Percent) LagERAD = The Exchange Rate of Rupiah against Dollars Adj-R2 = 0,92794; F-Stat = 116,88; Pr> F = <,0001; DW = 2,258540
	FER	-0,00195	0,8612	
	INF	51,78110	0,0010	
	LERAD	0,966386	<0,0001	

*Note: F-Stat= The F-statistic ; Adj-R2 = Adjusted R-Square.

**Data Source: Data processing by Researchers 17 August 2020

c. Money Supply

The results of the estimation of the money supply equation parameters are presented in Table 3 No. 15. It can be seen that the money supply in the Surabaya City Government in 2017-2021 is influenced by the real GRD of the City of Surabaya.

The estimated parameter of real GRDP is 0.0037106 and has a positive relationship, which means that an increase in real GRDP can trigger an increase in the money supply. This is due to the increase in GDP, which means that an increase in economic capacity will require more money, so that the money supply also increases.

S. HDI Block, Poverty, and Length of Schooling

a. Human Development Index

The results of the estimation of the parameters for the human development index (HDI) equation are presented in Table 3 No. 16. It can be seen that the HDI in Surabaya is influenced by the average length of schooling.

The estimated parameter of average length of schooling is 2.203457 and has a positive relationship, which means that an increase in the average length of schooling will increase the HDI. This is because the average length of schooling is one component of the HDI calculation.

b. Number of Poor Population

The results of the estimation of the parameter of the equation for the number of poor people are presented in Table 3 No. 17. It can be seen that the number of poor people in the city of Surabaya is influenced by the inflation rate and the number of poor people in the previous year.

The estimated inflation rate parameter is 0.861547 and has a positive relationship, which means that inflation will trigger an increase in the number of poor people. This is because if there is inflation, the real income of the community will decrease, so that people who are slightly above the poverty line can fall into poverty.

c. Average Length of Schooling

The results of the estimation of the parameter equation for the average length of schooling are presented in Table 3 No. 18. It can be seen that the average length of schooling for residents of Surabaya City is 0.933656. This can happen as people's income improves, in addition to the tendency for parents to want their children to have a better education than them.

d. Labor Absorption

The results of the estimation of the parameter of the equation for the number of workers are presented in Table 3 No. 19. It can be seen that the number of workers in the Surabaya City Government is 0.933656. This is influenced by the real GRDP. The measurement standard with the estimated real GRDP parameter has a positive relationship with the amount of labor absorbed. Where an increasing economy will be followed by rapid workforce growth. This implies that an increase in real GRDP will increase the amount of labor absorbed. This is because the increase in economic capacity will require more labor. Labor absorption is a positive aspect in itself when viewed from the standard measurement of the estimated GRDP parameters.

Table 3. Estimated results of the government of surabaya city government estimated amount of money equation, human development index, number of poor populations, school average, and manpower absorption of surabaya city government, 2017-2021

NO	Variable	EstimateParameter	Prob > t	Information
15	Intercept	-991728	<0,0001	Estimation Result of Parameter of Amount of Money Equation.
	AGRDP	0,0037106	<0,0001	Average Gross Regional Domestic Product
	BIC	-3691,86	0,4658	BIC= Bank Indonesia Certificate Real GRDP (Million IDR) Adj-R2 = 0,97658; F-Stat = 320,65; Pr > F =
16	Intercept	43,99171	<0,0001	Estimation Results of Human Development Index Equation Parameters
	ASE	2,203457	<0,0001	ASE = Average School Entry (year)
	PMW	0,006164	0,2326	PMW = Provincial Minimum Wages (000 IDR) Adj-R2 = 0,72955; F-Stat = 32,01; Pr > F = <,0001; DW = 0,166576
17	Intercept	133,8098	0,0173	Results of Estimation Parameters for the Equation of the Number of Poor People
	GRDPC	-0,00011	0,6811	Gross Regional Domestic Product Per Capita (000 IDR)
	INF	0,861547	0,1788	Inflation rate (Percent)
	LNPP	0,625289	0,0003	LagNPP = Number of Poor Population Adj-R2 = 0,71214; F-Stat = 15,94; Pr > F = <,0001; DW = 1,696704
18	Intercept	0,652145	0,2104	Estimation Results of Parameters for the Equation of Average Years of Schooling.
	GRDPC	3,54E-06	0,4706	Gross Regional Domestic Product Per Capita (000 IDR)
	LASE	0,933656	<0,0001	Lag ASE = Average School Entry Adj-R2 = 0,98482; F-Stat = 498,23; Pr > F = <,0001; DW = 2,944845
19	Intercept	100,8531	0,4130	Estimation Results of Labor Absorption Equation Parameters.
	AGRDP	781,521.2	0,0747	GRDP = Gross Regional Domestic Product Real (Million IDR)
	LL	0,718245	0,0002	Lag. L= Labor Adj-R2 = 0,96269; F-Stat = 198,81; Pr > F = <,0001; DW = 2,6218

*Note: F-Stat = The F-statistic; Adj-R2 = Adjusted R-Square.

**Data source: Data processing by Researchers 17 August 2020.

FISCAL POTENTIAL PROJECTIONS

Based on the calculations and models described in the previous description, the results of the projected fiscal potential of the Surabaya City Government for 2017-2021 can be described as in the following table.

Table 4. Basic value of proposal variables of endogen the government of Surabaya city in 2017-2021

No	Endogenous	Information	2017	2018	2019	2020	2021
1.	LGR	LGR = Locally-Generated Revenue (Billion IDR)	15,709	16,712	17.193	18.732	19.213
2.	FC	FC = Fiscal Capacity (Billion IDR)	20,578	22,828	23,528	32,228	40,828
3.	TR	TR = Total Revenue PDRB (Billion IDR)	31,321	32,821	34,821	35,821	42,821
4.	Fiscal Gap	CelahFiskal (Billion IDR)	6,875	7,921	8,213	8,652	9,134
5.	TE	TE = Total Expenses (Billion IDR)	30,293	34,372	35,723	40,213	43,672
6.	GRDP	GRDP = Gross Regional Domestic Product (Billion IDR)	954,714.48	1,187,333.1	1,413,241.2	1,735.423.2	1,462.352.2
7.	AGRDP	AGRDP = Average Gross Regional Domestic ProductReal (Billion IDR)	781,521.2	98,324.5	1,016,123.12	1,217,212.2	1,391,821.1
8.	EG	EG = Economic Growth (Percent)	5.45	6.72	6.52	6.63	6.67
9.	INF	INF = Inflation Inflation Rate (Percent)	4.32	5,15	5.32	5.47	5.58

Source: Processed data by Researchers 20 August 2020.

The data in Table 4 is the result of economic projections without any policy intervention, either by the Central Government or the City Government of Surabaya. Thus it can be said that the economic condition is a non-policy condition or a Business As Usual condition.

The results of the analysis show that the economic conditions of the Surabaya City Government in 2017-2021 tend to improve. This can be seen from the development of several factors, including: Local Own Revenue, Fiscal Capacity, Total Revenue, GRDP, Economic Growth tends to increase, as described below:

1. Local Own Revenue tends to continue to increase. In 2017 the Surabaya City Government reached Rp. 15.709 trillion and in 2021 it will increase to Rp. 19,213 trillion. This shows that the City Government of Surabaya has quite good potential in managing its revenue.
2. The GRDP of Surabaya City reached Rp. 954,714.48 billion and in 2021 it will increase to Rp. 1.391 trillion. This indicates that the economic growth of Surabaya City continues to be sustainable. This means that the policies taken by the Surabaya Government must be pro-growth so that the economy remains in quality and is able to bring maximum benefits to the people of Surabaya.
3. The economic growth of Surabaya City for the 2017-2021 period shows quite good growth. Economic growth in 2017 is estimated to grow in the range of 5.45 percent, while in 2021 economic growth will reach 6.67 percent.
4. Inflation turns out that the Surabaya City Government continues to increase. In 2017 it was only 4.32 percent but in 2021 inflation is estimated to reach 5.58 percent. Of course, this requires holistic management so that inflation in the City of Surabaya can be managed properly so that the ever-increasing economic growth is not eroded by rising inflation.
5. In 2017 the Fiscal Capacity of Surabaya City only amounted to Rp. 20.578 trillion while the projection for 2021 increases to Rp. 40.828 trillion. This shows that the fiscal potential of the Surabaya City Government is very pro towards growth.
6. In 2017, the total revenue of Surabaya City amounted to Rp. 31.321 trillion while the projection for 2021 will increase to Rp. 42.821 trillion. This shows that the revenue management in the City Government of Surabaya is very smart in taking advantage of the moment of economic growth.
7. In 2017 the total expenditure of the City Government of Surabaya reached Rp. 30.293 trillion, while the projection for 2021 will increase to Rp. 43,672 trillion. Fiscal Gap in the City of Surabaya for the 2017-2021 period also shows an improved performance in 2017 Rp. 6.875 trillion and will increase in 2021 to Rp. 9,134 trillion because in 2021 the gap is projected to decrease when compared to 2020. This shows that the revenue performance earned by the Surabaya City Government has increased.

6. Conclusions and Suggestions

Conclusion

1. Fiscal decentralization in the City Government of Surabaya has been effective and efficient, this can be seen in the 2017-2021 economic growth.
2. Fiscal decentralization in the Surabaya City Government has been able to improve community welfare. This is indicated by the total revenue received by the Surabaya city government which continues to increase.

Suggestion

1. The economic growth of the Surabaya City Government in 2017-2021 shows a fairly good performance. However, in terms of inflation, it also continues to show improvement. For this reason, it is recommended that inflation control should be carried out through various policies.
2. In order for the fiscal capacity of Surabaya City to continue to grow well, it is suggested that the formulation of regional expenditure policies be directed at activities that can increase economic growth and improve the welfare of the community.

References

- Bardhan, P., & D. Mookherjee. (2005). *Decentralization, Corruption And Government Accountability: An Overview*. For 'Handbook of Economic Corruption' edited by Susan Rose-Ackerman, Edward Elgar. Revised, June.
- Central Bureau of Statistics for the City Government of Surabaya. (2019). *Compilation of Surabaya City Human Development Index (HDI) Database*.
- Central Bureau of Statistics for the City of Surabaya. (2019). *Poverty Level Analysis and Calculation 2018-2019*.
- Decree of the Minister of Home Affairs Number 29 of 2002 concerning Guidelines for the Management of Accountability and Supervision of Regional Finances and Expenditures Implementation of Regional Financial Administration and Compilation of Regional Income and Expenditure Budget Calculations.
- Koutsoyannis, A. (1997). *Theory of Econometrics: An Introductory Exposition of Econometrics Methods*, Second Edition. Harper and Row Publisher, London.
- Dornbusch, R., Fischer, S., & Staaritz, R. (2004). *Macroeconomics*. Ninth Edition. The McGraw-Hill Company, New York.
- East Java Provincial Planning Agency. (2019). *Compilation of the Human Development Index (HDI) Database for East Java Province*. Cooperation between the Regional Planning Agency of East Java Province and the Central Statistics Agency of East Java Province in 2017 and 2018.
- Government Regulation Number 10 of 2000 concerning Management and Accountability of Regional Finance.
- Government Regulation Number 58 of 2005 concerning Regional Financial Management.
- Gujarati, N. D. (1995). *Basic Econometric*. Mc. Graw Hill, New York.
- Huang, Y. (2009). Dynamic Panel Data Evidence on the Finance-Investment Link. *Journal of Statistics: Advances in Theory and Applications*, 11(23), 1-23.
- Human Development Index 2018-2017. Central Statistics Agency, Surabaya City.
- Law of the Republic of Indonesia Number 23 of 2014 concerning Regional Government.
- Law of the Republic of Indonesia Number 33 of 2004 concerning Financial Balance between Central and Regional Government.
- Martinez-Vazquez, J., & M. R. McNab. (2001). *Decentralization Fiscal and Economic Growth*. International Studies Working Paper Series No. 97-7, Andrew Young Schools of Policies Studies. <https://doi.org/10.2139/ssrn.259281>
- McCann, P. (2006). *Urban and Regional Economics*. Oxford University Press, New York.
- Presidential Regulation of the Republic of Indonesia No. 18 of 2020 concerning the 2020-2024 National Medium-Term Development Plan.
- Presidential Regulation of the Republic of Indonesia Number 5 Year. (2010), concerning the National Medium-Term Development Plan for 2010-2014.

- Pyndick, S. R., & L. D. Rubinfe ld. (1 997). *Econometric Model dan Economic Forecast*, Fourd1 Editio n. McGraw-Hill. Internatio nal Editions, Boston, Massachussets .
- Regulation of the Minister of Home Affairs Number 13 Year. (2006). concern ing Guidelines fur Regio nal Financial Management.
- Rodr iguez-Pose, A., & A. Kro ijer. (2009). *Fiska l Decentralization and Economic Growth in Centra l and Eastern Elho pe*. LEQS Paper No. 12. London Schoo l of Eco-nomics and Political Science. <https://doi.org/10.1111/j.1468-2257.2009.00488.x>
- Supriyatno, Budi. (2018). Regional Finance. Article. Regional Finance Seminar at Satyagama Un ivers ity Jaka lla, Indonesia. June 2018.
- SL1rabaya City in Figures. (2020). Retrieved from www.surabayakota.bps.go.id
- Todaro, M., & Stephen, S. C. (2006). *Economic Development*, Ninth Edition. Addison Wesley Harlow, Boston.

Notes

- Note 1. Surabaya City in Figures 2020 (pdf). www.surabayakota.bps.go.id. Retrieved 11 August 2020.
- Note 2. Jorge Martinez-Vazquez. Georgia State University - Andrew Young School of Policy Studies and Robert Malt in McNab . Naval Postgraduate School. Fiscal Decentralization and Economic Growth. Georgia State Andrew Young School of Policy (ISP) Working Paper No. 01-01.
- Note 3. Explanation of Law of the Republic of Indonesia No. 33 of 2004 concerning Financial Balance between Central and Regional Governments.
- Note 4. Rodriguez-Pose danKroijer , 2009. Fiscal Decentralization and Economic Growth in Central and Eastern Europe. Article in Growth and Change, 40(3). September 2009 with 211 Reads. DOI: 10.1111/j.1468-2257.2009.00488.x
- Note 5. Charles M. Tiebout. 1956. A Pure Theory of Local Expenditures. Source: The Journal of Political Economy, Vol. 64, No. 5, (Oct., 1956), pp. 416-424 Published by: The University of Chicago Press Stable URL: <http://www.jstor.org/stable/1826343> Accessed: 18/07/2020 05:58.
- Note 6. PranadBardhan, 2002 Decentralization Of Governance And Development Journal Of Economic Perspectives Vol. 16, No. 4, Fall 2002 Doi: 10.1257/089533002320951037. Pp. 185- 205.
- Note 7. Law of the Republic of Indonesia Number 33 of 2004. Concerning Financial Balance Between Central Government and Regional Government.
- Note 8. *Ibid*. Law of the Republic of Indonesia Number 33 of 2004. Article 5.
- Note 9. PranadBardhan, 2002 Decentralization Of Governance And Development Journal Of Economic Perspectives Vol. 16, No. 4, Fall 2002. Doi: 10.1257/089533002320951037. Pp. 185- 205.
- Note 10 . Huang, Y. (2009). Dynamic Panel Data Evidence on d1e Finance- Investment Link. Journal of Statistics: Advance in Theory and Applications , November (23): 1- 23.
- Note 11. Todaro, M. dan Stephen, S. C. (2006). *Economic Development*, Ninth Edition. Addison Wesley Harlow , Boston.
- Note 12. Christina D. Romer And David H. Romer. A New Measure Of Monetary Shocks: Derivation And Implications. The American Economic Review September 2004, pp 1055-1081.
- Note 13. *Ibid*. Christina D. Romer And David H. Romer. pp 1055 -1081.
- Note 14. Dornbusch, R., S. Fischer and R. Staitz . (2004). *Macroeconomics*. Ninth Edition. The McGraw-Hill Company, New York.
- Note 15. McCann, P. (2006). *Urban and Regional Economics*. Oxford University Press, New York.
- Note 16. Koutsoyiannis , A. (1997). *Theory of Econometrics: An Introductory Exposition of Econometrics Methods* , Second Edition. Harper and Row Publisher , London.
- Note 17. Gujarati, N. D. 1995. *Basic Econometric*. Mc. Graw Hill, New York.

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