ANALYSIS OF THE INFLUENCE OF LOCAL TAXES, CAPITAL EXPENDITURES, GOODS AND SERVICES EXPENDITURES AND DOMESTIC INVESTMENT ON ECONOMIC GROWTH IN SUMATRA

Huswatun Hasanah[1], Syauqi Irfan[2], Wardatul Fara[3]
[1,2,3] Development Economics, Bengkulu University, Indonesia
Email: [1] c1a021006.huwatunhasanah@mhs.unib.ac.id, [2]c1a021013.syauqiirfan@mhs.unib.ac.id, [3]c1a021046.wardatulfara@mhs.unib.ac.id

ABSTRACT

Economic growth is a key indicator in measuring the economic level of a country that is closely related to national development. The purpose of this study is to analyze the effect of local taxes, capital expenditure, expenditure on goods and services and domestic investment on economic growth in Sumatra. This study uses explanatory research and descriptive research methods, using panel data, consisting of 10 provinces in Sumatra from 2019 to 2021, sourced from the Central Statistics Agency (BPS), the Directorate General of Fiscal Balance (DJPK), and One Data Ministry of Trade. This study uses a panel data test, which consists of CEM, FEM and REM model tests. Based on the results of tests conducted by researchers, three of the four independent variables used in this study have a significant effect on economic growth in Sumatra. the variables in question are local taxes, and domestic investment has a positive and significant effect. The capital expenditure variable has a negative and significant effect. Meanwhile, the other independent variable, namely spending on goods and services, has a positive and insignificant effect on economic growth in Sumatra.
***Keywords**: Economic growth, Taxes, expenditure, PMDN.*

1. Introduction

Economic growth is a key indicator to measure the economic level of a country, which is closely related to national development. According to Todaro and Smith, one way to assess the success of national development projects undertaken by the government is to observe economic success. Economic growth also refers to the rate of increase in output that each person produces in the production of goods and services, which is the level of GDP per capita for each person. In addition, economic growth can be referred to as real GDP (Mankiw, 2007). In the country's economy in this year, good is defined as more or less than the average growth of population and per capita income of each individual (Wahyudi & Silpayana, 2022).

Sumatra is an island with significant economic potential due to its abundant natural resources and dense population. According to Indonesia's economic statistics, Sumatra has a significant advantage over Java as year on year, its provinces contribute substantially to the Regional Gross National Domestic Product (GRDP). (Fajri, 2017). According to the Central Bureau of Statistics (BPS), the economic level in Sumatra displayed in Figure 1.1. shows data on economic growth in Sumatra in 2021. The figure shows that the rate of economic development in Sumatra in 2021 is high in the province of North Sumatra amounting to 859,871 billion Rupiah. Meanwhile, the province with the lowest economic growth is Bengkulu province amounting to 79,576 billion Rupiah (BPS, 2023).

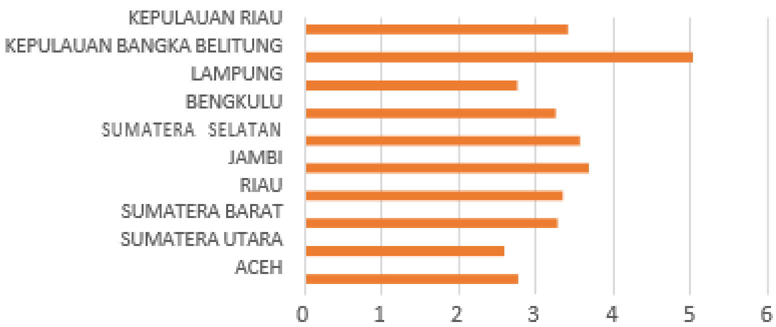

Figure 1.1. Economic Growth in Sumatra in 2021
Source: Data processed by the author, 2024

There are many factors that can influence the increase in economic growth in Indonesia, including in Sumatra, namely the increase in local taxes, capital expenditure, expenditure on goods and services, and domestic investment. The first factor is local taxes. It is possible to use local taxes to enhance the development of the region and increase the level of social cohesion among the population. Taxes are the basis of state authority, both national and local. The size of the tax will determine the capacity of land for land use change, both for construction and for changes in routine land users Yurianto & Akhmad, 2021).

Increasing local revenue from the taxation sector is the goal of tax reform. This revenue will then be used to increase people's prosperity through economic growth and regional development (Saragih, 2018). In research conducted previously, it shows that provincial tax revenue has a significant positive effect on provincial economic growth in Indonesia (Saragih, 2018; Orbaningsih & Sujianto, 2022; Refilio & Widyastuti, 2932; Riski, 2018: Yurianto & Akhmad, 2021). Meanwhile, another study found that tax revenue does not have a significant effect on economic growth in Indonesia (Ramadhania & Gazali, 2022).

In addition to local taxes, regional expenditure indicators can also affect economic growth, one of which is capital expenditure. Government capital expenditure can improve infrastructure and the quality of public services, which in turn can attract investment and encourage economic activity. Capital expenditure, according to the Regulation of the Minister of Home Affairs (Permendagri) Number 13 of 2006, as amended by Permendagri Number 59 of 2007, is defined as expenditure made to purchase, or build tangible fixed assets that have a useful value of more than 12 (twelve) months to be used in government activities. The expenditure structure in the provincial APBD includes capital expenditure policies, which are very important and strategic to encourage regional economic growth (Sulaeman & Silvia, 2019).

Previous research shows that government spending in the form of capital expenditure shows a significant positive relationship with economic growth (Sodik, 2007). It is expected that capital expenditures allocated to provide various public facilities and infrastructure, which can become regional fixed assets and maintain their useful value for more than one year, will serve as capital to encourage various economic activities of the community (Kurniawan et al., 2010). In addition, according to other studies, it shows that government spending on public investment has a significant positive impact on economic growth (Rahayu, 2005).

Next is spending on goods and services. This expenditure can also affect economic growth. Goods and services expenditures, or auctions, are mostly done by governments and private companies. This process is carried out to obtain goods and services for an organization or institution. This process begins with planning needs and ends with completing the entire purchasing process (Astuty, 2022). According to previous research, it explains that expenditure on goods and services has a significant positive effect on economic growth (Astuty, 2022; Pusporini, 2020). Meanwhile, other studies explain that spending on goods and services has no effect on economic growth (Bahari & SBM, 2019).

In addition to local taxes and some components of local expenditure, domestic investment (PMDN) can also affect economic growth in Sumatra. Basically, PMDN can create jobs and increase the production of goods and services. The economy of a region depends on investment to overcome various economic problems, crises and challenges. Sumatra has great potential to attract domestic investment (PMDN). It is supported by abundant natural resources, dense population and growing infrastructure. The Indonesian government has also issued various policies and made promotional efforts to encourage FDI. Public awareness of the importance of investment is also increasing.

The results of previous studies show that PMDN has a small positive effect. This is due to the sluggishness of manufacturing activity in recent years, which makes foreign investors refrain from investing (Buciarda, et al., 2021). Unlike other studies that show that PMDN has a significant positive impact because government investment in public goods is increasing. Other studies show that the ability of FDI is expected to encourage the growth of the private sector and households in the sharing of local resources (Al-Akbar, 2022; Ramadhania & Gazali, 2022; Rumalutur, et al., 2022).

Several studies have been conducted to analyze some of the variables mentioned above, but this study also includes other variables that might make new discoveries about what variables can increase economic growth, especially on the island of Sumatra. Therefore, the purpose of this study is to determine the effect of local taxes, capital expenditure, expenditure on goods and services and domestic investment on economic growth in Sumatra.

2. Literature Review

2.1 Economic Growth

Economic growth is a stage of change in the economic conditions in acountry that is sustainable to lead to better conditions. Economic growth is also part of the stage of increasing production capacity in an economic condition that can be seen from increasing national income *(Yuliantari et al.*, 2016). This economic growth can also be said to be the ability of a country to increase the production of goods or services. With this increasing ability, it is also caused by production factors both in terms of quantity and quality (Sukirno, 2006; Alvaro, 2021). Gross Regional Domestic Product (GRDP) is a calculation method used to see economic growth in a region in a certain period (Saputri & Ananda, 2023). In previous research, it was stated that economic growth can show how much economic activity can generate an increase in people's income in a certain period (Basri and Munandar, 2010; Alvaro, 2021)). Economic activity is a stage of using production factors to produce *output*. With the *output,* it will produce a flow of services that the community has for these production factors (Alvaro, 2021).

2.2 Local Tax

Taxes are an important part of state revenue and have a very large contribution in terms of financing the development that will be carried out by the government (Estro, 2020). With the large role of taxes on state revenue in terms of financing, tax revenue can affect the running of the government. Various ways have been taken by local governments to go through several phases of local tax reform. Tax reform aims to increase local revenue from the tax side which will be used for the welfare of the community through increased economic growth and regional development (Habib Saragih, 2018). In good conditions, tax revenues that increase rapidly do not always increase economic growth in a region (Habib Saragih, 2018; Mdanat *et al*., 2018). This condition may be caused by tax revenues that are not properly used to finance regional development plans and other productive activities (Habib Saragih, 2018). According to previous research, there is a positive correlation between economic growth and taxes (Jalata, 2014; Stoilova, 2017; Adkisson and Mohammed, 2014; Adriansyah, 2014; Habib Saragih, 2018). From several researchers who have conducted research, it can be concluded that taxes have a major influence on economic growth. Increased economic growth continuously.

2.3 Capital Expenditure

Capital expenditure is defined as budget expenditure for the acquisition of fixed assets and other assets that provide benefits for more than one period (Waryanto, 2017). The value of the purchase or construction of fixed assets will be budgeted in capital expenditure only at the purchase price of the asset (Yunus & Amirullah, 2019). Basically, capital expenditures have not yet been funded, but all types of revenue sources have been assigned to regions to fund regional expenditures, one of which is capital expenditures (Yunus & Amirullah, 2019). In his research, it was stated that capital expenditure had no significant effect on economic growth (Yunus & Amirullah, 2019). Meanwhile, according to other studies, it was found that capital expenditure has a significant positive effect on economic growth (Waryanto, 2017).

2.4 Good and Services Expenditure

Goods and services expenditure is one of the expenditures used as a budget for the procurement of goods in the government environment which is worth less than one year period (Gosal et al., 2022). When goods and services expenditures meet their needs, employees in the government sector will get maximum public services (Gosal et al., 2022; Pangestu, 2019). This expenditure is used for operational expenditure, non-operational expenditure, public service agency expenditure and goods expenditure aimed at the community (Gosal et al., 2022). In previous studies, it was found that capital expenditure has a positive influence on economic growth (Pangestu, 2019; Yuliantari et al., 2016).

2.5 Domestic Investment (PMDN)

One source of capital that can help increase economic growth from within the country is Domestic Investment (PMDN). Domestic Investment (PMDN) is the use of public wealth. This wealth includes rights and objects owned by the state or national and foreign private companies living in Indonesia (Alvaro, 2021). There are several benefits of PMDN, namely the ability to save foreign exchange, reduce import dependence, encourage industry to become more advanced and can contribute more to employment (Alvaro, 2021). Through FDI, capital stock will increase and productivity will increase. PMDN also has an important role in determining the amount of output and the amount of income (Alvaro, 2021). With investment activities, the economy in an area will develop. Investment can also benefit the community with the transfer of technology that will help the community to develop skills to compete. In previous studies, it was stated that PMDN has no influence on economic growth. (Alvaro, 2021; Asiyan, 2020). This is due to the ineffective growth of PMDN due to the lack of confidence of domestic investors to invest in several sectors in Indonesia. In contrast to other studies which state that PMDN has a significant negative effect on economic growth (Prasetyo, 2011; Yuliantari et al., 2016). In terms of macroeconomics, economic growth can be achieved by increasing the amount of investment realized in a particular region (Yuliantari et al., 2016

2.6 Variable Description

- Economic Growth is the rate of the sum of the added value of goods and services produced by various units of production in the regions of a country within a certain period (usually one year) (BPS, 2022).
- Local tax is a form of mandatory contribution to the region that must be submitted by individuals and entities according to legal regulations, without direct reward, with the aim of supporting public welfare and regional public interests.

- Capital expenditure is a form of cost out of a number of budgets to acquire fixed assets and other assets that provide benefits for more than one period. Capital expenditure includes capital expenditure to receive land, buildings and structures, intangible asset equipment (Ministry of Finance, 2020).
- Goods and Services Expenditure is a form of cost incurred to accommodate the purchase of consumable goods or servicestoproduce marketed or non-marketed goods or services as well as the procurement of goods intended to be delivered or sold to the public and travel expenditure.
- Domestic Investment is an investment activity to conduct business in the territory of the Unitary State of the Republic of Indonesia (NKRI) carried out by domestic investors using domestic capital.

3. Research Methods

This research uses explanatory research and descriptive research methods. Using panel data which is a combination of cross-section and time series. The cross-section data consists of a combination of 10 provinces, namely Aceh, North Sumatra, West Sumatra, Jambi, Riau, South Sumatra, Bengkulu, Lampung, Bangka Belitung Islands and Riau Islands and the time series data consists of 2019-2021. The data used refers to the publications of the Central Statistics Agency (BPS), the Directorate General of Fiscal Balance (DJPK), and One Data of the Ministry of Trade.

Panel data regression is a regression technique that is used as well as the best technique for testing the available data because it has several advantages such as the best estimate of the model so that when there is an increase in the number of observations, it will increase the degree of freedom while minimizing errors if a variable is omitted from the model. For this reason, three types of tests are carried out such as the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM) (Salsabila et.al, 2022).

Table 1. Variable Description

Variables	Symbol	Unit
Dependent	Economic Growth	Percent
Independent	Local Tax	Billion Rupiah
	Capital Expenditure	Billion Rupiah
	Goods and Services Expenditure	Billion Rupiah
	Domestic Investment	Billion Rupiah

Source: processed by the author, 2024

3.1 Data Analysis Method

This study analyzes the effect of government spending, domestic investment and local taxes on economic growth using the model, namely:

$$PEit = \beta 0 + \beta 1PAJAKt + \beta 2BMit + \beta 3BBJit + \beta 4PMDNit + \mu i$$

With a description:
- PE : Economic Growth
- TAXES: Local Taxes
- BM : Capital Expenditure
- BBJ : Goods and Services Expenditure
- PMDN: Domestic Investment

4. Research Findings and Discussion

4.1 Result

Based on the results of the data, it is found that the Fixed Effect Model (FEM) is the best model to see the relationship between variables. This model was selected through two tests, namely the Chow Test and the Hausman Test, so it can be concluded that of the three models CEM, FEM and REM, the appropriate model to explain the panel data regression results of this study is FEM.

Table 2. Data Processing Results

Variables	**FEM**
Local Tax	0.010389
	(0.0025)
Capital Expenditure	-0.012481
	(0.0134)
Goods	0.011211
Expenditure and Services	(0.0928)
Investment	0.002133
Domestic	**(0.0087)**
C	280.1628
	(0.0000)
R-Square	**0.998123**
Adj.R-Square	**0.996598**
F-Statistic	654.4892
Prob (F-Statistic)	0.000000

Source: processed by the author, 2024

Based on the test results conducted by researchers, three of the four independent variables used in this study have a significant influence on economic growth in Sumatra. The variables in question are capital expenditure, domestic investment and local taxes. Meanwhile, the other independent variable, namely Goods and Services Expenditure, has an insignificant positive effect on economic growth.

4.2 Discussion

Taxes have a positive and significant effect on economic growth. When there is an increase in local taxes by 1 billion rupiah, it will also increase economic growth by 0.0025 billion rupiah. Conversely, when there is a decrease in the realization of tax absorption by 1 billion rupiah, it will reduce economic growth by 0.0025 billion rupiah. The realization of local tax revenue is a mainstay to support regional independence. If the regional revenue exceeds the burden or regional expenditure, it will encourage an increase in other sectors in the economy. Moreover, there are many sources of tax revenue so that more and more sectors are able to contribute to regional economic growth (Alpad, 2023). In line with research (Riski, 2018) and (Putra Pratama et al., 2023) that taxes have been able to become a support to increase regional economic growth.

Capital expenditure has a significant negative effect on economic growth, when capital expenditure increases by 1 billion rupiah, it will reduce economic growth by 0.0134 billion rupiah. Conversely, when there is a decrease in capital expenditure by 1 billion, it will increase economic growth by 0.0134 billion rupiah. Whereas capital expenditure is able to add fixed assets or other assets in order to increase economic activity (Ministry of Finance, 2024). It can be understood that an increase in capital expenditure is still unable to encourage accelerated economic improvement so that when the government focuses on its expenditure in the form of capital expenditure, it will reduce the percentage of economic growth. Not only that, the increase in capital expenditure has also not been able to create production demand in each region (Fajri, 2017). However, in contrast to what happened on the island of Sumatra, nationally capital expenditure was able to encourage economic growth (Waryanto, 2016). Thus, the government as the implementer of fiscal policy must be able to create a harmony of programs implemented in order to increase economic growth, especially on the island of Sumatra.In line with this, other activities in the form of investment, which in this case is represented through domestic investment (PMDN), have a significant positive effect on economic growth. When PMDN increases by 1 billion rupiah, it will increase economic growth by 0.0087 billion rupiah. In line with research (Ramadhania & Gazali, 2022) that PMDN has a significant positive effect on economic growth. Thus, achieving the value of investment in the country, especially provinces on the island of Sumatra, will create profit- oriented economic activity which will increase the percentage value of economic growth in the region.

5. Conclusion

This study aims to determine the effect of local taxes, local expenditure represented by capital expenditure and expenditure on goods and services and FDI on economic growth in 10 provinces on the island of Sumatra. Based on the results of the study, it can be concluded that the variables of local taxes and FDI have a significant positive effect on economic growth on the island of Sumatra. While the capital expenditure variable has a significant negative effect on economic growth on the island of Sumatra. The goods and services expenditure variable has an insignificant positive effect on economic growth on the island of Sumatra.

References

A. Fitriadi Al Akbar. (2022). Analysis of the Effect of Foreign Investment (PMA), Domestic Investment (PMDN), and Labor Force on Economic Growth in Banten Province in the 2017-2020 Period. *Popular: Journal of Student Research*.

Adkisson, Et.Al. (2014). Tax Structure And State Economic Growth During The Great Recession. The Social Science Journal.

Adriansyah, B. G. (2014). Analysis of GDP Growth, Tax Revenue and Tax Incentives for Manufacturing Industry. In *Review of Economics and Finance*

Alpad, A. (2023). Analysis of the Effect of Local Taxes on Economic Growth in Aceh Province. *Edu Society: Journal of Education, Social Science and Community Service*

Alvaro, R. (2021). The Effect of Investment, Labor, and Exports on Economic Growth. *Journal of Budget: State Financial Issues and Problems*

Asiyan, S. (2020). The Effect of Domestic Investment, Foreign Investment, and Exports on Economic Growth in East Java. *Journal of Economic Education (JUPE)*

Astuty, S. (2022). Employee Expenditure and Goods and Services Expenditure on Capital Expenditure. *Scientific Journal of Business Economics.*

Bahari, F., & SBM, N. (2019). Analysis of Fiscal Policy Instruments on Economic Growth in 35 Districts / Cities of Central Java Province in 2013 - 2017. *Journal of Research and Development of Central Java Province*.

BPS. (2024). Central Bureau of Statistics of Indonesia.

BPS. (2022). BPS Indonesia Economy 2022. *Central Bureau of Statistics.* Directorate General of Fiscal Balance, Ministry of Finance (2024).

Estro, D. S. (2020). Analysis of the effect of tax revenue on Indonesia's economic growth: vector autoregressive approach Analysis of the effect of tax revenue on Indonesia's economic growth: vector autoregressive approach. *Economic Forum.*

Faisal Basri and Haris Munandar. (2010). Fundamentals of International Economics: Thickening and Application of Quantitative Methods. Kencana.

Fajri, A. (2017). The effect of capital expenditure on the economic growth of provinces in Sumatra. *E-Journal of Economic Perspectives and Regional Development*.

Gosal, J. S., Lapian, A. L. C. P., & Masloman, I. (2022). The Effect of Capital Expenditure and Goods and Services Expenditure on Economic Growth in Manado City 2005-2021. *Journal of Efficiency Scientific Periodicals*.

Habib Saragih, A. (2018). The Effect of Tax Revenue on the Economic Growth in Indonesia. *Attitude*.

Islahul amri, & Misbahul Munir. (2020). The Moderating Role of Human Capital Among the Effects of FDI and DDI on Economic Growth. *Expansion: Journal of Economics, Finance, Banking and Accounting*.

Jalata, D.M. (2014). The Role Of Value Added Tax On Economic Growth Of Ethiopia. Science, Technology And Arts Research Journal.

Indonesian Ministry of Finance. (2020). Economic Development and Budget Refocusing for Covid-19 Handling in Indonesia. *Ministry of Finance of the Republic of Indonesia.*

Kurniawan, A., Effendi, N., & Wardhana, A. (2010). *Analysis of Government Capital Expenditure Allocation on Economic Growth of Districts/Municipalities in West Java*.

Mdanat, M. F., Shotar, M., Samawi, G., Mulot, J., Arabiyat, T. S., & Alzyadat, M. A. (2018). Tax structure and economic growth in Jordan, 1980-2015. *EuroMed Journal of Business*. Orbaningsih, D., & Sujianto, A. E. (2022). The Impact of Tax Revenue on Economic Growth: Evidence from Indonesia. *International Journal of Research and Innovation in Social Science*, *06*(05).

Pangestu, E. C. (2019). The Effect of Goods and Services Expenditure, Capital Expenditure, Employee Expenditure and Investment on Economic Growth in South Kalimantan Province. *JIEP: Journal of Economics and Development.*

Prasetyo, E. (2011). Analysis of the Effect of Domestic Investment, Foreign Investment, Labor, and Exports on Economic Growth in Java. In *Indonesian Journal of Economics and Business.*

Pusporini, I. D. (2020). Analysis of the Influence of Budget Revenue and Expenditure in Central Java Province. *E-Journal of Economics and Business. Udayana University.*

Putra Pratama, W. R., Kartubi, K., & Muhammad Rahimin, S. (2023). The Effect of Local Tax Revenue on Economic Growth in Natuna Regency. *Agilearner Journal*.

Rahayu, S. A. T. (2005). The *Role of Local Public Sector in Regional Economic Growth in Surakarta Region.*

Ramadhania, T. S., & Gazali, M. (2022). The Effect of Tax Revenue, Import, and Trade Balance on Indonesia's Economic Growth. *Trisakti Economic Journal*.

Refilio, A. P., & Widyastuti, S. (2022). The Effect of Tax Revenue and Inflation Rate on Economic Growth in Indonesia. *Veteran Economics, Management, & Accounting Review*.

Riski, D. (2018). The Effect of Total Regional Revenue and Regional Taxes on the Economic Growth Rate of Lampung Province. *TECHNOBIZ: International Journal of Business*.

Rumalutur, T., Wulandari, I. T., Marlissa, E. R., & Urip, T. P. (2022). Analysis of the Effect of Export Value, Imports, and Investment (PMDN & PMA) on Economic Growth in Papua Province for the 2010-2020 Period. *Journal of Economic Studies and Development Studies*.

Sadono Sukirno. (2006). Export Import Law. Achieve Asa Success

Saputri, K. D., & Ananda, C. F. (2023). The Effect of Regional Expenditure, Foreign Direct Investment, and Foreign Direct Investment on Economic Growth in Java. *Journal Of Development Economic And Social Studies*.

Sedyati, R. N. (2022). Higher Education as an Agent of Education and an Agent of Economic Growth. *Journal of Economic Education: Scientific Journal of Education, Economics, and Social Sciences.*

Stoilova and Desislava. (2017). Tax Structure And Economic Growth: Evidence From The European Union. Contaduria Y Administracion.

Sulaeman, A. S., & Silvia, V. (2019). Regional Original Revenue, Regional Transfers, and Capital Expenditures, Their Effect on Regional Economic Growth in Indonesia. *Journal of Accounting Applications.*

Thomas Suyatno. (2007). Fundamentals of Credit (Fourth Edition). Gramedia Pustaka Utama. Wahyudi, H., & Silpayana, S. (2022). Economic Growth of Sumatra Island. *Journal of Studies Governance and Accountability*.

Waryanto. (2016). The *Effect of Capital Expenditure on Economic Growth in Indonesia*.

Yuliantari, E. R., Militina, T., Gaffar, A., & Umma, E. (2016). The Effect of Domestic Investment, Foreign Investment and Direct Expenditure and Labor on Economic Growth. *Mulawarman Journal of Economics*.

Yunus, S., & Amirullah. (2019). The Effect of Capital Expenditure on Economic Growth (Study on Districts in Aceh Province). *Samudra Ekonomika Journal*.

Yurianto, Y., & Akhmad, T. (2021). The Effect of Local Tax Revenue on Economic Growth in Dki Jakarta. *JABE (Journal of Applied Business and Economic.*

Zabilla Buciarda, T., Priana, W., & Wahed, M. (2021). Analysis of the Effect of FDI, DDI and Household Consumption on Economic Growth in Surabaya City. *Syntax Admiration Journal*.