

# The Impact of Fiscal and Monetary Policies on The Growth of The Electric Vehicle Population in Indonesia

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**Abstract:** This study aims to determine the impact of fixed and monetary policies on the growth of the electric vehicle population in Indonesia. The method used in this study is qualitative with a literature review approach. The data analysis technique used in this study is critical analysis. The results of the study show that electric vehicle (EV) production is a top priority, as well as the development of supporting infrastructure regulated in the 2020-2024 National Medium-Term Development Plan (RPJMN). One of the impacts that has occurred on the electric vehicle industry is the provision of special incentives for battery-based electric cars. The form of incentives for consumers includes providing a 0% tax on the Luxury Goods Value Added Tax (PPnBM).

Keyword: Fictitious Policy; Monetary Policy; Electric Vehicles

#### **INTRODUCTION**

Along with the implementation of national economic development, structural transformation in the economy is an inevitable process. The process of structural transformation that occurs in the economy is reflected in the shift in economic structure from time to time, namely from the primary sector to the secondary sector as indicated by the shift in the production structure. Economic activities based on natural resources (such as agriculture and mining or mining) began to decline, and began to dominate the contribution of industrial sectors (processing or manufacturing industries, electricity, gas, clean water, and buildings) in the economy (Imoughele & Ismaila, 2014).

Economic growth, which is dominated by the processing industry sector, which is a tradable sector, is considered very good in economic development because it tends to be more capital-intensive and changes the added value of an output. The manufacturing industry sector is one of the dominant sectors and is a key sector in the success of Indonesia's economic

transformation. The industrial sector contributes greatly to the formation of GDP and national economic growth which shows an increase over time (Odior, 2013).

One of the manufacturing sectors that continues to grow is automotive production. The global economic crisis in the late 2000s forced automakers to switch from large, fuel-efficient cars to small, hybrid, and electric cars. Tesla Motors (United States) and Mitsubishi (Japan) are pioneers in the modern electric car industry. Electric vehicles are considered more environmentally friendly because their electrical energy sources can come from various alternative energy sources, such as water, wind, and others. This makes electric vehicles more energy-efficient and does not produce emissions, thus maintaining air quality.

In recent years, the electric vehicle industry has experienced rapid growth worldwide, driven by technological innovation, supportive government policies, and changing consumer preferences. Electric vehicles, which include electric cars, electric motorcycles, and electric public transport vehicles, have become a popular solution for reducing air pollution and greenhouse gas emissions. In addition, they also offer economic advantages, such as higher energy efficiency and lower operating costs.

Battery-based electric cars are seen as an alternative solution in overcoming the global warming problem that many people are worried about. The study to accelerate its realization is even more urgent, considering that carbon pollution has had a significant impact on the climate in Indonesia (Putri, 2020). The estimated need for components to arrange battery cells is also projected to continue to increase until 2045.





By 2045, it is estimated that the need for local components for electric vehicle battery cells will reach 220 thousand tons. In addition, there is still a tendency for high demand for fossil energy, and energy consumption in Indonesia tends to increase in line with Gross Domestic Product (GDP) growth. In other words, the higher the GDP, the higher the energy consumption.



Source: Handbook of Energy and Economic Statistic of Indonesia 2022 Figure 2. Comparison of Final Energy Consumption and Indonesia's GDP

Governments and the private sector in various countries are beginning to recognize the great potential that the electric vehicle industry has, and as a result, investment in the research and development of electric vehicle technology has increased significantly. In addition, many countries have adopted policies and incentives to encourage the growth of the electric vehicle industry, such as subsidies, tax incentives, and electric vehicle sales mandates (Suartika, 2023).

Therefore, the policy instruments set by the government include fiscal policy and monetary policy. Fiscal policy includes the power to impose taxes and spend or spend money, while monetary policy concerns interest rates and the amount of money in circulation (Aprilia, 2016).

Fiscal and monetary policies are fundamental components to encourage sustainable economic growth. The success of economic functioning depends on monetary and fiscal policy coordination activities and the absence of this coordination leads to poor overall economic performance. These policies are carried out by two separate authorities, they are interdependent, and therefore, it is essential to achieve a consistent and sustainable policy mix framework (Budiyanti, 2014).

Monetary policy is one of the macroeconomic instruments implemented by monetary authorities in managing their country's economy to achieve the desired basic goals. Anderson & Jordan (1968) argued that monetary policy has a faster influence on economic activity. Monetary variables are more effective and reliable than fiscal variables to influence changes in economic activity. The Central Bank establishes two monetary policy regimes, a tight monetary policy and a loose monetary policy to stabilize prices and improve the performance of the real sector.

To mitigate the effects of economic shocks, as a monetary authority, the central bank has implemented monetary policy that can be in the form of controlling the amount of variable monetary interest rates to achieve the desired development of economic activities (Warjiyo, 2004).

Knowledge, understanding, and implementation of fiscal and monetary policies among the public are still low. The understanding, analysis, and presentation of research results on the impact of fiscal and monetary policies on the growth of the electric vehicle population in Indonesia are still very minimal.

Research on fiscal and monetary policy has been widely carried out using various research methodologies. However, these studies are limited to explaining fiscal and monetary policy in general. Although several studies have examined several aspects of fiscal and

monetary policy, there has been no analysis of the impact of fiscal and monetary policy on the growth of the electric vehicle population in Indonesia, which can be a guide for practitioners and researchers.

#### **METHOD**

This research is a literature research. Literature review or literature research, can include relevant theories or conceptual frameworks. Researchers can examine the theoretical framework as part of a philosophical statement (Leavy, 2017). Including the results of previous research related to the research (Purwono, 2008).

In analyzing the data, researchers use critical analysis techniques. With a critical analysis approach, the researcher reviewed various reputable references that discussed fiscal and monetary policies, then conducted an in-depth analysis of those fiscal and monetary policies to analyze the impact of fiscal and monetary policies on the growth of the electric vehicle population in Indonesia. With this research, it is hoped that it can be used as a reference for business people and researchers who conduct research on fiscal and monetary policy.

## **RESULTS AND DISCUSSION**

Fiscal policy is defined as the government's move to adjust between state revenue and state expenditure or expenditure with the aim of stabilizing the economy. The main objective in the implementation of fiscal policy is to increase national production as reflected in the Gross Domestic Product (GDP) and increase economic growth, which then has implications for expanding employment and lowering the unemployment rate as well as stabilizing the prices of goods, and in turn overcoming the inflation rate. In addition, in a study by Castelnuovo et al. (2019), it is stated that fiscal policy is one of the economic policies that encourages the acceleration of economic growth by adjusting government revenues and expenditures.

The transition to electric vehicles is an important part of Indonesia's national agenda set out in the National Industrial Development Master Plan (RIPIN) 2015-2035. Electric vehicle (EV) production is a top priority, as well as the development of supporting infrastructure regulated in the 2020-2024 National Medium-Term Development Plan (RPJMN). In 2019, the Indonesian government issued Presidential Regulation Number 55 of 2019 which provides guidance for the development and adoption of EVs in the country (Kusuma & Limanto, 2023).

This form of incentive for consumers includes providing 0% tax on Luxury Goods Value Added Tax (PPnBM) based on Government Regulation Number 74 of 2021. This is expected to support the government's policy to accelerate the reduction of exhaust gas emissions sourced from motor vehicles by accelerating the development of battery-based electric motor vehicles and their ecosystems.

Monetary policy, which is managed by central banks, has a significant impact in shaping an economic environment that is conducive to investment and other economic activities. Through interest rate regulation and inflation control, monetary policy plays an important role in stimulating investment, increasing consumption, and creating price stability (Kusumo et al., 2024).

The era of high interest rates is projected to end in 2024. At the same time, there is an increase in mobility and the development of electric vehicles could be a positive catalyst for the automotive sector in 2024. The automotive sector is closely related to economic growth. With the forecast of a reduction in the interest rate of the United States (US) central bank of the Fed followed by Bank Indonesia (BI) in 2024, economic growth is considered to be more optimal. Indonesia's economic growth is supported by large domestic consumption (Joe, 2024).

The Ministry of Industry reported that so far the Indonesian country has one local manufacturer of four-wheeled vehicles or more EVs, PT Mobil Anak Bangsa (MAB), which produces electric buses with a production capacity of 1,200 units per year. For two- and three-wheeled EVs, Indonesia has 15 manufacturers with a total production capacity of 877,000 units

per year, including brands such as Viar, Gesit, Selis, and MIGO (Prasidya, 2020). The potential to increase production capacity and expand market share is still huge, especially with the support of government policies and increasing demand in domestic and international markets.

### Impact on Electric Vehicle Population Growth in Indonesia

Both fiscal and monetary policies have a very important and strategic role which in their goal is to stabilize the economy through a balance between aggregate demand and supply. The difference in the functions of the two policies has a strong potential to achieve price stability and balance of payments when combined simultaneously. These two policies have become a fundamental part of macroeconomic policies which in their targets need to be met in two time horizons, namely long-term and short-term. Debates regarding the priority level of the two policies often occur. On the one hand, fiscal policy is carried out to achieve economic growth at a certain point. On the other hand, monetary policy is carried out mainly to stabilize price levels (Ramadhanti & Pramesti, 2023).



Sumber: Kemenperin, RUPTL, diolah

#### Source. Ministry of Industry, RUPTL Figure 3. Electric Car Development Target in Indonesia

Provision of Electric Charging Infrastructure for Battery-Based Electric Motor Vehicles, electric vehicle charging rates through public electric vehicle charging stations (SPKLU) range from IDR 1,644.52 - IDR 2,466.78 per kWh. To support the electric vehicle ecosystem, by 2023 the target of 1,030 SPKLU will be installed in Indonesia. This shows that the government continues to strive to improve charging infrastructure for electric motor vehicles in Indonesia.

To support the electric vehicle ecosystem, in 2023 the target is 1,030 SPKLU installed in Indonesia. That is, almost double that of 2022. The trend of using electric vehicles, both motorcycles and cars, is increasing. This can be seen at least from the sales figures of electric cars in the last three years.

	Hybrid (HEV)		Battery Electric Vehicle (BEV)			
Merek	Jumlah	Market Share	Merek	Jumlah	Market Share	
Toyota	35 430	67%	Hyundai	7.482	44%	
Toyota	00.400	0778	Wuling	6.968	41%	
Suzuki	13.667	26%	BMW	799	5%	
Suzuki		20%	Toyota	479	3%	
Honda	1.527	3%	Lexus	236	1%	
Lainnya	1.944	4%	Lainnya	1.094	6%	
Total	<b>52.568</b>	100%	Total	17.058	100%	

Table 1. Sales and market share for tw	o types of electric vehicles in Indonesia
Hybrid (HEV)	Battery Electric Vehicle (BEV)

Source: Gakindo.go.id (2023)

The electric vehicle industry is also expected to have a domino effect on other sectors, such as renewable energy, infrastructure, and related services. The electric vehicle market in Indonesia is estimated to reach USD9.5 billion by 2030, this will be driven by the direction of government policies that support the energy transition. The development of EVs not only encourages economic growth, but also contributes to energy stability and reduced dependence on imports (Fazli, 2024).

The development of electric vehicles in Indonesia will be more massive in the future along with the flow of investment from electric vehicle manufacturers. The growth of the electric vehicle population (2019 to the first quarter of 2024) is presented in Table 2 below.

Table 2. Electric Vehicle Population Growth (2019 to Q1 2024)						
Description	2019	2020	2021	2022	2023	April
-						2024
Electric vehicles	1.437	3.894	15.883	41.743	116.438	133.225
Source: MNI-nikel.co.id (2024)						

In Table 2, the population of battery-based electric vehicles in Indonesia has grown. In 2019 it was 1,437, in 2020 it was 3,894, in 2021 it was 15,883, in 2022 it was 41,743, in 2023 it reached 116,438, and in April 2024 the total reached 133,225 units.

Table 3. Types of Electric Vehicles (2019 to Q1-2024)							
Uraian	2019	2020	2021	2022	2023	April 2024	
2 Wheels	1.182	3.203	13.064	34.333	95.769	109.576	
3 Wheels	3	9	38	100	280	320	
4 Wheels	251	679	2.770	7.281	20.310	23.238	
Commercial	-	-	1	3	9	10	
Bus	1	2	10	25	71	81	
Amount	1.437	3.894	15.883	41.743	116.438	133.225	

Source: MNI-nikel.co.id (2024)

In Table 3, of the 133,225 units, there are 109,576 units of two-wheeled motorcycles, 320 units of three-wheeled vehicles, 23,238 units of four-wheeled vehicles, 10 units of commercial vehicles, and 81 units of electric buses.

Along with the implementation of the program to accelerate the development of the electric vehicle ecosystem in Indonesia, the electric vehicle population in Indonesia is increasing every year. In 2023, the total electric vehicle population in Indonesia will reach 116,438 units, an increase of 178.94% from 2022 which amounted to 41,743 units.

#### Indonesia's Fiscal Policy (2019-2024)

Indonesia's fiscal policy between 2019 and 2024 shows the government's response and adaptation to the various economic and social challenges faced. Each year, the government has formulated various policies that focus on the state budget, social spending, and infrastructure development to encourage economic growth and public welfare.

#### **Monetary Policy Exposure 2019-2024**

- 1. In 2019, Bank Indonesia (BI) set the benchmark interest rate (BI Rate) at 6.00% to maintain economic stability and inflation. In addition, an open market operation was carried out with the sale of Government Securities (SBN) amounting to Rp 250 trillion to regulate liquidity in the market.
- 2. In 2020 amid the impact of the COVID-19 pandemic, BI lowered the benchmark interest rate to 4.00% to encourage economic recovery. In addition, quantitative easing was carried out by purchasing SBN in the secondary market amounting to Rp 396 trillion and reducing the reserve requirement to 4.0% to increase banking liquidity.
- 3. In 2021, the benchmark interest rate is stable at 3.50% to maintain macroeconomic stability. BI also launched an exchange rate stabilization program to deal with fluctuations in the global market.
- 4. In 2022Facing inflationary pressures, BI raised the benchmark interest rate to 4.25% in August 2022. Macroprudential policy is also implemented by regulating LTV for property financing.
- 5. In 2023, the benchmark interest rate was raised again to 5.75% in December 2023 in response to inflation and exchange rate stability. The total purchase of SBN in the secondary market reached Rp 300 trillion to support liquidity.
- 6. In 2024, BI is predicted to make further adjustments to the benchmark interest rate, with a projection to increase to 6.00% by the end of the year. In addition, financial counseling and education programs will also be continued to improve people's financial literacy.

#### **CONCLUSION**

The transition to electric vehicles is an important part of Indonesia's national agenda set out in the National Industrial Development Master Plan (RIPIN) 2015-2035. Electric *vehicle (EV) production* is a top priority, as well as the development of supporting infrastructure regulated in the 2020-2024 National Medium-Term Development Plan (RPJMN).

One of the impacts that has occurred on the electric vehicle industry is the provision of special incentives for battery-based electric cars. This incentive is not only intended for electric car users or consumers, but also manufacturers. In this case, incentives also apply in terms of fiscal and non-fiscal.

The form of incentives for consumers includes providing a 0% tax on the Luxury Goods Value Added Tax (PPnBM). Therefore, in order to accelerate the investment and implementation of Battery-Based Electric Motorized Vehicles (KBLBB) in Indonesia, the Government has issued a number of incentives.

The electric vehicle industry is expected to have a domino effect on other sectors, such as renewable energy, infrastructure, and related services. The electric vehicle market in Indonesia is estimated to reach USD9.5 billion by 2030, this will be driven by the direction of government policies that support the energy transition.

The trend of electric vehicles is increasing, the number of SPKLU units in Indonesia is 346 units, spread across 295 locations. The electric vehicle market in Indonesia is estimated to reach USD9.5 billion by 2030. The development of electric vehicles in Indonesia will be more massive in the future along with the flow of investment from electric vehicle manufacturers. The potential benefits in 2040 obtained by Indonesia through saving fuel imports with the

implementation of electric cars/BEVs can reach USD15 billion and electric motorcycles USD10 billion.

#### REFERENCE

- Anderson, L. C., & Jordan, J. L. (1968). Monetary and Fiscal Actions: A Test of Their Relative Important in Economic Stabilization. *Federal Reserve Bank of St. Louis Review*, 80, 29-45.
- Aprilia, A. D., Darsono, & Agustono. (2016). Analysis of Fiscal and Monetary Influences on Labor Absorption in the Agricultural Sector in Indonesia. *Agrista*, 4(3), 230-238.
- Bank Indonesia. (2014a). Monetary Policy Objectives of Bank Indonesia. *bi.go.id*. http://www.bi.go.id/id/moneter/tujuan-kebijakan/ Contents/Default.aspx
- Bank Indonesia. (2014b). Monetary Policy Framework in Indonesia. *bi.go.id.* http://www.bi.go.id/id/moneter/kerangka-kebijakan/ Contents/Default.aspx
- Budiyanti, E. (2014). The Influence of Monetary Policy on the Performance of the Manufacturing Industry Sector in Indonesia. *Journal of Economics & Public Policy*, 5(2), 145-159. <u>https://doi.org/10.22212/jekp.v5i2.79</u>
- Castelnuovo et al. (2019). Castelnuovo, E., & Lim, G. (2019). What do we know about the macroeconomic effects of fiscal policy? A brief survey of the literature on fiscal multipliers. Australian Economic Review, 52(1). <u>https://doi.org/10.1111/1467-8462.12313</u>
- Charpe, M., Flaschel, P., Hartmann, F., & Proaño, C. (2011). Stabilizing an Unstable Economy: Fiscal and Monetary Policy, Stocks, and The Term Structure of Interest Rates. *Economic Modelling*, 28(5). <u>https://doi.org/10.1016/j.econmod.2011.05.005</u>
- Chidiebere Ekwe, M., Ogbonnaya, A. K., & Omodero, C. O. (2017). Monetary Policy and Nigeria's Economy: An Impact Investigation. *International Journal of Economics and Finance*, 9(11), 218. <u>https://doi.org/10.5539/ijef.v9n11p218</u>
- ekon.go.id. (2023). Encouraging the Performance of the Automotive Industry Sector Coordinating Minister Airlangga emphasized that Indonesia is ready to become an electric vehicle manufacturer for the global market. *ekon.go.id*. <u>https://ekon.go.id/publikasi/detail/5527/dorong-kinerja-sektor-industri-otomotif-</u> <u>menko-airlangga-tegaskan-indonesia-siap-menjadi-produsen-electric-vehicle-bagipasar-global</u>
- Fadhilah, F. A. et al. (2023). Indonesia Electric Vehicle Outlook 2023. Electrifying Transport Sector: Tracking Indonesia EV Industries and Ecosystem Readiness. *IESR*, 16.
- Fatas, A., & Mihov, I. (2012). Fiscal Policy as Stabilization Tool. The B.E. Journal of Macroeconomics, 12(3), 1-66.Fazli, A. Z. (2024). The Role of Electric Vehicles in Economic Growth and Mineral Utilization. medcom.id. <u>https://www.medcom.id/ekonomi/bisnis/VNnwJMvb-peran-kendaraan-listrik-dalam-pertumbuhan-ekonomi-dan-pemanfaatan-mineral</u>
- Göndör, M., & Bresfelean, V. P. (2012). REPTree and M5P for Measuring Fiscal Policy Influences on the Romanian Capital Market during 2003-2010. *International Journal of Mathematics and Computers in Simulation*, 4(6), 378–386.
- Hidranto, F., Nuraini, R., & Sari, E. I. (2023). Collaboration in the Development of Electric Vehicle Infrastructure. *indonesia.go.id.* <u>https://indonesia.go.id/kategori/editorial/6892/kolaborasi-pembangunan-infrastruktur-kendaraan-%20listrik?lang=1</u>
- Huynh, C. M., & Nguyen, T. L. (2020). Fiscal Policy and Shadow Economy in Asian Developing Countries: Does Corruption Matter? *Empirical Economics*, 59(4), 1745– 1761. <u>https://doi.org/10.1007/s00181-019-01700-w</u>

- Imoughele, L. E., & Ismaila, M. (2014). Empirical Investigation of the Impact of Monetary Policy on Manufacturing Sector Performance in Nigeria (1986- 2012). *International Journal of Education and Research*, 2(1), 1-20.
- Joe, K. A. (2024). This year's Automotive Industry is Supported by Economic Growth and Electric Vehicles. *gaikindo.or.id.* <u>https://www.gaikindo.or.id/industri-omotif-tahun-ini-ditopang-pertumbuhan-ekonomi-dan-kendaraan-listrik/</u>
- Kemenkeu.go.id. (2024). To increase the competitiveness of the national automotive industry, the government provides a number of incentives. *kemenkeu.go.id.* <u>https://www.kemenkeu.go.id/informasi-publik/publikasi/berita-utama/Tingkatkan-Daya-Saing-Industri-Otomotif</u>
- Kuncoro, M. (2004). Regional Autonomy & Development: Reform, Planning, Strategy, and Opportunity. Jakarta: Erlangga
- Kusuma, R. R., & Limanto, A. D. (2023). Moving Indonesia: The Multi-Stakeholder Network Building Indonesia's EV Production. *World Economic Forum*. <u>https://www.weforum.org/agenda/2023/02/moving-indonesia-the-multi-stakeholder-network-building-indonesia-s-ev-production-market/</u>
- Kusumo, A. Hawani, Y. S., Azhara, P., Septian, R., & Siregar, P. A. (2024). The Role of Monetary Policy in Encouraging Economic Growth in the City of Medan. *Widya Balina*, 9(1), 54-62.
- Leavy, P. (2017). Research Design: Quantitative, Qualitative, Mixed Methods, Arts-Based, and Community-Based Participatory Research Approaches. New York: Guilford Press.
- Mahdi, Aimon, H., & Syofyan, E. (2014). The Influence of Fiscal and Monetary Policy on Economic Growth in Jambi Province. *Journal of Economic Studies*, 2(4), 1-9.
- Minister of Energy and Mineral Resources. (2020). Regulation of the Minister of Energy and Mineral Resources Number 13 of 2020 concerning the Provision of Electric Charging Infrastructure for Battery-Based Electric Motorized Vehicles.
- Minister of Transportation. (2022). Regulation of the Minister of Transportation Number 15 of 2022 concerning the Conversion of Motor Vehicles Other than Motorcycles with Combustion Motor Drives into Battery-Based Electric Motorized Vehicles.
- Minister of Industry. (2022). Regulation of the Minister of Industry Number 6 of 2022 concerning Specifications, Development Roadmaps, and Provisions for Calculating the Value of Domestic Component Levels for Battery-Based Electric *Vehicles*.
- Nangarumba, M. (2016). Analysis of the Influence of Monetary Policy, Fiscal Policy, and Credit Distribution on Economic Growth in East Java Province in 2006-2016. *Journal of Economics* and *Development* Studies, 8(2), 114-130. <u>http://dx.doi.org/10.17977/um002v8i22016p11</u>
- MNI. (2024). Staff of the Minister of Energy and Mineral Resources: The Electric Vehicle Population in April 2024 Reaches 133,225 Units. *nikel.co.id.* <u>https://nikel.co.id/2024/06/20/stafsus-menteri-esdm-populasi-kendaraan-listrik-april-</u> <u>2024-capai-133-225-unit/</u>
- Nopirin. (1992). Monetary Economics (book 2). Yogyakarta: BPFE.
- Odior, E. S. (2013). Macroeconomic Variables and the Productivity of the Manufacturing Sector in Nigeria: A Static Analysis Approach. *Journal of Emerging Issues in Economics, Finance and Banking (JEIEFB)*, 1(5), 362-380.
- Prasidya, Y. (2020). Indonesia to Develop Circular Economy for EVs, Boost Battery Industry. *thejakartapost.com.*

- President of the Republic of Indonesia. (1999). Law Number 23 of 1999 concerning Bank Indonesia.
- President of the Republic of Indonesia. (2003Willywiganti29). Law Number 17 of 2003 concerning State Finance.
- President of the Republic of Indonesia. (2004). Law No. 3 of 2004 concerning Amendments to Law of the Republic of Indonesia No. 23 of 1999 concerning Bank Indonesia.
- President of the Republic of Indonesia. (2009). Law Number 6 of 2009 concerning the Stipulation of Government Regulations in Lieu of Law Number 2 of 2008 as Law.
- President of the Republic of Indonesia. (2019). Government Regulation Number 73 of 2019 concerning Taxable Goods Classified as Luxury in the Form of Motor Vehicles Subject to Sales Tax on Luxury Goods.
- President of the Republic of Indonesia. (2019). Presidential Regulation Number 55 of 2019 concerning the Acceleration of the Battery-Based Electric Motorized Vehicle Program for Road Transportation.
- President of the Republic of Indonesia. (2021). Government Regulation Number 74 of 2021 concerning Amendments to Government Regulation Number 73 of 2019 concerning Taxable Goods Classified as Luxury in the Form of Motor Vehicles Subject to Sales Tax on Luxury Goods.
- Purwono. (2008). Literature Studies. Info Persadha, 6(2), 66-72.
- Ramadhanti, A. & Pramesti, M. (2023). Analysis of the Influence of Fiscal and Monetary Policy on Indonesia's Stock Return Rate in 2015-2019. *Journal of Applied Business Administration*, 6(3), 22-36. <u>https://doi.org/10.7454/jabt.v6i1.1090</u>
- Rosya, N., Amar, S., & Syofyan, E. (2013). Analysis of Aggregate Demand and Aggregate Supply in West Sumatra. *Journal of Economic Studies*, 2(3), 66-84.
- Suartika, I. P. G. (2023). Accelerating the Development of the Electric Vehicle Industry to Encourage Sustainable Green Economy Transformation. *Scientific Paper of the National Institute of the Republic of Indonesia*, 1-68.
- Sukirno, S. (2012). *Macroeconomics Introductory Theory* (3rd edition). Jakarta: RajaGrafindo Persada.
- Sullivan, A., & Sheffrin, S. M. (2003). Economics: Principles in Action. Upper Saddle River, NJ: Pearson Prentice-Hall.
- WITH THE (2022). Electric car batteries are expensive because of this. *voi.id*. https://voi.id/teknologi/208407/baterai-mobil-listrik-mahal-ternyata-karena-ini
- Warjiyo, P. (2004). The application of monetary policy as an economic reference. Jakarta.
- Warjiyo, P., & Solikin. (2003). *Monetary Policy in Indonesia*. Jakarta: The Center for Central Banking Education and Studies (PPSK) of Bank Indonesia