The Moderation of Fiscal Policy in Customs on the Effect of Export, Import, and Investment on Manufacturing Industry Growth and Economic Growth in Indonesia

Cecep Rustandi[1], Ujianto[2], Slamet Riyadi[3]

[1)] *Doctoral Student of Economics University of 17 August 1945 Surabaya, Indonesia*
1271900036@surel.untag-sby.ac.id

[2)] *Lecturer of Economics University of 17 August 1945 Surabaya, Indonesia*
ujianto@untag-sby.ac.id

3) Lecturer of Economics University of 17 August 1945 Surabaya, Indonesia
slametriyadi10@untag-sby.ac.id

The Moderation of Fiscal Policy in Customs on the Effect of Export, Import, and Investment on Manufacturing Industry Growth and Economic Growth in Indonesia

Indonesia is one of the largest and most dynamic economies in the Asia-Pacific region. This study aims to analyze the moderation effect of fiscal policy in customs on the manufacturing industry growth and economic growth in Indonesia. Based on Indonesia's macro economy from 2011 to 2020, the results of PLS-SEM show that private investment, government investment, and imports have a positive and significant effect on the manufacturing industry growth. The manufacturing industry growth has no significant effect on economic growth. Fiscal policy at customs can only moderate imports, not exports, so it is not good for building the resilience of the national manufacturing industry.

Keywords: fiscal policy, manufacturing industry, economic growth, Indonesia.

Introduction

Indonesia has experienced a declining economic condition in the last 10 years. Since the beginning of 2013, the economic growth has been only less than 6%, whereas previously it was always higher than it. Whereas, human capital accumulation is a primary determinant of economic development (Wu, Chang, Wang, Wu, Lin, & Huang, 2021) and countries with higher rates of savings have had a faster economic growth than those with lower saving rates (Ribaj & Mexhuani, 2021). Since the second quarter of 2020, Indonesia has even experienced minus economic growth. This issue will be **the first** concern to be solved in this research. Minus economic growth can be because of certain issues such as unemployment just like what happened in Jordan (Hjazeen, Seraj, & Ozdeser, 2021). Besides, it is believed that government size influencing the economic growth (Nyasha & Odhiambo, 2019). On the other hand, the country's initial income

level and financial development also determines the economic growth (Hsu, Chiou, & Chen, 2020); (Nizam, Karim, Rahman, & Sarmidi, 2020).

For enforcing the economic growth, the manufacturing industry acts as a developmental benchmark which is expected to be a leading sector for the others. Through its own advantages, such as capital accumulation, scale economy, and technological progress, manufacturing industry can produce greateer spillover effects on other industries (Yang, Sun, Zhang, & Wang, 2021). Besides, the contributions of manufacturing to the national economy are far-reaching and broad, and include the gross domestic product (GDP), exports, high-paying jobs, meaningful return on investment, technology, innovation, science, and engineering (Wang, 2018). Hence, the manufacturing system can be seen as combination of humans, machinery, and equipment that are bound by a common material and information flow (Caggiano, 2019). For 10 years (from 2011 to 2020), the manufacturing sector has contributed to 19666.3 trillion rupiahs or 21.3 percent of the total national GDP. The high GDP value provided by this sector is still the main driver of the national economic development. This finding becomes a basis for many researchers to examine other sectors. The growing manufacturing industry will positively influence the country's economic growth. Sahoo, et al. (2014) stated that there is a long-term relationship between economic growth and industrial production. According to The United Nations Environment Programme, industrial producation is seen as new economic paradigm that material wealth is not delivered perforce at the expense of growing environmental risks, ecological scarcities and social disparities (Beier, Ullrich, Niehoff, Reibig, & Habich, 2020). Boldeanu and Constantinescu (2015) also showed that one main factor that sets a country’s economic growth is its industrial aspects.

Based on industrial outputs, Indonesia successfully improves its manufacturing industrial development rate every year. Since 2013, the Indonesian manufacturing sectors could produce an increasing number of outputs until 2019. However, it must experience a decline in 2020 due to the effects of the Covid-19 pandemic. The increasing output values are inversely proportional to their contribution to the total Gross Domestic Product (GDP). GDP itself can be seen as an indicator for measuring the overall progress of any nation (Shrotryia & Singh, 2021) and indicator of decent work and economic growth (Coscieme, Mortensen, Anderson, Ward, Donohue, & Sutton, 2020). In 2019, the manufacturing sector still contributed the largest percentage of GDP (19.88%). However, there seems to be reducing performance from time to time. In 2011, its contribution to GDP was 22.06%, and in 2020 it fell to 20.61%. The declining GDP provided by the Manufacturing sector in the last 10 years is the **second problem** in this research.

There is still an increasing trend in the output values of the manufacturing industry, but its contribution to GDP is getting lower due to the lower added values of the manufacturing industry. The goods are made from imported materials and are dominated by semi-finished raw materials so the manufacturing industry has not provided optimal added values for the national economic growth. Another factor is the increasing number of imported materials. Therefore, even though the industrial outputs increase, the economic growth is not significantly affected because the import activities are too high, causing the trade balance to experience a higher deficit. However, intergrating into the global economy, import activities has become important for firms as a result of reduced trade restrictions, improved international trade infrastructure, and global integration (Wang & Salas, 2020). When informal barriers are active, importing may diffuse from firm to firm through personal and business connections (Bisztray, Koren, & Szeidl, 2018). Besides, in developing economies, import can be the primary source of adopting

new technologies and modern production equipment (Bekes & Harasztosi, 2020). It might become an important driver of the country's economic growth (Blavasciunaite, Garsviene, & Matuzeviciute, 2020). Meanwhile, it can also indeed affect the deficit of country (Mikulic & Lovrincevic, 2018). Hence, the degree of import dependency and its evolution over time are important issues for developing countries, especially for those that run current account deficits (Erduman, Eren, & Gul, 2020).

Such condition does not support the resilience of the manufacturing industry in this country. Increasing the output values does not reflect the real success, because it still has not contributed to economic growth. This is contrary to the expectation that the manufacturing industry must grow and support national economics. Meanwhile, positive economic growth means for better developmental direction for the manufacturing sector. It is suggested that technical change is reason the most of economic growth (Pala, 2019) although some researches have stated that public health influences GDP per capita as well (Niu, Yang, & Wang, 2021).

The third problem is the effect of the Covid-2019 pandemic that has hit the nation since the second quarter of 2020. It is an outbreak of a mysterious pneumonia that happened in late December 2019 (Wu, Chen, & Chan, 2020). It has become a major health crisis that has changed the life of million people globally (Al Dhaheri, et al., 2021) that has reached the level of pandemic (Maison, Jaworska, Adamczyk, & Affeltowicz, 2021). At this time, the GDP in 2020 has decreased by -2.07 percent. Three sectors experienced the most significant decline, namely transportation (-15.04 percent), accommodation (-10.22 percent), and corporate services (-5.44 percent). The manufacturing industry also contracted its GDP contribution by -2.93 percent. Despite the decline, the manufacturing industry still has good adaptability and resilience amid the pressure of the Covid-19 pandemic.

Specifically, in the Indonesia context, some studies also found contradictory findings related to the effect of investment, export, and import on economic growth in Indonesia. Some studies found that investment has a positive impact on the economic growth in Indonesia (Sawitri, 2020; Wuri, 2018). In contrast, Rafiy et al. (2018) found that investment does not have a significant effect on economic growth in Indonesia, and Kurniasih (2019) even found that it has a negative impact on the economic growth in Indonesia. Furthermore, the study conducted by Sudaryanto et al. (2020) confirmed that export has a positive and significant effect on economic growth in Indonesia. A similar finding was also found by Astuti and Ayuningtyas (2018), who found that export and import positively affect the economic growth in Indonesia. However, Tampubolon and Loh (2020) found that export has a negative effect on economic growth, especially the economic growth in North Sumatra. These results contradict the previous findings, thus creating a research gap.

Considering the research gap of the previous studies, there are two novelties in this research. The first one is the fiscal policy variable or monetary policy, which has been widely used in previous studies was a predictor variable (independent). In this research, fiscal policy (focusing on policies in the customs sector) is a moderating variable, which can strengthen or weaken the relationship between export-import performance, investment, and the manufacturing industry. There has been never any research that uses fiscal policy in the customs sector as a moderating variable. The second novelty is the measurement of fiscal policy variables in the customs sector which is associated with the Ease of Import for Export Destinations (KITE) and Bonded Zone (KB) facilities. In the KITE and KB, there are eight main facilities provided to importers related to the import of raw materials for export purposes, namely: (1) free import duty, (2) suspended import duty, (3) free import VAT, (4) no collected VAT, (5) free income

tax (PPh) article 21, (6) no income tax not collected, (7) free imported luxury goods tax, and (8) no collected imported luxury goods tax. The KITE and KB fiscal policies will encourage imports of raw materials so that they will support production volume in the manufacturing industry. The use of this model of fiscal policy in the customs sector has never been seen in previous studies.

This research aims to: (1) analyze the effect of private investment, government investment, export performance, and import performance on the manufacturing industry growth; (2) analyze the moderation of fiscal policy in the customs sector on the effect of private investment, government investment, export performance, and import performance on the manufacturing sector, and; (3) analyze the influence of manufacturing industry on economic growth. The results are expected to be useful for the government to evaluate the effectiveness of fiscal policy in the customs sector, namely import convenience facilities in the form of exemptions and non-collection of import duty, import VAT, imported luxury goods tax, and income tax (PPh) article 21. If the policy is not appropriately implemented, there will be two disrupt two things; a reduction in foreign exchange and reducing the resilience of the manufacturing industry due to high import levels of raw materials.

Literature Review

Growth Theory

It explains the phenomenon of social changes, especially in developing countries. This theory was developed by some experts based on an idea to improve the socio-economic conditions of developing countries. The initial theory was grouped as classical growth theory, which was later refined by the Neo-Classical group. On the other hand, the

emergence and development of growth theory itself cannot be separated from the influence of other social science theories.

Growth in society is often focused on the process of increasing production and services in economic activities. The notion of growth is used in dynamics theory as it was developed by Neo-Keynes and Neo-Classical experts. Economic development has a very common meaning and includes changes in the overall economic structure. Development means a transformation process marked by changes in the economic structure, basic economic activities, and framework of the economic structure. In the social paradigm, growth is defined as the achievement of the human way of life and thinking patterns from a simple to a more complex level. This can be seen in the works of Classical Sociology figures such as August Comte in the stage of community growth and van Peursen in choosing a cultural strategy.

Private Investment

Generally, investment means any economic activity which aims to earn maximum profits in the future. It can be divided into financial and non-financial. Sukirno (2013:121) explained the term investment as expenditure to buy capital goods and production tools to increase the ability to produce goods and services. In economic theory, investment is defined as purchasing activities to increase production capability.

According to Law number 25 of 2007, the investment includes all types of investment activities done by domestic and foreign investments to conduct business within the territory of the Republic of Indonesia. It is divided into two parts, namely Domestic Investment (DDI) and Foreign Investment (FDI). DDI aims to conduct businesses in the territory of the Republic of Indonesia carried out by domestic investors using domestic capital. Meanwhile, FDI is intended to conduct businesses in the Republic

of Indonesia carried out by foreign investors, whether using foreign investment entirely or partially supported by the domestic one.

Government Investment

Government investment is made by the central and local governments. In contrast to private investment, government investment is not intended to earn maximum profits. It tries to improve people's welfare. Therefore, it is also called social investment. The investment includes building roads, ports and irrigation, schools, hospitals, and dams. This type of investment is not deeply discussed and analyzed in macroeconomic theory.

The level of government investment is strongly influenced by the predicted level of profits, interest rates, future economic conditions, technological progress, and national income and its changes (Sukirno, 2013:122).

Export Performance

Export means selling goods and services that are produced domestically to other countries. If a country opens international trade and becomes an exporter of a good, then it will earn profits, but the domestic consumers will experience losses. The opening of international trade will benefit the related entirely because the profits will be higher than the losses (Mankiw, 2006). According to classical & neoclassical economists, international trade can encourage the economic growth of a country.

Export-import activities had been started when many economists formulated the concept of free trade. According to them, free trade would encourage consumption and profits. The first idea was formulated by Adam Smith which was later developed by David Ricardo. According to David Ricardo, international trade was mainly driven by differences in comparative advantages in producing a product. In the theory of comparative advantage, it is explained that although one country has an absolute

advantage over two types of goods or commodities, there will be still international trade. This may happen if the country specializes in goods or services that have lower opportunity costs compared to others.

Import Performance

Import means purchasing goods from other countries to meet domestic needs. No country can be completely independent, and each country has its typical characteristics in natural resources, climate, geography, demography, and economic and social structure. The differences lead to differences in the commodities produced, the required composition of the costs required, and the quality and quantity of the products.

Import is also defined as domestic demand for goods from abroad. The increasing Indonesian GDP is related to purchasing power. According to Blanchard, if the domestic income is high, the demand for goods from the domestic and foreign markets will also be strong. It means that higher domestic income triggers higher demand for imported goods. Blanchard explained that consumption is strongly connected to the income or output of goods and services available in a country. However, when the domestic producers cannot fulfill the consumers' needs, this issue can only be solved by importing from other countries.

On one hand, import activities are very crucial for a country to meet its people's needs. However, it can also harm the development of domestic industries. To prevent this problem, it is necessary to establish specific import rules to protect domestic products, such as the imposition of import duties, import quotas, foreign exchange control, import-substitution, and devaluation.

Manufacturing Industry Growth

Central Bureau of Statistics/BPS (2021) shows that the manufacturing sector is grouped as the processing industry, whose activities include changing basic materials mechanically, chemically, or by hand so that they become finished/semi-finished goods. In other words, this sector tries to change less-valuable goods into higher-priced ones and is closer to the end-user. The manufacturing activities consist of industrial services and assembly works. Acemoglu (2012) stated that the manufacturing industry reflects the entrepreneurship spirit in a country. Meanwhile, entrepreneurship is often viewed as a key input in economic growth. The entrepreneurial spirit is modeled as risk tolerance and develops non-monotonously in the development process. In the early stages of development, there is a positive selection that supports the entrepreneurial spirit, because risk tolerance means being more productive, which in turn contributes to knowledge and growth processes.

Fiscal Policies

According to the Macroeconomic Framework and Fundamentals of Fiscal Policies/KEM PPKF (2021: 193), fiscal policies are the policies taken by the government to stimulate the economic sectors optimally and sustainably which ultimately can improve people's welfare. To achieve this goal, fiscal policies must be designed and adjusted in such ways to respond to the dynamics of the global and domestic economic challenges and optimally support development objectives.

The fiscal policies issued by the Indonesian government aim to improve the competitiveness of the domestic industry, maintain a good investment climate, and implement job creation to support national economic growth. The fiscal policies mainly discussed in this journal are those applied in the customs sector.

The fiscal policies in the customs sector consist of the Ease of Import for Export Purposes (KITE) and Bonded Zones (KB).

According to the Regulation of the Minister of Finance of the Republic of Indonesia Number: 160/PMK/.04/2018 and the Regulation of the Minister of Finance of the Republic of Indonesia Number: 161/PMK/.04/2018; it is stated that KITE is divided into two categories, namely Exemption KITE and Returning KITE.

Exemption KITE is the exemption of Import Duty, as well as Value Added Tax and Sales Tax on Luxury Goods payable uncollected on the import or entry of goods and materials originating from outside the customs area to be processed, assembled, or installed on other goods for export purposes.

Returning KITE is the return of Import Duty that has been paid on the import or entry of goods and materials originating from outside the customs area to be processed, assembled, or installed on other goods for export purposes.

According to the Regulation of the Minister of Finance of the Republic of Indonesia Number: 131/PMK/.04/2018, Bonded Zone is a bonded storage site to store imported goods and the goods coming from other places within the customs area to be processed or combined before being exported or imported for use.

Economic Growth

Economic growth is one main macro indicator of the economic performance of a country. Therefore, the government always strives to encourage and enforce the economic growth rate. Increased economic growth reflects the improvement of the people’s economic activities in the manufacturing sectors. The rate of economic growth can be identified by comparing the income rate from year to year. A country's income can be seen from the Gross Domestic Product (GDP). GDP is the number of goods and services produced in one year and is stated in market prices. The GDP itself can be calculated or measured

using three different approaches (Dumairy, 1999: 38), namely the production approach, the income approach, and the expenditure approach.

GDP measures the amount of expenditure on goods and services across all markets. If the amount is increasing from year to year, one of the following two possibilities may come true, namely: (1) the country has been able to produce more goods and services, or; (2) the goods and services are sold at higher prices. By studying economic changes over time, some economists have tried to measure the number of goods and services produced that are not affected by changes in the prices (Mankiw, 2012:13).

Research Model

The research model consists of an arrangement of logical constructs which aims to explain the research variables. This model is formulated to describe the construct of logic flow to systematically examine empirical beliefs. The research model is presented in Figure 1.

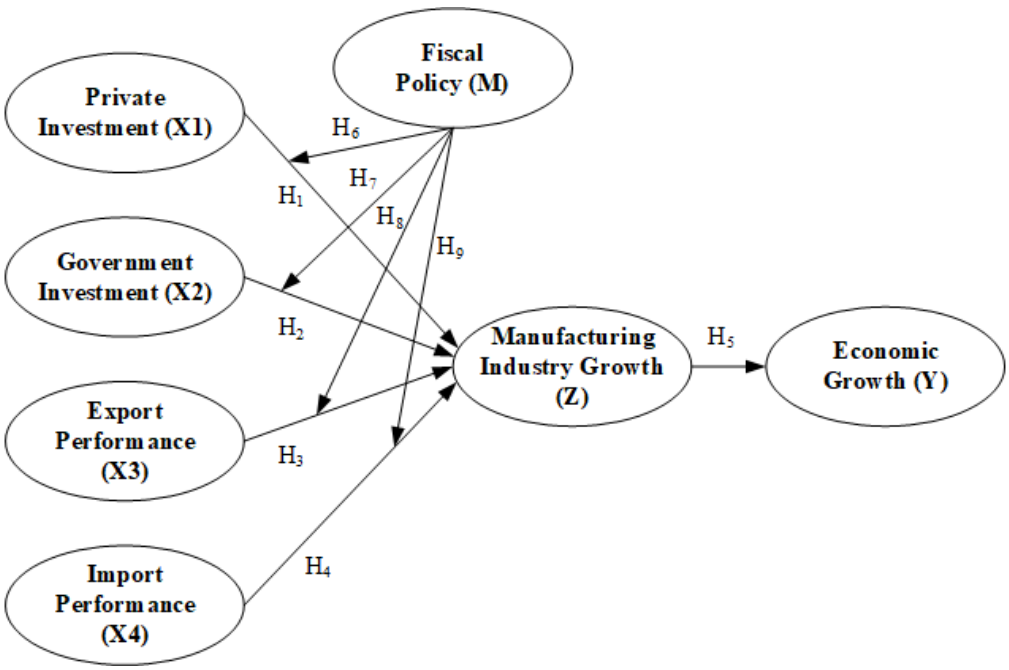

Figure 1 Research model

Research Methods

This is explanatory research with the type of causal research. It means that the main goal is to find out and describe the relationship (cause and effect) and the influence of research variables to draw specific conclusions (Malhotra, 2005:321).

The research population is the general condition of the Indonesian economics (national level) with the type of time series data. The economic conditions in question are adjusted to the research variables, namely private investment, government investment, export performance, import performance, manufacturing industry growth, fiscal policy, and economic growth. Next, the research sample is the Indonesian economic condition within a specific period (from 2011 to 2020 only). The period follows the BPS census calculation which is held every 10 years and the economic growth calculation from 2011 to 2020 uses constant prices in 2010. The research sample consists of the data on the Indonesian economic condition with the type of time series from 2011 to 2020 with monthly units of analysis starting from January 2011 to December 2020, so there will be 120 units of analysis.

The data are collected using the documentation technique. It can be interpreted as a way of collecting data from documents or stored records, such as transcripts, books, newspapers, and so on. The documentation starts with recording the data on economic and trade reports published by BPS from 2011-to 2020. The economic and trade report data is published on official state-owned websites, namely www.bps.go.id, www.bi.go.id, www.bkpm.go.id, and www.beacukai.go.id

The research hypotheses will be examined using an inferential statistical approach. The inferential statistical approach used to test the hypotheses is the Partial Least Square (PLS) Equation Model test tool, supported by Smart PLS software.

Analysis And Discussion

Descriptive Statistics

Private Investment

The DDI value performs better from 2011 to 2020, increasing by 444.13 percent. This shows the extraordinary role of DDI as an investment protector, which still increases despite the global economic recession in 2018 and the Covid-19 pandemic in 2020. A similar thing also happens in the FDI which also indicates good news with an increase of 145.6 percent. The pattern is slightly different from DDI after 2018. In 2018-2019, FDI could not maintain its performance due to the impact of the global economic recession, but during the Covid-10 pandemic in 2020, FDI has successfully resurrected.

Another important point is that from 2011 to 2018, the gap between the two is still quite large. The investment was still dominated by FDI compared to DDI. However, in 2019-2020, the DDI could catch up with the FDI, meaning that FDI and DDI in Indonesia run at the same speed. It is expected that in the future domestic investment will become more dominant so that Indonesia can realize an independent investment. There have been evenly distributed investment projects, wherein in Java, there is 50.5% investment, and the rest 49.5% is established in other islands. This shows that domestic and foreign investors are no longer depending on Java Island as the only alternative because essentially, equity is more important than economic growth (BKPM, 2021).

Government Investment

The government performs fluctuating investments from 2011 to 2020. From 2011 to 2014, the government investment experienced a decline, from Rp. 19,643.88 billion in 2011, down to Rp. 8,912.51 billion in 2014. Then, it increased significantly to Rp. 59,645.77 billion in 2015, and Rp 84,079.81 billion in 2016. However, in the following

three years, (2017-2019) the government could not keep this achievement well, but in 2020, it became better again to Rp94, 698,16 billion.

2020 is the year when the Indonesian government issued the largest investment value ever issued. This is related to the policy of State Equity Participation for industrial recovery during the Covid-19 pandemic. It is one kind of the government's contributions to the National Economic Recovery Program (PEN). The PMN in the PEN program costs the 2020 National Budget as much as Rp. 15.5 trillion.

This proves that the government has successfully protected the industrial and the micro and small enterprises sector from unexpected changes because they must be given strong stimulus due to their significance to Indonesia's economic growth rate. After all, the two are the most affected sectors by the Covid-19 pandemic.

Export Performance

The export activities during 2011-2020 show good performance. In 2011, the export value was approximately 1.792.89 trillion, increasing to Rp. 2.389.27 trillion in 2020. There was an increase of 33.3 percent within ten years. Based on the graph, the highest export values were in 2017 and 2018, with export values of Rp 2,271.11 trillion and Rp 2,577.84 trillion, respectively. There were 17 percent and 13.5 percent increases. However, in the following two years, the export values again experienced a slight decline.

Import Performance

The import activities perform unstable conditions from 2011 to 2020. In 2011, the import values reached 1,564.24 trillion, then it even became better in 2014 by Rp. 2,124.68 trillion, or there was an increase of 35.8 percent within three years. However, it experienced a decline until 2016. In 2017-2018, the performance was gain better, but then it fell again in 2019-2020. Based on the graph, the highest increase in import value

occurred in 2018, with an import value of Rp.2,704.83 trillion, or a 28 percent increase. The strongest decline happened in 2020, with the value of Rp.2,072.25 trillion, or a decrease of 15 percent.

Fiscal Policy

Fiscal policy is run by the government in export and import matters to support the delivery of goods from foreign countries. Its main goal is to fulfill domestic needs. In this research, the fiscal includes KITE and KB. The KITE and KB are two dummy variables used to measure the effectiveness of the implementation of KITE and KB-related regulations.

From 2011 to 2019, the KITE and KB facilities on imports of raw materials for export purposes indicate better values. It means that importers use KITE and KB facilities to import raw materials from abroad, which are further processed domestically. The value of foreign exchange from import activities also decreases significantly. The KITE & KB facilities reduce the potential for state foreign exchange earnings from customs activities by an average of 18.5 percent annually.

Manufacturing Industry Growth

The manufacturing industry had a very good time from 2011 to 2020. The manufacturing industry experienced declining outputs in 2013, because of the decreasing added value of the industry. However, after that, this sector came back with good performance until 2019. In 2020, all growth indicators in the manufacturing industry did not run very well in terms of industrial output, industrial value-added, and production index.

Economic Growth

The economic condition has run in an unexpected direction from 2011 to 2020, starting from 6.17 in 2011 and down to 5.02 in 2019. The worst development occurred in 2020

marked by a negative economic growth rate or commonly called a recession. In 2020, the Indonesian economy went down into recession due to serious financial damages triggered by the global Covid-19 pandemic. Besides the pandemic, Dutu (2016) in his research also explained that the decline was also caused by a slower world economic development rate. Although the interest rates reduction has successfully offset the economic downturn, there were no structural reforms to increase productivity. There was not also a proper supportive monetary policy to boost the economic growth for the long term period. It may even trigger inflation.

PLS: Outer Model Evaluation

PLS-SEM provides an appropriate and efficient estimation technique for a series of equations (measurable and structural) that are estimated simultaneously. This is identified by two basic components in PLS-SEM, namely (1) measurement model (outer model), and (2) structural model (inner model). The outer model allows the researchers to assess the contribution of each indicator in measuring the construct (validity) and determine measurement scale reliability in measuring the construct (reliability). Meanwhile, the inner model aims to analyze the path of the influence of the independent construct (exogenous) on the dependent one (endogenous) (Hair et al. ., 2017:26).

Convergent Validity

Convergent validity is measured using outer loading. The rule of thumb used for convergent validity is outer loading ≥ 0.50 (Hair et al., 2017: 130). The results of the convergent validity test show that all indicators on the research variables already have an outer loading value higher than 0.50, which means that all indicators are valid in measuring private investment, government investment, export performance, import

performance, fiscal policy, manufacturing industry growth, and economic growth. Therefore, it can be used for further analysis steps.

Discriminant Validity

The second evaluation in the analysis of the outer model is discriminant validity. It is evaluated using the Fornell-Larcker criterion by comparing the value of the AVE root of each variable with the correlation involving the variable concerned with others in the model. If the value of the AVE root is higher than the correlations, it means the variable has met the discriminant validity.

The results of the Fornell-Larcker Criterion analysis show that the AVE root value generates a higher value than the correlations among the variables in the model, so it can be concluded that the private investment, government investment, export performance, import performance, policy fiscal, manufacturing industry growth, and economic growth have good discriminant validity.

Composite Reliability

The next outer model evaluation is internal consistency. It is to examine the consistency of indicators in measuring a construct. Internal consistency in PLS uses two measures, namely Cronbach's alpha and composite reliability. Cronbach's alpha measures the lower limit of the reliability value, while composite reliability aims to find out the real value of the reliability of a construct. The rule of thumb for Cronbach alpha is higher than 0.60, while the rule of thumb for composite reliability must be higher than 0.70. However, 0.60 is still acceptable (Hair et al., 2017:127).

The reliability analysis results indicate that the internal consistency value of each research variable has a Cronbach's Alpha value of higher than 0.60 and a Composite Reliability value of higher than 0.70. Therefore, it can be stated that all variables (private

investment, government investment, export performance, import performance, fiscal policy, manufacturing industry growth, and economic growth) have met good reliability.

PLS: Inner Model Evaluation

The results of the estimated structural model using the SmartPLS v.3 software are presented in Figure 2.

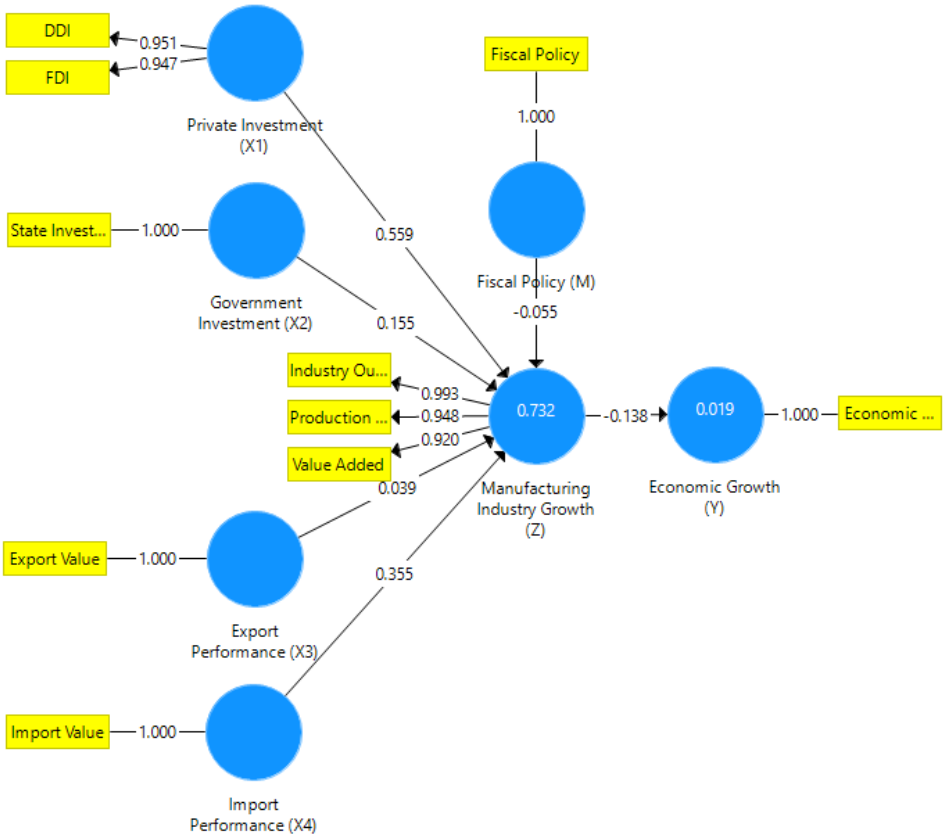

Figure 2. PLS Algorithm

Analysis of Model Fit

The model fit analysis tries to check if the model used in this study has been appropriate or not to the empirical data. The measurement of the model fit uses the Standardized Root Mean Square Residual (SRMR) value. The model fit evaluation on the PLS model generates an SRMR value of 0.062. It is lower than 0.08, so it can be concluded that the model developed in this study has a good model fit or a good fit.

Hypotheses Testing

Table 1. Results of Direct Effect Hypothesis Testing

Hyp.	Direct Effect Relationship	Coeff.	STDEV	T-Statistics	P-Values	Decision
H_1	Private Investment (X1) → Manufacturing Industry Growth (Z)	0.559	0.111	5.056	0.000*	H_1 accepted
H_2	Government Investment (X2) → Manufacturing Industry Growth (Z)	0.155	0.073	2.118	0.035*	H_2 accepted
H_3	Export Performance (X3) → Manufacturing Industry Growth (Z)	0.039	0.152	0.257	0.798n.s	H_3 rejected
H_4	Import Performance (X4) → Manufacturing Industry Growth (Z)	0.355	0.124	2.866	0.004*	H_4 accepted
H_5	Manufacturing Industry Growth (Z) → Economic Growth (Y)	-0.138	0.088	1.568	0.118n.s	H_5 rejected
* : significant at the 0.05 level n.s. : not significant at the 0.05 level						

The results of hypotheses testing using PLS bootstrapping show that:

(1) Private investment positively and significantly influences the manufacturing industry's growth. This is consistent with Doytch and Uctum (2011) who stated that the growth effect of FDI on the manufacturing industry will stimulate manufacturing production activities. Sunde (2017) also explained that foreign direct investment will enforce economic growth.

(2) Government investment positively and significantly influences the manufacturing industry growth. It is the same with Chen et al. (2017) that government investment will affect economic growth, but the effect will decrease as expenditure increases

(3) Export performance does not significantly affect the manufacturing industry growth. Lee (2011) in his research showed that exports can influence economic growth only in developed countries and some developing countries that export technological goods. Meanwhile, in most developing countries and

underdeveloped countries, the exports will not have a major impact on economic growth because they commonly sell raw materials.

(4) Import performance positively and significantly influences the manufacturing industry growth. The result is similar to Islam, Hye, and Shahbaz (2012) and Sokolov-Mladenović, et al. (2016) that imports are very important for sustainable industrial growth in developing countries.

(5) The manufacturing industry growth does not significantly affect the economic growth, even though the influence coefficient is negative. This is due to the weakening contribution of the manufacturing industry to the national GDP in the last 10 years. It seems that the same condition also happened in Saudi Arabia before 2014. According to Almosabbeh and Almoree (2018), there was an inverse relationship between the manufacturing industry and economic growth. This was an unexpected result.

Analysis of Indirect and Total Effects

Table 2. Analysis of Indirect Effect and Total Effect

Variables	Indirect Effect via Z		Total Effect on Z		Total Effect on Y	
	Coeff.	Type of Mediation	Coeff.	Rank	Coeff.	Rank
Private Investment (X1)	-0.077$^{n.s}$	n.m	0.559*	1	-0.077$^{n.s}$	2
Government Investment (X2)	-0.021$^{n.s}$	n.m	0.155*	3	-0.021$^{n.s}$	4
Export Performance (X3)	-0.005$^{n.s}$	n.m	0.039$^{n.s}$	4	-0.005$^{n.s}$	5
Import Performance (X4)	-0.049$^{n.s}$	n.m	0.355*	2	-0.049$^{n.s}$	3
Manufacturing Industry Growth (Z)	-	-	-	-	-0.138$^{n.s}$	1
n.m: no mediation f.m: fully mediation p.m: partially mediation * : significant at the 0.05 level n.s. : not significant at the 0.05 level						

In the indirect effect column via Z (manufacturing industry growth), the influence of all variables (private investment, government investment, export performance, and import

performance) is not significantly mediated by the manufacturing industry growth. It indicates the increasing rates of private investment, government investment, export performance, and import performance will only support the manufacturing industry growth, not the economic one.

The analysis of the total effect of each variable on the manufacturing industry and economic growth is the sum of the direct and indirect effects. The total effect value can be viewed in Figure 3.

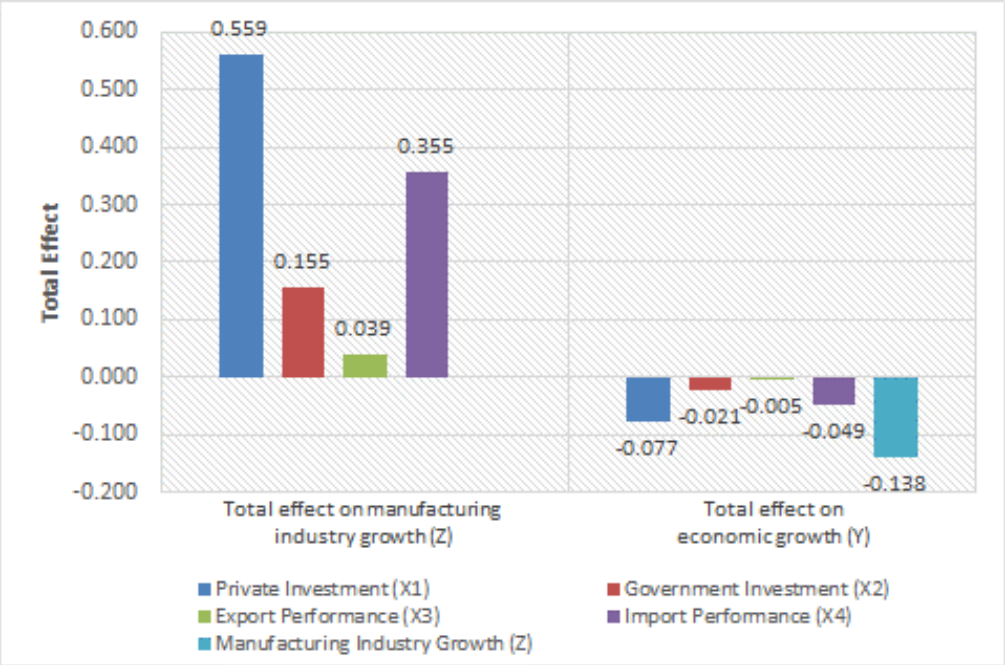

Figure 3. Analysis of Total Effect

Figure 3 shows the most dominant factors which control the manufacturing industry growth in Indonesia are a private investment, import performance, government investment, and export performance. Next, all variables do not significantly affect the Indonesian economic growth.

Analysis of Moderation Effect

Table 3. Results of Moderation Effect Hypothesis Testing

Hip.	Moderation Relationship	Coeff.	STDEV	T-Statistics	P-Values	Decision
H_6	Moderating Effect X1*M → Manufacturing Industry Growth (Z)	-0.096	0.805	0.120	$0.905^{n.s}$	H_6 rejected
H_7	Moderating Effect X2*M → Manufacturing Industry Growth (Z)	-0.210	0.166	1.262	$0.207^{n.s}$	H_7 rejected
H_8	Moderating Effect X3*M → Manufacturing Industry Growth (Z)	-0.125	0.143	0.875	$0.382^{n.s}$	H_8 rejected
H_9	Moderating Effect X4*M → Manufacturing Industry Growth (Z)	0.311	0.121	2.568	0.016^{*}	H_9 accepted
M: moderator variable (Fiscal Policy) * : significant at the 0.05 level n.s. : not significant at the 0.05 level						

Based on the results of moderating effect hypothesis testing shown in Table 3, it can be concluded that: (1) Fiscal policy does not moderate the effect of private investment on the manufacturing industry growth; (2) Fiscal policy does not moderate the effect of government investment on the manufacturing industry growth, (3) Fiscal policy does not moderate the effect export performance on the manufacturing industry growth, and (4) Fiscal policy moderates the effect of import performance on the manufacturing industry growth.

The negative coefficient of fiscal policy moderation on the effect of private investment, government investment, and export performance indicates that it suppresses the manufacturing industry growth. Based on Teles & Cesar Mussolini (2014), a higher debt ratio will trigger the fiscal policy to weaken the growth. This is because the debt takes part of the savings to pay its interest.

These research findings raise an empirical implication that increasing the manufacturing industry growth can be done by increasing the investment values, both from private sectors (DDI & FDI) and public sectors, as well as import performance. All

relevant parties must strive to reduce the import values by reviewing the fiscal policies of KITE and KB, so that raw materials can be supplied from the domestic market only, Later, this will impact reduced imports and result in a higher trade surplus. The trade surplus will support not only the manufacturing industry but also national economic growth.

From the research findings, practically the manufacturing industry and national economic growth can be improved and enhanced simultaneously based on the following implications:

a. The manufacturing industry growth can be increased by increasing the value of the private investment, both from domestic markets and foreign countries. The domestic investment must be a priority and well-maintained. It should be higher and stronger than foreign investment. Strong domestic investment is important to achieve investment independence in the future. The equitable and evenly distributed investment must also be the main concern to balance national development in both Java Island and other regions.
b. The manufacturing industry growth can also be enhanced by increasing the investment values issued by the government, especially through state capital participation. The National Economic Recovery Program (PEN) as a stimulus given to the state-owned companies will positively influence the industrial growth, especially those controlled by the central government.
c. The current export performance still does not significantly influence the manufacturing industry growth. However, the manufacturing industry growth will affect the export performance due to the implementation of KITE and KB fiscal policies. What should be concerned more is that the fiscal policy will support imports of raw materials from overseas, while the imported materials will be processed by

local companies. This will increase production volume (increased production index) and industrial outputs. Such conditions will trigger higher export performance levels whose components are obtained from previously imported raw materials. Different structure of the relationship between export performance and manufacturing industry growth and between the conceptual model and in-depth analysis provides new insights that can be suggested or recommended for further research.

d. The manufacturing industry growth can be improved by improving the import performance. Better import performance will increase production volume because 74.6 percent of imported goods are raw materials and auxiliary goods. The increased production volume will increase manufacturing outputs. However, its contribution to GDP will not be as strong as before. Therefore, the imports activities must be minimized as best as possible to prevent a trade deficit and achieve a surplus trade balance. A surplus trade balance will increase the manufacturing industry's growth. The growth will also be accompanied by more stable national economic conditions.
e. The fiscal policy such as KITE and KB indeed strengthens the influence of imports on the manufacturing industry growth. However, this will reduce its contribution to national GDP due to a deficit trade balance because import values are higher than exports. Thus, the KITE and KB must be deeply reviewed by considering the supply of domestic raw materials. If some raw materials can be supplied from domestic markets, then the KITE and KB can be revoked, so that the impact of imports on the manufacturing industry growth will never be significant and raise its contribution to the GDP.
f. The current manufacturing industry growth still does not significantly affect national economic growth. This is because there are still more import activities imports due to the implementation of KITE and KB. Higher import level is the main cause of lower

GDP. Therefore, from 2011 to 2020, the industrial output could still maintain its good performance, but its contribution to the national GDP is not significant anymore. This triggers negative impacts on the manufacturing industry to economic growth.

Summary

Conclusions

Based on the research objectives, findings, and discussions described in the previous sections, it can be concluded that:

1. Private investment positively and significantly influences the manufacturing industry's growth. Better achievement of private investment from both domestic and foreign markets will also grow the domestic manufacturing industry.
2. Government investment positively and significantly influences the manufacturing industry growth, Better achievement of government investment through state capital participation will also grow the domestic manufacturing industry.
3. Export performance does not significantly affect the manufacturing industry's growth. The better export performance will lead to better manufacturing industry growth.
4. Import performance positively and significantly influences the manufacturing industry's growth. Better import performance will increase the volume and domestic manufacturing industry. This is because most of the imported goods are processed raw materials.
5. Fiscal policy does not moderate the effect of private investment on the manufacturing industry growth. It means that private investment still greatly influences the manufacturing industry growth despite changes in fiscal policy

6. Fiscal policy also does not moderate the effect of government investment on the manufacturing industry growth. This shows that government investment will still greatly influence the manufacturing industry growth despite changes in fiscal policy.
7. Fiscal policy also does not moderate the effect of export performance on the manufacturing industry growth. This indicates that the fiscal policy issued by the government cannot significantly influence the roles of export performance on the manufacturing industry growth.
8. Fiscal policy greatly supports the influence of import performance on the manufacturing industry growth. It means that the fiscal policy issued by the government (i.e.KITE and KB) will encourage the import activities it will strongly affect the manufacturing industry growth.
9. The manufacturing industry growth does not significantly affect the economic growth, even though the trend is negative. Good manufacturing industry growth will support the national economic growth.

Suggestions

Based on the conclusions above, the researchers provide some following suggestions to the policymakers:

1. The government through BKPM (investment board) must always support and encourage national investment, both through FDI and DDI.
    a. Through the FDI, the investment can be done by first mapping out entrepreneurs in other countries, such as Singapore, Japan, South Korea, China, and the Netherlands. They are currently dominating foreign FDI. After mapping, then the government through the Ministry of Investment must carry out a "pick up the ball" strategy. Foreign investors will be facilitated to establish collaboration with the local/ regional government as the investment destination sites so that there will be

strong cooperation, good mutual benefits, and expected economic turnover.

b. The relevant parties must always encourage and support the investment from DDI. It must be the priority before the FDI, by simplifying the bureaucracy, encouraging investment into small and medium companies, and distributing the investment evenly in all regions.

2. The government through the Ministry of Finance should continuously support and encourage government investment by increasing the state capital investment budget, which is given primarily to the state-owned companies as productive funds to increase the economic value of their business activities.
3. Current export activities still do not strongly influence the manufacturing industry growth, because most of Indonesia's export commodities are natural resources. In the future, the exports of raw materials should be reduced step by step, so that domestic industries can have more added value.
4. The import performance surely enforces the manufacturing industry growth, but it has an insignificant contribution to the national GDP. Indonesia largely imports raw materials for domestic demands, so these raw materials must be supplied from domestic industries to prevent a trade balance deficit, especially for establishing trade cooperation with two countries, namely China and Singapore.
5. The fiscal policy which consists of KITE and KB can support the influence of imports on the manufacturing industry growth. This means that the manufacturing industry cannot be separated from the two. The KITE and KB also reduce the country's foreign exchange from import trade. The KITE and KB must be strictly implemented to ensure that some raw materials can be supplied from the domestic industry to decrease import values. Decreasing import values will support the manufacturing industry growth, increase export values, make the trade balance surplus, and

encourage its contribution to the national GDP. This finding is like Muinelo-Gallo & Roca-Sagalés (2013) who found that the right fiscal policy strategy will boost GDP while reducing income inequality.

6. The growing manufacturing industry will positively influence the GDP value, but its contribution to GDP is getting weaker. The main challenge is to improve the industry's ability to adapt to technological development. The right technology adaptation will make the manufacturing industry more effective and efficient in managing operational activities and costs, increasing added value.

The researchers should improve the relationship among variables because these research findings provide empirical evidence that the fiscal policy negatively influences the exports on the manufacturing industry growth. However, such a policy will encourage the imports of raw materials to be processed by domestic companies (growing manufacturing industry). The materials will be re-exported (increasing exports) because export goods come from imported raw material components. The export channel must first go through import mediation and manufacturing industry growth.

Limitations of Research

The results of this research have not been able to clearly explain the influence among the variables. The limitation of this research is due to the relatively new basis of the relationship, especially related to fiscal policy in the customs sector, including KITE and KB. It is important to conduct sustainable research on the impact of the KITE and KB to set the time limit related to the transfer of imports to domestic raw materials. The fiscal policy in the customs sector can be implemented appropriately and encourage the manufacturing industry and national economic growth.

References

Afonso, A., Alves, J., & Balhote, R. (2019). Interactions between monetary and fiscal policies. *Journal of Applied Economics, Vol. 22 (1)*, 132-151. DOI: https://doi.org/10.1080/15140326.2019.1583309.

Al Dhaheri, A., Bataineh, M., Mohamad, M., Ajab, A., Al Marzouqi, A., Jarrar, A., et al. (2021). Impact of COVID-19 on mental health and quality of life: Is there any effect? A cross-sectional study of the MENA region. *PLoS ONE, 16(3)*, DOI: https://doi.org/10.1371/journal.pone.0249107.

Beier, G., Ullrich, A., Niehoff, S., Reibig, M., & Habich, M. (2020). Industry 4.0: How it is defined from a sociotechnical perspective and how much sustainability it includes – A literature review. *Journal of Cleaner Production, Vol. 259*, DOI: https://doi.org/10.1016/j.jclepro.2020.120856.

Bekes, G., & Harasztosi, P. (2020). Machine imports, technology adoption, and local spillovers. *Review of World Economics, Vol. 156* , 343-375. DOI: https://doi.org/10.1007/s10290-019-00365-y.

Bisztray, M., Koren, M., & Szeidl, A. (2018). Learning to import from your peers. *Journal of International Economics, Vol. 115*, 242-258. DOI: https://doi.org/10.1016/j.jinteco.2018.09.010.

Blavasciunaite, D., Garsviene, L., & Matuzeviciute, K. (2020). Trade Balance Effects on Economic Growth: Evidence from European Union Countries . *Economies, Vol. 8 (3)*, DOI: https://doi.org/10.3390/economies8030054.

Busch, T., Bruce-Clark, P., Derwall, J., Eccles, R., Hebb, T., Hoepner, A., et al. (2021). Impact investments: a call for (re)orientation. *SN Business & Economics, Vol. 1 (33)*, DOI: https://doi.org/10.1007/s43546-020-00033-6.

Caggiano, A. (2019). Manufacturing System. In *The International Academy for Production Engineering, Laperrière L., Reinhart G. (eds) CIRP Encyclopedia of Production Engineering* (pp. DOI: https://doi.org/10.1007/978-3-642-20617-7_6562). Berlin, Heidelberg: Springer.

Coscieme, L., Mortensen, L. F., Anderson, S., Ward, J., Donohue, I., & Sutton, P. C. (2020). Going beyond Gross Domestic Product as an indicator to bring coherence to the Sustainable Development Goals. *Journal of Cleaner Production, Vol. 248* , DOI: https://doi.org/10.1016/j.jclepro.2019.119232.

Erduman, Y., Eren, O., & Gul, S. (2020). Import Content of Turkish Production and Exports: A sectoral analysis. *Central Bank Review, Vol. 20 (4)*, 155-168. DOI: https://doi.org/10.1016/j.cbrev.2020.07.001.

Gomes, O. (2020). Optimal growth under socially responsible investment: a dynamic theoretical model of the trade-off between financial gains and emotional rewards. *International Journal of Corporate Social Responsibility, Vol. 5 (5)*, DOI: https://doi.org/10.1186/s40991-020-00049-z.

Hintosova, A. B. (2021). Inward FDI: Characterizations and Evaluation. *Encyclopedia, Vol. 1 (4)*, 1026-1037. DOI: https://doi.org/10.3390/encyclopedia1040078.

Hjazeen, H., Seraj, M., & Ozdeser, H. (2021). The nexus between the economic growth and unemployment in Jordan. *Future Business Journal, Vol. 7 (42)*, DOI: https://doi.org/10.1186/s43093-021-00088-3.

Hsu, C.C., Chiou, M.L., & Chen, C.I. (2020). The main factors affecting Taiwan's economic growth rate via dynamic grey relational analysis. *PLoS ONE, Vol. 15(10)*, DOI: https://doi.org/10.1371/journal.pone.0240065.

Maison, D., Jaworska, D., Adamczyk, D., & Affeltowicz, D. (2021). The challenges arising from the COVID-19 pandemic and the way people deal with them. A

qualitative longitudinal study. *PLoS ONE, Vol. 16(10)*, DOI: https://doi.org/10.1371/journal.pone.0258133.

Mikulic, D., & Lovrincevic, Z. (2018). The import content of Croatian economic sectors and final demand. *Economic Research-Ekonomska Istraživanja, Vol. 31 (1)*, 2003-2023. DOI: https://doi.org/10.1080/1331677X.2018.1480967.

Niu, X.T., Yang, Y.C., & Wang, Y.C. (2021). Does the Economic Growth Improve Public Health? A Cross-Regional Heterogeneous Study in China. *Front. Public Health*, DOI: https://doi.org/10.3389/fpubh.2021.704155.

Nizam, R., Karim, Z. A., Rahman, A. A., & Sarmidi, T. (2020). Financial inclusiveness and economic growth: new evidence using a threshold regression analysis. *Economic Research-Ekonomska Istraživanja, 33:1*, 1465-1484. DOI: 10.1080/1331677X.2020.1748508.

Nyasha, S., & Odhiambo, N. M. (2019). Government Size and Economic Growth: A Review of International Literature . *SAGE Open, Vol. 9 (3)*, DOI: https://doi.org/10.1177/2158244019877200.

Pala, A. (2019). Innovation and Economic Growth in Developing Countries: Empirical Implication of Swamy's Random Coefficient Model (RCM). *Procedia Computer Science, Vol. 158*, 1122-1130. DOI: https://doi.org/10.1016/j.procs.2019.09.252.

Ribaj, A., & Mexhuani, F. (2021). The impact of savings on economic growth in a developing country (the case of Kosovo). *Journal of Innovation and Entrepreneurship, Vol. 10 (1)*, DOI: https://doi.org/10.1186/s13731-020-00140-6.

Sankaran, A., Krishna, A., & Vadivel, A. (2021). How does manufacturing output affect export behaviors in emerging market economies? Evidence from a dynamic panel ARDL for ten biggest emerging market economies. *Future Business Journal, Vol. 7 (26)*, DOI: https://doi.org/10.1186/s43093-021-00072-x.

Schoenmaker, D., & Schramade, W. (2019). Investing for long-term value creation. *Journal of Sustainable Finance & Investment, Vol. 9 (4)*, 356-377. DOI: https://doi.org/10.1080/20430795.2019.1625012.

Shrotryia, V., & Singh, S. V. (2021). Measuring Progress Beyond GDP: A Theoretical Perspective. *Emergin Economy Studies, Vol. 6 (2)*, 143-165. DOI: https://doi.org/10.1177/2394901520983784.

Wang, B. (2018). The Future of Manufacturing: A New Perspective. *Engineering, Vol. 4 (5)*, 722-728. DOI: https://doi.org/10.1016/j.eng.2018.07.020.

Wang, P., & Salas, W. G. (2020). Shareholder internationality and importing activities of emerging market firms. *Frontiers of Business Research in China, Vol. 14 (16)*, DOI: https://doi.org/10.1186/s11782-020-00084-4.

Wang, X., Xu, Z., Qin, Y., & Skare, M. (2021). Foreign direct investment and economic growth: a dynamic study of measurement approaches and results. *Economic Research-Ekonomska Istraživanja*, DOI: https://doi.org/10.1080/1331677X.2021.1952090.

Wu, C.F., Chang, T., Wang, C.M., Wu, T.P., Lin, M.C., & Huang, S.C. (2021). Measuring the Impact of Health on Economic Growth Using Pooling Data in Regions of Asia: Evidence From a Quantile-On-Quantile Analysis. *Front. Public Health*, DOI: https://doi.org/10.3389/fpubh.2021.689610.

Wu, Y.C., Chen, C.S., & Chan, Y.J. (2020). The outbreak of COVID-19: An overview. *Journal of the Chinese Medical Association, Vol. 83 (3)*, 217-220. DOI: 10.1097/JCMA.0000000000000270.

Yang, F., Sun, Y., Zhang, Y., & Wang, T. (2021). Factors Affecting the Manufacturing Industry Transformation and Upgrading: A Case Study of Guangdong–Hong

Kong–Macao Greater Bay Area. *Int J Environ Res Public Health., Vol. 18(13)*, DOI: 10.3390/ijerph18137157.