Impact of exchange rates, Inflation, foreign direct investment, government spending, and economic openness on exports, imports, and economic growth in Indonesia

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Abstract: Globalization and economic integration have an impact on increasing trade volume and economic growth in various countries, especially those that are open in their economies. This situation also provides ease of capital mobility between countries, which makes investment not only rely on domestic investment but also on foreign direct investment. Exchange rates and inflation also affect export growth, imports, and economic growth. The purpose of this study is to determine the effect of exchange rate, inflation, foreign direct investment, government expenditure, and economic openness on export and import growth.

This study used time series data during the period 1980–2021, sourced from UNCTAD, ASYB, and Indonesian Central Bank (BI). The analysis model used is multiple linear regression with the help of EViews software, which first tests classical assumptions so that the regression results are Best Linear Unbiased Estimator (BLUE). The results show that foreign direct investment and government spending can significantly increase the rate of exports and imports. Meanwhile, the depreciating rupiah against the US dollar cannot encourage an increase in both exports and imports. Furthermore, foreign direct investment, government spending, and economic openness can significantly increase economic growth. The other variables, net exports and inflation, have no effect on Indonesia’s economic growth rate.

Keywords: foreign direct investment; government spending; economic openness; exports; imports; economic growth; exchange rates; inflation

1. Introduction

The emergence of globalization and world evolution have encouraged the growth of trade as a manifestation of trade openness. Trade openness is the result of global economic integration, which can result in greater opportunities to move economic sectors. According to Mwakanemela (2014), the establishment of a free trade area can expand export opportunities and increase Gross Domestic Product (GDP).

Depending on how prepared each nation is for trade liberalization, trade openness may affect the economy in both positive and bad ways (Chirathivat, 2002). Itakura (2014) and Minniti (2011) explain that liberalization, improved connectivity, and the reduction of trade barriers have a positive impact on improving economic well-being. In addition to trade openness, government spending is also a determining factor in increasing economic growth. This condition is explained by Chani et al. (2011), who explained that increasing government spending can increase the smooth export of trade products. Meanwhile, research conducted by Mwakanemela (2014); Nguyen (2014);
Majeed and Eatzaz (2006); etc. Bhavan (2016) suggests that rising Foreign Direct Investment (FDI) may increase export growth. This reinforces the opinion that rising FDI could provide a meaningful increase for Indonesia’s export growth. With the increasing inflow of foreign investment in Indonesia, production has increased, including export-oriented products. But research conducted by Yee et al. (2016) concluded that the relationship between FDI and Export is an inverted U Curve. It means, If FDI is too large, the relationship between FDI and exports is negative.

This research is crucial to conduct. Research on issues such as trade openness, government expenditure, and foreign investment is still sparse. The primary goal of this research is to examine the role of the Indonesian economy’s exchange rate, net exports, foreign investment, government spending, and trade openness.

1.1. Study literature

One perspective related to factors that can affect exports and imports include Dornbusch et al. (2011), who state that net exports will increase if there is a depreciation of the real exchange rate. Conversely, when the exchange rate appreciates for foreign currencies, exports become more expensive, so exports tend to decrease and imports of goods increase.

According to Samuelson and William (2010) that if the price of foreign products increases or domestic currency depreciates against foreign currencies, the volume and value of exports tend to increase. Kearl et al. (1989) state that if world prices are higher than domestic prices on the same commodity, it will encourage domestic companies to sell some output abroad (export). McConnell et al. (2012) showed that domestic inflation can cause the value of exports to decrease and imports to increase.

The trade balance deficit can be explained through the AD-AS curves. Lipsey and Cristal (2011) explain that, with perfect capital mobility the expansion of fiscal policy on floating exchange rates will shift the AD curve to the right, so demand will be higher and imports will increase. The result is that the trade balance will be negative. Exchange rate appreciation resulted in domestic prices being more expensive than foreign goods causing net exports to decline. Permanent real exchange rate appreciation, at a full-balance income level, will lead to a trade balance deficit in the long run. Colander (2020) stated that the effect of fiscal policy on the trade balance basically works through the effect of revenue. If there is an increase in income, it will cause imports to increase. Another factor that can affect a country’s exports and imports is government policy in international trade (Mankiw et al., 2008).

1.2. Methodology

The research model uses multiple linear regression with the help of EViews software. In looking for the influence of trade openness, government spending, and FDI variables on exports, imports, and GDP growth, exchange rate, inflation, and net export control variables are used.
1.3. Data

The data used in this research were time series data from 1980–2021, which were published from various sources: The Central Statistics Agency (BPS), Indonesian Central Bank (BI), and International Financial Statistics (IFS).

2. Research method

In order to estimate the model, data will be regressed on each variable to Indonesia’s exports, imports, and economic growth rate. Based on this, there are three models, as follows:

\[ L_X t = \alpha_0 + \alpha_1 EXC t + \alpha_2 LFDI t + \alpha_3 LGOE t + \epsilon_t \]  \hspace{1cm} (1)

\[ L_M t = \beta_0 + \beta_1 EXC t + \beta_2 LFDI t + \beta_3 LGOE t + u_t \]  \hspace{1cm} (2)

\[ LGDP t = \gamma_0 + \gamma_1 NEX t + \gamma_2 INF t + \gamma_3 LFDI t + \gamma_4 LGOE t + \gamma_5 OPN t + \nu_t \]  \hspace{1cm} (3)

where: \( L_X = \) Logaitma Export of goods (million/thousand dollars), showing growth; \( L_M = \) Logarithm of Imports of goods (million/thousand dollars), showing growth; \( LGDP = \) Logarithm of Gross Domestic Product, showing growth; \( EXC = \) Exchange rate (rupiah/dollar); \( NEX = \) Net Export \((X - M)\); \( INF = \) Inflation (Consumer Price Index, CPI); \( LFDI = \) Logarithm of Foreign Direct Investment, showing growth; \( LGOE = \) Logarithm of Government Expenditure (Government Spending), showing growth; \( OPN = \) Trade Openness, \((X + M)/GDP\); \( \alpha_0, \beta_0, \gamma_0 = \) Constant; \( \lambda, \beta, \gamma = \) Coefficient of Regression; \( \epsilon_t, u_t, \nu_t = \) Error.

In Equation (3), namely the LGDP economic growth model, the exchange rate control variables (EXC) that appear in Equations (1) and (2) are replaced with net exports (NEX) because NEX variables directly affect LGDP more than EXC variables.

3. Result and discussion

The development of exports and imports of Indonesian goods during the year 1980–2021, almost every year, has increased, where the export of Indonesian goods almost every year exceeds the amount of imports of goods (Table 1). However, the average export growth is lower than the growth of imports.

**Table 1. Development of export and import of goods and gross domestic product Indonesia in million US, during the years 1980–2021.**

<table>
<thead>
<tr>
<th>Tahun</th>
<th>X</th>
<th>%</th>
<th>M</th>
<th>%</th>
<th>GDP</th>
<th>Tahun</th>
<th>X</th>
<th>%</th>
<th>M</th>
<th>%</th>
<th>GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>21,909</td>
<td>0.00</td>
<td>10,834</td>
<td>0</td>
<td>84,791</td>
<td>2001</td>
<td>57,361</td>
<td>−12.30</td>
<td>37,534</td>
<td>−13.90</td>
<td>171,350</td>
</tr>
<tr>
<td>1981</td>
<td>22,260</td>
<td>1.60</td>
<td>13,272</td>
<td>23</td>
<td>107,633</td>
<td>2002</td>
<td>59,166</td>
<td>3.15</td>
<td>38,340</td>
<td>2.15</td>
<td>208,836</td>
</tr>
<tr>
<td>1982</td>
<td>22,293</td>
<td>0.15</td>
<td>16,859</td>
<td>27</td>
<td>110,498</td>
<td>2003</td>
<td>64,108</td>
<td>8.35</td>
<td>42,196</td>
<td>10.06</td>
<td>249,968</td>
</tr>
<tr>
<td>1983</td>
<td>21,152</td>
<td>−5.12</td>
<td>16,859</td>
<td>0</td>
<td>99,866</td>
<td>2004</td>
<td>70,767</td>
<td>10.39</td>
<td>54,877</td>
<td>30.05</td>
<td>273,461</td>
</tr>
<tr>
<td>1984</td>
<td>21,902</td>
<td>3.55</td>
<td>13,882</td>
<td>−18</td>
<td>102,490</td>
<td>2005</td>
<td>86,966</td>
<td>22.89</td>
<td>75,725</td>
<td>37.99</td>
<td>304,372</td>
</tr>
<tr>
<td>1985</td>
<td>18,590</td>
<td>−15.12</td>
<td>16,859</td>
<td>0</td>
<td>99,866</td>
<td>2006</td>
<td>103,527</td>
<td>19.04</td>
<td>80,650</td>
<td>6.50</td>
<td>388,168</td>
</tr>
<tr>
<td>1987</td>
<td>17,135</td>
<td>15.74</td>
<td>12,891</td>
<td>20</td>
<td>88,824</td>
<td>2008</td>
<td>139,606</td>
<td>18.30</td>
<td>127,538</td>
<td>36.99</td>
<td>543,254</td>
</tr>
<tr>
<td>1988</td>
<td>19,465</td>
<td>13.60</td>
<td>13,249</td>
<td>3</td>
<td>103,865</td>
<td>2009</td>
<td>119,646</td>
<td>−14.30</td>
<td>93,786</td>
<td>−26.46</td>
<td>574,505</td>
</tr>
</tbody>
</table>
Table 1. (Continued).

<table>
<thead>
<tr>
<th>Tahun</th>
<th>X</th>
<th>%</th>
<th>M</th>
<th>%</th>
<th>GDP</th>
<th>Tahun</th>
<th>X</th>
<th>%</th>
<th>M</th>
<th>%</th>
<th>GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>25,674</td>
<td>15.86</td>
<td>21,768</td>
<td>32</td>
<td>133,858</td>
<td>2011</td>
<td>203,497</td>
<td>28.74</td>
<td>177,436</td>
<td>31.12</td>
<td>892,969</td>
</tr>
<tr>
<td>1991</td>
<td>29,543</td>
<td>15.07</td>
<td>26,013</td>
<td>20</td>
<td>149,934</td>
<td>2012</td>
<td>190,032</td>
<td>−6.62</td>
<td>191,691</td>
<td>8.03</td>
<td>917,870</td>
</tr>
<tr>
<td>1992</td>
<td>33,088</td>
<td>12.00</td>
<td>27,311</td>
<td>5</td>
<td>162,740</td>
<td>2013</td>
<td>182,552</td>
<td>−3.94</td>
<td>186,629</td>
<td>−2.64</td>
<td>912,524</td>
</tr>
<tr>
<td>1993</td>
<td>36,825</td>
<td>11.29</td>
<td>28,328</td>
<td>4</td>
<td>184,839</td>
<td>2014</td>
<td>176,293</td>
<td>−3.43</td>
<td>178,179</td>
<td>−4.53</td>
<td>892,969</td>
</tr>
<tr>
<td>1995</td>
<td>44,814</td>
<td>9.68</td>
<td>42,929</td>
<td>6</td>
<td>265,981</td>
<td>2016</td>
<td>144,490</td>
<td>−3.91</td>
<td>135,653</td>
<td>−4.94</td>
<td>931,877</td>
</tr>
<tr>
<td>1997</td>
<td>56,297</td>
<td>13.01</td>
<td>51,304</td>
<td>20</td>
<td>252,386</td>
<td>2018</td>
<td>180,215</td>
<td>6.76</td>
<td>188,712</td>
<td>20.22</td>
<td>1,041,772</td>
</tr>
<tr>
<td>1999</td>
<td>51,244</td>
<td>1.74</td>
<td>33,321</td>
<td>−6</td>
<td>164,151</td>
<td>2020</td>
<td>163,402</td>
<td>−2.55</td>
<td>135,101</td>
<td>−21.12</td>
<td>1,058,689</td>
</tr>
<tr>
<td>2000</td>
<td>65,403</td>
<td>27.63</td>
<td>43,595</td>
<td>31</td>
<td>176,142</td>
<td>2021</td>
<td>232,835</td>
<td>42.49</td>
<td>189,029</td>
<td>39.92</td>
<td>1,186,093</td>
</tr>
</tbody>
</table>

Average of Growth | 6.83 | 9.09 |

Source: UNCTAD. Note: The figure of 21,909 (X of 1980) reads 21,909,000 dollars.

Furthermore, based on the results of data processing, the influence of exchange rates, inflation, foreign investment, and government spending on exports and imports of goods, as well as economic growth, can be seen in Tables 2–4 that regression equation has passed the classical assumption test.

3.1. Exchange rate, foreign direct investment, and government for Indonesia’s export growth

Mathematically the result of regression for model (1) can be expressed in the following equation:

\[ LX_t = 5.134024 + 3.65e^{-05}EXC_t + 0.213263LFDI_t + 0.341964LGOE_t + 0.801462AR(1) \]

\[ R^2 = 0.9796 \]

\[ R^2 adj = 0.9768 \]

\[ F = 346.5322 \]

\[ Prob = (0.0000)** \]

\[ DW stat = 1.8867 \]

[Notes: Significant at 1%, 5%, and 10% levels of significance are indicated by ***, **, and *, respectively. AR(1) is autoregression (lag-1).]

\[ R^2 = 0.9796 \], showing that Exchange Rates, Foreign Direct Investment, Government Spending and Export Growth together are able to explain Export Growth of 97.96% (cateris paribus). The Exchange Rates coefficient of +3.65x10−5 shows that if Exchange Rates depreciate then Export Growth increases (cateris paribus); The Foreign Direct Investment coefficient is 0.21 which means if Foreign Direct Investment increases by 1% then Export Growth increases by 0.21% (cateris paribus). The Government Spending coefficient of 0.34 means that if Government Spending increases by 1%, Export Growth increases by 0.34% (cateris paribus); Where cateris paribus is an assumption other factors are considered unchanged (constant).
Table 2. Classical assumption test results of regression model Log (X).

<table>
<thead>
<tr>
<th>Classic assumption test</th>
<th>Model 1: LOG(X)</th>
<th>Conclusion</th>
<th>Model 2: LOG(X) dengan AR</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>T Value</td>
<td>Result</td>
<td></td>
<td>T Value</td>
<td>Result</td>
</tr>
<tr>
<td>Normality (Jarque-Bera test)</td>
<td>1.6887 (0.4298)</td>
<td>Data is normally distributed or passes the normality test</td>
<td>0.4445 (0.8007)</td>
<td>p &gt; 0.05</td>
</tr>
<tr>
<td>Autocorrelation (DW test)</td>
<td>0.501007</td>
<td>DW &lt; dL</td>
<td>1.886779</td>
<td>dU &lt; DW &lt; 4 − dU</td>
</tr>
<tr>
<td>Heteroskedasticity (Glejser Test)</td>
<td>4.117719 (0.2490)</td>
<td>p &gt; 0.05</td>
<td>3.680911 (0.2980)</td>
<td>p &gt; 0.05</td>
</tr>
<tr>
<td>Multicollinearity (VIF test)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXC</td>
<td>4.156</td>
<td>VIF &lt; 10</td>
<td>1.658</td>
<td>VIF &lt; 10</td>
</tr>
<tr>
<td>LOG(FDI)</td>
<td>9.966</td>
<td>VIF &lt; 10</td>
<td>2.579</td>
<td>VIF &lt; 10</td>
</tr>
<tr>
<td>LOG(GOE)</td>
<td>8.293</td>
<td>VIF &lt; 10</td>
<td>2.492</td>
<td>VIF &lt; 10</td>
</tr>
<tr>
<td>AR(1)</td>
<td></td>
<td>Multicollinearity does not occur</td>
<td>1.258</td>
<td>VIF &lt; 10</td>
</tr>
<tr>
<td>SIGMASQ</td>
<td></td>
<td></td>
<td>1.287</td>
<td>VIF &lt; 10</td>
</tr>
</tbody>
</table>

Note: dL = 1.383, dU = 1.666 for model 1; dL = 1.287, dU = 1.776 for model 2.

The exchange rate in rupiah per dollar (EXC) has a significant influence on export growth in Indonesia, where the depreciation of the rupiah against the US dollar has caused an increase in export growth. This is because the depreciation of the domestic currency has made the price of domestic products relatively cheaper. This research is in line with Jiang (2014); Adhikary (2012); Tomar and Tomar (2014); Potelwa et al. (2016). These results are identical in direction but not as significant as Wongpit (2011) research or Wang et al. (2020). However, the results of this study are in the opposite direction of the research of Tabassum et al. (2012), Wildan et al. (2020), and Tarawalie and Conteh (2021).

Foreign Direct Investment (LFDI) provides a significant positive direction for increasing exports, where the increase in FDI can provide a significant increase for Indonesia’s exports. With the increasing inflow of foreign investment in Indonesia, production has increased, including export-oriented products. This is in line with Mwakanemela’s (2014) research; Tabassum et al. (2012); Tomar and Tomar (2014); Tarawalie and Conteh (2021), which state that increased FDI can increase the growth of exports, but in the opposite direction to Bhavan’s research (2017); Yee et al. (2016), where the effect of FDI on exports is negative.

Government spending (LGOE) has a significant positive influence on exports, and the greater the government expenditure, the greater the growth of Indonesia’s exports. This is because the increased government expenditure is partly used by capital expenditures, such as the provision of facilities and infrastructure to support trade, so as to help smooth the exports of products in its international trade. This research is in the same direction as Chani et al. (2011), but its effect is not significant in the research conducted by Adhikary (2012).
3.2. Exchange rate, foreign direct investment, government spending for Indonesia’s import growth

Mathematically, the results of regression for model (2) in the Table can be expressed in the following equation:

\[ LM_t = 3.327189 + 2.78e^{-0.05} EXC_t + 0.300701 LFDI_t + 0.411440 LGOE + 0.684348 AR(1) \]

\[ (0.0334)^** (0.3654) (0.0038)^** (0.0479)^** (0.0000)^*** \]

\[ R^2 = 0.9713 \quad R^2_{adj} = 0.9673 \quad F = 243.5024 \quad Prob = (0.0000)^*** \quad DW_{stat} = 1.951902 \]

[Notes: Significant at 1%, 5%, and 10% levels of significance are indicated by ***, **, and *, respectively. AR(1) is autoregression (lag-1).]

\[ R^2 = 0.9713, \] shows that Exchange Rates, Foreign Direct Investment, Government Spending, and Previous Imports Growth together account for Imports Growth of 97.13%. The Foreign Direct Investment coefficient of 0.30 shows that if Foreign Direct Investment increases by 1% then Import Growth increases by 0.30% (cateris paribus); The Government Spending Coefficient of 0.41 means that if Government Spending increases by 1%, then Import Growth increases by 0.41% (cateris paribus).

Table 3. Classical assumption test results of regression model Log (M).

<table>
<thead>
<tr>
<th>Classic assumption test</th>
<th>Model 1: LOG(X)</th>
<th>Model 2: LOG(X) dengan AR</th>
</tr>
</thead>
<tbody>
<tr>
<td>T Value</td>
<td>Conclusion</td>
<td>T Value</td>
</tr>
<tr>
<td>Normality (Jarque-Bera test)</td>
<td>1.9265 (0.3816)</td>
<td>Data is normally distributed or passes the normality test</td>
</tr>
<tr>
<td>Autocorrelation (DW test)</td>
<td>0.712104 DW &lt; dL</td>
<td>Positive autocorrelation</td>
</tr>
<tr>
<td>Heteroskedasticity (Glejser Test)</td>
<td>3.920099 (0.2702)</td>
<td>p &gt; 0.05</td>
</tr>
</tbody>
</table>

Multicollinearity (VIF test)

| EXC | 4.156 | VIF < 10 | 5.349 | VIF < 10 |
| LOG(FDI) | 9.966 | VIF < 10 | 5.409 | VIF < 10 |
| LOG(GOE) | 8.293 | VIF < 10 | 7.925 | VIF < 10 |
| AR(1) | - | - | 1.119 | VIF < 10 |
| SIGMASQ | - | - | 1.056 | VIF < 10 |

Note: dL = 1.383, dU = 1.666 for model 1; dL = 1.287, dU = 1.776 for model 2.

The exchange rate in rupiah per dollar has no significant negative influence on imports, whereas in the event of a depreciation of the Indonesian currency, it does not provide a decrease in the rate of imports. This is because imports of raw materials and capital goods are becoming increasingly expensive. This research is in line with Ibrahim and Ahmed (2017). The direction of the influence of the exchange rate on imports is identical, i.e., negative significant, as done by Uzunoz and Akcay (2009); Nteegah and Mansi (2017). But the opposite is that it has a significant positive relationship in the research of Galebotswe and Andrias (2011); Ekanayake (2016); Ibrahim and Ahmed (2017).

Foreign direct investment has a significant positive relationship with imports, and an increase in FDI can increase imports in Indonesia. This is because the inflow of foreign direct investment will be accompanied by the required capital items that Indonesia does not fully own, so it is necessary to import capital goods from other...
countries. The results of this study are different from the research of Rijal et al. (2000) and Malik and Chaudhary (2012), which show that increasing FDI causes a decrease in imports.

Government spending has a significant positive relationship with imports, and an increase in government spending can increase imports in Indonesia. This is because government spending is partly used to purchase capital goods originating from abroad. This is in line with the research of Narayan and Narayan (2004). However, these results are opposite or different where they show a significant negative relationship such as research conducted by Galebotswe and Andrias (2011); Budha (2014).

### 3.3. Net export, inflation, foreign direct investment, government spending and economic opennss for economic growth in Indonesia

Mathematically the result of regression for model (3) can be expressed in the following equation:

\[
\begin{align*}
\text{LGDP}_t &= 2.9639 + 2.17E^{-07}\text{NEX}_t - 0.0012\text{INF}_t + 0.7832\text{LFDI}_t \\
&+ 0.1500\text{LGOE}_t + 0.0055\text{OPN}_t + \nu_t
\end{align*}
\]

\(R^2 = 0.9902\)

This means that Net Exports, Inflation, Foreign Direct Investment, Government Spending and Economic Openness together are able to explain Economic Growth of 99.02%. The Foreign Direct Investment coefficient of 0.78 means that if Foreign Direct Investment increases by 1% then Economic Growth increases by 0.78% (cateris paribus); The Government Spending coefficient of 0.15 means that if Government Spending increases by 1%, Economic Growth increases by 0.15% (cateris paribus); The Economic Openness coefficient of 0.0055 means that if Economic Openness increases by 1%, then Economic Growth increases by 0.0055% (cateris paribus).

### Table 4. Classical assumption test results of regression model Log (GDP).

<table>
<thead>
<tr>
<th>Classic assumption test</th>
<th>Model 1: LOG(X)</th>
<th>Model 2: LOG(X) dengan AR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normality (Jarque-Bera test)</td>
<td>(T) Value: 0.4253 (0.8084)</td>
<td>(T) Value: 0.3835 (0.8255)</td>
</tr>
<tr>
<td>Autocorrelation (DW test)</td>
<td>(T) Value: 0.745395</td>
<td>(T) Value: 1.710318</td>
</tr>
<tr>
<td>Runs Test</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Heteroskedasticity (Glejser Test)</td>
<td>(T) Value: 4.430547 (0.3509)</td>
<td>(T) Value: 8.971025 (0.0618)</td>
</tr>
<tr>
<td>Multicollinearity (VIF test)</td>
<td>LOG(FDI) 9.245 VIF &lt; 10</td>
<td>2.229 VIF &lt; 10</td>
</tr>
<tr>
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<td>NEX 1.219 VIF &lt; 10</td>
<td>1.429 VIF &lt; 10</td>
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<td>AR(1) -</td>
<td>1.513 VIF &lt; 10</td>
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<td>SIGMASQ -</td>
<td>1.581 VIF &lt; 10</td>
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Note: \(d_L = 1.336, d_U = 1.720\) for model 1; \(d_L = 1.238, d_U = 1.835\) for model 2.
Net exports \((X - M)\) have a positive effect but are not significant to economic growth; the increase in net exports cannot significantly increase Indonesia’s economic growth. This is because the increase in exports can be accompanied by an increase in imports, so net exports cannot have a major impact on Indonesia’s economic growth. This research is in line with that conducted by Mukit (2020), but in the opposite direction to Akapler and Shamadeen (2017) and Blavasciunaite et al. (2020), which show a decline in economic growth with an increase in exports and imports.

The development of inflation that occurs has a unidirectional relationship, but its effect is not significant on economic growth. If inflation increases, it cannot significantly increase Indonesia’s economic growth. This research is in the same direction as Joo et al. (2022). This is due to the increase in inflation, even though the price of output increases, which is also followed by an increase in the price of inputs from production factors, so that the added value obtained is relatively low. The results of this unidirectional study are in accordance with the research of Bibi (2014), even having a significant influence on Jilenga et al. (2016) and Behera (2014).

Foreign Direct Investment (LFDI) has a positive and significant relationship with economic growth, and an increase in FDI can increase Indonesia’s economic growth. This is because the inflow of foreign direct investment can increase domestic output production through the adoption and transfer of technology by foreign companies. This research is in the same direction as Moudatsou (2003); Koojaroenprasit (2012); Ullah and Rauf (2013); etc. This is unidirectional but not significant in the studies of Jilenga et al. (2016); Hobbs et al. (2021); Joo et al. (2022). But contrary to the research of Mihaela et al. (2017).

Government spending has a significant positive relationship with economic growth; an increase in government spending can increase domestic consumption. Increased government spending has caused aggregate demand to increase in the form of both routine spending and development spending. These results are in accordance with Nduka et al. (2013); Oladele et al. (2017); Kryeziu and Durguti (2019); etc. In the same direction but not significant, the research of Grubaugh (2015); Olubokun et al. (2016); Uddin and Khanam (2017).

Economic openness has a significant positive relationship with economic growth, and the more open the economy, the increase the economic growth in Indonesia. With economic openness, the market is getting wider, which has an impact on increasing the economies of scale of export products that are greater for Indonesia. These results are identical to the research of Kryeziu and Durguti (2019); Moudatsou (2003), but not significant; the opposite but not significant influence on Al-Edary’s research (2013); Nduka et al. (2013); Hasnul (2015); etc. Even the opposite influences are negative and significant, according to the studies conducted by Mehrara and Firouzjaee (2011) and Aluthge et al. (2021).

4. Conclusion

The increase in exports for Indonesia is one way that can be done to balance the increase in imports so that net exports continue to increase to be able to encourage sustainable economic growth. Several important policies must be carried out for efforts to increase exports, in addition to increasing government spending, namely:
attracting foreign investment in addition to controlling currency exchange rates against
the dollar, as well as controlling the rate of inflation at reasonable limits.

Increased government spending is appropriate in improving facilities and
infrastructure in order to push exports with the increasing openness of foreign trade
and investment. Besides that, with the increasing opening of the economy, it can
provide a wider market for the increase of Indonesian export products through an
increasingly large production scale. Especially with the entry of foreign companies
with more advanced technology, domestic companies can adopt and transfer
technology in the development of their export products.

In Indonesia, in 2020 and 2021, government spending will be prioritized for the
quality of human resources, namely the transformation of health, the quality of
education, the transformation of social protection, and the acceleration of
infrastructure. In addition, industrial revitalization, bureaucratic reform, and the
improvement of the green economy with the provision of various incentives. By
consistently paying great attention to government spending, it is hoped that the
Indonesian economy will continue to experience high growth (ppid.bnpp.go.id).

Foreign Direct Investment (FDI) influence Gross Domestic Product (GDP)
growth, especially FDI that is directed towards export-oriented industries. Foreign
capital brings not only money and machinery but also engineering skills. With foreign
capital, the government opened up remote areas and worked on new, untapped sources.

In Indonesia, to facilitate FDI licensing, all ministries delegate the issuance of
permits to the Investment Coordinating Board, One Stop Service. The Indonesian
government simplified licensing to shorten the time. Through a one-stop integrated
service, time is very short. The FDI facilities provided by the government will attract
foreign investors.

**Conflict of interest:** The authors declare no conflict of interest.

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