



## External Debt and Economic Growth: Evidence from South Asian Countries

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### Abstract

*External debt is one of the fiscal policies that are still widely used by developing countries as an instrument of development capital. Limited capital in development in developing countries is one of the obstacles to the accelerated development of a country, one of which is in South Asian countries. This study aims to determine the effects of external debt, exports, foreign direct investment (FDI), and exchange rates on economic growth in South Asian countries using panel data in eight countries with a 2005–2019 series. data in the form of panel data from several data sources, including the World Bank, UnctadSTAT, and the Asian Development Bank. The panel data regression method is used to see the effect of external debt and other macroeconomic variables on economic growth as proxied by GDP growth for South Asian countries. The results of the analysis found that external debt, exports, and FDI had a significant positive effect on economic growth in South Asian countries. However, the exchange rate has a significant negative effect on economic growth in South Asian countries. These results imply that external debt is still needed as a policy instrument in development and economic growth in South Asia, with debt management for the allocation of productive activities. As indicated by increasing welfare and national economic growth, external debt management can accelerate development.*

**Key words :** GDP, External Debt, Export, FDI, Exchange Rate.

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## INTRODUCTION

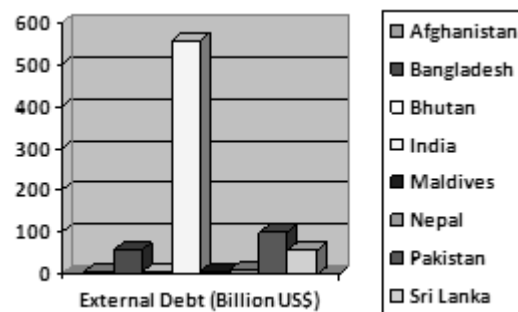
Economic growth is one of the benchmarks for the success of a country in running the economy. In the Malthusian theory, the measure of the success of a country's development is reflected in welfare through the potential GNP (Gross National Product) and GDP (Gross Domestic Product). Often a country's economic growth experiences dynamics due to various factors that influence both external and internal factors. However, there are several countries that have lower economic growth when compared to the population and area so that these conditions cannot deal with massive welfare problems. One of the regions that have economic growth in the above categories are countries in the South Asian region such as India, Pakistan, Sri Lanka, Bhutan, Maldives, Afghanistan, Nepal, and Bangladesh.

Various policies have also been carried out as a strategy to increase economic growth, but there are constraints in financing and capital as a driver of development acceleration. State-owned financing and capital that tends to be minimal and the budget deficit that often occurs cannot help provide development capital. For this reason, government policies are needed as an effort to provide development capital through debt instruments as a fiscal policy stimulus (Yuniasih, 2014). This debt instrument can be done through domestic debt or foreign debt in order to encourage capital so that production activities can be moved to generate new growth in encouraging the country's economic growth (Jeklin, 2016). External debt strategy policies and economic policies are important as efforts for sustainable development (Hung, 2021).

From the point of view of the theoretical framework, external debt policy can have a positive impact on increasing economic growth. The Keynesian school of thought states that capital through foreign debt directed at

the productive sector can boost income massively. This can encourage the creation of production output which will ultimately affect the increase in the economic growth of a country. Meanwhile, the view of Krugman (1988), with the debt overhang theory states that debt conditions that exceed the predicted ability to pay limit will weaken economic growth (Reinhart & Rogoff, 2012).

The phenomenon in South Asia shows that economic growth is sluggish and is experiencing a slowdown in growth. This can be caused by national production that does not move consistently or it can be due to a policy package that is less efficient and appropriate in fostering and increasing economic growth. Financing through external debt is a strategy taken by the government to increase national productivity.



Source: Worldbank data, 2021

**Figure 1.** External Debt in South Asia at 2019

The amount of external debt of South Asian countries in recent years has experienced a sharp increase and even more than doubled the risk of default (Abbas et al., 2020). This condition gives a signal that the effectiveness of financing through external debt does not significantly affect economic growth in South Asia. Figure 1 shows that India and Pakistan have very high external debts compared to other countries. Over the past 1.5 decades, there has been a tendency to increase external debt in South Asia. However, this increase in debt was not accompanied by a massive increase in economic growth in South Asian countries. It is feared that this slowing

economic growth will have an impact on revenue and income so that the possibility of default is increasing which will burden the economy in the future. Movements in external debt in each country are also not always accompanied by movements in GDP.

This concern has prompted several empirical studies to analyze the pattern of the influence of external debt on economic growth in South Asian countries. Such an empirical study from Wanniarachchi (2020), found that there is a statistically significant negative nonlinear relationship between external debt and economic growth. On average, developing countries have not been able to optimally allocate the capital obtained through external debt properly so that it will burden the country in the future. Eberhardt & Presbitero (2015), found that external debt carried out by developing and low-income countries in the long run negatively affects economic growth. External debt performance in Bangladesh is also less effective as shown by research from Dey & Tareque (2020), which finds external debt has a significant negative impact on economic growth. In Sub-Saharan Africa, it was also found that external debt had a negative impact on economic growth from the empirical results of (Edo & Dading, 2020). In the study of external debt in Europe, the use of the debt to GDP ratio reflects that a debt ratio above 95% of GDP will have a robust and negative impact on economic growth in Europe (Baum et al., 2012).

The slowdown and decline in economic growth were not only caused by the ineffective allocation of foreign debt, but also the lack of direct capital in the form of FDI, the ineffective performance of the domestic exchange rate, and the performance of international trade. The flow of capital mobilized by the integration of technological advances can become the main driver of the economy so that it can create new growth sectors and accelerate

the economy Rao et al., (2020), so that FDI positively affects economic growth economy (Anwar et al., 2015; Malik et al., 2020; Draz & Yang, 2018).

The concentration of the external sector such as international trade also contributes to increasing economic growth, especially in countries whose base sector produces export commodity output. The linear relationship between exports and economic growth occurs in almost every country's economy (Dominick, 2014; Abdullahil & Bal, 2017; Krawczyk & Wojcieszczyk, 2016). In addition, controlling the exchange rate is also important to maintain price stability and the economy. This is because uncontrolled inflation can lead to a decline in demand and economic sluggishness which will have an impact on depression in economic growth. The effect of depreciation or exchange rate appreciation can have a significant impact on growth, especially in countries that are strongly dependent on the international trade sector (Habib et al., 2017).

The problem that can be efficiently exposed to the external debt phenomenon in South Asia is that the increase in external debt aimed at increasing economic growth does not always work effectively. This is confirmed by the movement of an increase in the amount of external debt, which is not followed by an increase in economic growth in several countries in South Asia (Worldbank Data, 2021). Thus, it is assumed that the external role is not dominant in moving the economy to produce its production output. There are several macroeconomic variables that contribute to economic growth in South Asia, and it is suspected that there is also non-optimal management of debt allocation in the sector when viewed from the results of previous research. For this reason, this study wants to examine and review the role of external debt in influencing economic growth in South Asia with the update of research data

to see whether the debt will be more effective by showing its significant role in economic growth in South Asian countries.

## METHOD

This study uses a quantitative approach to see the reality of numerical data on the relationship between causal variables (Ma'ruf, 2015). Panel regression analysis method is used in this study to answer the problem of the impact of external debt policies on economic growth as proxied by real GDP in South Asian countries (India, Pakistan, Bhutan, Bangladesh, Maldives, Afghanistan, Sri Lanka, and Nepal). The data used is in the form of panel data combined with cross-section and time-series data (Verbeek, 2017). Data were obtained from several sources including the World bank, UnctadSTAT, and the Asian Development Bank. The time series used starts from 2005-2019 because in that year there was an increase in the amount of external debt of South Asian countries which was predicted to exceed potential income and ability to repay but was not supported by significantly improved economic growth performance.

In the regression method, data estimation is done by estimating the smallest value with BLUE (Best Linear Unbiased Estimator) results so that the estimation results can approach the population and can capture existing phenomena based on data information (Zulfikar, 2018). There are 3 models in panel data regression consisting of the Common Effect Model (CEM); Fix Effect Model (FEM); and the Random Effect Model (REM). To select the best model, a model test using the Chow test was used (to choose between CEM and FEM), Hausman test (to choose between FEM and REM), and the Lagrange Multiplier test (to select CEM and FEM). And in its analysis, this study adopts the modeling of several previous researchers and adds macroeconomic variables

as a differentiator from previous research as follows:

$$\log GDP_{it} = \beta_0 + \beta_1 \log ExternalDebt_{it} + \beta_2 \log Export_{it} + \beta_3 \log FDI_{it} + \beta_4 ER + \mu_{it} \quad (1)$$

Where GDP is used as a proxy for economic growth with units of million US\$; External Debt is foreign debt in units of million US\$; Export uses export value data in units of million US\$; FDI (Foreign Direct Investment) with units of million US\$; and ER is the exchange rate with units of million US\$.

## RESULTS AND DISCUSSION

The first step is to estimate the panel data by looking at the condition of the movement of the data used with descriptive statistical tests. In Table 1, descriptive statistical tests are shown to describe the general condition of the data on external debt variables in each South Asian country.

**Table 1.** Descriptive Statistic of External Debt Variable

Country	Mean	Max	Min	Std. Dev
Afghanistan	21.513	21.735	20.702	0.337
Bangladesh	24.144	24.767	23.641	0.342
Bhutan	21.042	21.717	20.302	0.530
India	26.517	27.05	25.520	0.471
Maldives	20.78	21.70	19.708	0.497
Nepal	22.133	22.59	21.882	0.187
Pakistan	24.829	25.33	24.256	0.311
Sri Lanka	24.068	24.750	23.148	0.571
Asian Selatan	23.124	27.051	19.708	1.98

Source: Result of Process, 2021

Descriptive statistics show that the highest average external debt occurs in India among other countries. In addition, several other countries such as Bangladesh, Pakistan, and Sri Lanka also have average external debt exceeding the average external debt of all South

Asian countries. The largest debt also occurred in India with a value of 27.05126 billion US\$ in the 2019 period and the lowest was in the Maldives in 2005. External debt data in each South Asian country also has a low data variance because it has a standard deviation value smaller than average intention. From the results of descriptive statistics, Table 2 also shows an overview of each variable used in the research model as follows:

**Table 2.** Descriptive Statistic of Independent Variable in South Asian

	Log(GDP)	Log(Exp)	Log(FDI)	Log(ER)
Mean	24.342	22.735	19.823	0.0213
Max	28.685	27.012	24.647	0.0781
Min	20.496	19.562	13.8106	0.0055
Std. Dev	2.204	2.0102	2.4895	0.0192

Source: Result of Process, 2021

Table 2 shows that the highest average GDP is in India and the highest average GDP above the average for all South Asian countries is in Pakistan, Sri Lanka, and Bangladesh. In addition to the GDP variable, the maximum value of GDP is in India in 2019 and the lowest is in Bhutan in 2005. For GDP, the data used for each country and overall in South Asia has a low variance because it has a smaller standard deviation value. of the average value. From the export variable, it was also found that the highest average results above the average export in South Asia were found in Bangladesh,

Pakistan, India, and Sri Lanka. The highest export value was found in India in 2018 and the lowest was in Bhutan in 2005. For export data, a low data variance was also found for each country and South Asia as a whole.

In the FDI variable, the highest average above the average South Asian FDI as a whole is in India, Pakistan, and Bangladesh. The highest FDI was in India in 2019 and the lowest was in Nepal in 2008. FDI also has a low data variance which is used like other variable data. In addition, the highest average exchange rate above the average exchange rate in South Asia is in the Maldives, with the highest exchange rate occurring in 2005 to 2010 and the lowest value being in Sri Lanka in 2019. The exchange rate also has variance low data is indicated by the standard deviation value being smaller than the average value.

Furthermore, in the panel data analysis, the model selection test is carried out and the best model will be estimated for the next panel regression. Table 3 presents the results of the model selection test consisting of the Chow test and Hausman test as well as the estimation results on the best-selected model. In addition, the results to see the cross-section ID showing the specifications per country are shown by the results of the effect specifications which are also contained in Table 3 as follows.

**Table 3.** Panel Regression and Selection Model

Variable	CEM	FEM	REM
Log(External Debt)	0.4658 (1.80) **	0.324 (8.353) ***	0.336 (13.77) ***
Log(Export)	0.424 (3.70) ***	0.401 (6.9172) ***	0.405 (11.44) ***
Log(FDI)	0.119 (2.90) ***	0.082 (4.876) ***	0.083 (8.226) ***
Log(ER)	-0.454 (4.50) ***	-0.620 (-3.98) ***	-0.597 (-5.89) ***
Chow Test			0,0000
Hausman Test			0,0000
Specify Country			Effect

Variable	CEM	FEM	REM
Afghanistan			-0.718452
Bangladesh			1.334095
Bhutan			-2.827921
India			3.115918
Maldives			-3.492915
Nepal			-0.173294
Pakistan			1.815535
SriLanka			0.947034
F-Statistic			2695.049
Adjusted R-Square			0.996000

Note: \*, \*\*, \*\*\* significant level of 1%, 5%, and 10%.

Source: Result of Process, 2021

The results of the model selection test analysis show that FEM is the best model that can be estimated further. This result is confirmed by the probability value in the Chow test of 0.0000 less than 5% alpha, which means that FEM was chosen to be the best model between the CEM and FEM selection tests. Furthermore, the Hausman test also shows that FEM is the best model compared to REM confirmed with the probability value in the Hausman test of 0.0000 less than 5% alpha.

Next, estimation is done by looking at the coefficients and probabilities of the FEM. The results show that the variables of external debt, exports, and FDI in South Asia significantly positively affect economic growth. Meanwhile, the exchange rate showed a significant negative effect on economic growth in South Asian countries.

The role of debt in financing and productive capital as an effort to increase development and economic growth in South Asian countries is still very important. The allocation of foreign debt provides an alternative in providing capital and financing to move the productive sector so as to increase the country's national production output. This result is in line with the study of Dawood & Nilofar (2020), which in its findings shows that there is a significant positive effect of total external debt on

economic growth in developing Asian countries. However, contrary to the findings of Wanniarachchi (2020), and Mohsin et al., (2021), which explain that there is a negative relationship between external debt and economic growth in South Asian countries.

Based on the framework of Keynesian theory supports the results of this study, the findings of this study confirm that external debt in South Asia has a significant positive effect on economic growth. Theoretically, productive sector financing that occurs in developing countries financed through external debt will encourage aggregate demand. The result of this increase in aggregate demand also results in the accumulation of capital in other production factors which will strengthen the real sector in responding to aggregate demand and will have an impact on increasing production output and economic growth of a country (Xu & Gondje-Dacka, 2016). An increase in aggregate demand will have an impact on income and welfare so that this will increase the circulation of money through consumption and national production. Under certain conditions, an increase in income that is increasingly stable will be responded to by fiscal policy in the form of taxes and levies that are set so that it will increase the national income side of the country which can accelerate development and pay off debt maturing.

Differences in results between this study and previous studies that found contradictory results can also occur if the data proxies used for external debt variables are different and the research year series is used. In this study, the external debt data used is overall external debt. This is important to note because the debt allocation for each debt is different. With this type of public debt, the long-term impact of financing from debt directed towards investment will have a significant impact on development and economic growth. In South Asia, which is directed by developing countries to allocate financing from debt for development purposes, both to revive the real sector and for long-term investment for physical development in the form of infrastructure and human development. The allocation of financing and capital sourced from external loans is directed at financing and productive investment in long-term programs such as production facilities and infrastructure. One of them comes from the increase in per capita income and national economic growth.

The results on the external debt coefficient of 32.5% reflect the increase in economic growth in South Asian countries. This confirms that external debt is still needed to increase national production because its contribution is quite dominant. The analysis results confirm that an increase in debt by 1% can increase economic growth by 32.5% and vice versa, a decrease in external debt by 1% will reduce economic growth by 32.5%. The Keynesian theoretical framework supports the results of this study, which confirms the results that external debt significantly affects economic growth. In reality, budget allocations funded by external debt require proper management to obtain optimal results. Financing funded by external debt can usually have a long-term impact because it is allocated to productive sectors,

especially in fixed asset spending, which will have an impact on economic growth in the long term.

In the analysis of panel data used in the study, external debt significantly positively affects economic growth in South Asia. However, on the results of the cross ID effect looking at the effect in each country, it was found that Afghanistan, Bhutan, and the Maldives confirmed the results that external debt in their countries had a negative impact on economic growth which was confirmed by the negative value of the Cross ID effect. Meanwhile, 5 South Asian countries consisting of Bangladesh, India, Nepal, Pakistan, and Sri Lanka showed positive numbers in the results of the Crossid effect. The role of debt that does not have a positive effect on economic growth in several countries such as Afghanistan, Bhutan, and the Maldives is due to the fact that the allocation of debt is not in the productive sector, but for public consumptive financing so that it does not provide a multiplier effect that can have a significant positive impact on the production sector and economy. Even in the long term, when the allocation of financing obtained from the proceeds of external debt is inappropriate and inefficient, it will burden the economy because the circulation of money cannot generate revenue for repayment of maturing debts and can actually depress economic growth.

The estimation results also confirm that exports and investment inflows indicated by the value of exports and the value of FDI in South Asia have a significant positive effect on economic growth. This result implies that not only can debt increase the economic growth of South Asian countries, but the trade performance shown by exports also significantly increases economic growth. Some of the dominating export commodities include exports of machinery parts from India, textile materials from Pakistan, ferroalloy materials from Bhutan, textile materials, garments (57%), and

plantations such as tea, spices, coconut, and rubber products from Pakistan, among several other commodities. Another dominant export in South Asian countries is raw materials. The majority of commodities are in the form of raw materials, and it is raw materials that dominate the global market.

The positive effect of FDI on economic growth in South Asia indicates that the stimulus for investment flows is able to create a production climate that can increase economic growth in South Asia. The increase in production capacity from investment inflows increases the national production output capacity, thereby increasing economic growth significantly. These results are in line with the findings by (Aziz & Azmi, 2011). Meanwhile, the exchange rate has a significant negative effect on economic growth in South Asia. These results indicate that the appreciation of the exchange rate in the long term can weaken economic growth due to uncontrolled price increases so that it can lead to a decrease in demand which causes a decrease in national production output. Based on these results, economic growth in South Asia is not only explained by debt performance but also macroeconomic variables such as export value, FDI, and exchange rates explain their significant influence on economic growth performance in South Asia. So that in policymaking, all important variables that are quite dominant have a transmission to increase the country's economic growth. In the long run, exchange rate depreciation increases output growth in Bangladesh (Razzaque et al., 2017). This study is in line with the findings that the exchange rate shows a significant negative effect on economic growth in South Asia.

## CONCLUSION

The results of analysis conclude that external debt is still an important instrument for development and increasing economic

growth in South Asia by allocating it to productive investment. In addition, export performance and capital inflows (FDI) are also macro instruments that are very important to note because they have a significant positive impact on increasing economic growth in South Asia. In addition, controlling the exchange rate as one of the transmissions of monetary policy for price control is also important because this instrument can maintain national economic stability.

This research is limited to looking at the effect of external debt variables as a whole, overall export value and FDI flows in influencing economic growth. Limited data is an obstacle for researchers to be able to explore goals more deeply. So that future researchers can use more detailed data proxies such as classifying the type of external debt, both public and private debt so that it is possible to analyze more deeply. In addition, the availability of short series also hinders researching each country, so that further research can use a longer series to explore the problems of each country with various analytical models that can be carried out.

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