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Impact of Fiscal Policy on Economic Growth under the Contributions of Level of External Debt in Developing Countries

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***Abstract*—**This study investigates the fiscal policy impact on countries' economic growth in developing countries with a different external debt level. The fiscal policy effectiveness has been re-emphasized in the global financial crisis of 2008 with the external debt as its new contemporary driver. Different theories have proposed the economic consequence of fiscal policy, specifically for developing countries. However, fiscal policy literature is lacking research regarding the fiscal policy's effectiveness with the external debt's contributions through comprehensive study. Also, high levels of external debt will influence economic growth. Through foreign resources and channel of investment in which high level of debt decreases the amount of foreign investment in the developing countries. The finding of this study suggests that only countries with a low external debt level and appropriate fiscal policies and good quality institutions can gain the proper quantity and quality of foreign investors in which will help the economic growth. For this, this research is examining the impact of fiscal policy on developing countries' economic growth in the situation of different external debt levels.

***Keywords*—**Fiscal policy, external debt, gross domestic product, developing countries.

I. Introduction

EVER since the crises of the external debt crisis, that began in eighties, the external debt has been condemned for all the economic growth obstacles of the developing countries. Institutional quality is an important index which positively impacts countries' economic growth and the reverse impact of external debt on countries economic growth would be alleviated by appropriate institutional quality [17]. Fiscal policies play a significant role in managing the developing countries' economic growth for its capability in affecting the whole amount of produced output, which is gross domestic product (GDP) [10]. Also, here are the rationalizations behind choosing the level fiscal policies in the countries' growth equation: Firstly, fiscal policies are key economic growth determinants. Studies that investigate fiscal policies' role in the determination of countries' growth of output proposed that the consistent deficits in the budget will reversely be associated with economic growth [12]. Trade openness which is a component of the fiscal policy is measured by the ratio of the total amount of trade to GDP, which shows the extent to which the economic status of a country is interconnected to the rest of the world. Countries with more external trade-offs will more rapidly adopt the most up-to-date ideas which are predominantly vital for developing countries [4]. According to [14], open economies mostly are in a healthier situation in importing more updated ideas from all around the world.

A. Research Question

Does the external debt level mediate the impact of fiscal policy on developing countries' economic growth?

B. Research Hypothesis

- H1: Fiscal policies will positively impact the gross domestic product in developing countries.
- H2: Different level of the external debt will mediate the effect of fiscal policy on developing countries' economic growth.

II. Literature Review

There have been many studies that have investigated the positive impact of countries institutional quality index and proposed that the reverse impact of external debt on countries economic growth would be alleviated by appropriate institutional quality [22] However, there has not been study which specifically investigates the fiscal policy which is one component of the institutional quality. Fiscal policies play a significant role in managing the developing countries' economic growth of its capability in affecting the whole amount of produced output, which is gross domestic product (GDP) [25]. Also, here are the rationalizations behind choosing the level fiscal policies in the countries' growth equation. Firstly, fiscal policies are key economic growth determinants. Studies that investigate fiscal policies role in the determination of countries' growth of output which is (GDP) proposed, consistent deficits in the budget will reversely be associated with economic growth). Trade openness which is a component of the fiscal policy is measured by the ratio of the total amount of trade to GDP, which shows the extent to which the economic status of a country is interconnected to the rest of the world. Countries with more external trade-offs will be more rapidly adopt the most up-to date ideas which are predominantly vital for developing countries. According to the study by [14] open economies mostly are in a healthier situation in importing more updated ideas from all around the world. In countries with a weak rule of law and corrupted public officials, external debts might either be spent on ineffective investments or get into

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illegal pockets. Therefore, amongst indexes of institutional quality, decent governance by a proper economic policies level will assist in protecting the external debts' acquisition and usage. Hence, it is important to maintain fiscal policies at a healthy level to utilize external debt for proper savings, investment, and supplies [12]. Therefore, this study is taking an insight into the empirical correlation between countries' fiscal policy and countries' economic growth, letting it to be different external debt levels. For economic expansion, classical economic theory emphasized the establishment of competitive companies and free commerce. The theory that economic growth is dependent on capital accumulation, which is motivated by rate of return, was advanced by David Ricardo. Alfred Marshall, a well-known development economist, emphasized the need of saving and the existence of free markets, among other things, for establishing a prosperous society. The neo-classical school of thinking emphasized the importance of boosting savings and investment rates as a policy goal. Increased savings encourage new investments, which in turn promotes economic growth. External sources constituted a vulnerable potential to fuel developing countries' aspirations for higher investments and growth, given their limited and insecure revenue streams. A theoretical model to explain the incidence of debt overhang in low-income countries and its impact on debt alleviation using OLS and 2SLS techniques on a panel data set of 94 nations. It was discovered that the size of the debt overhang and the efficiency of debt relief are determined by the recipient country's baseline economic conditions and total factor productivity level.

Since the sovereign debt crisis of the 1980s, which began in the 1980s and continued into the 1990s, the term "external debt" has been blamed for all of developing countries' troubles. The words' pervasiveness has encouraged every institution, be it a person or an organization, notably the media, to take the term "external debt" for granted. Because of the sheer perception of the amount of external debt outstanding against their country, the news and articles emerging from these organizations severely mislead and scare the populace. The amount of disbursed and outstanding contractual commitments of inhabitants of a country to nonresidents to repay principal is known as gross external debt.

Traditional neoclassical framework allows capital to flow freely across borders. It argues that a country's capacity to borrow and lend boosts transitional growth. So, because marginal product of capital is higher than the international rate of interest, capital-scarce nations have an incentive to borrow and invest. The debt overhang hypothesis contends in this context that Traditional neoclassical framework allows capital to flow freely across borders. It argues that a country's capacity to borrow and lend boosts transitional growth. So, because marginal product of capital is higher than the international rate of interest, capital-scarce nations have an incentive to borrow and invest the debt overhang hypothesis contends in this context. [25]. Traditional neoclassical framework allows capital to flow freely across borders. It argues that a country's capacity to borrow and lend boosts transitional growth. So, because marginal product of capital is higher than the international rate of interest, capital-scarce nations have an incentive to borrow and invest. The debt overhang hypothesis contends in this context. the uncertainty that debt overhang induces can undermine the effectiveness and long-term viability of a reform program that is otherwise credible.

A. Fiscal Policies

In developing countries, government spending as a GDP share is usually low and paying off external debt through cutting some government spending will be achieved through fiscal policies. Fiscal policies also adjust income taxes to preserve external debt sustainability [2]. Also, based on [5], the fiscal policy influences economic growth through measuring the GDP and changing the level of government spending and tax income. Fiscal policies preserve a steady and low external debt to GDP ratio, adjust public expenses and revenues to expected economic shocks, public goods' provision, and as a whole supporting the economic growth [1]. This research selected the economic policies because it supports the macroeconomic stability as well as their role in the business eco-systems facilitation and boosting the of external debt effectiveness or productivity [16]. Study of 56 developing countries' economic growth in a period of time shows the dependence of economic growth rate of per capita (GDP) to the country's economic policies level, organizational policies [11].

B. External Debt

External debt is counted as a fundamental capital development initiative proposed on the "Solow growth model", which justified the reason that countries needed to have borrowing from foreign countries. There has been a large body of literature proposing a reverse impact of external debt on a country's economic growth especially in developing countries [7]. External debt might improve countries' economic growth only in a certain criterion [20].

Literature represents the positive effect of external debt on countries' GDP to a certain external debt's limit and managing the debt expenses and paying-off at the same time [15]. External debt is productive and prudent for a country's economic growth until it can make more returns than the debt cost and increasing output growth.

C. External Debt and Economic Growth

Financial Statements of "International Monetary Fund Annual Report 2019" report that low-income and developing countries have been facing an uncontrolled rise in their external debt level [20]. The mentioned external debt burden possibly embodies economies' risk and negatively effecting countries' financial stability and investment crowding out. There has been a large body of literature proposing a reverse influence of the high level of external debt on GDP especially in developing countries [18]. However, the literature represents the positive influence of countries' external debt on enhancing their economy to a defined external debt's limitation and managing the expenses and paying off debt simultaneously [15].

The effectiveness and long-term viability of a reform program that is otherwise credible. [23] pointed out that foreign debt has a negative effect on growth not only because of the debt stock, but also because of debt servicing payments, which crowd out public investment, the effectiveness and long-term viability of a reform program that is otherwise credible.

Reference [24] examined the relationship between public debt, economic growth, and inflation in both developed and developing countries. Some debt-to-GDP thresholds were defined in the study. Surprisingly, the link between public debt and economic development in emerging and advanced economies was found to be similar. Furthermore, there was evidence of a more relevant impact in emerging markets. The proper level of fiscal policies can manage the utilization of the external debt to finance constructive investments which will produce future income for the country.

D. External Debt and Fiscal Policies

Influence of external debt on fiscal policy effectiveness revealed the constraint of high indebted countries in accessing the international financial markets. Fiscal policy in high indebted countries will cause the "crowding-out" of the countries' private sectors throughout the effect on rate of interest exchange, and constraint the ability of countries' private sectors in getting access to the foreign investors to implement economic activities [8].

E. Conceptual Framework

The theoretical framework of this study is built upon the Keynesian theory which conceptualized that the fiscal policy's crowding-out effects will cause the negative effect on county's economic growth through changes in interest and exchange rate [9]. Therefore, the expansionary fiscal policy which needed to be supported by more extra debt, as well as the increase in the interest rate leads to the lower private investments [13]. As countries' external debt increased, the government will more likely compete with the private sector for funds which will raise interest rates and crowd some private sector out of the market.

While the quality of fiscal policy has been proved to be affected by the economic growth of countries, the external debt's burdens on the fiscal policy sustainability are concerned. As an instance, according to [3] the level of external debt is important to factor instability of the exchange rate. Therefore, this study's conceptual framework is investigating the impact of fiscal policy on developing countries economic growth with different external debt levels.

III. Methodology

The study utilized 79 developing countries' panel data from 2007 to 2019. The countries' independent variable (fiscal policy) is a scale ranging from 1 to 6 derived from "Country Policy and Institutional Assessment Index" (CPIA), from the dataset of the World Bank. This study adopted the external debt dataset from the World Bank. The World Bank rates countries' fiscal policy as 1 = low to 6 = high based on the fiscal policy sustainability in terms of policies regarding monetary, exchange rate, and the debt policies, and its contribution to countries' economic growth. External debt (Mediator) is a dummy variable (if external debt's average as a percentage of GDP is less than 58% will denote equal to one and more than 58% will denote as equal to zero), adopted from [17]. The study utilized the external debt stock (GDS) adopted from the World Bank dataset, because, it is proposed that the larger portion of GDP is backed by external debt stock. Finally, economic growth (dependent variable) is a dummy variable and measured by GDP per capita in the U.S. dollars from the World Development Indicators database of the World Bank. In estimating our panel data and looking at between countries and within countries over time and also investigating the mediation effect, the study follows a system of random effect estimator regressions. The study first starts by examining the effect of fiscal policy on countries' economic growth, second, the fiscal policy impact on external debt level, and third, the external debt's impact on countries economic growth, respectively, to test the relationship between all variables. Next, the study utilized the interaction terms between fiscal policy and external debt to examine the fiscal policy's impact with the contribution of the level of external debt.

A. Regressions

$$\text{First regression: } yit = \alpha + ß1Xit + \mathcal{E}it$$

$$\text{Second regression: } yit = \alpha + ß2Zit + \mathcal{E}it$$

$$\text{Third regression: } Zit = \alpha + ß3Xit + \mathcal{E}it$$

In all regression models yit is the countries' rate of economic growth in GDP per capita over the period of thirteen-year (2007-2019) at time t, in-country I, and α indicates the random effects; Xit is the external debt stock and the coefficient of β1 determines the impact of external debt on economic growth, Zit is the fiscal policy and the coefficient of β2 determines the impact of fiscal policy on economic growth and β3 determines the impact of fiscal policy on external debt level. In the last regression, ß4 and ß5 are coefficients and respectively determine the interaction effect of external debt and fiscal policy on economic growth (GDP), as the study hypothesized that, the level of debt might describe the variation in the fiscal policy and economic growth.

B. Second Regression

$$yit = \alpha + ß4Xit + ß5(\alpha + ß3Xit + \mathcal{E}it) + \mathcal{E}it$$

IV. Expected Results and Conclusion

The expected results will indicate the positive fiscal policy impact on countries economic growth of with lower external debt burden across 78 developing countries in the examined time periods. The expected outcome of this study confirms the significant contribution of fiscal policy on the level of economies growth in developing countries, also confirms the study framework and the Keynesian theory which proposed that the country's economic growth simulation through an appropriate fiscal policy would be more in countries having the low burden of external burden, and will lose its effectiveness if countries have high burdens of external debt. External debt will constraint the fiscal policy effectiveness through constraining the capability of the private sector in having access to worldwide markets and through less budgetary room, fiscal space, and the unappealing terms to access the external financial markets, because, high external debt level will constraint the private sectors. Also, in counties with a high level of debt the expansionary fiscal policy will create the crowding-out effects via impacting the rate of country interest and exchange. Also "crowds out" will affect the private sectors availability in getting access to the international financial markets which constraints the capability of private sectors in implementing economic activities. In contrast, the lower level of external debt as a result of appropriate fiscal policy will promote a greater "crowding-in" impact of fiscal policy which leads to enhance economic growth. The result proposed that the external debt will negatively affect the country economic growth through increased interest rates increased tax rates, and as a whole restraint the fiscal policy, that will lead to lower economic growth rates [21].

V. Implication

The expected findings of this study will have important contributions to the existing literature, particularly for the fiscal policy's practices. Also, this study has substantial ramification for the governments in the implementation of the sustainable fiscal policy, borrowing policy, and a solution for the countries with a high level of external debt which is in a situation of facing ineffective fiscal policy. Also, this study has an implication for the fiscal policy consolidations to prevent the expansionary fiscal policy's consequences in which it needs to be compensated by extra external debt in order to avoid a lower rate of private sector investments [19].

There will be also recommendations for the countries with high level of external debt to avoid using their fiscal policy in stimulation of their economic growth, rather they should enhance their other institutional criteria [6]. Based upon the expected findings of the study, there will be some relevant policy implications for international development partners, governments' investors, and the government borrowing economies. For this, in emerging policies concerning the effective distribution of loans, development partners and investors need to guarantee that the country's borrowing economy has got some standard level of institutional quality? Moreover, the expected results will provide interesting facts for high indebted countries in which, despite the more fiscal policy effectiveness in the countries with the lower level of external debt, the high indebted countries will be able to prompt their economic growth through more effective institutions. Countries with high level of external debt need to avoid utilizing their fiscal policy in stimulation of their economic growth, they need to improve their other institutional criterion.

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