

An Empirical Analysis of the Impact of External and Domestic Debt on Economic Growth in South Asian Association for Regional Cooperation (SAARC) Countries

MUHAMMAD REEHAN HAMEED

Assistant Professor of Economics, Department of Economics, Government College of Science,
Wahdat Road, Lahore, Punjab, Pakistan.
Email: reehanhameed@yahoo.com

Dr. SHAHZAD MUSHTAQ

Assistant Professor of Economics, Department of Economics,
University of Okara, Punjab, Pakistan.
Email: shahzad.mushtaq@uo.edu.pk

HAFIZ BILAL AHMED SABRI

P.hD Scholar, Department of Economics,
National College of Business Administration & Economics, Lahore, Punjab, Pakistan
Email: saabri45@gmail.com

Abstract

South Asian countries are surrounded by severe socio-economic problems that threaten the economic future of the countries. Due to a fragile tax base and mounting budgetary deficits, they are continuously relying on both external and domestic debts that have serious implications on their economic growth. The study empirically analyzes the impact of external debt and domestic debt on the economic growth of SAARC countries, i.e. Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. For this purpose, panel data of 31 years from 1990 to 2020 has been taken. Fixed Effect Model and Panel ARDL techniques have been applied to examine the long-run relationship among the variables. Besides external debt and domestic debt for policy prospective, some policy, fundamental and shock variables have been used to see their impact on economic growth. The study results reveal that external debt and domestic debt negatively affect economic growth both in the short run and long run. It clearly indicates that the governments fail to utilize the borrowed resources generated through internal or external sources productively and adequately. The study recommends productive and efficient utilization of borrowed resources to avoid their negative repercussions on the economy.

Keywords: SAARC, External Debt, Domestic Debt, ARDL, Fixed Effect Model, Economic Growth.

Introduction

External debt and domestic debt always remain the most debatable policy issues for economists and policymakers as far as developing countries are concerned. Due to rising expenditures and decrease in revenues, the government has to face budgetary deficits. To bridge the gap between revenues and expenditures, the governments can raise the revenues by enhancing taxes, printing new notes, borrowing through internal sources, i.e. banks and non-bank sources, and external sources, i.e. foreign governments, international lending agencies, etc. Suppose the government plans to acquire money to finance fiscal deficits through borrowing sources instead of imposing additional taxes. In that case, it creates debt obligations, which are given the name of public debt. Hence all types of payments that the government has

to pay till some specific period whatever in the form is called public debt. However, each method of borrowing has its implications for the economy. The government has different alternatives to generate funds to finance budget deficits. The government can generally follow different policies and strategies depending on the current situation of the economy. Usually, increasing resources through enhancing taxes are subject to some legislative restrictions. Therefore budget deficits are generally bridged through open market operations by issuing bonds and securities to the public and the foreigners. In developing countries, the government has no alternative except to finance budget deficits through external sources because of the deficiency of capital in the private sector. External debt can also be utilized to get assistance to modern technology to remove technological backwardness, enhancing employment and productivity.

The development economists like Higgins (1959), Chenery & Strout (1966), and Pearson (1968) had played a vital role in the construction of debt and growth theories. These economists had unanimously agreed that foreign assistance, whichever forms, helped poor countries in transforming their economies from low levels of economic growth to high and sustainable economic growth. The contribution of these economists in the theory of debt and growth led to the conclusion that foreign assistance seems necessary for underdeveloped countries for removing the scarcity of capital, bridging the technological gap, and building infrastructure with a positive impact on growth.

Better and proficient utilization of debt can increase the pace of economic development and helpful for the government to accomplish its development objectives. Some economists and policymakers argued that debt, by providing financial assistance to the developmental projects, can enhance the country's productive capacity and help to accelerate economic growth (Cohen, 1993). A further argument raised in support of public debt is that foreign borrowing enables a country to increase the pace of capital formation not only through mobilizing household savings but also by incrementing the foreign capital surplus (Vos, 1988; Serven, & Solimano, 1993 and Baharumshah, & Thanoon, 2006).

Despite this fact, public borrowings are considered to be like a double-edged sword, greater dependence and inefficient use of public debt along with defective debt management strategies can create a risky environment that slows down the pace of economic growth in the economy. A high level of debt also creates serious threats to investment, employment creation, and poverty reduction, which further de-escalates the growth performance of a country. Moreover, it discourages domestic and foreign direct investment by creating a highly risky atmosphere for investment and uncertainty regarding future government policies. Further, growing public debt leads to imminent depreciation in the exchange rate, create a spill of inflation, encourage capital flight, enhance trade deficits and discourage economic growth (Ize & Ortiz, 1987; Eaton, 1987; Ndikumana & Boyce, 2003; Tille, 2003; Aabo, 2006; Allayannis & Ofek, 2001; Buiter & Patel, 1992).

Objectives of the Study

- To examine the impact of external and domestic debt on the economic growth of SAARC Countries.
- To analyze whether external debt is more harmful to economic growth or domestic debt.
- To give some Policy recommendations based on the results to resolve the issue of debt in these countries.

Research Question of the Study

- What is the impact of external debt on economic growth?
- What is the impact of domestic debt on economic growth?

Significance of the Study

The external and domestic debt of SAARC countries has witnessed a rising trend over the past three decades that has asserted severe implications on their economic growth and undermined all the efforts and initiatives taken by the governments to deal with it. In economic literature, divergent opinions exist regarding the linkage between debt and growth. Some researchers propose that debt is a curse and harmful for economic growth, while some others consider it indispensable for economic growth. Various studies had focused on the impact of external debt on economic growth and neglected the role of domestic debt in this regard. But unlike external debt, domestic debt is also difficult to service and is an important predictor of economic growth.

The relationship between debt and growth cannot be truly estimated without including the role of domestic debt in the model. More particularly, there are very few studies that had been conducted in SAARC countries perspective. However, because of rapid economic and political changes occurring in their economies, it becomes pertinent to further investigate the linkage between debt and growth using the latest data and econometrics techniques. Therefore, this study aims to fill this informational gap and includes both external debt and domestic debt in the same model to examine their individual impact on economic growth. Besides these, the study also uses some policy, fundamental, and shocks variables to see their effect on economic growth.

Literature Review

The debt and growth relationship continues to attract considerable attention from economists, researchers, and policymakers. But whenever the issue of debt is discussed, the policymakers try to answer four major questions. What is debt? How it exists? What are its consequences on economic growth? and how the debt issue can be resolved? To answer these questions, several studies have been conducted. Numerous studies conclude that debt is a curse and harmful for economic growth, while some studies deem it necessary for economic growth. Fosu (1996) argued that external debt, through a decline in returns from the capital, affected GDP growth negatively. The study further observed that the countries whose debt level was too high faced a one percent decline in the growth rate of GDP annually. Fosu (1999) further argued that the negative impact of external debt on growth was perhaps due to the weak performance of debtor country in terms of utilization of debt. Deshpande (1997), Easterly (2003), and Sen *et al.* (2007) got similar kind of results that foreign debt affected growth negatively through a decline in physical capital accumulation and factor productivity growth. Maana *et al.* (2008) investigated the impact of internal debt on the economy of Kenya for the period from 1996-2007. The results indicated that rising domestic debt resulted in high-interest payments, which had mounted budget deficits. However, due to extensive financial progress in Kenya, the domestic debt had no crowding out impact on private investment. The study concluded that rising domestic debt stimulated economic growth in the Kenyan economy.

Sasaki (2009) analyzed the effect of external and domestic borrowings on economic growth in Indonesia from 1991-2006. The study proposed that external debt was necessary to bridge the deficits. It positively stimulated investment and economic growth, but rising domestic debt crowded out private investment, which reduced the stock of capital and productivity. Mba *et al.* (2013) analyzed the association between domestic borrowing and economic growth in Nigeria. The results indicated that domestic debt had a favorable impact on economic growth, while debt servicing harmed economic growth. The study recommended that debt would be used to finance those projects which could yield sufficient returns. Onogbosele and Ben (2016) empirically analyzed the effect of domestic borrowings on the economic growth of Nigeria using the data span from 1985-2014. The findings of the study revealed that domestic borrowings stimulated economic growth in Nigeria. Lotto and Mmari (2018) analyzed the effect of internal debt on the growth performance of Tanzania. The data from 1990 to 2015 had been used. They found that domestic debt had a negative but insignificant relation with economic growth.

Model Specification

The model linked economic growth to external debt and domestic debt. Gross domestic product (GDP) is used as a proxy to measure economic growth and is taken in the natural log form. GDP as a proxy for economic growth has been used by many researchers, i.e. (Greiner, 2011; Panizza & Presbitero, 2013; Ayadi & Ayadi, 2008; Matandare & Tito, 2018; Herndon et al., 2014; Abdullahi et al., 2013; Edo, 2002; Checherita & Rother, 2012; Panizza & Presbitero, 2014 and Mencinger et al. 2014). Debt is a complex phenomenon, and it affects growth through various factors. From the literature, some direct and indirect channels are identified, which determine the pattern of growth. External debt as a ratio of GDP (EDGDP), Domestic debt as a ratio of GDP (DDGDP), Debt servicing payments as a ratio of exports receipts (DSPEXR), and Net external financing as a proportion of twin's deficits (NEXFTD) (Budget deficits + Trade deficits). Along with an increase in debt burden, expected debt servicing increases, leading to assert negative impact on growth. In this situation, foreign creditors benefit more from a rise in productivity than domestic agents (Geiger, 1990; Afxentiou, 1993; Rockerbie, 1993; Cohen, 1993; Chowdhary, 1994; Afxentioiu & Serletis, 1996; Iyoha, 1996; Were, 2001; Karagol, 2002).

Rising internal debt increases domestic debt servicing, which swallows a major part of public revenues. Government, due to resource constraints, spends less on development activities, and in this way, economic growth is discouraged (Sheikh et al. 2010; Maana et al., 2008). In addition to debt indicators for policy perspective, the study also uses several fundamental, policy and shocks variables, i.e., inflation (INFL) reveals the economic stability of the economy, fluctuations in the Exchange rate (EXR) indicates the unreliability of public policies. Terms of trade (TT) captures external shocks. The role of human development is captured through population growth rate (PGR) in the model because a substantial literature arguing that human development is an important indicator of economic growth, and without including the role of human development, the growth model remains incomplete. Private investment as a ratio of GDP (PIGDP) and public investment as a ratio of GDP (PUBIGDP) are included separately in the model to examine their effect on growth individually. Gross fixed capital formation (Private and Public) is used as a proxy for private and public investment respectively.

The Model

The general form of the empirical specification of the model used can be written as

$$\ln GDP_{it} = \Psi_0 + \Psi_1 EDGDP_{it} + \Psi_2 DDGDP + \Psi_3 DSPEXR + \Psi_4 NEXFTD_{it} + \Psi_5 PIGDP_{it} + \Psi_6 TT_{it} + \Psi_7 PGR_{it} + \Psi_8 INFL_{it} + \Psi_9 EXR_{it} + \Psi_{10} PUBIGDP_{it} + \mu_t$$

Where

lnGDP= Natural log of Gross Domestic Product uses as a proxy to measure Economic growth.

EDGDP = External debt as a ratio of GDP.

DDGDP= Domestic Debt as a ratio of GDP.

DSPEXR = Debt servicing payments as a ratio of export receipts.

NEXFTD = Net external financing as a proportion of twins deficits.

PIGDP = Private Investment as a Ratio of GDP.

TT = Terms of Trade.

PGR = Population Growth Rate.

INFL = Rate of Inflation.

EXR = Exchange rate.

PUBIGDP = Public Investment to GDP ratio.

Methodology

The general form of the can be written as

$$Y_{it} = X_{it}\beta + Z_{it}\alpha + \varepsilon_{it}$$

Where, i = cross section dimension, t = time series dimension, Y_{it} = Explained variable, $X_{it}\beta$ = set of explanatory variables, $Z_{it}\alpha$ = the heterogeneity, or cross-sectional impact

In time-series data before applying an appropriate econometric technique, the stationarity of data has been checked. To check the stationarity of panel data, various methods are available, “e.g. Levin, Lin & Chu, I’m, Pesaran and Shin, ADF Fisher, Phillips – Perron Unit Root Test. Hausman test has been applied to check whether the fixed effect model is appropriate or random-effect model for the estimation of data.” The Panel ARDL/ PMG approach has been applied to estimate long term association among the variables. Panel ARDL technique requires that the dependent variable is stationary at the first difference and none of the explanatory variables is at the second difference.

Data Sources

For econometric analysis, time-series data of 31 years from 1990-2020 of SAARC countries have been used. The data has been taken from World Development Indicators (WDI), International Monetary Fund (IMF), and International Debt Statistics (IDS) various databases.

Empirical Results and Analysis: Hausman Test Results of the Model

The Hausman test results given in table 1 indicate that the Null Hypothesis is rejected at 1% level of Significance. So, we can conclude that the fixed effect model is appropriate for the estimation of the model.

Table 1: Hausman Test Results

Null Hypothesis Random Effect Model is appropriate		
Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
476.728023	10	0.0000

Null Hypothesis has been rejected at a 1% level of Significance.

Fixed Effect Results of the Model

The fixed-effect model results presented in table 2 indicate that both external debt and domestic debt retard economic growth. One percent increase in external debt (EDGDP) leads to depress economic growth by 0.29 percent, while a one percent rise in domestic debt (DDGDP) decreases economic growth by 0.36 percent. This is in accordance with the liquidity constraints and debt overhang hypothesis as described by Krugman (1988) and Cohen (1995), which postulate that if external debt exceeds the country repayment

ability, the expected debt servicing increases and some of the returns of investing in the domestic economy in the form of increased output are taken away by the existing foreign creditors which discourages investment and economic growth. Borrowed funds, if utilized for consumption purposes instead of productive investment, fail to generate future income, which turns into a debt burden and asserts a negative impact on economic growth.

Table 2: Fixed Effect Model Results

Dependent Variable: GDP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
EDGDP	-0.292772	0.062751	-4.665614*	0.0000
DDGDP	-0.362955	0.055083	-6.589235*	0.0000
DSPEXR	-0.761676	0.070690	-10.77493*	0.0000
NEXFTD	-0.012378	0.005466	-2.264423**	0.0257
PIGDP	1.129491	0.146691	7.699776*	0.0000
TT	0.003098	0.000366	8.456061*	0.0000
PGR	-0.242105	0.021373	-11.32744*	0.0000
INFL	-0.006034	0.001095	-5.510888*	0.0000
EXR	0.006768	0.000254	26.68272*	0.0000
PUBIGDP	3.427630	0.325832	10.51964*	0.0000
C	1.699719	0.061308	27.72435*	0.0000

* Significant at 1%, ** Significant at 5%

Moreover, a high level of debt enhances government domestic borrowings, increases the domestic interest rate, and discourages private investment, consumption, and economic growth. Moreover, inefficient and poor management of borrowed funds in these countries has a negative effect on economic growth and financial stability. This negative relationship between debt and growth is supported by many studies i.e. Van, (1983 & 1989); Aizenman & Marion, (2011); Buite & Patel, (1992); Hafer & Hein, (1988). Debt servicing payments as a ratio of export receipts (DSPEXR), which captures the crowding-out effect also discourage growth.

The other variables include private investment (PIGDP), Terms of Trade (TT), exchange rate (EXR), and public investment (PUBIGDP), exhibit a positive and significant relationship with economic growth. Net external financing as the proportion of twins deficits (NEXFTD), Population growth rate (PGR), and inflation (INFL) have a significant negative impact on economic growth. Public investment (PUBIGDP) stimulates economic growth. Public investment causes domestic production to increase, which raises the level of income and employment in the country, leading to boost economic growth. According to Keynesian points of view, public investment is an important instrument of the government to increase the output up to some particular level. Public investment leads to an increase in the aggregate supply by enhancing the level of domestic output, income, and employment through the multiplier effect and encourages economic growth (Rabnawaz et al., 2015).

Panel Unit Root Test Results

The panel unit root test results presented in table 3 indicates that the GDP, external debt (EDGDP), domestic debt (DDGDP), private investment (PIGDP), population growth rate (PGR), and public investment (PUBIGDP) are stationary at order I(1) and other variables are at order I(0). Now we have the validity to apply the Panel ARDL approach to estimate the long-term association among the dependent and independent variables used in the model.

Table 3: Panel Unit Root Test Results

Variables	ADF - Fisher Chi-square & PP - Fisher Chi-square				Levin, Lin & Chu Unit Root Test & Im, Pesaran & Shin Unit Root Test			
	I(0)		I(1)		I(0)		I(1)	
	Intercept	Intercept & Trend	Intercept	Intercept & Trend	Intercept	Intercept & Trend	Intercept	Intercept & Trend
lnGDP	4.11811 (1.0000) 4.75660 (1.0000)	1.60156 (0.9454) 0.87435 (0.8090)	-3.23241** (0.0006) -5.78079** (0.0000)	-2.21596** (0.0133) -4.90094** (0.0000)	1.9253 (0.9729) 4.25473 (1.0000)	1.23877 (0.8923) 1.53607 (0.9377)	-3.1733** (-0.0008) -3.1806** (0.0007)	-2.8463** (0.0022) -2.1447** (0.0160)
EDGDP	1.62450 (0.9479) 2.70366 (0.9966)	0.85879 (0.8048) 0.64171 (0.7395)	-3.74267* (0.0001) -5.86810* (0.0000)	-3.04818* (0.0012) -5.69352 (0.0000)	1.53352 (0.9374) 1.72966 (0.9582)	-0.74123 (0.7707) 0.84591 (0.8012)	-3.2323** (0.0006) -3.7874** (0.0001)	-4.0646** (0.0000) -3.0378** (0.0012)
DDGDP	-0.66378 (0.2534) -1.91686 (0.0276)	0.70786 (0.7605) -0.78102 (0.2174)	-3.05453* (0.0011) -7.57268* (0.0000)	-1.84427* (0.0326) -7.95293 (0.0000)*	-0.61650 (0.2688) -0.65722 (0.2555)	0.34724 (0.6358) 0.66780 (0.7479)	0.25116 (0.5992) -3.4558** (0.0003)	1.57350 (0.9422) -2.2438** (0.0124)
DSPEXR	-1.38695* (0.0827) -4.12357* (0.0000)	-0.81414 (0.2078) -4.17149* (0.0000)	-6.47084** (0.0000) -9.70791** (0.0000)	-5.38090** (0.0000) -11.2739** (0.0000)	-1.9220* (0.0273) -1.3859* (0.0829)	-1.4239* (0.0772) -0.88419 (0.1883)	-4.1760** (0.0000) -7.2604** (0.0000)	-2.2836** (0.0112) -6.1054** (0.0000)
NEXFTD	-3.37783* (0.0004) -2.21063* (0.0135)	-2.54970 (0.0054)* -8.14007 (0.0000)*	-4.61573** (0.0000) -5.58117** (0.0000)	-3.44878** (0.0003) -11.2160** (0.0000)	-1.6058* (0.0538) -3.8610* (0.0001)	-1.07291 (0.1417) -2.9969* (0.0014)	-4.2739** (0.0000) -5.8461** (0.0000)	-2.5576** (0.0053) -4.5568** (0.0000)
PRIGDP	-1.38083 (0.0837) -1.46852 (0.0710)	1.52258 (0.9361) 1.52258 (0.9827)	-3.13444** (0.0009) -5.62381** (0.0000)	-2.54446** (0.0055) -5.52706 (0.0000)	-2.4265* (-0.0076) -1.3628* (0.0865)	0.99629 (0.8404) 1.46159 (0.9281)	-0.54061 (0.2944) -3.1496** (0.0008)	0.44410 (0.6715) -2.6932** (0.0035)
TOT	-0.64907 (0.2581) -0.17123 (0.4320)	0.22571 (0.5893) -0.08179 (0.4674)	-5.48674** (0.0000) -7.25668** (0.0000)	-4.39421** (0.0000) -6.26293** (0.0000)	-0.98337 (0.1627) -0.63599 (0.2624)	1.19306 (0.8836) 0.22430 (0.5887)	-5.4698** (0.0000) -5.9248** (0.0000)	-4.7769** (0.0000) -4.7280** (0.0000)
PGR	13.0877 (0.1089) 20.8487 (0.0076)	15.2842* (0.0538) 15.6370 (0.0479)	51.6023** (0.0000) 69.1590** (0.0000)	38.5906** (0.0000) 304.885** (0.0000)	-2.2183* (0.0133) -1.05076 (0.1467)	-3.1632* (0.0008) -2.26938* (0.0116)	-2.2531** (0.0121) -2.2161** (0.0133)	-1.04771 (0.1474) -1.4034** (0.0802)
INFL	15.9729* (0.0428) 21.4564 (0.0060)	10.9632 (0.2038) 15.5678 (0.0490)	59.7848** (0.0000) 101.665** (0.0000)	46.5535** (0.0000) 119.630** (0.0000)	-1.7860* (0.0370) -2.60959* (0.0045)	-0.87408 (0.1910) -1.79544* (0.0363)	-7.9199** (0.0000) -8.5224** (0.0000)	-6.6009** (0.0000) -7.2597** (0.0000)
EXR	0.39541 (0.9999) 0.60801 (0.9997)	5.30713 (0.7243) 3.95847 (0.8609)	35.4780** (0.0000) 48.4589** (0.0000)	24.9742** (0.0016) 34.7489** (0.0000)	1.43669 (0.9246) 4.03307 (1.0000)	1.16141 (0.8773) 0.82086 (0.7941)	-2.7540** (0.0029) -4.4829** (0.0000)	-1.9331** (0.0266) -3.2639** (0.0005)
PUBIGDP	-1.61663* (0.0530) -2.44049* (0.0073)	0.05575 (0.5222) -0.93520 (0.1748)	-6.31556** (0.0000) -8.61437** (0.0000)	-5.65392** (0.0000) -11.1129** (0.0000)	-1.04951 (0.1470) -1.6254* (0.0520)	-0.12595 (0.4499) -0.01228 (0.4951)	-7.1005** (0.0000) -7.0805** (0.0000)	-6.4019** (0.0000) -6.5246** (0.0000)

Values in Parentheses are p-values. * Shows stationary at a level and ** shows stationary at first difference.

Panel Auto Regressive Lag Model (ARDL)/ Pooled Mean Group (PMG) Results of the Model

The PMG/ Panel ARDL estimates presented in table 4 indicate that both external debt (EDGDP) and domestic debt (DDGDP) discourage growth in the long run. A large economic literature arguing that debt, if not properly utilizes, has a disastrous effect on economic growth. Private investment (PIGDP), terms of trade (TT), and public investment (PUBIGDP), stimulates economic growth in the long run. Population growth rate (PGR) and the exchange rate (ER) stimulates economic growth. The other variables, Debt

servicing payments as a ratio of export receipts (DSPEXR), Net external financing as a proportion of twin's deficits (NEXFTD), and terms of trade (TT) do not have any significant relationship with economic growth in the long run. Short-run results of Panel ARDL indicate that the error correction term is negative and significant at 1 % level of Significance which explains the speed of convergence of the model towards the equilibrium. The external debt as a ratio of GDP (EDGDP), domestic debt as a ratio of GDP (DDGDP), and exchange rate (EXR) in the short-run have significant negative relationships with economic growth. The other remaining variables do not show any significant association in the short run with economic growth.

Table 4: Panel ARDL Results

Dependent Variable: GDP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Long Run Equation				
EDGDP	-5.603563	1.096435	-5.110710*	0.0000
DDGDP	-3.258917	0.903272	-3.607904*	0.0007
DSPEXR	-0.886673	0.928953	-0.954486	0.3441
NEXFTD	-0.75448	1.025159	-0.735971	0.4649
PIGDP	-19.09761	4.539672	-4.206825*	0.0001
TOT	0.000145	0.003401	0.042577	0.9662
PGR	1.580957	0.465523	3.396089*	0.0013
INFL	-0.047880	0.015466	-3.022272*	0.0038
ER	0.071409	8.631779	3.487473*	0.0000
PUBIGDP	-30.10309	8.631779	-3.487473*	0.0010
Short Run Equation				
COINTEQ01	-0.37063	0.033172	11.17297*	0.0088
D(LGDP(-1))	-0.020679	0.062429	-0.331236	0.7417
D(EDGDP)	-0.350284	0.135995	-2.575708*	0.0128
D(DDGDP)	-0.157875	0.107516	-1.468382***	0.1078
D(DSPEXR)	-0.187591	0.152642	-1.228963	0.2244
D(NEXFTD)	-0.017196	0.065817	-0.261273	0.7949
D(PIGDP)	-0.304177	0.332562	-0.914646	0.3644
D(TOT)	9.08E-06	0.000297	0.030549	0.9757
D(PGR)	0.146815	0.104156	1.409566	0.1644
D(INFL)	-0.000900	0.001745	-0.515652	0.6082
D(EXR)	-0.003480	0.001732	-2.009641**	0.0495
D(PUBIGDP)	-0.380837	0.882860	-0.431367	0.6679
C	-0.054894	0.082713	-0.663670	0.5097

Number of Observations=108, * Significant at 1%, ** Significant at 5%, *** Significant at 10%

Conclusion

This study examines the impact of external debt and domestic debt on economic growth in SAARC countries. For this purpose, various econometric techniques have been used. The results of the fixed effect model indicate that both external debt (ED) and domestic debt (DD) deter economic growth in the long-run and short-run in SAARC countries. Debt servicing payments as a ratio of export receipts (DSEXP) also harm growth while private (PRIGDP) and public investment (PUBGDP) stimulates economic growth. The other variables include population growth rate (POPGR), inflation (INFL) and net foreign financing as a proportion to twin's deficits (NEXFTD) are negatively related to economic growth. Terms of trade (TOT) and exchange rate (EXR) have a positive relation with economic growth. The ARDL estimates also exhibits a negative relationship, in the long run and short run, among external debt, domestic debt, and economic growth.

Policy Recommendations

From the findings of the study, several policy implications emerged. There is a dire need to manage debt both domestic and external to avoid its negative consequences. The government should make strategies to manage external and domestic debt. Debt taken must be used in productive and growth-oriented activities. It will enhance the output level of the country, leading to boost income, employment through the multiplier effect. The government should make efforts to reduce budgetary deficits by minimizing its non-development expenditures and increase the revenue by extending the tax base.

References

- Aabo, T. (2006). The Importance of Corporate Foreign Debt in Managing Exchange Rate Exposures in Non-Financial Companies. *European Financial Management*, 12 (4), 633-649.
- Abdullahi, Y. Z., Aliero, H. M., & Abdullahi, M. (2013). Analysis of the Relationship between External Debt and Economic Growth in Nigeria. *Interdisciplinary Review of Economics and Management*, 3 (1), 1-1
- Afxentiou, P. C. (1993). GNP Growth and Foreign Indebtedness in Middle-Income Developing Countries. *International Economic Journal*, 7(3), 81-92.
- Afxentiou, P. C., & Serletis, A. (1996). Growth and Foreign Indebtedness in Developing Countries: An Empirical Study Using Long-Term Cross-Country Data. *The Journal of Developing Areas*, 31(1), 25-40.
- Aizenman, J., & Marion, N. (2011). Using inflation to Erode the US Public Debt. *Journal of Macroeconomics*, 33 (4), 524-541.
- Allayannis, G., & Ofek, E. (2001). Exchange Rate Exposure, Hedging, and the Use of Foreign Currency Derivatives. *Journal of International Money and Finance*, 2 (2), 273-296.
- Ayadi, F. S., & Ayadi, F. O. (2008). The Impact of External Debt on Economic Growth: A Comparative Study of Nigeria and South Africa. *Journal of Sustainable Development in Africa*, 10 (3), 234-264.
- Baharumshah, A. Z., & Thanoon, M. A. M. (2006). Foreign Capital Flows and Economic Growth in East Asian Countries. *China Economic Review*, 17 (1), 70-83.
- Buiter, W. H., & Patel, U. R. (1992). Debt, Deficits, and Inflation: An Application to the Public Finances of India. *Journal of Public Economics*, 47 (2), 171-205.
- Checherita, W. C., & Rother, P. (2012). The impact of high government debt on economic growth and its channels: An empirical investigation for the euro area. *European Economic Review*, 56(7), 1392-1405.
- Chenery, H. B., & Strout, A. M. (1966). Foreign Assistance and Economic Development. *The American Economic Review*, 56 (4), 679-733
- Chowdhury, K. (1994). A Structural Analysis of External Debt and Economic Growth: Some Evidence from Selected Countries in Asia and the Pacific. *Applied Economics*, 26 (12), 1121-1131.
- Cohen, D. (1993). Low Investment and Large LDC Debt in the 1980s. *American Economic Review*, 83 (3), 437-49.
- Cohen, D. (1995). Large External Debt and (Slow) Domestic Growth a Theoretical Analysis. *Journal of Economic Dynamics and Control*, 19 (5-7), 1141-1163.
- Deshpande, A. (1997). The Debt Overhang and the Disincentive to Invest. *Journal of Development Economics*, 52 (1), 169-187.
- Easterly, W. (2003). Can Foreign Aid Buy Growth?. *Journal of Economic Perspectives*, 17 (3), 23-48.
- Eaton, J. (1987). Public Debt Guarantees and Private capital Flight. *The World Bank Economic Review*, 1(3), 377-395.
- Edo, S. E. (2002). The External Debt Problem in Africa: A Comparative Study of Nigeria and Morocco. *African Development Review*, 14 (2), 221-236.
- Fosu, A. K. (1996). The Impact of External Debt on Economic Growth in Sub-Saharan Africa. *Journal of Economic Development*, 21(1), 93-118.
- Fosu, A. K. (1999). The External Debt Burden and Economic Growth in the 1980s: Evidence from Sub-Saharan Africa. *Canadian Journal of Development Studies*, 20 (2), 307-318.

- Geiger, L. T. (1990). Debt and Economic Development in Latin America. *The Journal of Developing Areas*, 24 (2), 181-194.
- Greiner, A. (2011). Economic Growth, Public Debt and Welfare: Comparing Three Budgetary Rules. *German Economic Review*, 12 (2), 205-222.
- Hafer, R. W., & Hein, S. E. (1988). Further Evidence on the Relationship Between Federal Government Debt and Inflation. *Economic Inquiry*, 26 (2), 239-251
- Herndon, T., Ash, M., & Pollin, R. (2014). Does High Public Debt Consistently Stifle Economic Growth? A Critique of Reinhart and Rogoff. *Cambridge Journal of Economics*, 38 (2), 257-279.
- Higgins B. (1959) Economic Development, New York, Norton
- Iyoha, M. A. (1996). Policy Simulations with a Model of External Debt and Economic Growth in Sub-Saharan African countries. *Nigerian Economic and Financial Review*, 2 (2), 45-54.
- Ize, A., & Ortiz, G. (1987). Fiscal Rigidities, Public Debt, and Capital Flight. *Staff Papers*, 34 (2), 311-332.
- Krugman. (1988). Financing vs. Forgiving a debt overhang. *Journal of Development Economics*, 29 (3), 253-268.
- Karagol (2002). The Causality Analysis of External Debt Service and GNP: The Case of Turkey. *Central Bank Review*, 2 (1), 39-64.
- Lotto, J., & Mmari, C. T. (2018). Domestic Debt and Economic Growth in Tanzania. *Journal of Economics and Management Sciences*, 1 (1), 207-219.
- Maana, I., Owino, R., & Mutai, N. (2008). Domestic Debt and its Impact on the Economy—The case of Kenya. In *13th Annual African Econometric Society Conference in Pretoria, South Africa from 9th to 11th July*, 40, 346-598.
- Matandare, A.M., & Tito, J. (2018). Public Debt and Economic Growth Nexus in Zimbabwe. *Journal of Economics and Sustainable Development*, 9 (2), 84-89.
- Mba, P. N., Yuni, D. N., & Oburota, C. S. (2013). Analysis of Domestic Debt: Implication for Economic Growth in Nigeria. *Global Journal of Social Sciences*, 12 (1), 1-9.
- Mencinger, J., Aristovnik, A., & Verbic, M. (2014). The Impact of Growing Public Debt on Economic Growth in the European Union. *Amfiteatru Economic Journal*, 16 (35), 403-414.
- Ndikumana, L., & Boyce, J. K. (2003). Public Debts and Private Assets: Explaining Capital Flight from Sub-Saharan African Countries. *World Development*, 31(1), 107-130.
- Onogbosele, D. O., & Ben, M. D. (2016). The Impact of Domestic Debt on Economic Growth of Nigeria. *Asian Research Journal of Arts & Social Sciences*, 1(3), 1-13.
- Panizza, U., & Presbitero, A. F. (2013). Public debt and Economic Growth in Advanced Economies: A survey. *Swiss Journal of Economics and Statistics*, 149 (2), 175-204.
- Panizza, U., & Presbitero, A. F. (2014). Public Debt and Economic Growth: is There a Causal Effect?. *Journal of Macroeconomics*, 41, 21-41.
- Pearson, L. (1968). Cicero's Debt to Demosthenes: The Verrines. *Pacific Coast Philology*, 3, 49-54.
- Rabnawaz, A., & Sohail, J., R. (2015). Impact of Public Investment on Economic Growth. *South Asia Journal of Multidisciplinary Studies (SAJMS)*, 1(8), 62-75.
- Rockerbie, D. W. (1993). Explaining Interest Spreads on Sovereign Eurodollar Loans: LDCs Versus DCs, 1978–84. *Applied Economics*, 25(5), 609-616
- Sasaki, K. (2009). Roles of External and Domestic Debt in Economy: Analysis of a Macro Econometric Model for Indonesia. *Interdisciplinary Information Sciences*, 15 (2), 251-265.
- Sen, S., Kasibhatla, K. M., & Stewart, D. B. (2007). Debt Overhang and Economic growth—the Asian and the Latin American Experiences. *Economic Systems*, 31(1), 3-11.
- Serven, L., & Solimano, A. (1993). Debt Crisis, Adjustment Policies and Capital formation in Developing Countries: Where Do We Stand?. *World Development*, 21(1), 127-140.
- Sheikh, M. R., Faridi, M. Z., & Tariq, K. (2010). Domestic Debt and Economic Growth in Pakistan: An Empirical Analysis. *Pakistan Journal of Social Sciences (PJSS)*, 30(2), 373-387.
- Tille, C. (2003). The Impact of Exchange Rate Movements on US Foreign Debt. *Current Issues in Economics and Finance*, 9(1).1-8.
- Van, W., S. (1983). Credit Policy, Inflation and Growth in a Financially Repressed Economy. *Journal of Development Economics*, 13 (1-2), 45-65.

- Van Wijnbergen, S. (1989). External Debt, Inflation, and the Public Sector: Toward Fiscal Policy for Sustainable Growth. *The World Bank Economic Review*, 3 (3), 297-320.
- Vos, R. (1988). Savings, Investment and Foreign Capital Flows: Have Capital Markets Become More Integrated?. *The Journal of Development Studies*, 24 (3), 310-334.
- Were, M. (2001). The Impact of External Debt on Economic Growth in Kenya: An Empirical Assessment. *WIDER Discussion Papers/World Institute for Development Economics (UNU-WIDER)* (No. 2001/116).

