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Macroeconomic Determinants of External Debt in Selected SAARC Countries: A Panel Data Analysis

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Abstract

External debt is burning problem in almost all economically developing or underdeveloped countries because of current account and budget deficits, low saving and investment growth and negative balance of payment. The external borrowing is increasing drastically in South Asian Association for Regional Co-operation (SAARC) that largely relies on external borrowing for their public finance. So, this study aims to explore the factors which enhances or lower the external debt in four countries in four SAARC nations (Bangladesh, India, Pakistan and Srilanka) for the period of 1984-2019. Results of study explored that budget deficit, negative balance of payments, devaluation of currency and more corruption are major factors to increase external debt in these countries and are significantly related to external debt. So, it is recommended that exports should be encouraged, and governments of these countries need to provide export subsidies and introduce export bonus voucher schemes. Government needs to follow the cannons of taxations and need to give rebate on heavy taxes on import of manufacturing machinery and to encourage FDI.

Key Words: External debt, Budget deficit, Balance of payment, Corruption, Exchange Rate, SAARC

Jel Codes: D73, E02, H62, H63

1. Introduction

External debt always has been a debatable issue for policy makers, researchers, and predictors as it affects the economies of countries. It is defined as the total borrowing a country owes to foreign creditors to finance their business,

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due to inadequacy of their own resources to fulfillment the entire required expenses of their business. External debt plays a vital role to finance in the internal source of funding for development, rising saving, economic growth, financial development, to control inflation and other different needs of entire country. Generally, external credit is acquired a country suffer from shortage of internal savings, foreign balance, desired to attain its development as well as nationwide objectives (Siddique et al., 2015).

Accordingly, countries need external financing for the subsequent reason as insufficient internal savings, lacking balance of trade, and the balance of payment, the volume of foreign reserves, extremely huge expenditure on military, fiscal deficit, population growth, infrastructure development, foreign direct investment, and eradication of corruption (Lessard, 1989). Whereas external debt is major source which enhances the accruing capital in any developed or emerging economy. In case of fiscal deficit and overcome the internal gap between saving and investment, the role of external debt is crucial one (Umaru et al., 2013).

Domestic resources that could bring about a most favorable stage of development of economy may insufficient, for most developing countries. To fulfill their requirements, entire emerging countries depend on external borrowings to funding the expenditure on growth and development and improving the standard of living of entire people. Economic growth which is linked to balance of trade, oil rent, investment and budget deficit are major factors in accumulation of external debt in developing countries (Waheed, 2016).

In new era, the external debt of less developed countries has gradually raised, stated that the role of external debt plays an energetic role in financing the growth process. The debt cycle theory proposed that external debt is an important source of economic funding for low per capita countries, characterized by deficit balance of payment, less domestic saving. The debt cycle theory also predicted, the incremental effect on domestic saving in long run may cause of higher proportion of investment and to pay back the external debt and balance of payment in early stage of advancement.

The major macroeconomic factors which determine the external debt in low-income economies is the shortage of foreign exchange, high deficits in balance of payments, inflation fall sharply, low saving, fiscal deficit, and high nominal interest rate. The economic growth is basic and primary concern of all the less and advance countries. A lot of world countries is ranked by low capital formulation and unable to meet the budget deficit, due to lacked economic resources. External debt affected the development of less developed countries because the decreasing in the stock of outside loanable funds credible for the sack of highly indebted poor countries (HIPC) should frankly boost growth of per person per year and indirect associated on growth of public investment.

The basic objective of every country is to enhance the stander of living of its citizen and stimulate the economic growth. The vicious circle of poverty, and scarce economic resource, by the law of fair advantage, the country depends upon one another to meet their imports demand and export needs to achieve the sustainable stander of living and face get a low cost of production. In

industrialized countries external debt owes to rise as percentage of GDP. Whereas most less established nations are categorized by a deficiency of capital assets to encounter the collective public expenditure, hence these countries must rely on external borrowings to increase internal capital.

The economists trying to explore suitable channels through which external debts can be obstruct economic development and affect other indicators which determine external debt. External debt burden arises when large amount of debt, rate of interest high and economy goes toward crisis. The main international debt crises occurred at 1980s, when several less developed countries (LDCs) have to face difficulties in repaying debt obligations. (Cholifihani, 2008) revealed that rise in outward debt generate difficulties, when a nation has debt buildup, a great fraction of spending and exchange earnings are riveted by debt load with heavy opportunity costs.

Above discussion shows that external debt has become the burning issue for all emerging countries especially in Asian region. Mostly studies are found, which showed the relationship of external debt with the growth, inflation, and fiscal deficit as Chaudhary et al. (2009) investigated the relationship between foreign direct investment, saving and external debt. While only one study was found in Pakistan by Awan et al. (2011), who studied the determinants of external debt. But present study is more comprehensive countries as in this study more than one country and numeral variables are included. So, the current study trying to analyze the macroeconomics factors affecting external debt in entire selected SAARC nations (Pakistan, India, Bangladesh and Srilanka). SAARC are unindustrialized nations which trust on the external obligation to finance their projects, balance of payments, inflation rate, population growth, exchange rate.

Mostly literature work on external debt is concentrated the importance of external debt on economic growth, inflation, government expenditure and corruption, whereas slightly focus on the factors which lead to the macroeconomics factors of outer borrowings. So, the first and prime the key objective of the present study is to identify the main elements affecting the external debt in entire selected SAARC nations taking case of Bangladesh, Srilanka, India and Pakistan. The other objective is to investigate the trend of external borrowings in certain SAARC nations. The identification of macroeconomics factors of external debt would be not only is supportive for policy making bodies in Pakistan, India, Bangladesh and Srilanka but also for other indebted SAARC countries. Rest of the study is organized as follow: section 2 is fixed for external debt situation in SAARC countries while section 3 is reserved for literature review. Data and methodology are discussed in section 4. Results and conclusion are discussed in section 5 and 6, respectively.

2. External Debt in SAARC Countries

External debt is burning issue and popular topic of debate due to the worldwide debt crisis, so it becomes the topic of attention for writer of the entire

current work. Now a day, in the second decade of third millennium, approximately all low-income countries are facing the problem of external barrowing, because of fiscal as well as current account deficit, low saving, population growth and for infrastructure development. The external borrowing is increasing drastically day by day across the world. The countries related with South Asian Association for Regional Corporation (SAARC) are very poor and less developed, most of them relay on the external debt for their public finance (Mahmood et al., 2014). The World Bank statistics 2015 stated that the external borrowing stock of SAARC countries reached at $548,280.9 in 2013.

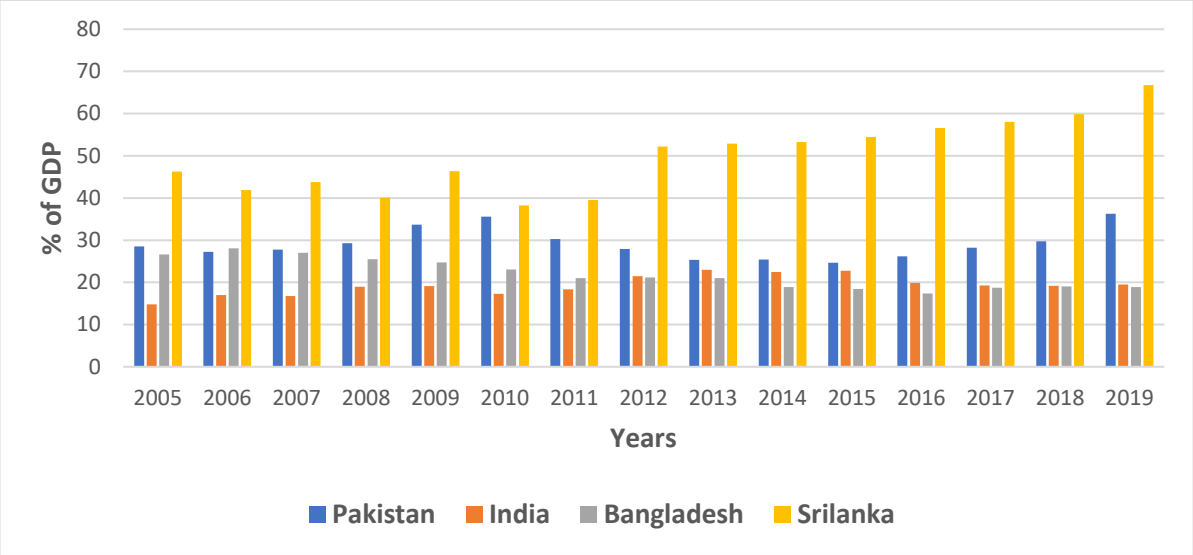
Pakistan is a member of SAARC countries which spend a major portion of its national income on external debt servicing in every year. External debts are not only filling the gap of defecting financing, also put the economy on actual growth path. The developing nations like Pakistan, India, and Bangladesh etc. The basic infrastructure and capital formulation are essential need of any country. For this purpose, the resources could be purchased from developed countries on credit. If these debts properly utilized, then an economy grow well and come out from the crisis (Jafri & Habib, 2017).

India is the one of largest economy in the SAARC countries. The reasons of India's external indebtness are structural in nature. External debt accumulation in India is largely associated with chronic current account deficits. When a country victimized from current account deficit, then to finance the deficit, it may borrow from external resources apart from encouraging foreign investment. India has been borrowing both from external and internal sources since independence to finance its investment program. India's external debt rose 6.6 percent during the financial year ending March 2015 to $475.8 billion (Kumar, 2015).

Bangladesh is also another emerging economy of SAARC country. The IMF report stated that Bangladesh state is the 47th largest economy in the world in 2010. But it faces many entire problems like gap of saving and investment gap, deficit of internal economy, low income, depends on import goods, low export, instability in politics, unsustainable growth and so on and they borrow from peripheral and interior sources to fill up the gap in fiscal year 2010-2011 total external debt of amount USD 21340.440 million that is 24.24 percent of GDP. External borrowing rises the inflow of capital in the country, which raises the GDP of country (Farhana & Chowdhury, 2014).

Like many other developing countries, Srilanka is also depending on foreign debt to finance many of its infrastructure projects. Government investment through foreign borrowing is generally justified by its on low savings due to the budget deficit, low private sector savings, and the deficits in external sector mainly due to high import bills. Srilanka has accumulated a great deal of the debt because of heavy borrowings either with concessionary or commercial interest rates. In 1950, the public liability was Rupees of. 0.654 billion while the end of 2012, public debt was stood Rs.6 trillion (Kumara, 2013). The situation of external debt as the percent of GDP in entire four selected nations of SAARC (Pakistan, India, Bangladesh and Srilanka) is showing in figure 1.

Figure 1: External Debt as % of GDP



Source: The World Bank Indicators

3. Review of Literature

The modern theory of public debt comes from the great economic depression of 1930. The traditional view stated that constant unstable budgets as well as swiftly mounting public debt majestic the financial stability of the nations, progressively gave way to the conception which states that a huge public debt was a national asset rather than a liability and that continuous deficit spending was essential to the economic property of the nations. The Keynes opinions the raising the public debt have multiple effects would elevation the National Income.

The economists discovered the suitable channels for the long time, through which external debt can obstruct growth and affect other macroeconomic variables. (Shabbir, 2013). The debt overhang theory is one of the main theories and debt overhang refers to a condition where the stock of debt exceeds and its future capacity to compensate it. The theory reveals that if the share of debt ration to GDP high, the relative low funds attainable to provide the favorable environment for business and investment promotion, which can cause the decline of current level of economic growth. The lack of funds may cause the declining the economic growth, which further decline the investment on health, education, and infrastructure.

The huge stock of external debt may cause the economics performance via uncertainty which is associated with effect of rate of inflation. Extreme debt policy led to high economic uncertainty and unpredictability and forces that government should adopt the Contractionary monetary poly to control the rate of inflation as well as Contractionary fiscal policy, which lead to high rate of interest which paid on government debt (Hwang et al., 2010). The actual cost of debt is called debt burden, while the debt crisis occurs when the debtor is unable to pay

back the interest rate as well as principal amount. (Black, 2002) stated that economy crashes occur at that stage when the debt burden so large and interest pay on it very high.

The less developed countries unable to pay back the principal amount and rate of interest, this situation is created at era of 1980s. Moreover, there is negative association between the external debt and investment financing through debt servicing and credit rationing among the investor in the international market (Eduardo, 1989; Cholifihani, 2008). Correspondingly, the external debt service can affect the rate of growth domestic investment and saving by the crowding out effect of private investment and change in public decomposition.

In historical prospective, the debt burden handle with different entire ways. Some of countries main crisis occur, even the debt ration to Gross Domestic Product (GDP) is very low rate while, some economies perform well economic function, when their public debt raise significantly as the value of total the production of yearly busies. So, it is difficult to determine the entire boundaries of absolute and universally existence of debt services. Conversely, it could be stated that these limitations are grasped when fiscal policy objectives are wide-open. Overall, analysis stated that the debt services phenomena is occur, due to enlargement of public expenditure and public investment expenditure, which are mainly finance by public debt.

Many studies find a significant impact on external debt with a number of determinants. Foreign debt significantly and positively affected by investment and saving (Chaudhry et al., 2009). But exchange rate, deficit financing and growth rate adversely linked with external debt (Malik et al., 2010; Awan et al., 2011 and Fida et al., 2012). According to previous research, external debt had a positive impact on growth in an economy under good policy environment (Ali, 2013), but badly influence on inflation (Karakaplan, 2009). According to previous literature, government expenditures, military expenditures, and inflation are positively associated with external borrowing (Greenidge et al., 2010; Pattillo & Ricci, 2011 & Chaudhary et al., 2017). Beside this, social sector spending in health and education showed significant and inverse effect on external debt (Shabbir & Yasin, 2015). Corruption is another factor which demonstrated the significant effect on debt growth (Jalles, 2011). Similarly, Corray et al. (2017) estimated the significant and positive effect of corruption with external debt.

Awan et al. (2011) inspected the correlation among exchange rate, fiscal deficit, terms of trade and external debt both in extensive and petite by using Johansen Cointegration approach by using the data from 1974 to 2008. In short run none of the regressors were found to be significantly related with external debt. Only exchange rate was adversely linked through the lag value of foreign debt in the long run, increase in nominal exchange rate was also the cause in increasing foreign debt burden in Pakistan. Cooray et al. (2017) investigated that empirical relation between the corruption and economic public debt. The outcome demonstrated that corruption shows significant and positive effect with external debt. The government spending may also be showed positive and significant

association. Matthew and Anda (2016) also highlighted the major issue of expansion of external debt with corruption in case of Nigerian economy.

Shahateet et al. (2014) investigated the relationship between budget deficit and external debt in Jordan and fond no causality and relationship between both variables. The study argued that while determining budget constraints such as taxes and non-interest spending, fiscal decision makers may overlook foreign debt. While Azam and Feng (2017) argued that non-interest spending's like military expenditures significantly raises the external debt and foreign exchanges reserves and economic growth negatively associated with the external debt. Khan et al. (2021) has a similar finding for arms importing countries in which external debt is a major cause of military expenditures. Waheed (2017) also explores the determinants of external debt in oil and gas importing countries and found that oil prices, growth, investment, foreign reserves, and government revenue are negatively and significantly related to external debt while inflation and government expenditures are positively related to external debt.

In short, external debt relationship has been discussed several times with different variables in past literature. Previous studies investigated the relationship of variables in one country or Sub Sahran African Countries, Asian and South American Countries These studies explored many determinants as inflation, saving and investment, exchange reserves, economic growth, government revenue and expenditures, and financial development. But there is no study in the literature which discuss the major economic problems (negative balance of payment, high fiscal deficit, devaluation of currency) and social evil like corruption as a determinant of external debt. Therefore, the present study is an attempt to analyze the macroeconomic factors of external debt in selected SAARC countries.

4. Data and Methodology

4.1 Model Specification

In this current study the panel data is used to analyze the macroeconomic determinants of external debt in four designated SAARC countries (Sri Lanka, India, Bangladesh, and Pakistan) covering the period from 1984 to 2019. Panel set of observations data set took to make on the selected units above a numeral of epochs. The Panel set of data is generally greater than variant of time and variant of space data sets, and explanatory variables differ over two aspects (individuals and time) rather than one. The following model is showed it empirical analyses for dependent and independent variables during the time of 1984 to 2019.

$$lnED_{it} = \beta_{0i} + \beta_1 lnBOP_{1it} + \beta_2 LBD_{2it} + \beta_3 \ln MVA_{3it} + \beta_4 ln\, FDI_{4it} + \beta_5 FDV_{5it} + \beta_6 CORR._{6it} + \beta_7 LOER_{7it} + \epsilon_{it} \quad \textbf{(1)}$$

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4.2 Variables Description

4.2.1 Dependent Variable

External Debt (ED)

External debt is playing a vital role in financing the businesses, which shortage their own resources to fulfillment the expenditure needs, through borrowing a public authority in a country. External debt is the total debt a country owes to foreign creditors. The log values of external debt are used in this study as a dependent variable.

4.2.2 Independent Variables

Balance of Payment (BOP)

The Balance of Payments is a record of a country's transactions with the rest of the world. It shows the receipts and payment from trade. It consists of the current and financial account. On the hand, the balance of payment is the total account record of payments and receipts during the entire time span. Balance of payments provides detailed information concerning the demand and supply of a country's currency and plays a very important role in economic development of a country. Shafi et al. (2015) found negative association among external debt and balance of payments.

Budget Deficit (BD)

Budget deficit is an amount that the government spent, minus what it collected in revenues, each year. Shahateet et al. (2014) point out the long run and positive relationship between external debt and budget deficit.

Corruption (CORR)

The country in which low transparency and less accountability in government business and transactions is knows as corrupt economic country. These deficiencies come out form dictators and non- democracy forces. Present study uses the data of control of corruption, extracted from international country risk guide (ICRG, 2020) by PRS group. Whereas "0" means highly corrupted country and "6" means lower corrupted country.

Exchange rate (OER)

Exchange rate is the number of units of one currency that is purchased with one unit in term of another currency. Exchange rate plays a critical role in international monetary transactions of an economy and there exists a long run relationship between suggested the long run cointegration relationship amongst exchange rate and external debt (Fida et al., 2012). In present study, nominal exchange rate in terms of dollar is used as a determinant of external debt.

Foreign Direct Investment (FDI)

Foreign Direct Investment (FDI) means the cash or non- cash receipts come out from the foreign country, send by the residents of entire domestic countries. World Investment Report (2011) stated that the third world countries in globe growth upsurge in whole world transaction, behind reason of FDI (Chaudhary et al., 2017). Foreign direct investment raises the productivity level and reduce budget deficit in a country, which can also lessen the burden of debt.

Financial Development (FDV)

Financial development is a key component of an economy which facilitating the exchange of goods and services, allocations resources, mobilizing saving and helping diversify risk. The present study has used the financial development index, calculated by international monetary fund (IFS data) which ranges between 0-1 ("0" means lower development and "1" mean high development).

Manufacturing value added (MVA)

Manufacturing value added of an economy is the total estimate of net-output of all resident manufacturing activity units obtained by adding up outputs and subtracting intermediate consumption. MVA growth increases overall growth and can be helpful in reducing deficit, which also lessen the debt burden in an economy.

4.3 Estimation Techniques

As the present study uses panel data for the analyses of model to determine the factors that affect external debt position in selected SAARC countries (Pakistan, India, Bangladesh and Srilanka). Fixed effect model and random effect models are the estimation choice for this type of analysis based on Hausman test (1978). If the Hausman test reject null hypothesis (there is no correlation between error term and independent variable) than fixed effect model is appropriate for this study. In the same way if Hausman test accept null hypothesis and reject alternative hypothesis (the correlation between error term and independent variable) than random effect model is appropriate for this panel research.

Therefore, analyses of panel model Hausman test apply for post estimations to decide between fixed effect and random effect model. Chi-Square value of Hausman test is 1005.94 and probability value of chi-square is less than 0.01 ($p<0.001$), means the null hypothesis (there is no correlation between the error term and independent variable) of this test will be rejected. So, the test shows that fixed effect model is appropriate for this study. Moreover, Feasible Generalized least squares (FGLS) technique is also used in our analysis because it is robust to autocorrelation and heteroskedasticity issues. In micro-panel data this is among one of the refined methods (Quazi, 2014). FGLS is a technique for

estimating the impact of independent variables on dependent variable when there is a correlation between the residuals in a regression model and / or heteroscedasticity.

5. Results and Discussion

This section provides the detailed descriptive and empirical results of model that has been discussed in section 4.

5.1 Descriptive Statistics

Summary statistics provide information about the nature of data. These analyses include 36 time-periods and 144 observations, which is contained to mean values, lowest and extreme values and standard deviation of the variables. Each of the variables is fairly distributed across the mean value, as the mean value in each case has relatively lower deviation across the mean. The average debt in selected countries for analyses is 69.98 billion dollars. Average fiscal deficit in these countries is 20.9 billion dollars during the period of analysis.

Balance of payment (BOP) are remained negative in all countries of analyses throughout the period and average value of unfavorable balance of payment are recorded 14 billion dollars. While average value of budget deficit is 11.10 billion dollars in countries of analysis. Similarly, average official exchange rate in observed countries is 60.06 against dollar value; while highest amount is recorded in Srilanka which is 178.74 in 2019. The average value of control of corruption in these countries is 2.31 during the period of analyses, while minimum and maximum values of corruption perception index are 0 percent and 4 respectively. Financial development index which are developed by IMF not showing a good picture in these countries. As average value is 0.25, with the maximum value of 0.47 in India in 2009.

Table 1: Summary Statistics

Variables	Obs.	Mean	Std.Dev	Min	Max
External Debt	144	24.2185	1.1668	21.8213	27.0513
Manufacturing Value Added	144	23.4155	1.5245	20.5057	26.7039
Balance of Payment	144	44.2172	3.0927	29.0562	51.0694
Exchange Rate	144	60.06433	34.59638	11.36258	178.7449
Control of Corruption	144	2.3125	0.8121	0.0000	4.0000
Financial Development Index	144	0.2456	0.0948	0.1178	0.4698
Budget Deficit	144	22.3549	1.1944	20.1099	25.1167
Foreign Direct Investment	144	19.9681	2.4810	12.4208	24.6474

Source: Author's own calculations

5.2 Panel Data Analysis

Results of the panel data analysis (FGLS and F.E) are presented in Table 2. The Hausman test is used for the choice between fixed effect and random effect (Rjoub et al., 2016, 2017). The value of Hausman test is significant, therefore the present study employs fixed effect (FE) model. Results of the FE confirm the occurrence of the heteroskedasticity and autocorrelation in the model of the entire study. So, this study uses the panel FGLS model to properly capture cross-sectional heteroskedasticity (Bai et al., 2020). The advantage of employing FGLS is that it can change the variance-covariance matrix to regulate the remaining cross-sectional autocorrelation and heteroskedasticity (Reed and Webb, 2011). Results reported in table 2, shows that financial development, balance of payment and corruption are negatively and significantly associated with the external debt stocks in SAARC countries. While, budget deficit (BD), foreign direct investment (FDI), exchange rate and manufacturing value added are positively and significantly related to external debt burden in these countries.

Results of financial development is positively associated to external debt in these countries and this relationship is statistically significant at 1 percent level of confidence ($P < 0.01$). These finding are in line with Hwang et al. (2010), who also find the positive association between financial expansion and external debt in 20 highly selected indebted nations of Asia and Latin America. While in the moderation of financial development and manufacturing value added (FDMA), FDV is negatively associated with the debt burden and increase in the ratio of FDV lessen the debt stocks by 0.10 percent and this relationship is significant at 5 percent confidence interval ($P<0.05$). Theory stated that more financing and investment results in greater output and lesser debt burden due to more revenue collection in any country. Furthermore, the lower the financial depth, the greater the degree to which public borrowing crowds out private sector credit (Ismihan & Ozkan, 2012).

Results of the exchange rate are also consistent with the theory and previous research (Palić et al., 2018), as present study show that an increase in exchange rate by one dollar also increases the debt by 0.13 percent, these results are also significant at 1percent level of confidence ($p<0.01$). Balance sheet effects are likely to hit countries with high external debt the hardest, as borrowing in a foreign currency makes loan repayment more expensive in the presence of depreciating currency (Augustine, 2019).

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Table 2: Panel Data Regression Results

FGLS and Fixed Effect regression {Dependent Variable = LED (log of External Debt)}

VARIABLES	(1) FGLS	(2) F.E	(3) FGLS	(4) F.E
FDV	1.0123***	0.1916	-9.7677**	-21.6025***
	(0.2963)	(0.3427)	(3.8726)	(3.6606)
LBD	0.1501***	0.0704*	0.1410***	0.0190
	(0.0413)	(0.0387)	(0.0403)	(0.0355)
BOP	-0.0314***	-0.0192**	-0.0437***	-0.0411***
	(0.0089)	(0.0088)	(0.0098)	(0.0087)
LFDI	0.0486***	0.0196	0.0518***	0.0019
	(0.0163)	(0.0179)	(0.0159)	(0.0162)
CORR	-0.0649**	-0.0798***	-0.0572**	-0.0074
	(0.0265)	(0.0293)	(0.0259)	(0.0288)
OER	0.0013**	0.0018	0.0023***	0.0052***
	(0.0006)	(0.0013)	(0.0007)	(0.0013)
MVA	0.5765***	0.6770***	0.4847***	0.4872***
	(0.0359)	(0.0765)	(0.0480)	(0.0752)
FDMA			0.4397***	0.9089***
			(0.1575)	(0.1521)
Constant	7.6074***	7.2796***	10.4335***	13.8610***
	(0.4400)	(1.2029)	(1.0994)	(1.5366)
Observations	144	144	144	144
R-squared		0.9307		0.9455
F-Statistics		255.31***		286.13***
Wald chi2	4015.02***		4240.07***	
		Specification Tests		
Hausman Test for Fixed and Random effect		201.62***		1005.94***
Heteroskedasticity: Wald Test		25.15***		32.23***
Autocorrelation: Breusch-Pagan LM test		30.79***		47.09***

Source: Author's own calculations **'*', '**', '***' show the significance level at 10%, 5% and 1% respectively.**

Manufacturing value added (MVA) is positively related to outdoor debt in (SAARC) countries. A one percent increase in MVA leads to increase external debt by 0.58 percent and statistically significant at 1 percent level. Reason of this

positive relationship is that developing countries like SAARC imports raw material for manufacturing finished goods due to lack of technology and cover the finances through domestic and external debt. Awan et al. (2015) also found significant and positive link amongst manufacturing values added and external debt in South American Countries. Budget deficit as well increases the external debt significantly at 1 percent level of confidence in selected SAARC countries by 0.15 percent when deficit increases by 1 percent. These findings are in-line with Awan et al. (2015) & Faridi and Arif (2017).

Corruption is adversely associated with external debt and this relationship is also significant at 5% level of confidence ($p < 0.05$). More the value of control of corruption means lower the corruption and lower the debt burden and vice versa. In SAARC countries, corruption is high as compared to other Asian regions, which causes low tax to GDP ratio and high fiscal and budget deficit and lead to high external debt. These results are also consistent with Jalles (2011) who found the negative impact of corruption on debt growth in developing countries. Absolute value of balance of payment (BOP) is adversely associated with external debt and this relationship is also significant at 1% level of confidence ($p < 0.01$) indicates that favorable BOP will lower the external debt and vice versa. As discussed earlier, SAARC countries have consistently negative BOP, which are also covered by domestic and external financing. Due to which external debt burden is also high in these countries.

Contradictory to the theory, more foreign direct investment in countries also increase the debt burden of economy. Findings of previous studies as Ali (2013), Jilenga et al. (2016), showed a significant investment in presented no directional causality between external debt and FDI. While Pattilo et al. (2011); Al-Fawwaz, (2016) and Chaudhry et al. (2017) showed the negative relationship of FDI and external debt. One reason of this positive association might be that ratio of green-field investment by foreigners in these countries is very low and they take a major share of the return to their countries. Due to which foreign exchange reserves could not increase rapidly and currency devaluation could not reduce the debt burden.

6. Conclusion and Policy Recommendations

External debt is one of the sources of financing capital formation in any economy. It is important for the government to borrow in order to meet the financial requirements in the case of deficit, so that it could close the resource gap between savings and investments (Umaru et al., 2013). External debt is burning issue and popular topic of debate due to the universal debt crisis, so it becomes a topic of concern for the current work. Now a days, in the second decade of third millennium, most of less developed countries are facing major problem of external debt because of current and fiscal deficits, low saving and investment, population growth and infrastructure development. The external borrowing is extremely increasing day by day across the world. The countries which are members of South Asian Association for Regional Co-operation (SAARC) are

less developed and relatively poor countries that entirely relay on external debt from the public finance (Mahmood, 2014). According to the World Bank indicators in 2020, the external debt stock of SAARC countries has reached $70 billion in 2019.

The recent decades witnessed a significant increase in external debt of many third world countries, due to the persistent current account as well as the budget deficit. The determinants of external debt in emerging economies have caused a lot of concern among researchers and policy makers in recent years. So, the current study is also designed to find the factors of external debt in SAARC countries. Due to data limitations, only four economies (Pakistan, India, Bangladesh and Sri-Lanka) are under consideration for the empirical research. The present study employs fixed effect and FGLS method according to Hausman and specification tests.

Results of the study depicts that, reduce in corruption and positive balance of payments are negatively and significantly associated to external debt in subject nations. While budget deficit and manufacturing value added are positively and significantly related to external debt. Budget deficit is the major cause of external debt in SAARC countries as these countries require more funds to spend on public with low tax and non-tax revenue. One major cause might be that these countries spend more of their budget on defense expenditures which further need to be studied. Moreover, FDI is also positively associated to external debt, whereas financial development is showing mixed effect with the external debt. Financial development shows negative effect on external debt when it moderate with the MVA. Nominal exchange rate in terms of dollars is also positively and significantly associated with the external debt.

In the light of these estimated outcome, the results of study showed that budget deficit and negative balance of payments increases the external debt in subject countries. So, it is recommended that exports should be encouraged, and governments of these countries need to provide export subsidies and introduce export bonus voucher schemes. The study results revealed that corruption is also affected the external debt of subject countries, in this regard it is recommended that corruption and use of black money should be controlled by government of these countries. The study findings explained that manufacturing value added is positively related to external debt of selected SAARC countries. So, it is suggested that government can encourage investing in technology and should give rebate on import of manufacturing machinery instead of importing raw materials to produce finished goods. The present study is restricted to selected SAARC countries due to data limitation in other SAARC countries. The model of this study can be expanded to other regions of the world, especially in developing economies of African and American associations.

The most important takeaway from this research is the significance of avoiding specific generalizations when it comes to external debt accumulation. Policymakers must understand the significance and impact of each element that contributes to the growth of external debt. This will assist policymakers in effectively handling the issue and avoiding any potential disaster.

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