

EXAGGERATED DEBT SERVICES DEROGATE ECONOMIC DEVELOPMENT: A REFERENCE OF BANGLADESH

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ABSTRACT

Human resource, information technology, machines and tools, energy, financial resources are not centrally located at any area. All those resources are highly required for generating more resources for supporting sustainable development. Different economy has to arrange required resources by using financial resources or adopting barter process. An economy may have surplus human resources or any one or more might have the scarcity. In this situation, the economy has to rent or purchase required scarce resources using the available surplus resources. The higher amounts of scarce resources over the requirement create debt servicing and other incidental expenses. The economy which creates excess debt servicing over the requirement should have to adopt necessary arrangement about the repayment.

Lack of management may lead the country to bankruptcy. As a result, country should have to care of the issue analyzing existing data. The research has taken to identify the variables such as: GDP Growth rate, workers' remittances channeled in the country, amount of debt services and number of labor forces left country for different destination with contract employment. A multiple regression model is developed and analysis was performed and check the validity of the parameters using estimated the values of the criteria such as: R^2 , *adjusted R²*, F ratio, AIC, BIC, and CP mallows. The values of criteria have proved that the model fits the selected sets significantly.

The research recommends on the basis of the estimated parameters that the debt service is negatively related with the economic growth. As such, recommend not to take that much of debt which can result derange economic development.

Key Words: Economic growth, Debt Services, sustainable development

1. INTRODUCTION

The main themes on the generation of resources are the creation of further resources that will be used to create welfare for the society. Every process involved in generation of resources follow some standard of management. This reminds us about the very initial model that deals with the balancing amongst the assets, liabilities, and the equity. Every system of production has to plan a better distribution of

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these components for building the process of sustainability. Because, the sustainable level make a better combination of resources on use which can help creating required wealth for the new dimensions of goods and services. The study attempted to represent the fact situation like how the exaggerated debt burden can hamper the growth at the participation of dimensions resources in the resources generating process.

The structural facilities required for improving the living standard of a developing country may include: availability of financial resources, political agenda, and external loan accessibility, interest rate on domestic and international resources. The country having very low/GDP ratio faces problems to meet their required resource which pushes the country to look for the resources from external sources like: IMF, ADB, and International Bank for Reconstruction and Development. The developing country has to approach to ADB, IMF, and other affluent countries for implementing the development program of the country. But the amount on approach should be based on the internal capacity of the country, if it is high and get sanctioned and disbursed, that may induce misutilization of resources and can ruined the standard of the economy of the country. The study attempted to know level of changes on the output levels in the contribution of debt servicing, inflow of workers' remittances, exchange rates, workers living country with overseas employment, and annual development budget.

The research also attempted to find the degree of relationships of the predictors with the levels of endogenous variables. In this regard, important indicators like: taxes to GDP ratio and debt services to GDP ratios are estimated to compare the results with the internationally accepted reference values.

The results are presented in different sections such as: Introduction, Literature review, Data and methodology, Results and analysis, and Recommendations.

2. LITERATURE REVIEW

CPD (2022) mentioned that Bangladesh will no longer be in comfort zone in terms of debt servicing from the fiscal year 2024-2025 as grace period for several foreign loans would expire by this time. Debapria, convener of citizen's platform for SDG's came up with the observations that Bangladesh would be entering in yellow zone from green zone to in debt servicing as the repayment time of several high-value loans will start after the end of the grace period.

Taffler R.J. and Abbai, B (1984) pointed that an operational discriminate model for predicting debt rescheduling among developing countries combining both indicators of monetary policy and debt servicing capacity.

Villaroman, NoelG, (2022) illustrated the large repayments of external debts undermine a debtor countries ability to comply with its obligations under the international covenant on economic social and cultural rights (ICESCR).

UNCTD(2009) warned the developing countries debt burdens would increase by over 17% in 2010. This debt burden will have adverse effects on the economic growth of developing countries and jeopardizes their capacity to MDG's. UNCTD also warned of the negative impact of high debt burden on 49 least development countries.

Ngassam, Christopher (1991) in a article mentioned that the determinants of rescheduling for forty -five African counties over the twelve year period (1976-1987). A logit model was used using the macroeconomic variables affecting the probability of rescheduling is developed. The findings indicate that the debt-service ratio, reserve to import ratio, debt service payment ratio, reserve to import ratio, debt service payment to capital inflow ratio, GDP growth rate domestic inflation, and government deficit ratio are important.

Hodula, Martin and Ales Melecky (2020) pointed that the monetary and fiscal policies are inherently intertwined. This statement is generally accepted and holds even for countries where the central bank has a long history of independence from the government. Also, mentioned any increase any increase in the monetary policy rate or growth of government expenditures may quickly transit the service costs and size of government debt. Especially when the debt managers favor short-term bills over long term governments bonds, in the government portfolio.

3. OBJECTIVES

- To find the optimum precocious model the study tested a multivariate model with different predictors such as: debt servicing, overseas employment, inflow of remittances, and yearly development budgets.
- To find the degree of relationship of the growth of output with all the predictors and conclusions about the success of the variables for explaining the changes in the output levels.
- Quantification of output in percentage to tax revenue and percentage of outstanding to the percentage gross domestic output.
- To compare the sizes of per capita external debt, sizes to GDP and external debt

sizes of the SAARC countries .

- Make professional recommendations on the basis of the estimated results.

3. DATA AND METHODOLOGY

3.1 Data

The data on economic growth rate at current market prices, overseas employment, inflow of remittances, debt services, and annual development budget are collected from the government documents published by the Ministry of Planning and the publication of Bangladesh Bank. All those data are collected for the 2007-2021 periods, and the collected information of all the variables are taken under log transformation.

3.2 Methodology

To evaluate the performances of output levels a multivariate models are developed including all those predictors and tested the results refereeing to the practicing values of criteria presented in the upcoming paragraphs.

4. RESULTS AND DISCUSSION

Table 1: Estimated values of the parameters of the model

Variables	Coefficients	Std. Error	t- values	Sign.
Constant	- 50.308	17.347	-2.900	0.020
Workers Remittances	21.803	4.461	4.887	0.001
Debt services	-10.404	3.334	-3.121	0.014
Development Budget	-3.681	1.111	-3.313	0.011
Overseas Employment	6.951	2.244	3.097	0.015
R ² = 0.881 ; AR ² = 0.821 ; DW= 2.059 ; AIC = 8.718 ; BIC = 4.288 ; Cp Mallows' = 5				

Table 1 showing estimated values of different criterion for the model that showing relationship of predictand with the selected predictors. All the values of the criteria including Cp Mallows' showing very significant to point out that the selected model is very capable to fit the data.

Table 2: ANOVA for measuring combine influence of predictors

Sources of Variances	Sum of Squares	df	Mean Sum squares	F-calculated	Sig.
Regression	47.049	4	11.762	14.752	0.001
Residual	6.379	8	0.797		
Total	53.428	12			

Table 2 revealing that that all the predictors are jointly and significantly influencing the predictand levels. The values of R^2 and AR^2 are showing that that there is a rare scope to include other predictive indicators to explain the volume of changes in levels of endogenous variable.

4.1.2 Results and Analysis

(i) Test of Autocorrelation

Statement about no autocorrelation in the disturbances is one of the assumptions of CLRM. It is ascertained from the estimated values of DW of the respective model. The model for the changes on output growth is showing $DW=2.059$ values with the participation of independent variables. The estimated value of DW for the model is showing no doubt about the auto correlation assumption, i.e. which means conclusively that there is no autocorrelation in the disturbances.

(ii) Values of R^2 and AR^2

These values represent that how strongly the set of independent variables are explaining the variation in the output values. The estimated values of the criteria for all the model are showing very values. Thus, it represents that the group of the independent variables has highest capacity to explain the variation in the growth of output models.

(iii) Values of AIC, BIC, and Cp Mallows' and error variances

The values of AIC, BIC and Cp Mallows' criterion are showing very significant number which represents that the models fit the data significantly. The values of AIC and BIC are showing that there is a scope to improve the modus of operation for the handling of debt services and adopting annual development programs.

(iv) Estimates of parameter

The parameters of overseas employment and inflow of remittances are showing positive and significant values for the model. This means, the marketing process needs to be taken care for improving the growth levels of output. On the other hand the parameters of debt services and the annual development programs are showing negative and significant values. This indicates that to increase the output growth level development must be consistent with the existing growth of the output levels. This means that any increase any increase the monetary policy rate or growth of government expenditures quickly transmit to the service costs and ultimately the size of government debt services. The analysis is also showing that one unit change in debt services may have reduction of about 10.40% in the output levels. On the other hand an unit change development budget there may be 3.681% changes happened in the growth of output.

Table 3 and Table 4 representing the data on gross domestic product, development budget, inflow of remittances, overseas employment in core tk. and million US dollar for the period 2016-2021. The outstanding debt to the percentage of GDP and tax revenue in percentage to GDP are estimated and presented connectively in these two tables. The values are showing that the sizes of outstanding debt are in increasing trend and the tax to the percentage of GDP is far below the internationally designed reference numbers.

Table 3: Distribution of gross domestic product under different related dimensions

Year	GDP(CMP) (In core tk.)	Development Budget (in crore tk.)	Remittance (in crore tk.)	Overseas Employment (in ,000)
2016-17	2324307	107085	12769	905
2017-18	2639248	148176	14982	880
2018-19	2951429	158269	164119	693
2019-20	3170469	155698	18205	530
2020-21	3530185	164482	24778	280

Table 4: Estimated values outstanding debt and tax revenue to the output levels

Year	GDP(CMP) (in mill. US \$)	Exchange Rate (US\$)	NBR Tax Revenue (in mill. US \$)	Outstanding debt % to GDP	Tax revenue % to GDP
2016-17	296998.10	78.26	19872.05	33.38	7.40
2017-18	333575.32	79.12	21973.43	34.56	8.55
2018-19	359491.96	82.10	25140.95	36.14	8.72
2019-20	373964.26	84.78	26408.61	39.52	7.90
2020-21	416246.32	84.81	30642.81	41.39	8.60

Table 5 represents the estimated values of bi-variate correlation co-efficient and its significance level. The estimated values of correlation co-efficient of debt services with inflow of remittances and development budgets are found highly significant at 0.01 percent level. This is also found negatively significant with output growth at 0.05 percent level. But debt services is found negatively and weakly correlated with overseas employment. On the other hand, GDP growth is found negatively correlated with debt services, inflow of remittances and annual development budget series. The economic growth series is found positively and insignificantly correlated with overseas employment.

Table 5: Bivariare correlation of the dependent and independent variables

Variables	Overseas employment	Debt services	Remittances	Development Budget	Output growth
Overseas employment	1	-0.176	-0.236	0.176	0.217
Debt services	-0.176	1	0.782**	0.790**	0.696**
Remittances	-0.236	0.782**	1	0.718**	-0.263
Development Budget	-0.178	0.790**	0.718**	1	-0.610*
Output growth	0.217	-0.696	-0.263	-0.610*	1

** Correlation is significant at the 0.01 level (2-tailed) ; * Correlation is significant at the 0.05 level (2-tailed)

Table 6: External debt, per capita external debt and debt percentage to GDP of SAARC countries

Sl.No.	Country	External Debt	Per capita External Debt (UD\$)	Debt % to GDP
1.	Bangladesh	78.4 Billion	460	22.00
2.	Pakistan	122 Billion	554	3.00
3.	Afghanistan	1.28 Billion	40	7.00
4.	Bhutan	2.26 Billion	2,900	108.00
5.	India	620.7 Billion	437	19.90
6.	Sri-Lanka	46.6 Billion	2.200	68.00
7.	Nepal	3.45 Billion	120	16.00
8.	Maldives	742 Million	2000	23.00

Source: WIKIPEDIA, data Edited on October 11, 2022.

5. RECOMMENDATION

- i. The analysis shows that the government debt accompanied by debt servicing is rising significantly. If, it persistent for longer period the economy will face financially risk situation. To escape from the risk level the implementation of mega projects must be completed in the budgeted line and time.
- ii. To take the completed project under operation appropriate management process to be made available so that no pilferage or any type of resources drainage can recurrent.
- iii. Tax avoidance must be taken down so that tax to GDP ratio can be taken at internationally accepted ratio.
- iv. Scope of overseas employment and inflow of remittances must be handled in

flexible manner in terms of cost so that overseas contact employees can have a significant benefit after extending services staying at a long distance from the country.

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