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# External debt of Bangladesh: sustainability and future concerns

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## ABSTRACT

External assistance is considered a significant factor in the economic development of Bangladesh in order to bridge the gap between savings and investments along with balance of payment situation. From the viewpoint of understanding vulnerability, there is analytical interest in the potential impact of contingent liabilities on an economy. Sustainable debt is the level of debt which allows a debtor country to meet its current and future debt service obligations in full, without recourse to further debt rescheduling, avoiding accumulation of arrears, while allowing an acceptable level of economic growth. Currently Bangladesh is spending a significant portion of its potential resources and revenue in terms of debt service. Although the country is solvent in external debt burden, there exist concerns for future stability of this sustainability without hampering the necessary expenditure in other important sectors. In Bangladesh the financial support from donor has tended to decline, reflecting more difficult budgetary conditions and a general disappointment with the results of external aid among development partners.

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## Introduction

External debt is that part of the total debt in a country that is owed to creditors outside the country. Countries usually borrow in order to minimize the gap between savings and investment and to mitigate the balance of payments deficit. Borrowing is also made to finance budget deficit and to raise the resources available to meet a country's development requirements. External borrowing thus allows a country to invest and consume beyond its available resources. An international working group on external debt statistics comprising the Bank of International Settlement (BIS), the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD) and the World Bank agreed on the following definition of external debt: "Gross external debt, at any given time, is the outstanding amount of those actual current, and not contingent, liabilities that require payments of principal and/or interest by the debtor at some point in the future and that are owed to nonresidents by residents of an economy<sup>1</sup>."

Sustainable debt is the level of debt which allows a debtor country to meet its current and future debt service obligations in full, without recourse to further debt relief or rescheduling, avoiding accumulation of arrears, while allowing an acceptable level of economic growth. External-debt- sustainability analysis is generally conducted in the context of medium-term scenarios. In these analysis, macroeconomic uncertainties, such as the outlook for the current account, and policy uncertainties, such as for fiscal policy, tend to dominate the medium-term outlook.

External assistance is considered a significant factor in the economic development of Bangladesh in order to bridge the gap

between savings and investments and balance of payment. Bangladesh, a low-income country, depends heavily on the financial support of the bilateral and multilateral official institutions. The financial support has tended to decline as well, reflecting more difficult budgetary conditions and a general disappointment with the results of external aid among donor countries.

## Literature Review

Elbadawi, Ndulu and Ndung'u (1997) developed a growth target and derived the equilibrium solution for the debt ratios. With a targeted output growth of 5%, the results for 99 developing countries show that the ratio of external debt to exports consistent with the model is 330, while the debt service to exports (revenues) turns out to be 8.8 (10), private investment are 15% of GDP and the country has to run a deficit equal to 6% of GDP. However, the model assumes fixed level of revenues and public spending, public investment etc. Moreover, it ignores the current account and the balance of payments and uses the current value and not the net present value of the debt stock. This model is a simple exercise of comparative statics. It ignores any dynamics in the transition period from the year in which debt forgiveness is granted and the equilibrium point.

More recent works have developed a more complete framework, focusing on debt sustainability and not on a particular target of income growth. Edwards (2002) defined macroeconomic sustainability with fiscal sustainability and current account sustainability. He developed two different dynamic models of sustainability: the first one has a primary balance consistent with a stable debt-to-GDP ratio as a target,

While the second a current account consistent with solvency. The main advantages of these studies are the consideration of domestic debt, the distinction between concessional and commercial debt, the inclusion of remittances, aid and grants, as well as seignorage revenue,

<sup>1</sup> Finance Division. (2009), Bangladesh Economic Review, Ministry of Finance, Government of Bangladesh

which are key elements for developing countries. In both cases, he finds out that sustainability requires strong adjustments (reduced expenditures, higher taxes, devaluation), which are politically difficult to implement and which can diverge resources from the poverty reduction and growth enhancing programs. The sensitivity of the results with respect to the rate of growth of GDP underlines the necessity for a closer look at the consequence that the adjustments have on economic growth.

Fedelino and Kudina (2003) found that the HIPC Initiative does not assure fiscal sustainability, unless fiscal policies change. They start from the Edwards' approach to fiscal sustainability and modify the budget constraint in order to include the exchange rate, and distinction between domestic and foreign debt. Their model implied that donor should provide more grants and aid flows to fund the required and expected increased poverty reduction expenditures, since a tighter fiscal policy in the HIPCs is not viable. The authors concluded that, "Unless HIPCs improve their primary fiscal positions or grant financing is sustained at current, or possibly higher, levels, debt sustainability in HIPCs may prove elusive in the long term". This model has the advantage of including the domestic debt into the analysis, but it has the same limitations that affect Edwards' models. In particular, it takes the crucial economic variables as exogenous and, then, it derives the effect of a change in those variables.

Burnside and Fanizza (2001, 2004) analyzed debt relief effects on government budget constraint and on output growth. They analyzed the HIPC initiative with a different perspective: the sustainability of debt and external sector are not addressed, but this model has the advantage of looking at the effect of debt reduction on the economy, without assuming a growth rate target. Government spending, investment, tax revenues and output change in response to debt forgiveness, to the level of conditionality and to the spending decisions. The inclusion in the model of a money demand function allows for the simulation of two different scenarios, depending on the monetary policy. If central bank wants a stable inflation (active policy), the outcome is a small reduction in the long run level of debt and inflation, while a loose monetary policy results in a substantial debt reduction, at a cost of a higher inflation in the short run.

These results confirm the unpleasant monetarist arithmetic highlighted by Sargent and Wallace (1981) lower current inflation implies a higher inflation in the long run, or, in this case, lower inflation in the future requires a higher rate of current inflation. However, that conclusion could be mitigated by fiscal reforms: if government increases spending in poverty reduction programs and cuts other expenditures, there are sizeable gains in terms of permanent reduction of debt and inflation, both with passive and active monetary policy. The relevance of the growth effect denotes the importance of the effectiveness of poverty reduction programs in raising growth for fiscal sustainability. Even if sustainability is not explicitly considered, this model allows for a broad macroeconomic evaluation of debt reduction. The evolution of debt stock and of the government budget constraint consents to assess the likelihood of a future debt distress.

#### **Data and Methodology**

In this paper secondary method of data collection has been used. The authors collected external debt annual time series data from ERD's (Economics Relations Division) regular annual

publication "Flow of External Resources) and other relevant variables from the "Bangladesh Economic Review", annual publication of the Ministry of Finance, Government of Bangladesh. These data are provided by the country's national Bureau of Statistics (BBS). The analysis time frame is 31 years (FY 1980/81 – FY 2010/11). Using the IMF and World Bank's Low Income Country Debt Sustainability Framework (LIC DSF), sustainability ratios are intended for the above mentioned data such as, external debt ratio to GDP, external debt service ratio to exports, ratio of debt to exports and ratio of debt to revenue. Furthermore, an OLS regression has been run on debt service with relevant variables to see which sources are contributing to external debt services mostly.

#### **Overview of external Debt Situation in Bangladesh**

The external borrowing of Bangladesh consists mainly of medium and long-term (MLT) debts acquired on concessional terms with an average grace period of 9 years and an average repayment period of 34.70 years<sup>2</sup>. These have come from bilateral and multilateral sources<sup>3</sup>. Besides, there are borrowings from IMF and IDB, as well as other creditors for purchase of crude oil, ships, aircrafts and food grains on deferred payment terms. Bangladesh's external debt obligation comprises mainly of public sector debt. The share of private sector borrowings is negligible. It is less than 4 percent of the total external debt. The total public sector external debt has increased from US\$ 973.80 million in 1974/75 to about US\$ 21.80 billion in 2008/2009<sup>4</sup>. Though the external debt obligation in the total aid package of Bangladesh has increased over the years, it is still within manageable limit as compared to many other developing countries. Government of Bangladesh and Government of Japan signed an Exchange of Note in 2003 through which Government of Japan agreed to write off of principal and interest on 36 Japanese loans signed before June, 1989, for which Bangladesh shall not be required to repay about US\$ 1.46 billion. With the concurrence of Government of Japan the same amount of resources is being utilized for different development projects under the ADP and for Budget Support. Up to June 30, 2009 a total of about US\$ 61.48 billion of external assistance was committed. Of the total amount, 10.99 percent was food aid, 18.01 percent was commodity aid and 71.00 percent was project aid.

#### **Research findings & analysis**

At the end of each financial year Bangladesh has always analyzed its debt situation. ERD (Economic Relations Division), a division of Finance Ministry; publishes the time series data and debt burden indicators in a periodical titled "Flow of External Resources into Bangladesh".

<sup>2</sup>Economics Relations Division. Flow of External Resources. 2008-09. Ministry of Finance. Government of Bangladesh

<sup>3</sup>Finance Division. Bangladesh Economic Review. 2009. Ministry of Finance. Government of Bangladesh

<sup>4</sup>Economics Relations Division. Flow of External Resources 2008-09. Ministry of Finance. Government of Bangladesh

World Bank and IMF staffs with consultation of Asian Development Bank has been jointly prepared Debt Sustainability Analysis (DSA) using the debt sustainability framework for low-income countries. The DSA is based on macroeconomic data gathered in the context of IMF missions to Dhaka. They used Low Income Country Debt Sustainability Framework (LIC DSF) to analyze the sustainability of Bangladesh's external debt. It provides indicative levels (thresholds) of debt burdens beyond which a country's risk of debt distress reaches levels that are considered unacceptable. The relevant indicative thresholds for public and publicly guaranteed external debt are: 40 percent for the net present value (NPV) of debt to GDP ratio, 150 percent for the NPV of debt-to-exports ratio, 250 percent for the NPV of debt-to-revenue ratio, 20 percent for the debt service-to-exports ratio and 30 percent for the debt service to-revenue ratio. According to these criteria, researcher calculated the ratios over 32 years (FY 1980/81 – FY2010/11). The results are following:

#### **External debt ratio to GDP**

The ratio of debt to GDP, in simple terms, will depend on the behavior of debt, the behavior of real GDP and the movements in the real exchange rate. To the extent that GDP grows faster than debt, or the real exchange rate appreciates, the ratio will tend to decline. Since 1980/81, external debt to GDP ratio has been rising till 1993/94 and then it started to stabilize and slowly declined under the threshold of 40% after 2002/03. The ratio is now quite acceptable as it stood 22.3% in 2010/11. It happened because of the increasing GDP growth in spite of rising outstanding debt stock.

#### **External debt service ratio to exports**

The debt-service-to exports ratio is a possible indicator of debt sustainability because it indicates how much of a country's export revenue will be used up in servicing its debt and thus, also shows how vulnerable the payment of debt service obligations may fall unexpectedly in export proceeds. By focusing on payments, the debt-service to exports ratio takes into account the mix of concessional and non-concessional debt, while its evolution over time, especially in medium-term scenarios, can provide useful information on lumpy repayment structures. This external debt service to exports ratio has shown volatile trends till 1998/99 and after that, it started to stabilize and now it is well below 20%. It stood 7.18% in 2010/11.

#### **Ratio of Debt to Exports**

Countries those use external borrowing for productive investment with long development periods are more likely to exhibit high debt-to-exports ratios. But as the investments begin to produce goods that can be exported, the country's debt-to- exports ratio may start to decline. So for these countries, the debt-to-exports ratio may not be too high from inter temporal perspective even if in any given year it may seem large. Despite of increasing outstanding debt liabilities, the ratio is declining gradually mainly due to the increasing exports of RMG sector in Bangladesh. The ratio came under the threshold of 150% from FY 2004/05 and steeply declining. It stood at 63.6% in 2010/11.

#### **Ratio of Debt to Revenue:**

This ratio can be used as a measure of sustainability in countries with a relatively open economy facing a heavy fiscal burden of external debt. In such circumstances, the government's ability to mobilize domestic revenue is relevant and will not be measured by the debt to exports or debt-to-

GDP ratios. An increase in this indicator over time indicates that the country may have budgetary problems in servicing its debt. Only after 2007/08, the ratio came below 250% in Bangladesh. This denotes that a huge portion of revenue, not only net transfers but also domestic revenue and tax revenue are used up for debt service. In the year 2007, the country had to pay almost 25% of government revenue for external debt servicing. Whereas, education, health & water etc. important sectors had been compromised.

The aid package, covering both grants and loans, has undoubtedly contributed to the development of the economy, but it is also leading to grow external indebtedness. Since independence to June 30, 2009 distribution of grants has been almost equal to loans, accounting for almost 43.60 percent of the total amount. The ratio of grants in the total aid is declining gradually in respect of both commitment and disbursement. The country's large trade deficit, savings-investment gap, slow growth of revenues and rapid growth of current public expenditures have contributed to the increase in external debt.

Given that most of the debt is owed to multilateral creditors, Bangladesh is not encountering any debt problem at present. According to a recent classification by the World Bank, using present value of total debt service, Bangladesh is categorized as a "less indebted" country. However, the increasing external debt, together with expiry of grace periods and the unfavorable exchange rate movements, has resulted in increased external debt services. The per capita debt obligation of the country has increased from US\$ 6.59 in 1973/1974 to US\$ 151.21 in 2008/2009. With the shrinkage of share of grant in the external aid package in recent years, the volume of external borrowings is increasing at a rapid pace every year and this has resulted in a progressive increase of per capita debt obligation.

Now, to analyze which sources are mostly are contributing external debt services, a certain model is built using ordinary least square (OLS) regression technique:

$\Delta EXDS = C_0 + C_1 \Delta DISB + C_2 \Delta DEBTOUT + C_3 \Delta EX$  Where the following are the variables used:

$\Delta EXDS$  = First difference of External Debt Service in 31 years period

$\Delta DISB$  = First difference of Disbursement of Aid in 31 years period

$\Delta DEBTOUT$  = First difference of total External Debt Outstanding in 31 years period

$\Delta EX$  = First difference of total Export Earnings in 31 years period

#### **Regression results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.99463	6.342870	1.891041	0.0698
$\Delta DISB$	0.068149	0.022384	3.044508	0.0053
$\Delta DEBTOUT$	0.010818	0.005546	1.950576	0.0620
$\Delta EXP$	0.009572	0.003972	2.409559	0.0233
R-squared	0.421211	Mean dependent var		28.14333
Adjusted R-squared	0.354428	S.D. dependent var		32.23649
S.E. of regression	25.90122	Akaike info criterion		9.470023
Sum squared resid	17442.71	Schwarz criterion		9.656849
Log likelihood	-138.0503	Hannan-Quinn criter.		9.529790
F-statistic	6.307127	Durbin-Watson stat		2.119484
Prob(F-statistic)	0.002326			

The coefficient of disbursement is positive meaning that a one percent increases in disbursement of aid will benefit debt service by 6.8149 percent. The coefficient is highly significant at one percent level of significance. This means the aid inflows every year for different purpose also instead serves up the previous debt obligation. This trend is very risky as we could then never get rid of those debts.

The coefficient of outstanding external debt stock is positive and so if it rises by one percent, debt service increases by 1.081 percent. This coefficient is significant at less than ten percent level. Hence there exists a positive relationship between the debt service and debt outstanding, indicating that as debt is rising- payments are raising more. Exports earnings also have a positive relationship with external debt service. Export earning if grows up by one percent; it serves debt service to 0.9572 percent. As mentioned above, empirical evidence also proves that our valuable foreign currencies are being significantly being used for debt service.

The value of the adjusted  $R^2$  is 0.421211. This shows that the regression line captures more than 42 percent of the total variation in external debt service caused by variation in the explanatory variables specified in the equation. The coefficients are also jointly significant according to F-statistic is 6.307127 > 2.71 from the table. Although the model cannot define external debt service properly; but we can bring to a close that we are spending our foreign currencies and income quite a lot in debt service payment.

#### **Future Policy Options for Bangladesh**

Both the level of external debt and the level of servicing external debt are expected to continue to rise in near future. Moreover, public sector short-term loans and private sector external loans whose exact amounts are not known yet are also on the rise. This means a significant portion of government budget will continue to be allocated for debt servicing. That is why external debt management should be a policy priority for Bangladesh Government. There have been concerns that relatively less priority has been given to aid and debt management in Bangladesh. However, the Government of Bangladesh claims that it is conducting its debt management activities through different kinds of short, medium and long-term reform measures.

Between 1980 and 2004, Bangladesh's total outstanding international debt quadrupled. The bulk of this surge in lending came from the International Development Association, the soft- loan window of the World Bank. The G-8 debt cancellation campaign has primarily focused on the Heavily Indebted Poor Countries (HIPC) at the cost of other poor countries, mostly in Asia, who have been repaying their debts regularly. Paradoxically, debt relief is only provided to those countries who default on debt repayment. As such, the poor countries who maintain their repayment schedule, of course at the cost of its peoples' basic needs, are considered "good debtors" and, consequently, penalized for not defaulting. The Debt Sustainable Analysis (DSA) introduced by the World Bank and IMF, lays too much emphasis on the country's exports and does not fully reflect the true nature of the debt burden on government expenses. For a poor country like Bangladesh, it would not be realistic to calculate 'debt sustainability' without looking at how much money it spends on schools, infrastructures, govt. agencies, health care, clean water, sanitary and on everything else that are needed to combat the dire poverty.

Debt management has close knot with a country's overall macroeconomic management and with its public administration. The aim of the debt management policy is to gain from external finance without creating problems for macroeconomic and balance of payment stability. The issue of debt management has been a serious policy concern for governments and international organizations due to some of the worst debt crisis that the world witnessed in the past two decades. Even if a country is so far to face a serious debt problem, improper management of debt, in general, may expose a country to macroeconomic instability and may hinder the possibilities of sustainable economic development.

Although ERD takes care of external debt matters but it has no specific long term strategy towards the sustainability of debt servicing. Furthermore, day by day aid inflow is declining and interest payments are rising high. Bangladesh government is paying debt services with its precious exports earnings, remittances and foreign exchange reserve. However, exports are heavily dependent on RMG sector, which needs to be diversified.

#### **Conclusion**

External debt costs too much to Bangladeshi people in general and poor and marginalized in particular. People need a healthy and prosperous life that requires increased government spending on basic services such as health, education, water- sanitation etc. Bangladesh needs to achieve the MDG targets in time. To finance the Millennium Development Goals, every year a staggering US\$7.5 billion in external budget support is needed. This is about four times the amount of aid and concessional loans currently provided by foreign donors and creditors. At this stage, it can be possible that Bangladesh may no longer be able to afford to pay a single dollar for debt servicing. Although as per the standard debt sustainability ratios, Bangladesh's debt burden is far from being alarming, there is no ground for ease. Every year in budget plan, external repayments get more allocation other than any important needy sector like health, education etc. Bangladesh govt. must ask for debt relief and write-offs. Bangladesh has never been a defaulter due to its increasing export growth rate and robust remittances growth in expense of peoples' basic needs.

The international community including the G-8 must take necessary steps to ensure full Debt cancellation for Bangladesh. Creditors should accept their share of responsibility in creating the current debt crisis, and cancel debts on this basis. A "MDG- consistent" frame-work of Debt Sustainability could be applied. The government must demonstrate to their citizens that they are spending money well and accountably. But this must not be used as an excuse to impose economic policy conditions or to limit receiving debt cancellation by the donor community. Debt cancellation of any kind must not be conditional.

Debt management is related with a country's overall macroeconomic management and with its public administration. Therefore, it is crucial for Bangladesh to adopt effective debt management policies and make long term strategies planning to ensure their economic welfare.

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