

Bangladesh's External Public Borrowings and Debt Servicing Capacity *Are There Reasons for Concern?*

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সেন্টার ফর পলিসি ডায়ালগ (সিপিডি)
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Abstract

Bangladesh's track record of debt servicing concerning public and publicly guaranteed (PPG) external debt has been impeccable till now. However, the study argues that in going forward there are reasons to be concerned about in this regard. There are of several reasons to this – rising foreign borrowings of recent years, more stringent terms of loans, higher share of non-concessional loans in the backdrop of Bangladesh's middle-income graduation, significant depreciation of the BDT, delays in project implementation resulting in cost escalation and higher debt servicing obligations, grace period of some of the mega-projects coming to an end, and others. The study measures debt carrying capacity of Bangladesh by deploying a modified and calibrated version of the IMF-WB framework, and arrives at the conclusion that the country's position in this respect has indeed weakened in recent years. The study offers a number of policy suggestions towards better PPG debt management by Bangladesh. The study argues that in going forward Bangladesh should be more selective in incurring borrowings for externally funded projects, take adequate preparation to carry out complex negotiations and develop the needed human resources and expertise in this regard, keep a sharp eye on the status of credit rating, forex exchange movements and forex reserve situation, and closely monitor the trends in private sector borrowings. The study underpins the need to develop a comprehensive debt management strategy with a view to strengthening Bangladesh's debt carrying capacity and ensuring debt sustainability of the country.

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Acronyms

ACU	Asian Clearing Union
ADB	Asian Development Bank
ADF	Augmented Dickey Fuller
ADP	Annual Development Programme
AIIB	Asian Infrastructure Investment Bank
BD	Bangladesh
BDT	Bangladeshi Taka
BPC	Bangladesh Petroleum Corporation
BPDB	Bangladesh Power Development Board
BPM6	Balance of Payments and International Investment Position Manual
CI	Composite Indicator
COP	Conference of Parties
CPD	Centre for Policy Dialogue
CPIA	Country Policy Institution Assessment
DC	Developing Countries
DPDC	Dhaka Power Distribution Company Limited
DPP	Development Project Proposal
DRM	Domestic Resource Mobilization
DSA	Debt Sustainability Assessment
DSL	Debt Service Liquidity
DSSI	Debt Service Suspension Initiative
DTP	Debt Threshold Point
ECM	Error Correction Model
ECNEC	Executive Committee of the National Economic Council
ERD	Economic Relations Division
ERR	Economic Rate of Return
ETCA	Economic Technical Cooperation Agreement
EURIBOR	Euro Interbank Offered Rate
FDI	Foreign Direct Investment
FEF	Federal Funds Effective Rate
FRR	Financial Rate of Return
FTA	Free Trade Agreement
FX	Foreign Exchange
FY	Fiscal Year
GDP	Gross Domestic Product
GNI	Gross National Income
GoB	Government of Bangladesh
HIPC	Heavily Indebted Poor Countries

Bangladesh's External Public Borrowings and Debt Servicing Capacity

IBRD	International Bank for Reconstruction and Development.
IDA	International Development Association
IMED	Implementation Monitoring and Evaluation Department
IMF	International Monetary Fund
IPP	Independent Power Producers
IRAI	IDA Resource Allocation Index
IRR	Internal Rate of Returns
IsDB	Islamic Development Bank
ITFC	Islamic Trade Finance Corporations
LDC	Least Developed Country
LIBOR	London Interbank Offer Rate
LIC	Low Income Countries
LICDSF	Low Income Country Debt Sustainability Framework
LMIC	Lower Middle-Income Countries
LOC	Line of Credit
MCA	Millennial Challenge Account
MDRI	Multilateral Debt Relief Initiative
MoF	Ministry of Finance
MTDS	Medium-Term Debt Strategy
MW	Megawatt
NBR	National Board of Revenue
NDB	New Development Bank
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Square
PD	Project Director
PGCB	Power Grid Company of Bangladesh
PIP	Public Infrastructure Project
PPG	Public and Publicly Guaranteed
RDPP	Revised Development Project Proposal
REER	Real Effective Exchange Rate
RST	Resilience and Sustainable Trust
SOFR	Secured Overnight Financing Rate
TFP	Total Factor Productivity
TPP	Technical Project Planning
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
USA	United States of America
USD	United States Dollar
WB	World Bank
WEO	World Economic Outlook

Introduction and Motivation of the Study

While the track record of Bangladesh's external borrowings and external debt servicing has been quite comfortable till the recent past, for several reasons, and in view of the emergent scenario, there is a need to have a fresh look at Bangladesh's debt-carrying capacity in going forward. As it is, Bangladesh's outstanding external public and publicly guaranteed (PPG) debt, at USD 79.0 billion (September 2023), is not high when compared to economies of similar size. The amount, equivalent to about 17.0 per cent of the country's Gross Domestic Product (GDP), is not an outlier when compared to corresponding figures of other developing countries (DCs) including low-income countries (LICs) and lower-middle-income countries (LMICs). However, if the recent trends of growth of the country's external debt servicing obligations are taken into consideration, management of external sovereign debt should demand closer attention on the part of Bangladesh's policymakers.

What is disquieting in view of the above, is the pace at which both external borrowings and debt servicing liabilities have been on the rise over the last few years, particularly when these are compared to the growth of the GDP, revenue earnings, earnings from export of goods and services and remittances, as also in relation to the state of foreign exchange reserves. To note, Bangladesh's PPG debt increased from USD 44.5 billion to 70.8 billion between FY2018-19 and FY2022-23, a growth of about 60 per cent in four years. Over the corresponding period, interest payment for the sovereign loans increased from USD 0.48 billion to USD 1.31 billion, by about 168.0 per cent; at the same time, payment of the principal amount posted a rise of about 48.0 per cent. Also to mention, the country's debt servicing payments in the first nine months of FY2023-24 have gone up by 49 per cent compared to the matched period of the preceding year, with interest payments rising by 117.0 per cent and principal payments posting a growth of 22 per cent.¹ The pressure as regards external sovereign debt servicing is set to rise further over the near-term future in the backdrop of the current low levels

¹As will be noted later, this is because repayment period (maturity period) of some of the large infrastructure loans have already started in recent times or is going to start shortly.

of forex reserves, slowdown in the growth of earnings from exports of goods and services, higher costs of borrowings, and the grace period of some of the significantly large foreign loans for infrastructure projects coming to an end (e.g. Rooppur Nuclear Plant Project, commissioned in 2016 and the Padma Rail Link Project, commissioned in 2018).

Also to note, Bangladesh's domestic borrowings have been on the rise in tandem, creating a growing pressure on the country's total debt servicing obligations. Interest on domestic debt has risen from BDT 294.4 billion in FY2015, to BDT 539.9 billion in FY2019-20 and then to BDT 732.2 billion in FY2023-24.² This indicates a rise of approximately two and a half times between FY2015 and FY2024.

Consequently, an increasingly larger share of revenue earnings is having to be deployed for repayment of the interest and principal amount against the debts incurred, both domestic and external. A closer look of revenue expenditure structure would show that debt repayment is taking up an increasingly large share of country's revenue expenditures.³ The external debt servicing obligations are also creating pressure on the demand for foreign currency. By implication, the growing debt servicing obligations are having an adverse impact on Bangladesh's resource availability for spending on such priority areas as education, health, and social safety net sectors. This argument becomes even more compelling when one is reminded that Bangladesh's total revenue earnings as a share of the GDP, at less than 8.5 per cent, is one of the lowest in the developing world.

In consideration of the above, this paper deals with only one component of Bangladesh's borrowings i.e., external borrowings. The rationale here is that in view of falling exports and foreign exchange reserves, the servicing of external debt could emerge as a major concern and challenge for Bangladesh in near-term future. In view of this, the paper deals particularly with the *public and publicly guaranteed* (PPG) segment of the external borrowings.⁴ The paper examines the

²This is provisional data for FY2023-24.

³As the budget for FY2024-25 shows, interest payment is now eating up about 14.2 per cent of total public expenditure and it now ranks second following expenditure on public services whose share is about 22.0 per cent in total public expenditure. To note, total outstanding debt of Bangladesh is expected to more than double between FY2021-22 and FY2026-27. In FY2021-22, outstanding total public debt (domestic and external) was about BDT 13.43 lakh crore, which rose to BDT 16.60 lakh crore in FY2022-23, and thereafter to about BDT 18.43 lakh crore in FY2023-24. In FY2024-25 budget, the amount was projected to be BDT 21.62 lakh crore, to rise to BDT 24.45 lakh crore in FY2025-26 and thereafter to BDT 27.53 lakh crore in FY2026-27. The servicing of this increasingly growing outstanding public debt has been on the rise, as would be expected, and is taking up an increasingly large share of public expenditure.

⁴This component of debt is often interchangeably called sovereign debt.

trends of growth, components of external debt, the attendant costs of borrowings and the consequent debt burden and external debt carrying capacity. The study examines Bangladesh's external debt-carrying capacity by taking cue from the IMF-World Bank debt framework and calibrates this by anticipating various scenarios. The study also carries out an independent assessment of the country's debt servicing sustainability, by deploying appropriate analytical tools. The paper then goes on to suggest a number of measures to address the attendant concerns and emerging challenges.

Following the above introductory remarks, Section 1 looks at Bangladesh's emergent external borrowing scenario by presenting some stylised debt-related data and information. Section 2 reviews cross-country experience with debt distress and debt default and emphasises that the problem of debt servicing has now emerged as a global concern for many LICs and DCs. Section 3 puts forward arguments justifying why external debt servicing should be seen as a major concern for Bangladesh in going forward. In doing so, the section draws attention to global trends in this connection and draws insights from global literature as regards debt-related concerns and debt carrying capacity of developing countries. Section 4 examines Bangladesh's debt sustainability prospects by taking the framework developed by the IMF and the WB, and also by undertaking independent assessment of debt carrying capacity of Bangladesh. The section anticipates a number of scenarios to assess Bangladesh's debt carrying capacity. In view of the findings presented in the preceding sections, Section 5 comes up with a number of recommendations to address Bangladesh's concerns as regards growing external borrowings and associated debt servicing obligations, towards better sustainable debt management.

Section 1

Bangladesh's External Borrowing Scenario: Some Stylised Facts

This section presents the emergent external borrowing scenario of Bangladesh. As was mentioned, till recent past years Bangladesh's position was highly comfortable in terms of external debt stock and debt carrying capacity. Bangladesh was not a beneficiary of the Highly Indebted Poor Countries (HIPC) initiative in 2003 which involved a waiver of USD 120.0 billion worth of debt that benefited 42 highly indebted countries. Some observers in Bangladesh complained, not without some justification, that the country was *being punished because of its good track record!* As a matter of fact, Bangladesh was not eligible for support under the initiative⁵ and accordingly did not apply for any support. Neither was Bangladesh eligible for grant as part of the *Millennial Challenge Account* (MCA) set up by the USA in view of extending debt relief to debt distress countries. Unlike some of the other LMICs, Bangladesh also did not seek assistance from *Debt Service Suspension Initiative* (DSSI) of the G20 which was put in place in 2020 to address Covid-19-related difficulties faced by the developing countries.

However, the above noted comfortable scenario has undergone significant changes in recent years. In recognition of the emergent challenges, and as a cautionary step, Bangladesh resorted to the IMF balance of payment support worth USD 4.7 billion, in 2023, to be extended over a period of 42 months. IMF has recommended a number of measures as part of the loan conditions including undertaking of several tax-related reforms to boost domestic resource mobilization (DRM). A target of raising the Tax -GDP ratio to 9.4 per cent by FY2025-26 was set.

⁵A number of criteria was set for eligibility to be considered as a HIPC: (a) a country must show that its debt is unsustainable; (b) debt to export ratio of 150 per cent and above and (c) debt to government-revenue ratio of 250 per cent and above.

Table 1: External Debt Stock of Bangladesh (Public and Private)

	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
External Debt Stock (USD Billion)	41.17	45.81	56.01	62.63	68.55	81.62	95.45	98.94
Of Which:								
Long Term External Debt Stock at end-June	34.19	36.78	43.78	51.39	58.60	67.56	74.81	82.90
Short Term External Debt Stock at end-June	6.98	9.03	12.23	11.24	9.96	14.07	20.65	16.03
External Debt to GDP (per cent)	15.50	15.60	17.40	17.80	18.30	19.60	20.70	21.80

Source: Bangladesh Bank (2023).

As can be seen from Table-1, Bangladesh's external debt (public and private) stood at USD 98.9 billion in June 2023. Indeed, in September 2023 it had crossed the USD 100.0 billion mark for the first time (USD 100.34 billion). As can be seen from the table, Bangladesh's external debt stock is rising at a fast pace over the recent years. Whilst the external Debt-GDP ratio, at 21.6 per cent, is not high when compared with many other developing countries, the pace of rise transmits reason for caution and concern.

Also to note, Bangladesh's *Public and Publicly Guaranteed* (PPG) borrowing component (sovereign debt) in the total external borrowings has seen a significant rise in recent years (Table 2). The rising PPG debt is also being reflected in the growing debt servicing obligations for the PPG borrowings. Between FY2011 and FY2023, total external outstanding PPG debt has increased by three times, while the amount of associated debt servicing rose by 2.6 times over the corresponding period. In September 2023, PPG Debt stood at USD 79.0 billion out of the total external debt of USD 100.3 billion (78.8 per cent). In the course of FY2023-24, Bangladesh is expected to borrow USD 10.0 billion from different sources; to recall, between July-February, FY2023-24 Bangladesh had already incurred loans of USD 7.2 billion.⁶ If the pledged and borrowings in the pipeline⁷ is taken into account, the external debt stock is expected to grow further in the coming years.

⁶The FY2025-26 budget envisages foreign borrowings of about USD 11.25 billion to underwrite the ADP.

⁷The aid pipeline exceeds USD 40.0 billion.

Table 2: Outstanding PPG External Debt and Debt Service*(in Million USD)*

Years	Outstanding PPG Debt	Debt Servicing
FY 2011	23608.8	1836.6
FY 2012	23537.1	2792.5
FY 2013	24907.0	3789.7
FY 2014	27036.0	3004.6
FY 2015	26573.3	2513.6
FY 2016	29193.3	3004.6
FY 2017	32069.8	2513.6
FY 2018	38235.7	2375.2
FY 2019	44479.2	2011.2
FY 2020	51127.2	3160.9
FY 2021	60153.9	3297.6
FY 2022	63519.0	3684.5
FY 2023	70767.2	4780.5

Source: ERD (2023c).

The implications of the rise in the outstanding total external debt and PPG debt can be captured appropriately if these are compared with some of the relevant correlates. Thus, as is seen from Table-3, with rise in outstanding PPG debt, servicing of the debt has also been on the rise. The amount of debt servicing as a percentage of revenue earnings and exports of goods and services and remittance earnings have been on a sharp rise in very recent years. For example, as a share of revenue earnings, outstanding PPG has gone up from 148.4 per cent to 200.1 per cent between FY2019 and FY2023. Debt servicing of PPG debt has gone up from 5.0 per cent of earnings from the export of goods and services and remittance earnings to 6.0 per cent over the corresponding period.

Between June 2022 and June 2023, amount of sovereign debt servicing of Bangladesh rose by 32.4 per cent. As is shown by the data in Table 3, the amount of both principal and interest payments has been rising at a fast pace. If in June 2019 interest amount stood at USD 487.5 million, in June 2023 this stood at USD 1307.1 million. Indeed, this trend has accelerated in recent times. Interest payments have almost doubled between June 2022 and June 2023. Similarly, the principal amount rose from USD 2.33 billion to USD 3.47 billion over the corresponding period.

Over the recent past years, the amount of public debt servicing, both in terms of interest and principal, is growing at a fast pace as grace period of some of the larger, and relatively more hard-term loans, is coming to an end. The rate of rise has been higher than the GDP growth rate in recent times, leading to a

Table 3: Outstanding Public Debt as Percentage of Revenue Earnings and Export of Goods, and Services and Remittance Earnings

Fiscal Year	Total PPG Outstanding Debt (Mln. USD)	Total Debt Service (Mln. USD)			Outstanding PPG Debt as % of Revenue Earnings	Outstanding PPG Debt as % of Export of Goods & Services and Remittance Earnings	Debt Servicing as % of Export of Goods & Services and Remittance Earnings
		Interest	Principal	Total			
2018-19	44,479.2	487.5	2335.6	2823.1	148.4%	70.40%	4.47%
2019-20	51,127.2	689.7	2471.2	3160.9	163.0%	88.53%	5.47%
2020-21	60,153.9	675.6	2622.0	3297.6	145.1%	85.87%	4.71%
2021-22	63,519.0	656.1	2953.0	3609.7	163.5%	79.14%	4.50%
2022-23	70,767.2	1307.1	3473.4	4780.5	200.1%	82.77%	5.59%

Source: EIRD (Table 10.0- Bangladesh: Position of External debt of Flow of External Resources into Banglades-2022-23), Bangladesh Bank and Monthly Fiscal Report from Ministry of Finance.

rising share of PPG debt in GDP. To recall, the GDP (in USD terms) has posted a rise of 35.3 per cent between FY2018-19 and FY2022-23 (in current USD terms), whereas outstanding PPG borrowings and debt servicing have grown by 62.8 per cent and 69.3 per cent respectively over the matched period. In view of the depleting forex reserves, this trend is even more disquieting. For example, in June 2021, forex reserves stood at USD 46.4 billion when the corresponding sovereign debt servicing amount stood at USD 3.3 billion or equivalent to 7.1 per cent of the corresponding forex reserves. To compare, the share was equivalent to 19.4 per cent in June 2023. This would mean that debt servicing was equivalent to about one-fifth of the country's forex reserves. It is also to be noted that forex reserves stood at USD 19.45 billion on March 27, 2024, according to the IMF's BPM6 method, at a time when sovereign debt servicing obligations were set to rise over the near and medium-term future.

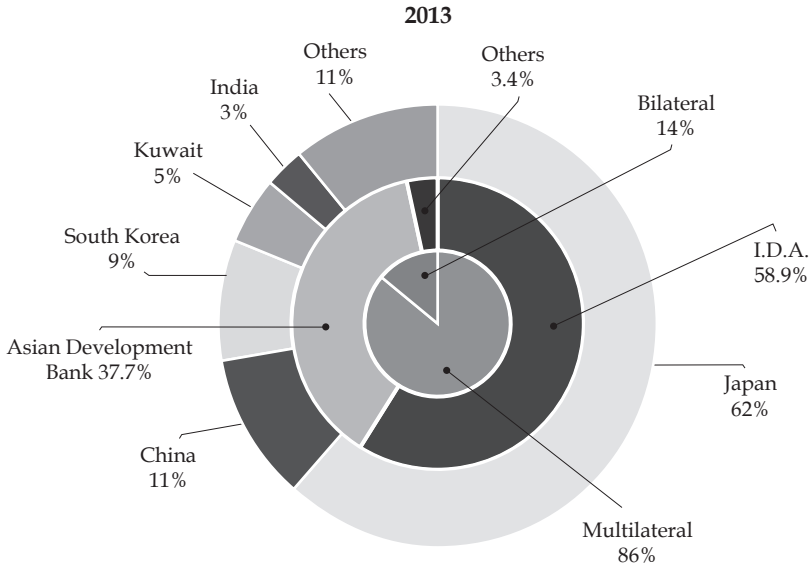
The composition of the debt portfolio of Bangladesh is also changing sharply in recent past years. Share of concessional, IDA-type loans, is coming down, while the share of non-concessional, including market interest-based bilateral and multilateral loans, has been on the rise. As is known, IDA-type loans have annual interest rates of, on average, 0.7 per cent, with grace period of 5-10 years, and maturity period of 30-40 years. To compare, some of the more recent loans were incurred on more stringent terms, at higher interest rates (≥ 2.0 per cent) and shorter grace periods (5-7 years) and maturity periods (15-20 years). As Figure 1 shows Bangladesh is becoming increasingly dependent on bilateral sources for its borrowings. The share of highly concessional WB-IDA loans has come sharply down from 58.9 per cent to 9 per cent (between 2013 and 2022), while the share of loans from other multilateral sources as also bilateral sources such as Russia, India and China have gone up significantly. Loans from bilateral sources were incurred at relatively high interest rates; some at flexible LIBOR/SOFR terms⁸, and some also entailed commitment and service charges. Some of the negotiated loans are of suppliers' credit type (in which case the terms tend to be more stringent).⁹

The upshot of the above discussion is that Bangladesh's external debt scenario has undergone a sharp change over the recent past years. The next section argues that debt sustainability issues have now emerged as a global concern, and this is not unique to Bangladesh. Debt sustainability issues have been a major concern in the past and cross-country experiences of recent times suggest that this should once again draw attention of policy makers, at global as also country levels.

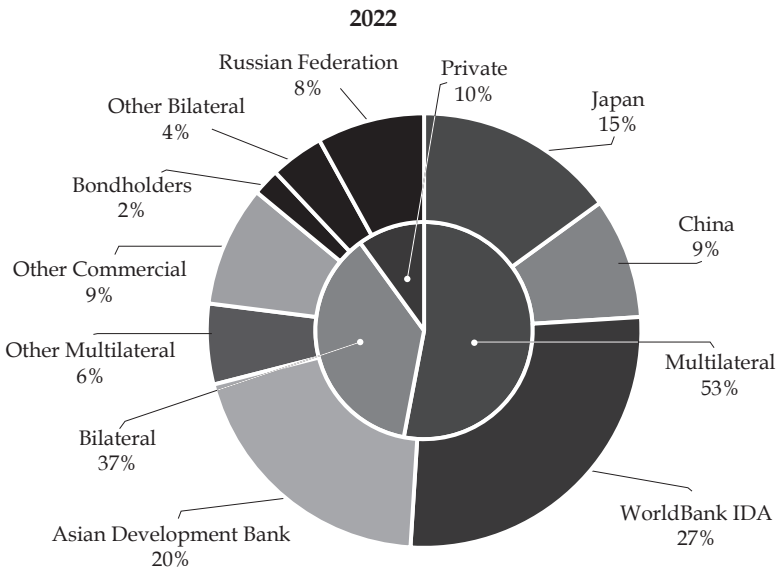
⁸As will be shown in Section 3 (Table 4), LIBOR/SOFR and EURIBOR have tended to fluctuate quite significantly over the past years.

⁹One distinctive feature of Bangladesh's external debt is that it does not include debt incurred on account of sovereign bond (which has been the case with Sri Lanka).

Figure 1 External Debt Portfolio by Development Partners



Source: ERD, 2013.



Source: International Debt Report 2023, World Bank.

Section 2

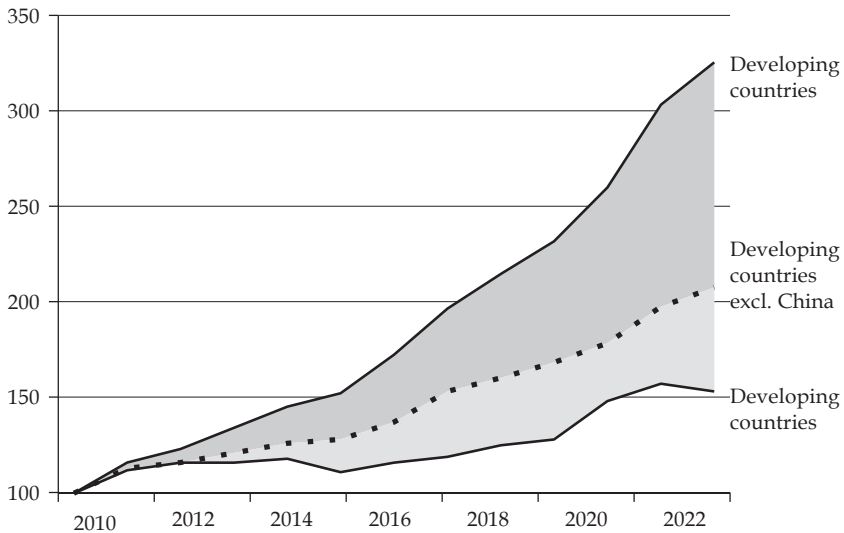
Increasing Urgency of Dealing with External Debt Issues

Rising debt has emerged as a global phenomenon

There is no denying the fact that developing countries such as Bangladesh do need to go for external borrowings for several reasons—growing demand for investment in developing the much-needed infrastructure, low levels of available domestic resources and the consequent resource gap, relatively lower cost of borrowings, and the need for technical expertise and higher technology to implement development projects that are not locally available, among others. It needs to be conceded that as long as the borrowings generate economic growth and income for the government, and the receiving countries are able to generate the needed foreign exchange to meet debt servicing obligations, debt servicing should not be a problem. It is in view of these that debt servicing liabilities are compared with the rate of GDP growth, earnings from exports of goods and services, and in the form of remittance flows and revenue earnings. As would be argued in this section, many developing countries have not been able to ensure sustainable debt servicing, for various reasons, and consequently, debt sustainability has emerged as a major concern for these countries in recent years. In this sense, Bangladesh is not an outlier.

Indeed, public debt is growing at a fast pace in many of the developing and low-income countries and this problem ought to be addressed with the urgency that it deserves. The comparative borrowings scenario involving developing and developed countries in this backdrop is clearly evidenced by Figure 2. Indeed, as the Figure suggests, developing countries need to focus on the concerned issues before they go out of hand.

Figure 2 Accelerated Pace of Developing Country Borrowings



Index: Outstanding public debt in 2010=100.

Source: UN Global Crisis Response Group calculations based on IMF World Economic Outlook (April 2023).

Lessons from the Debt Crisis of Latin American countries in the 1980s¹⁰ as also other cases of more recent times (e.g. Greek Debt crisis; recent sovereign debt crisis of Sri Lanka, Ghana and a number of other countries) transmit a cautionary signal to other developing and low-income countries. As a matter of fact, the growing concerns in this regard prompted the Executive Board of the IMF to approve a new Framework and a new template for assessing *Sovereign Risk and Debt Sustainability*.

A review of global literature indicates several underlying factors that have led to the current concerns, both external and domestic. External factors are driven by global economic and financial shocks inhibiting the economic performance of developing countries. Some of these are: (a) the adverse impact of the covid pandemic; (b) the negative fallouts of the Russia-Ukraine war; and (c) depressed global demand for goods and services. Major domestic factors are identified as followings: (a) Weak management of external debt and

¹⁰This is often called La Decada Perdida or the Lost Decade.

borrowings; (b) Borrowings not generating expected returns with consequent adverse impact on debt servicing; (c) Unsustainable borrowings; (c) Low levels of domestic resource mobilisation; (d) Currency fluctuation; (e) Unfavourable terms and conditions of lending; (f) Changed composition of borrowings and high exposure to sovereign bond market; and (g) Borrowings at flexible interest rate and financial market fluctuations.

In its report titled *A World of Debt* (UN, 2023), the UN draws attention to a world where debt issues are becoming a growing global concern. The report notes that in recent years the debt situation has worsened in many developing countries which has led a number of countries to fall into *Debt Distress*, with some ending up in *Debt Default*. Developing countries' total Public Debt increased from 35.0 per cent of the GDP in 2010 to 60.0 per cent in 2021. Of these, external public debt (borrowed from foreign creditors) increased from 19.0 per cent of GDP to 29.0 per cent of GDP in 2021. The share of external public debt to exports of developing countries increased from 71.0 per cent in 2010 to 112.0 per cent in 2022. Over the corresponding period, external debt service as a share of exports has risen from 3.9 per cent to 7.4 per cent. The share of private creditors in total public external borrowings has been on the rise as well, from 47.0 per cent to 62.0 per cent, compared to bilateral and multilateral sources whose shares have fallen from 22 per cent and 30 per cent to 14 per cent and 24 per cent respectively between 2010 and 2021. There has been an increasingly heavy reliance on private creditors which had at least two negative implications: it makes credit more expensive, and it makes *debt rollover* and *debt restructuring* more complex in case there is a crisis (e.g. Sri Lanka's external debt was underwritten, to a large part, by international sovereign bonds at interest rates ranging between 5.0 per cent and 7.0 per cent).

The recent IMF report titled *Are We Heading for Another Debt Crisis in Low-Income Countries?* (IMF, 2023) also sounds an alarming bell. The report compares the current scenario with the pre-HIPC period. As was noted earlier, the amount of IMF/MDRI debt relief during the HIPC period was worth USD 120.00 billion (in current value). The report notes that the new debt instruments that are being increasingly used at the present time tend to be riskier, and hard to restructure. According to the report, the symptoms that led to HIPC are now resurfacing, aggravated by COVID-19 shock and the Russia-Ukraine war. The report also recalls that G-20 took initiative to set up the *Debt Service Suspension Initiative* (DSSI) to offset pandemic-related debt servicing challenges: 48 countries took advantage of this initiative, worth about USD 12.9 billion (May 2020-December 2021). The share of non-traditional official creditors (such as non-Paris Club Countries) and commercial lenders have been on the rise, aggravating the situation. Also, more than 80 per cent of external debt in LMICs was denominated in US dollars (2022) which has increased vulnerability to sudden movements in the exchange rates of the USD.

The International Debt Report of the World Bank (*The World Bank, 2023*) is yet another publication that focuses on the emerging debt scenario. The report recalls that the total debt stock of LMICs has been on an upward trajectory since 2016, outpacing the economic growth: debt stock of low-income countries increased by 109.0 per cent as against the rise in the GDP of 33.0 per cent. PPG debt service payments by LMICs (including those incurred through IMF debt) totalled USD 443.5 billion in 2022, the highest level in history, and are forecast to continue to grow. This increase is taking place at a time of rising interest rates, and unfavourable exchange rate movements, which are exacerbating the fiscal burden of external debt service payments. And this is expected to rise at a fast pace in future. Consequently, servicing of the external debt could become increasingly burdensome for many of the LMICs. This could crowd-out spending on developmental priorities, the report cautions.

The upshot of the above is that debt distress, which could end up in debt default, has at present emerged as a global concern. The experience of many developing countries falling into *debt trap*, which is often associated with *middle-income trap*, may be recalled in view of the above. Indeed, an apprehension as regards repeat of this experience is clearly discernible in the aforesaid three reports. Many countries, particularly in South America (e.g. Argentina, Peru, Brazil, to name a few), serve as past examples in view of the above. Appropriate lessons should be drawn from the experience of these countries so that the likely outcomes could be avoided in view of the emergent developments.

To note, at present Bangladesh is categorised as a moderate *debt-carrying capacity country*, according to the IMF-WB framework. Every effort should be taken to ensure that the country does not slip to the *weak country* status.

Cross-country experience and lessons

A country's capacity to handle its debts depends on a wide range of factors. A number of studies have stressed the importance of undertaking a comprehensive analysis of debt sustainability, pointing out that it is important to take a critical look at debts that could endanger a country's ability to maintain stable public finances (Hakura, 2020). In this backdrop, some scholars have tried to identify possible factors that could affect a country's debt dynamics.

In view of the above, the debt stress that the Latin American countries went through in the 1970s and 1980s has come under specific focus. Devlin & Ffrench-Davis (2023) argued that the debt crisis was spawned by a systemic process involving three parties: debtors, private creditors, and governments and multilateral institutions. Concerned actors demonstrated a significant degree of short-sightedness. The paper also addressed the shortcomings and limitations of several debt relief initiatives implemented during the crisis, including the *Baker and Brady Plan*. Ocampo (2012) makes the case that, in terms of its effects on the

economy and society, the debt crisis in Latin America in the 1980s was worse than the Great Depression of the 1930s. According to the study, the debt crisis of the 1980s was a US banking crisis as well, but it was managed in a way that favoured American institutions over those in Latin America. The Brady Plan, which brought about some stability and debt relief, was too little, too late, in terms of making up for the lost decade of development. Several Latin American countries were unable to pay back their foreign debts, as the Federal Reserve History (2013) noted. The oil price shock and the worldwide economic recession in 1981 were one of the main causes of the debt crisis, according to the study. These two factors led to the worsening of the balance of payment situation of these countries in the backdrop of the falling amount of exports from the Latin American countries as a result. Unfavourable exchange rates and the growing interest rate on foreign borrowings were also significant determinants of the debt distress. These led to higher debt servicing costs.¹¹

One recent example of a country falling into debt distress is Sri Lanka. There are important lessons to be drawn from the country's experience. UNDP (2022) published a report specifically focusing on the sovereign debt crisis of Sri Lanka. The report also identified possible causes which led Sri Lanka to such a situation. It mentions about Sri Lanka's unsustainable borrowings from foreign sources, record inflation, lack of foreign currency, shock to crucial sectors of the economy (such as tourism, as also remittance flows) arising from the Covid-19 pandemic and also government mismanagement as key factors which contributed to the debt crisis faced by Sri Lanka.

Another recent example of a country that was confronted with severe debt crisis is Ghana. The country faced acute and multiple crises in 2022-23 in the form of high inflation and significant currency depreciation. The identified primary cause of the crisis was external shocks such as Covid-19 and the Russia-Ukraine war as well as a legacy of financial mismanagement (Abotebuno Akolgo, 2023). This led to widespread social unrest which further aggravated the situation.

Lebanon faced severe crisis in managing its public finances following the civil war that engulfed the country and the region. Interest rates on the accumulated foreign borrowings started to rise which led to the ensuing debt crisis (Saleh & Harvie, 2005).

External shocks such as the rise in oil prices, rising interest rates on borrowings, and domestic factors such as poor economic management were identified as the main reasons which led to the debt crisis in Zambia during 1980-2004 (Saungweme & Odhiambo, 2018).

With help of country case studies, Cholifihani's work (Cholifihani, 2008) offers deep insights into the challenges faced by a select set of countries. Research

¹¹ Also, the real value of USD-denominated debt of these countries went up as a result of appreciation of the USD against other currencies.

undertaken by the author sheds important light on Indonesia's struggle with long-term debt overhang problems.

Jamaica's troubles, despite the country's debt restructuring, reveal the persistent challenges that are faced by some countries in managing external balance of payments and the unsustainable debt burden that they end up with (Johnston, 2013). Aulia Rahman et al. (2023) investigate the macroeconomic repercussions of global events such as the financial crisis and the outbreak of the Covid-19 virus on the debt scenario. The findings of the authors provide valuable insights into the wider contextual and time-variant factors which influence the debt scenario of countries concerned.

Some authors have argued in favour of broadening the discourse on debt problems and debt distress. These authors have drawn attention to challenges such as worsening credit ratings, low foreign exchange reserves, expanding current account deficits, and governance concerns that underpin the debt problems of many developing countries (Sims, 2020). A number of authors have drawn attention to the impact that foreign debt could have on exchange rate movements (Saheed et al., 2015). R. Awan et al. (2015) found a complex relationship between a country's debt, budget deficit, currency rates and trade openness. The study found that these tend to have multi-dimensional implications for debt distress faced by a country. However, foreign aid and terms of trade were not found to have significant impacts in this connection. GDP, Export and FDI are found to be important factors from the perspective of debt burden (Pyeman et al., 2016).

Tille (2003) focuses attention on the US to shed light on how an appreciating currency impacts on growth of a country's debt. Yet another important factor which was emphasised by some authors was related to the source of borrowings. More specifically, loans from China were mentioned in view of this (Behuria, 2018). The authors dig into the complexities of the Chinese loans, focusing on such issues as high interest rates, the nature of suppliers' credit, lending to countries with bad governance, and issues of debt and equity (Behuria, 2018). Some authors, however, challenge the dominant narratives as regards Chinese loans, arguing against the portrayal of Chinese projects as being universally negative. For example, Brautigam (2020) observes that the Hambantota port of Sri Lanka is but an exception in view of this. The author also argues that the negative image about Chinese loans is, in large part, the work of Western countries.

Some authors have explored the long-term implications of debt by concentrating on the temporal effects of past and present loans on economic performance. Their investigation is centered on the long-term consequences of debt (Pyeman et al., 2016). For example, A. Awan et al. (2011) found a long-term relationship between foreign debt, exchange rates, and terms of trade.

The varied perspectives offered in the literature help to deepen our understanding about the complex ways that various factors affect the capacity

of an economy to sustainably service its debt. Literature testifies that often it is external shocks that tend to most adversely impact on debt servicing capacity and sustainability.¹² Civil wars (e.g. Lebanon), economic effects of Covid-19 (e.g. Sri Lanka) and combined effects of the pandemic and the war between Russia and Ukraine (e.g. Ghana) are noted in this context. However, along with this, some authors draw attention to a number of other underlying factors that include depletion of foreign exchange reserves, exchange rate volatility, shocks to important economic sectors, weak foreign debt management, and high interest rates on foreign borrowings. Relevant literature also draws attention to the need for pursuing flanking strategies in order to deal with prospective debt distress situations, including debt restructuring and undertaking the required reforms by concerned countries on their own, or as part of IMF bailout or support programmes.

In view of the cross-country experiences mentioned above, it is important to take into cognisance the underlying factors which could put countries such as Bangladesh in a situation of debt distress. Taking cue from the Bangladesh scenario of recent times, particular attention should be given to the impacts of shocks originating from the global economy (e.g. Covid-19 and Russia-Ukraine war) along with sharp exchange rate depreciation, significant reduction in forex reserves, low levels of domestic resources mobilisation, time and cost overrun in project implementation, weak oversight in the implementation of projects funded by borrowed money, lack of appropriate external debt management strategy, to name a few. Bangladesh should take appropriate lessons from the global experience articulated above.

In light of the above, the next three sections will examine whether there are reasons for concern for Bangladesh as regards the emergent external debt scenario, assess whether Bangladesh could face challenges in areas of debt-carrying capacity and external debt sustainability, and what policies and measures the country should pursue to address the attendant concerns in moving forward over the next years.

¹²Oil price related shocks are rather common examples in this connection (e.g. in view of Latin American debt crises).

Section 3

The Emergent Debt Concerns of Bangladesh

It is worth noting that, the Medium-Term Debt Management Strategy (MTDS) of the Ministry of Finance, GoB (FY2021-22 to FY2023-24) does recognise that external debt management has emerged as a concern for Bangladesh. The MTDS cautions about the challenges the country could be facing in this regard, over the medium term. In view of this, the MTDS explores various options and avenues to mitigate the attendant concerns. The MTDS cautions that LDC graduation will call for exploration of newer forms of borrowings and draws attention to risks originating from pitfalls associated with international financing. For example, the report spells out the risks of currency depreciation, which could adversely affect external debt service in terms of local currency. It also cautions about the rising higher borrowing costs leading to higher debt servicing liabilities.

The MTDS observes that the risks will be mitigated with the help of the anticipated increase in revenue mobilisation through reforms in revenue administration, and that the expected resurgence in economic growth will offset the likely risks.

It needs to be noted and appreciated that a High-Level Committee was formed at the Prime Minister's Office in January 2024 for accelerated implementation of foreign-funded projects and speedier release of foreign loans. Indeed, these are some of the major reasons behind time and cost escalation involving implementation of public infrastructure projects (PIPs) and the consequent higher borrowings and higher debt burden.¹³

¹³Also, the GoB is contemplating about preparing and presenting debt sustainability report along with the fiscal Budget. The IMF and the WB are expected to help the Ministry of Finance in this regard. This is no doubt a welcome initiative.

Indeed, the aforementioned committee identified a number of factors which, according to it, should demand urgent attention: (a) Lack of proper feasibility study; (b) Time escalation and cost escalation; (c) Coordination failure among implementing agencies and between project management and funders; (d) Need for appropriate expertise and experience in dealing with foreign-funded projects.

To be true, the MTDS 2021/22-2023/24 MTDS has lost a large part of its relevance in the backdrop of the emergent scenario. It is to be noted that the MTDS takes the year 2020 as the reference point. As of now (June 2024), some of the risks that were anticipated in the report are here and now. Time has come to formulate a robust medium-term debt management strategy, on an urgent basis, keeping in view the emergent and anticipated challenges. The urgency in view of the above originates from a number of concerns as regards Bangladesh's external borrowing scenario. Over the recent past, significant changes have been taking with respect to both the debt portfolio and the terms of loan: (a) a shift from concessional to non-concessional, commercial term loans; (b) a shift from predominantly multilateral to bilateral loans; (c) a notable share of suppliers' credit in the loan portfolio; (d) growing share of flexible interest rate loans (LIBOR/SOFR plus in the loan portfolio); (e) shift to more stringent terms of loans: shorter grace and maturity periods.

The point was made earlier that loans which were incurred on flexible LIBOR/SOFR terms are becoming more costly and onerous from the perspective of debt servicing. This is evident from Table 4. As the table shows, the LIBOR/SOFR/EURIBOR interest rates have undergone significant changes over the last several years, particularly since 2016 when some of the major loans were incurred. These rates came down sharply during the covid times and have

Table 4: Movement of LIBOR, SOFR and EURIBOR rates

(in percentage)

Year	LIBOR 12 Months	SOFR	EURIBOR 6 months
2016	1.38	–	-0.17
2017	1.79	–	-0.26
2018	2.76	1.98	-0.27
2019	2.37	2.20	-0.30
2020	0.77	0.36	-0.37
2021	0.30	0.04	-0.52
2022	3.40	1.64	0.68
2023	5.47	4.96	3.66

Source: Global Rates (2023).

since risen significantly. To recall, a number of Bangladesh's mega-project loans were incurred on flexible LIBOR/SOFR terms. The interest rates on borrowing have risen since the time some of these loans were negotiated. Debt servicing obligations for the concerned projects will be higher than what was originally anticipated in view of this.

Information provided in Table 5 corroborates the above observations (a more detailed list is provided in Annex-1). Table 5 presents the terms and conditions of five major selected mega-projects which are being implemented with borrowings from various bilateral sources. When compared to loans from Bangladesh's traditional sources (e.g. WB's highly concessional IDA loans), one can discern a number of departures as far as these more recent loans are concerned: (a) the interest rates are relatively high; (b) the terms are more stringent; (c) the grace periods of a number of major projects will come to an end in a few years; consequently, the maturity period, with higher debt service payment is to start soon. As a result, debt servicing liabilities are expected to rise significantly over the near-term future. It is to be noted in this connection that interest payment has to be made immediately after release of the first instalment (during the grace period). After the grace period is over, debt repayment (interest plus principal amount) starts and continues over the maturity period. Hence, the anticipated sharp rise in Bangladesh's external PPG debt repayment over the near-term future following completion of the grace period of some of the mega-projects.

Debt servicing of some of the mega-projects is expected to rise in the next few years as is revealed by the following information:

Rooppur Nuclear Energy Plant financed by Russian Government loan: This is the single-largest loan incurred by Bangladesh. Till now, USD 330.0 million in interest payments has already been made against the loan. Repayment of debt (interest plus principal) is scheduled to begin from March 2027. Every year, in two instalments, repayment of more than USD 500.0 million annually will need to be made, over the three subsequent years (the amount is to come down thereafter). As a matter of fact, repayment of the USD 500 million loan for the Feasibility Study of the project has already started.

Rampal Coal-fired Plant financed by Exim Bank of India loan: Repayment of the loan will need to be made in 27 semi-annual instalments. A 0.5 per cent interest is to be charged for unused/undisbursed amount of the loan.

Payra Coal-fired Plant financed by a Chinese Exim Bank loan: The current repayment, to the tune of USD 250.0 million annually, is to expected rise to about USD 700.0 million in FY2026-2027.

In recent times, some foreign companies have complained that they are experiencing delays in repatriating their revenue/profit from Bangladesh. The delay is because of the shortage of foreign exchange to underwrite the due payments to these entities. Bangladesh has never faced such problems before (e.g. some airlines have reduced the number of flights, and some have

Table 5: Selected Infrastructure Projects: Interest Rates and Terms of Borrowings

Loan Description	Sign.	Loan (Mln. USD)	Disbursement (Mln. USD)	Rest Amount (Mln. USD)	Repaid	Interest (I)/Service Charge (SC) (in percentage)	Grace/Repayment Period (Years)
Rooppur Nuclear Power Plant Loan No. Rooppur 2	26-Jul-16	11380.0 (Russia)	4998.8	6381.2	–	LIBOR+ 1.75	10/20
Indian Line of Credit Loan No. LOC-3	4-Oct-17	4500.0 (India)	215.2	4284.8	–	I: 1.00	5/15
Rail Link on Padma Bridge	27-Apr-18	2667.9 (China)	1569.2	1098.7	–	I: 2.00 SC: 0.25	5/15
Construction of Dhaka-Ashulia Elevated Expressway 503	26-Oct-21	1127.0 (China)	0.0	1127.0	–	I: 2.00, SC: 0.25	5/15
Bangladesh Power System Enhancement And Efficiency Improvement Project, Loan No 3522-BAN	29-May-17	572.6 (ADB)	533.9	38.7	–	SOFRA+0.6%+ Adj% C: 0.15%	5/20

Source: Authors' elaboration based on ERD (2023).

discontinued their operations citing delayed payment). As a result, Bangladesh is having to resort to high-cost short-term borrowings (e.g. borrowings at an annual interest rate of more than 7.0 per cent annual interest to underwrite fuel procurement costs).

Delays in the implementation of foreign-financed public sector projects, particularly public infrastructure projects (PIPs), often lead to cost escalation. Consequently, estimations of Internal Rate of Returns (IRR), Financial Rate of Return (FRR) and Economic Rate of Return (ERR) carried out at the time of the feasibility studies lose their relevance.

The Implementation Monitoring and Evaluation Department (IMED) of the Bangladesh Planning Commission has repeatedly pointed out several factors that affect implementation of public projects adversely: delays in land acquisition; delays in DPP/RDPP/TPP approval; lack of proper design which often requires multiple follow-up corrections; delays in procurement; delays in award of contracts; weak contract management; lack of coordination among involved agencies; frequent change of PDs; delays in the disbursement of matching domestic finance; weakness of oversight institutions. Even when particular mega-projects have been put under close monitoring by the Prime Minister's Office, many of the aforesaid problems have tended to persist. Delays in implementation and frequent upward revision of project costs are creating higher debt burden for Bangladesh with consequent adverse implications for the country's external debt-carrying capacity. Indeed, sometimes debt repayment starts even before the project is completed, commissioned and handed over because of delays in implementation.¹⁴

Although some steps are being taken at present to mitigate the identified problems (e.g. speedy release of funds, upfront acquisition of land, not changing Project Directors frequently, e-procurement, greater oversight), much more will need to be done towards better management and ensuring good governance in PIP implementation. If these are done, they will have important positive implications for debt management as well.

Significant Depreciation of BDT

Over the past couple of years (2022-2024) BDT has experienced significant depreciation, to the tune of about 35 per cent.¹⁵ This is expected to significantly raise the effective external debt servicing burden when returns from foreign loan-financed projects are generated particularly in local currency. Indeed, this is the case for majority of foreign-funded infrastructure projects and energy projects undertaken by the Bangladesh government over the recent past years. Higher

¹⁴The China-funded tunnel under the river Karnaphuli in Chattogram is a pertinent example.

¹⁵From an exchange rate of BDT 86.0 to 1 USD to 117.0 to 1 USD over a span of two years.

income in terms of BDT will need to be generated to repay the loans in foreign currency (for example, from sale of electricity, water, gas, and other utilities and through tolls, etc. Per unit costs of the services will have to be kept high).

Also, terms of contracts of some of the contracts signed by the GoB are likely to make it more burdensome from the point of view of debt repayment. For example, the Bangladesh Power Development Board (BPDB) pays the Independent Power Producers (IPPs) in BDT; however, the price of electricity purchased by the BPDB from these entities was negotiated in dollar terms (in case of domestic producers of more than 30 MW electricity). At present, the BPDB is having to pay the IPPs substantially larger amount because of the significant depreciation of the BDT. This is also having an adverse impact on prices charged for such utilities as electricity by the GoB. Consumers and producers are having to bear the burden of the price hike arising, to a large extent, from these types of contracts.

Downgrading by Credit Rating Agencies

In view of the challenges Bangladesh is facing as regards its external sector correlates, various credit agencies have downgraded Bangladesh’s credit ratings. This is evidenced by Table 6. The downgrading is likely to make Bangladesh’s sovereign as also commercial borrowings from the global financial market costlier.

Table 6: Bangladesh’s Credit Rating by Rating Agencies: A Trend of Downgrading

Agency	Previous Rating	When changed	New Rating	Reasons
Moody’s	Ba3	30-May-23	B1	Moody’s assessment is that Bangladesh’s heightened external vulnerability and liquidity risks are persistent, and that, in the backdrop of institutional weaknesses, the situation could deteriorate over the near term.
S&P	BB- Stable	24-Jul-23	BB- Negative	The downgrade stems from growing concerns that the country’s external liquidity position might worsen over the next year, and its foreign exchange reserves may remain under pressure.
Fitch	BBB- Negative	27-May-24	B+ Stable	Indeed, the agency downgraded Bangladesh from BB- in September 2023 to B+ in May 2024. It cited sustained weakening of the country’s external buffers which it thought

(Table 6 contd.)

(Table 6 contd.)

Agency	Previous Rating	When changed	New Rating	Reasons
				could prove challenging. The situation, it anticipates, could worsen despite recent policy reforms undertaken by the GoB. The agency underlined that this could leave Bangladesh more vulnerable to external shocks as policy actions since early 2022 have been inadequate to stem the fall in foreign exchange reserves and resolve domestic dollar tightness.

Source: Trading Economics (2024).

Implications of Private Sector Borrowings

Whilst there is no sovereign guarantee for loans incurred by Bangladesh's private sector, debt servicing by the private sector has indirect implications on the country's debt servicing. This does create pressure on the demand for foreign currency in the foreign exchange market and, indirectly, on the forex reserves of the country.

When BDT exchange rate was stable and LIBOR/SOFR interest rate was very low (almost zero during Covid pandemic time), Bangladeshi's private sector borrowed heavily from the international financial markets, mostly for trading purposes. Trade credit of the private sector (including buyers' credit) was incurred mainly for purposes of back to back L/C, deferred payment and as short-term loans. Now the situation has changed quite significantly. With LIBOR/SOFR being on the rise, the cost of repayment of such loans have also been rising in tandem. Currency depreciation has compounded the problem further. Private sector borrowers who have incurred loans for purposes of export-oriented business are relatively less affected by the depreciation of the BDT although they were adversely impacted by notable changes (rise) in SOFR/LIBOR rates. Those who have borrowed for domestic-market-oriented business activities were adversely impacted on both counts.

Out of USD 16.42 billion private sector loans (2022) 67.5 per cent was incurred for less than one year period, while the rest 32.5 per cent was for more than one year. Many Bangladeshi business entities have tried their best to repay the loans as fast as possible in view of the rising LIBOR/SOFR and depreciating currency. This created an additional pressure on the demand for foreign currency in the market. Since foreign creditors were unwilling to renew

such loans, these had to be repaid on maturity, creating further pressure on the demand for foreign currency in the forex market.

A Growing Public Finance Management Concern

As a decomposition of FY2023-24 Budget figures indicates, Bangladesh is at present having to repay a part of the foreign debt servicing (interest + principal) from borrowed funds. As Table 7 reveals, if the full debt servicing payments are included in revenue expenditure, it will be seen that the balance in the revenue budget would indeed be negative.

Bangladesh's successive budget documents show surplus in Revenue Budget. This is because only interest payments on foreign borrowings are included in the Revenue Expenditure side. However, if payment of the Principal Amount (debt repayment) component is also included, there will be a deficit in the Revenue Budget. As Table 7 shows, in the Budget for FY2023-24, BDT

Table 7: Financing of Servicing of External Debt

(crore BDT)

Indicators	BFY24	RBFY23	BFY23	AFY22
A. Total Revenue Receipt	500,000	433,000	433,000	334,641
B. Operating Recurrent Expenditure	436,247	390,085	373,242	307,725
C. Revenue Surplus (A-B)	63,753	42,915	59,758	26,916
D. Other public expenditures except ADP	54,552	35,420	51,027	19,369
Of which, Foreign interest	12,376	9,322	7,200	4,554
E. Revenue Surplus after all expenditures other than ADP (C-D)	9,201	7,495	8,731	7,547
F. Foreign Debt Repayment (Principal amount)	24,700	18,150	17,000	13,302
G. Revenue Surplus after all expenditures and foreign debt repayment other than ADP (E-F)	(15,499)	(10,655)	(8,269)	(5,755)
H. Net Domestic Borrowing	155,395	140,425	146,335	115,216
I. Total Foreign Borrowing for ADP	123,104	97,796	108,000	74,716
J. Total ADP financing (G+H+I)	263,000	227,566	246,066	184,177

AFY: Actual Fiscal Year; BFY: Budget Fiscal Year; RBFY: Revised Budget Fiscal Year.

Source: Authors' compilation from Budget Document FY2023-24.

9201.0 crore is shown as surplus in the revenue budget after accounting for the revenue expenditure. However, the expenditure only includes interest payment for the external debt incurred by the government (as also for domestic debt). If the principal amount (foreign debt repayment component is BDT 24,700.0 crore) was included, there would be a deficit of BDT 15,499.0 crore in the revenue budget. This amount is being repaid from the deficit financing i.e. borrowed money from domestic and foreign sources. Thus, Bangladesh is indeed having to borrow to repay a large part of its PPG debt repayment liabilities.¹⁶

No one denies the need for a country such as Bangladesh to incur external borrowing for various development purposes. However, it is the low levels of domestic resource mobilisation, magnitude and trends of repayment obligations that are emerging as disquieting concerns. In FY2022-23, domestic interest payment was to the tune of BDT 80,691 crore, and foreign interest payment was BDT 9,322 crore (in total BDT 90,063 crore); the matched figures for FY2023-24 were expected to be BDT 82,000 crore and BDT 12,376 crore respectively (in total BDT 94,376 crore). As was noted, the interest payment for foreign loans have been on a fast rise in recent years. Indeed, in FY2021-22, the amount was BDT 4,564 crore. This means that in FY2022-23, foreign interest payment has gone up by a whopping 104.7 per cent. The country's recent borrowings would indicate that Bangladesh's accumulated foreign debt and debt servicing obligations are set to rise significantly in near and medium-term future. To recall, during July-March period of FY2023-24, overall foreign debt commitment stood at USD 7.2 billion which was 134 per cent higher than the corresponding period of FY2022-23 (ERD, 2024).¹⁷

Bloating Aid Pipeline

The growing aid pipeline has been an ongoing problem for Bangladesh for the past many years. The total aid in the pipeline at present stood at USD 46.4 billion (March 2024); the amount has been on a fast-paced rise in recent years. When release of funds from the aid pipeline is delayed, there are several consequences: firstly, interest charged on unutilised loan raises the debt burden; secondly, commitment charge on the loan has to be paid when release of fund is delayed; and thirdly, time escalation leads to cost escalation, which in turn leads to revision of project costs, higher borrowings and higher debt servicing obligations.

¹⁶As was mentioned above, the same is the case with domestic borrowings.

¹⁷Indeed, from the medium to long-term perspective, there is no alternative to increasing the DRM at a fast pace to address the likely adverse implications of the aforesaid disquieting scenario.

The borrowings under the three lines of credit (LoCs) from India could serve as a good case study in this connection. Of the three LoCs (2010, 2015 and 2017 worth about USD 7.4 billion), only 22.5 per cent could be spent till December 2023 and only 15 of the 40 earmarked projects have been completed till now. The first LoC had to be revised upward from USD 800.0 million to USD 862.0 million because the costs of implementing the projects had gone up in between. Also to note, in case of the Indian LoC, there is a mandatory procurement requirement (from the lending country i.e., India) to the tune of 55 per cent-75 per cent.¹⁸

Implications of LDC Graduation

The MTDS makes the point that once Bangladesh graduates out of the group of the LDCs, to non-LDC developing country (2026) status, access to concessional financing will decline. This is actually not the case. There is hardly any relationship between LDC graduation and access (or absence thereof) to concessional finance. Rather, this was related to the rise in Bangladesh's GNI/Per Capita and the consequent middle-income graduation of the country (as was noted above, in 2015 Bangladesh graduated from LIC to LMIC which resulted in Bangladesh not being eligible for exclusively concessional loans). However, if the export sector is negatively impacted by the country's LDC graduation because of the consequent loss of international support measures (ISMs), this will have implications for the country's export earnings, forex reserves and consequently on the country's debt servicing and debt carrying capacity. Access to concessional funds (e.g., aid for trade and technical and capacity building support in the WTO, access to LDC Climate Fund, etc.), for which Bangladesh is eligible as an LDC, will also no longer be available on graduation.¹⁹

Also, LDC graduation will entail gradual phase-out of the para-tariffs. Bangladesh's dependence on customs duties and indirect taxes will need to be reduced consequent to graduation. Greater emphasis will need to be put on domestic resource mobilisation, requiring a move from predominantly indirect taxes to mostly direct taxes.²⁰ Taxation of digital economy and digitalisation of the taxation system ought to receive highest priority on the part of the NBR and the policymakers in order to expand the tax net and enhance mobilisation of more tax and non-tax revenue.

Negotiating various trade deals such as the Free Trade Agreements (FTAs), Economic and Technical Cooperation Agreements (ETCAs) and Comprehensive

¹⁸When inputs and intermediates are available locally, this makes the concerned projects costly.

¹⁹If such expenditures are to be underwritten by borrowed funds, debt servicing obligations will go up.

²⁰The relative shares of these are currently two-thirds and one-third respectively.

Economic Partnership Agreements (CEPAs) will need to be part of the LDC graduation strategy. However, while facilitating market access these are likely to also lead to revenue losses. Hence the need to put more emphasis on enhancing DRM through appropriate measures in various areas.

Section 4

Independent Debt Sustainability Assessment Methodology

The IMF-World Bank *Low Income Country Debt Sustainability Framework* (LICDSF) is a standardised measurement tool for assessing debt sustainability of low-income countries. Though the recent changes in the methodology have made the method more dynamic than the one deployed earlier, the framework has some drawbacks. The framework does not clearly explain the rationale for selecting the variables. A major criticism of the framework relates to the use of remittance as an independent variable. The criticism is that which may increase the forex reserves, it does not necessarily increase the government's capacity to service its debt unless it is taxed. The reason to use world economic growth to measure external shocks rather than terms of trade is also unclear (Pinto, 2019). A number of authors have put emphasis on exchange rate depreciation and current account deficit to be important considerations in assessing a country's indebtedness (Alam & Taib, 2013; Jiyad, 2001). IMF-WB framework does not account for these either. To take care of these concerns, the authors have developed a *Debt Sustainability Assessment* model by drawing on relevant literature.

The primary objective of the exercise is to make an assessment of Bangladesh's external debt sustainability. In order to do this, we focus on finding a threshold level for optimal external debt in terms of export of goods plus remittance. Our methodology is somewhat different from the IMF-WB LICDSF. However, the indicator used in our model is also the one used in the IMF-World Bank framework. For example, in our model, we are determining the optimal level of external debt in terms of export plus remittance; this is also one of the indicators used in the IMF-World Bank LICDSF for debt sustainability assessment. Thus, the threshold level value would be comparable. Besides, as the approach is more country-specific than the IMF-World Bank's framework, our model should give results that align better with, and reflect, the current situation in Bangladesh.

For debt sustainability assessment, we have taken an approach similar to the work by Ebi & Imoke (2017). The authors define four different equations based on the Solow growth model to capture the impact of debt on economic growth, savings, investment, and interest rates. We are only interested in the first equation of the authors for purposes of our study since this is the only equation used to determine the debt threshold level. However, we are not using the regression equation they have used. Instead, we use the equation mentioned in Ouyang & Rajan (2014). Some fundamental elements of both works were kept, such as the debt term and its square for the non-linear effect on the dependent variable. We also included some control variables in the estimation in order to generate better results.

Though we have, by and large, followed these aforesaid papers, we have made some minor adjustments to our equation. The first adjustment concerns the use of export and remittance rather than economic growth and only exports. The rationale for not using economic growth is similar to the one mentioned in the paper by Ouyang & Rajan (2014). One reason is that defining determinants of economic growth is much more complex and can differ significantly based on the context. The second reason is that, even in context-specific cases, availability of the concerned data for an extended period remains a challenge and may not be available at all. For example, according to the Solow model, one of the factors for economic growth is Total Factor Productivity (TFP). However, long-term time series for TFP is not available for Bangladesh. In this backdrop, use of export and remittance is justifiable on the grounds of availability of long-term data. Lastly, we are not only using exports, rather export and remittance together. This indicator is used to assess debt burden in the debt sustainability assessment of the IMF-World Bank. Thus, using export and remittance together makes our estimated threshold level value more comparable to the threshold levels estimated by the IMF-WB method.

Our generalised regression equation, is as follows:

$$\text{EXREMG}_t = a_0 + a_1\text{DEBT}_t + a_2\text{DEBT}_t^2 + a_iX_{it} + \varepsilon_t \quad (\text{Eq 4.1})$$

Eq 4.1 is the regression equation to estimate the debt threshold point. EXREMG_t is export and remittance growth at time t which is the dependent variable in our equation. DEBT_t is External debt outstanding as a share of export and remittance at time t , and DEBT_t^2 is the squared term of External debt outstanding as a share of export and remittance. X_{it} is a set of control variables, and ε_t is the error term.

Debt Threshold Point (DTP) Estimation

After estimation of the regression equation (Eq. 4.1), we calculate the *Debt Threshold Point* (DTP). We use the formula introduced by Checherita-Westphal

& Rother (2012) for this purpose. To note, this has also been used by other researchers including Apere (2014) and Ebi & Imoke (2017). In the formula, the authors use the ratio of the coefficient of external debt and the non-linear external debt term, multiply the ratio with a scalar $-1/2$, and arrive at the DTP. The mathematical formula for estimating the DTP is as follows:

$$DTP = \beta_1 / \beta_2 * (-1/2) \quad (\text{Eq 4.2})$$

β_1 = Coefficient of the linear external debt in terms of export and remittance variable;

β_2 = Coefficient of the squared external debt in terms of export and remittance variable;

However, we will need to ensure that the coefficients meet necessary optimality condition and the sufficient optimality condition. As we assume the relation to be concave, we will have to take first-order and second-order differentiation of Eq. 4.1 in terms of DEBT to ensure this. Which means,

The first order condition, $\partial EXREM/G / \partial DEBT = 0$;

And the second order condition, $\partial^2 EXREM/G / \partial^2 DEBT < 0$ (Negative);

The first-order condition will ensure that the value we find is the local minimum or maximum, and the second-order condition will ensure the curve's concavity. In other words, it will ensure that our calculated value is the maximum point. If the coefficient of our estimations fulfils these conditions, then the DTP value will be the optimal debt-carrying capacity indicator.

Econometric Model

Eq 4.2 above is the simplified version of the econometric model used for the estimation. In Eq 4.3, we are writing the complete form of the equation. For our analysis, we have used the data for Bangladesh from FY1980 to FY2023. To find the cointegration equation, we used the Engle & Granger (1987) two-step method, where we first ran a long-run OLS estimation and used the residuals from this to estimate the Error Correction Model (ECM) or the short-run model. An important point is that even though we started our equation with an over-fitting model, we derived a parsimonious or more preferred specification which is theoretically accurate and easy to interpret. The long-run and short-run models used for the estimation are as follows:

The Long-Run Model:

$$\text{EXREM}G_t = \alpha_0 + \alpha_1 \log \text{DEBT}_t + \alpha_2 \log \text{DEBT}_t^2 + \alpha_3 \text{EXREM}G_{t-1} + \alpha_4 \log \text{REER}_t + \alpha_5 \text{TOT}_{t-2} + \alpha_6 \text{TO}_{t-3} + \alpha_7 \text{GDP}G_t + \varepsilon_t; \quad (\text{Eq 4.3})$$

The Short-Run Model (ECM):

$$\Delta \text{EXREM}G_t = \beta_0 + \beta_1 \log \Delta \text{DEBT}_{t-1} + \beta_2 \Delta \log \text{DEBT}_t^2 + \beta_3 \Delta \text{EXREM}G_{t-1} + \beta_4 \Delta \log \text{REER}_t + \beta_5 \Delta \text{TOT}_{t-2} + \beta_6 \Delta \text{TO}_{t-3} + \beta_7 \Delta \text{GDP}G_t + \varepsilon_{t-1}; \quad (\text{Eq 4.4})$$

Here,

EXREM G = Export and Remittance Growth

DEBT = External Debt as a share of Export and Remittance

DEBT² = Square of External Debt as a share of Export and Remittance

REER = Real Effective Exchange Rate

TOT = Terms of Trade

TO = Trade Openness

GDPG = GDP growth

ε = Error term

Δ = First Difference

Table 8 presents the variable description and the sources. Our dependent variable is export and remittance growth, and the independent variables are external debt as a share of export and remittance, external debt as a share of export and remittance squared, real effective exchange rate, terms of trade, trade openness and real GDP growth. In addition, we have used lagged export and remittance growth in the model to account for the inertial effect. Variables collected from Bangladesh's Ministry of Finance and Economic Relation Division, such as Export, Remittance, and Debt, were in Fiscal Year (July-June) format. REER, TOT and GDPG were in calendar year format. We have treated both as coterminous since these should not make any significant difference and are not expected to have any tangible implications for the estimated results.

Table 8: Variable Description and Source

Variables	Description	Source
EXREMG	Export and Remittance Growth Calculated by Author	Ministry of Finance, Bangladesh
DEBT	External debt as a share of Export and Remittance	Economic Relations Division, Bangladesh
REER	Real Effective Exchange Rate based on 65 Currency Basket (Base Year=2007)	Bruegel
TOT	Terms of Trade Data	Trading Economics
TO	Trade Openness Calculated by Author based on UNCTAD Handbook Formula	Ministry of Finance, Bangladesh
GDPG	Growth in Gross Domestic Product	World Bank

Source: Authors' compilation.

Table 9: Descriptive Statistics

Variables	Obs.	Mean	Std. Dev	Skewness	Kurtosis	Joint Test Prob.
EXREMG	44	0.115	0.087	0.5065	0.4148	0.5600
DEBT	44	2.414	1.661	0.2539	0.0000	0.0000
DEBT ²	44	8.523	9.205	0.0520	0.0014	0.0035
REER	44	127.498	21.288	0.0064	0.8157	0.0338
TOT	44	88.677	7.439	0.0844	0.1965	0.9720
TO	44	0.119	0.066	0.1844	0.0002	0.0023
GDPG	44	0.052	0.016	0.1138	0.7292	0.2478

Source: Authors' Estimation.

Table 9 shows the descriptive statistics of the variables.

Unit-Root Test

As was mentioned earlier, we use the Engle-Granger two-step method for our analysis. One of the criteria we should meet is that the variables used in the model should be stationary at their first difference I (1). We used the Augmented Dickey-Fuller Unit Root Test to test for the Unit Root in the variables. In the test, the null hypothesis is that the variables have a unit root, and the alternative hypothesis is that the variables are stationary or do not have a unit root.

The Augmented Dicky Fuller Unit Root Test results for the variables are the followings:

Table 10: Unit-Root Test Results

Variables	5%-Level Critical Value	At Level	At First Difference	Remarks
EXREMG	-2.952	-7.276	-10.892	I(0), I(1)
DEBT	-2.952	-0.354	-4.587	I(1)
DEBT ²	-2.952	-0.354	-4.587	I(1)
REER	-2.952	-0.738	-4.150	I(1)
TOT	-2.952	-2.292	-6.809	I(1)
TO	-2.952	0.697	-6.763	I(1)
GDPG	-2.952	-5.511	-14.507	I(0), I(1)

Source: Authors' Estimations.

The results (Table 10) state that all the variables can be integrated in the same order I (1). Since all variables are stationary in their first difference form, we can proceed with our estimation.

Cointegration Test

To have a short and long-term relationship between the variables, there should be cointegration between the variables. To test for cointegration, we ran the Engle-Granger cointegration test. The null hypothesis is that there is no cointegration, the alternative hypothesis is there is cointegration. After running the test, we obtained the following results:

Table 11: Engle-Granger Cointegration Test

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-6.818	-6.648	-5.817	-5.413

Source: Authors' Estimation.

Our test result (Table 11) shows that the absolute value of our test statistic is higher than the critical value at 1 per cent. This means we can reject our null hypothesis and accept our alternative hypothesis. This indicates that the variables have cointegration.

Error Correction Model Estimations

As mentioned in the preceding sub-section, we estimate the equation using the Engle and Granger two-step method. In the first step, we ran the OLS estimation for the long-run equation Eq. 4.3 and use the residuals from the long-run equation for estimating the short-run equation or the error correction model (Eq 4.4). The result of the ECM is provided in Table 12:

Table 12: Estimations of the ECM

Variables	Coefficient	Std. Error	t Stat	P value
EXREMG (-1)	-0.2118	0.0648	-3.27	0.003
DEBT (-1)	0.6104	0.0862	7.08	0.000
DEBT ²	-0.2459	0.0440	-5.59	0.000
REER	-0.3155	0.1326	-2.38	0.024
TOT (-2)	-0.2256	0.0015	-1.53	0.136
TO (-3)	1.9801	0.6404	3.09	0.004
GDPG	1.1778	0.6832	1.72	0.095
ECM	-1.0819	0.2005	-5.40	0.000
Constant	-0.0017	0.0073	-0.23	0.820
R ²	0.8945	—	—	—
Adjusted R ²	0.8672	—	—	—
DTP (%)	124.1	—	—	—

Note: Please refer to Annex-2 for the diagnostic tests.

Source: Authors' estimation.

In the short-run, our estimation suggests that a significant relationship exists between the dependent variable- Export and Remittance growth - with the lagged export and remittance, External debt, external debt square, real effective exchange rate, trade openness index and real GDP growth. Terms of trade are not significant as the constant term. We can observe the relationship between the variables which can be identified from the signs of the coefficients which are aligned with our expectations. The R-square and the adjusted R-square values are relatively high, suggesting the model's good fit. Coming to the ECM term, the value of ECM usually lies between 0 and -1, indicating a gradual correction of Error in the model over time. A value in the range of -1 to -2 indicates correction of Error in a dampening manner. In our case, as the value is lying within the range of -1 to -2, it means the short-run Error in the model is being corrected in a dampening manner.

For our analysis of estimating the DTP, we primarily focus on the coefficient of External Debt and External Debt Square. Here, external debt is positively associated, whereas the non-linear term external debt square is negatively associated with export and remittance growth.

Optimal Debt Carrying Capacity

After the estimation of the ECM, we have the values of the coefficient of External Debt and the coefficient of the non-linear External Debt square. We can put these values into Eq. 4.2 to get the *Debt Threshold Point value*. After putting the coefficient values in Eq. 4.2, the calculated DTP is found to be 1.241. An important point to note here is that the coefficient implies a change of the dependent variable in ratio form. So, the value of DTP is also estimated in ratio form. By multiplying the value by 100, we get the value of DTP in terms of percentage which is 124.1 per cent.

To verify optimality, we can put the coefficient values in Eq4.2 and use the first and second-order derivative conditions to check for optimality. After putting the values in the equation, we get $EXREMG = \beta_0 + 0.6104DEBT - 0.2459DEBT^2$;

First order condition, $\partial EXREMG / \partial DEBT = 0$;

or, $0.6104 - 0.4917DEBT = 0$;

or $DEBT = 1.241$ (124.1%);

And, second order condition, $\partial^2 EXREMG / \partial^2 DEBT < 0$; Negative;

Or $\partial^2 EXREMG / \partial^2 DEBT = -0.4971 < 0$;

To meet the first order condition, External Debt in export and remittance should equal 1.241 or 124.1 per cent. The negative value of the second-order condition means concavity. As our estimated values meet the stipulated requirements, the calculated DTP is the *Optimal Debt Carrying Capacity*. Thus, based on our estimation, Bangladesh's optimal outstanding external debt-carrying capacity as a share of exports and remittances stands at 124.1 per cent.

How does it compare with the threshold value of the IMF-WB framework? The framework's assigned value of the composite indicator for Bangladesh is 2.88 (IMF, 2023). The value ranges between $2.69 < CI < 3.05$. Accordingly, Bangladesh was classified as a country with medium debt-carrying capacity. As was stated earlier, the threshold levels in the IMF-WB framework are crucially important in terms of evaluating the risks associated with a country's external debt burden. A lower threshold value would render the country more vulnerable to economic shocks. Our estimated threshold level for external debt as a proportion of exports and remittances is 124.1 per cent, which is considerably lower than the IMF-WB threshold level of 180 per cent. This signifies a significantly lower capacity to

bear external debt and alludes to higher vulnerability of Bangladesh to various economic disruptions.

The upshot of our assessment exercise is that Bangladesh is under more debt distress than what appears from the IMF-WB report.

To note, the WB/IMF estimates consider 10-year average, of which 5 years are actual, and the rest 5 years are forecasted values.

We have considered different scenarios, with a number of assumptions, some similar to the IMF, some somewhat less upbeat. For example, remittance has picked up since January 2024 but revenue earnings and forex reserves have not performed as expected. While Bangladesh remains in the moderate category, the score comes down under a number of scenarios developed by the authors and approximates the lower threshold $CI < 2.69$. To note, the IMF December 2023 (Article IV) puts the score at 2.86, somewhat lower than the earlier stated 2.88. The trend aligns with our estimates.

Recommendations

The preceding analyses bear out that, as far as debt sustainability and debt-carrying capacity are concerned, Bangladesh has no room for complacency. Rather it has compelling reasons to be concerned about.

To recall, the GoB has set its eyes on three development milestones over the next one and half decades: achievement of the United Nations-mandated Sustainable Development Goals by 2030; the transition from lower middle income to upper middle-income country status by 2031; and attainment of high-income country status by 2041. Foreign borrowings will be a crucial part of the resource package which will be needed to reach these goals and underwrite the required investment. Two issues are of crucial importance here: reducing dependence on foreign borrowings through higher DRM, and proper use of the foreign borrowings to ensure *good value for money*. Accordingly, Bangladesh will need to ensure that the borrowed resources are appropriately used, and that the loan obligations are properly serviced. In going forward, our findings in the preceding sections transmit a cautionary signal in this connection.

Bangladesh is expected to experience rising debt service liabilities over the near-term future than has been the case previously, as was noted in preceding sections. Borrowings have been high in the recent past years and are expected to rise further. In addition, interest rates on borrowings are anticipated to rise, and the loan conditions are expected to become more stringent in the backdrop of Bangladesh's (lower) middle-income graduation. Exports are expected to face more challenges in view of Bangladesh losing preferential market access originating from its LDC graduation. Bangladesh's policymakers should design a forward-looking strategy to deal with these emerging challenges that are most likely to have important implications for the country's capacity to meet debt servicing liabilities.

Make accurate estimates of debt service obligations: The Ministry of Finance and the ERD undertake assessment of external debt scenarios and debt servicing liabilities arising from foreign borrowings, on a regular basis. The ERD's projections are supposed to factor in rates of interest, grace period,

maturity period and other terms and conditions of external borrowings. These projections must be cognisant of the new developments in connection with external borrowings highlighted in the preceding sections. The share of the country's non-concessional loans in the borrowing portfolio is projected to climb further in the backdrop of Bangladesh's transition to a middle-income country. It is thus highly crucial that debt repayment calculations accurately factor in the changing borrowing landscape and the anticipated risks and vulnerabilities in this connection. It was pointed out in preceding Section 3 that the way external debt repayment is presented in the Budget does not allow accurate assessment of the debt repayment obligations and the consequent pressure in the context of the national budget. Indeed, as was pointed out, Bangladesh is at present having to underwrite debt repayment (principal amount) from borrowed funds. The assessment carried out as part of this study clearly indicates that there are reasons to be concerned about as regards debt obligations and debt servicing capacity of Bangladesh. These call for appropriate flanking measures and necessitate a forward-looking sustainable debt repayment strategy.

Strengthen good governance in the implementation of the PIPs: A good governance framework is required to raise the quality of implementation of public infrastructure projects (PIPs) in Bangladesh in order to ensure that the borrowings incurred are good value for money. This is particularly so for projects that are being implemented with a large share of borrowed money. As was noted, even the mega-PIPs in Bangladesh which were put under close scrutiny, at the highest level, were revised several times and have experienced significant time and cost escalation. Quality of governance in implementation of some PIPs has been questioned. An earlier CPD study, based on global surveys, has shown that per kilometer cost of building roads in Bangladesh is 2-4 times higher than some of the comparator countries. The study suggested that the OECD framework, customised appropriately, could serve as a good reference point to improve the state of governance in implementing PIPs in Bangladesh (Rahman & Farabi, 2022). There is also a need to enhance institutional capacity for monitoring the implementation of foreign borrowing-financed projects. The agency responsible for monitoring and tracking development projects in Bangladesh, the IMED of the Planning Commission, ought to be further strengthened. An important lesson from the Sri Lanka's experience is that projects must be selected based on evidence-based assessment, and not on political consideration, on the basis of well-designed feasibility studies, prioritised as part of well-thought-out development strategy and through wide-ranging consultations. These must be implemented by maintaining good governance at all stages of implementation. A clear roadmap must be there for servicing the debt originating from large-scale foreign-financed projects.

Factor in exchange rate movement: Bangladesh should take note of the pitfalls originating from exchange rate fluctuations (depreciation). This

is particularly important when assessing the returns on foreign borrowing-financed investment projects that specifically target the domestic market. Movements in the foreign exchange rate of BDT have important repercussions for projects whose earnings are generated in local currency. To note, most PIPs in Bangladesh are of this type (e.g., transport, energy and gas, power etc.). The recent significant depreciation of the BDT sends cautionary note in this backdrop. Currency hedging could be an option in view of this, to take care of some of the adverse implications of future exchange rate volatility.

Be mindful of dual graduation: Bangladesh's graduation from the group of least developed countries (LDC) itself does not have direct implications as regards access to foreign borrowings. However, the country needs to be cognisant of two concerns in this connection. First, Bangladesh will no more be eligible for many of the LDC-oriented technical assistance programmes financed by development partners after it graduates out of the LDC group. Such programmes will need to be underwritten by her own resources or borrowed money. Some LDC-focused financial support windows, such as the LDC-specific Climate Fund, Aid for Trade, etc. will no longer be available on graduation (or after a few years following graduation). Second, erosion of preferential market access (following LDC graduation) will mean that it will be more challenging to remain competitive in the export market, with consequent implications for export earnings. Third, Bangladesh's middle-income graduation will influence the judgment of lending countries since their overriding strategy is to prioritise low-income countries and the LDCs when allocating soft-term or concessional-term loans. For Bangladesh, as was noted, the loans will increasingly be on hard terms, of non-concessional type. A sound assessment should be carried out to capture the impacts and implications in view of the above and to identify mitigating flanking measures in this backdrop.

Explore new sources of funds: As was noted, Bangladesh will continue to need large amount of financial resources to underwrite its development objectives. A considerable share of Overseas Development Assistance (ODA) is currently being directed towards humanitarian interventions necessitated by wars and civil wars, large-scale displacement of people and other reasons. Consequently, aid for other development needs has come under considerable pressure. As demands for funds rise, Bangladesh's policymakers will need to look for, and pursue, low-cost options, such as blended finance, climate resilience fund, *loss and damage fund* announced at the 28th session of the Conference of Parties (COP 28) and, South-South finance and others. External borrowings for purposes of mitigating environmental damage must be carefully managed by taking advantage of climate-impact related funds and similar global initiatives. Bangladesh should also think of raising resources in the international financial market by issuing sovereign bonds. These will call for concerted and coordinated efforts in search of the best possible options through sound, evidence-based

research and analytical works. Adequate preparation in view of these emergent tasks will be necessary.

Diversify sources of development finance: Loans from non-traditional multilateral sources such as the Shanghai-based New Development Bank (NDB) and the Beijing-based Asian Infrastructure Investment Bank (AIIB) should be considered with due seriousness. As members of these multiple development banks, Bangladesh should try to negotiate loans on favourable terms. Bangladesh has already taken AIIB loans and a number of NDB loans are in the pipeline. Bangladesh should actively pursue such windows as the IMF's *Resilience and Sustainable Trust* (RST- the interest rate of such loans is concessional i.e., lower) which are targeted to mitigate external shocks. To recall, a part of the recent USD 4.7 billion balance of payment support of the IMF is underwritten by loans from this concessional window. Many countries are at present examining the viability of currency swaps and borrowings in other than USD (e.g., yuan, rupee, ruble) to lessen the strain on dollar-dominated forex reserves. The central bank of Bangladesh is also looking into such options and possibilities to address the anticipated challenges. Evidence-based decisions based on robust analysis will be needed.

Make use of Budgetary Support but with due caution: In managing financial flows, Bangladesh should seek more loans that may be used flexibly. Loans in the form of budgetary support provide greater flexibility in the use of resources. Indeed, the Budget Support component in Bangladesh's external borrowings has been on the rise in the recent past. Post-Covid, this amounted to about USD 8.0 billion. (e.g. provided by WB, ADB and China). Whilst this type of loan allows the recipient country flexibility in terms of expenditure, there should be transparent rules as to how the budget support is to be spent and how debt servicing will be managed.

Keep private sector borrowings under vigilance: As noted, in recent years, Bangladesh's private sector loans from foreign sources have risen at a fast pace. There is no sovereign guarantee for repayment of such loans; however, the government needs to be watchful about this for several reasons. The country's combined foreign borrowings, both public and private, will likely have important implications in the form of the demand for foreign currency in the country's forex market. Also as has been seen in the recent past, speedy liquidation of private sector credit has had notable adverse impact on Bangladesh's balance of payment in the *Finance Account*. Significant depreciation of the BDT induced the private sector to repay the short-term credit incurred from external sources in a speedy manner. Thus, policymakers should actively monitor the trends of private sector loans as also repayment status and capacity of repayments to ensure that Finance Account does not face unanticipated shocks. Also, it needs to be ensured that repayment performance of private sector does not have a negative impact on Bangladesh's overall credit rating conducted by reputed global credit agencies.

Expedite project selection and preparation process: Delayed project implementation and the mismatch between project completion, generation of returns on investment and debt servicing schedule often accentuate the challenge of debt repayment. It has been seen that it takes anywhere between 6-18 months for the authorities to give final approval to foreign-financed projects. Following this, significant delays also occur because of several reasons including slow pace of contract signing, setting up of project office, appointment of project manager, procurement, land acquisition and other related works. These will need to be significantly reduced so that implementation is not delayed, which results in higher costs and higher debt burden. Frequent change of Project Directors is another common problem. Concerted efforts must be undertaken to build a pool of competent PDs particularly because Bangladesh is now implementing a diverse set of projects that require a range of expertise to oversee and monitor.

Take advantage of debt restructuring if and when there are opportunities: As was noted, Bangladesh was not eligible for the HIPC initiative of the World Bank and the IMF. Bangladesh has also not applied for multilateral debt relief initiatives since its debt servicing record has traditionally been impeccable. However, the country should remain engaged in debt relief initiative discussions in view of the emergent scenario. If at any point Bangladesh's external debt servicing becomes challenging, the country should be ready to explore avenues of debt restructuring. This should be done in a proactive (pre-emptive) manner rather than in a reactive way. It is likely that in view of many LICs and developing countries facing debt servicing difficulties, global initiatives to mitigate the problem will be on the card in the near future. The G-20 debt relief initiative during the covid period is a case in point. Bangladesh should be ready if and when such opportunities arise.

Explore concessional debt for trade financing from major importing sources: At present, most of the concessional external debt for Bangladesh's trade financing is taken advantage of by the private sector. However, at a time when the foreign exchange reserves are low, the public sector should also try to take advantage of borrowing from private sources, on favourable terms, particularly for financing of public sector imports. Deferred payment of imports may be negotiated with key import-sourcing countries such as China and India. By accessing concessional trade financing from suppliers of these countries, the public sector can reduce its import payment arising from public sector imports and improve the balance of payment situation, at least for the time being. At present, a USD 5.0 billion worth of deferred credit (in yuan) is being negotiated with China. Such opportunities need to be pursued proactively.

Strengthen loan negotiation capacity: In view of Bangladesh's transition to middle-income country and the emergent challenges, strengthening the negotiation capacities of concerned authorities, particularly that of the ERD, must be given topmost priority by Bangladesh's policymakers. Interactions

with multilateral and bilateral institutions, international financial markets, new sources of fundings and other forms of dealings will call for serious preparation. High-quality research and analysis and evidence-based forecasting must inform the work of concerned entities in this connection. Bangladesh's policy and decision-makers must be properly guided by involved officials, in an informed manner. Both the quality of borrowing and quality of investment will need to be considered while negotiating loans with partners. The lender selection process must be rigorous—which type of project calls for which type of loans from which type of development partners must be decided through well-designed, transparent and accountable processes.

Domestic human resources, expertise and analytical capacities to deal with external debt management issues, as also to assess the country's debt-carrying capacity, will need to be further strengthened in view of the anticipated challenges facing Bangladesh, now and in future.

The *Term Sheet Matrix* developed by the OECD which spells out various options (guidelines; terms and conditions; currency in which the loan should be incurred; and others) ought to be carefully studied and compared before going for negotiating particular loans and payment options.

Explore a diverse range of options: When a significant amount of borrowings is spent locally in BDT, Bangladesh can negotiate with the funding agencies to make the payment in BDT although the loan is mostly incurred in foreign currency (the first of its kind that was negotiated concerned the Dhaka-Ashulia expressway which is mostly funded by the EXIM Bank of China).

Bangladesh should continue exploring opportunities of borrowings in other than the present mostly USD-denominated loans. In going for Rupee or Yuan or Ruble-denominated borrowings, several options may be considered—integration of borrowings, local payments, underwriting of bilateral trade deficit and FDI flows. Such options may be explored with India, China and Russia. *Asian Clearing Union* (ACU) type of payment settlement with participation of countries trading in particular currencies may also be developed as alternative payment settlement mechanisms. To note, when Russia asked for servicing of the loan in Ruble, and Bangladesh expressed its inability, Bangladesh was asked to make the payment in Yuan! All these developments indicate that Bangladesh will need to diversify its forex reserves portfolio.

Bangladesh should actively explore accessing such loans as *Short-Term Maturity Loan* of the WB (no interest up to USD 0.5 billion; Grace period: 5 years, Maturity period: 7 years), Concessional Climate fund, IMF's Extended Credit Facility (no interest; Grace period: 5 years; Maturity period: 10 years) and Resilience and Sustainability Facility (Group. B/C with interest rate: 1-1.5 per cent; Grace period: 10 and half years; Maturity period: 20 years).

Get ready for the change in borrowing status: Bangladesh's middle-income graduation in 2015 (according to WB's GNI/Capita criterion) entails

that it has graduated from *IDA-only to Gap Country status* and to the current *Blend Country status*. The rate of interest and terms of borrowings are becoming increasingly stringent as it graduates from one status to the next. Bangladesh will likely come out of the *Blend Country status* to *IBRD only status* in near term future. This will entail (mostly) receiving only non-concessional and market-determined loans with minimum of 2.0 per cent annual interest plus front-end fees (and, sometimes, management fees).

Negotiating loans that are of non-concessional type must be pursued with due caution and care: ERD has developed a formula to calculate the present value of all loan repayments in the course of the grace and maturity periods. According to this formula, a threshold of more than 25.0 per cent is considered to be *non-concessional*. In incurring loans of this type, due caution must be exercised keeping in the purview the consequent debt servicing obligations. Where possible, concessional sources need to be explored for financing large scale projects.

Loans with components that include learning tours, unnecessary procurement, cash disbursement, etc. need to be carefully scrutinised and whenever possible and feasible such components should be excluded.

Interest rates and terms of loans should be carefully examined. Particularly loans with flexible interest rates (LIBOR/SOFR plus 1-2 per cent) must be carefully weighed to assess their possible future implications in terms of debt servicing obligations. Whether to go for fixed term or flexible term loans ought to be carefully weighed.

Loans with single-source procurement conditionalities ought to be carefully scrutinised to assess their implications, with a view to ensuring good value for money. If procurement can be made locally, then even more so.

A need for comprehensive PPG Data: There is a need for consolidated and reconciled data and information on outstanding external debt, debt servicing liabilities and debt-carrying capacity of Bangladesh. It is good that the Finance Ministry, Bangladesh Bank and the ERD produce periodic reports on debt status and debt-related data, including external borrowings. This may be further improved with more rigorous projections about future debt obligations and debt carrying capacity of Bangladesh. There are often considerable discrepancies in the external debt data provided by different agencies: ERD vs. Bangladesh Bank figures; Bangladesh Bank vs. IMF figures; ERD vs Budget figures. Loans incurred by various government entities that are underwritten by sovereign guarantee are also treated differently by different organisations. A standardised reporting system should be developed to provide a clear picture about Bangladesh's external debt scenario. Bangladesh Bank should provide detailed inflow and outflow balance sheet with regard to foreign borrowings as it does for purposes of trade transactions.

Final Remarks

The discussion in the preceding sections points out that while, till now, Bangladesh's PPG debt servicing track record has been impeccable, there is no room for complacency. In this backdrop, a number of disquieting developments of recent times were flagged in the course of the discussion. The report has argued that, consequently, Bangladesh's debt carrying capacity has weakened significantly in recent years. The rigorous quantitative exercise carried out by the authors corroborates this. The study offers several suggestions which Bangladesh's policymakers may consider in managing external PPG debt. The study cautions that if appropriate policies and measures are not pursued, Bangladesh could face debt-repayment challenges over near to medium term future. Bangladesh must do everything to avoid falling into debt distress, an emergent concern for many low-income and developing countries. It may be recalled in this connection that, IMF's conditions for the third tranche of USD 1.15 billion includes publication of *updated debt management strategy* in June 2024. Bangladesh should undertake this exercise in all due seriousness given its urgency and importance.

References

Abotebuno Akolgo, I. (2023). Ghana's debt crisis and the political economy of financial dependence in Africa: History repeating itself? *Development and Change*, 54(5), 1264–1295. <https://doi.org/10.1111/dech.12791>

Alam, N., & Taib, F. (2013). An Investigation of the Relationship of External Public Debt with Budget Deficit, Current Account Deficit, and Exchange Rate Depreciation in Debt Trap and Non-Debt Countries. *European Scientific Journal*, Vol 9(22).

Apere, T. O. (2014). The impact of public debt on private investment in Nigeria: Evidence from a nonlinear model. *International Journal of Research in Social Sciences*, 4, 130–138.

Aulia Rahman, Y., Rahmayani, D., & Hapsoro, B. (2023). Public debt sustainability in Indonesia after financial crisis and during COVID-19 pandemic. *International Journal of Sustainable Development and Planning*, 18, 229–235. <https://doi.org/10.18280/ijstdp.180124>

Awan, A., Asghar, D., & Rehman, H. (2011). The impact of exchange rate, fiscal deficit and terms of trade on external debt of Pakistan: A Cointegration and causality analysis. *Australian Journal of Business and Management Research*, 01, 10–24. <https://doi.org/10.52283/NSWRCA.AJBMR.20110103A02>

Awan, R., Anjum, A., & Rahim, S. (2015). An econometric analysis of determinants of external debt in Pakistan. *British Journal of Economics, Management & Trade*, 5(4), 382–391. <https://doi.org/10.9734/BJEMT/2015/8837>

Bangladesh Bank. (2023a). *Key External Debt Indicators of Bangladesh [Annual]*. <https://www.bb.org.bd/en/index.php/econdata/index>

Bangladesh Bank. (2023b). *Wage Earners' Remittance Inflows [Monthly]*. <https://www.bb.org.bd/econdata/provisionalwrem/premittances.pdf>

Bangladesh Bank. (2023c). *Monthly Economic Trends*. <https://www.bb.org.bd/en/index.php/publication/publicitn/3/10>

Bangladesh Bank. (2023d). *Foreign Exchange Reserve [Annual]*. <https://www.bb.org.bd/en/index.php/econdata/intreserve>

Behuria, A. K. (2018). How Sri Lanka walked into a debt trap, and the way out. *Strategic Analysis*, 42(2), 168–178. <https://doi.org/10.1080/09700161.2018.1439327>

Brautigam, D. (2020). A critical look at Chinese 'debt-trap diplomacy': The rise of a meme. *Area Development and Policy*, 5(1), 1–14. <https://doi.org/10.1080/23792949.2019.1689828>

Checherita-Westphal, 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), Article 7. <https://doi.org/10.1016/j.eurocorev.2012.06.007>

Cholifihani, M. (2008). A cointegration analysis of public debt service and GDP in Indonesia. *Journal of Management and Social Science*, 4(2). <http://ibtjbs.ilmauniversity.edu.pk/journal/jbs/4.2/1.%20A%20Cointegration%20Analysis%20of%20Public%20Debt%20Service%20and%20GDP%20in%20Indonesia.pdf>

Devlin, R., & Ffrench-Davis, R. (2023). The great Latin America debt crisis: A decade of asymmetric adjustment. *Brazilian Journal of Political Economy*, 15, 418–445. <https://doi.org/10.1590/0101-31571995-0838>

Ebi, B., & Imoke, D. (2017). Public debt carrying capacity and debt transmission channels: The Nigerian experience. *International Journal of Economics and Financial Issues*, 7, 41–52.

Economic Relations Division. (2023a). *Annual Report 2022-2023* [Annual]. https://erd.portal.gov.bd/sites/default/files/files/erd.portal.gov.bd/page/140d8a52_cc5e_46e2_aa87_687b38564bed/Annual%20Report%202022-23.pdf

Economic Relations Division. (2023b). *Debt Sustainability Indicator for Public Sector*. FABA and ICT Wing. [https://erd.gov.bd/sites/default/files/files/erd.portal.gov.bd/page/4888c15b_292b_4624_afac_b571c23bcfa8/2F%20\(7\).pdf](https://erd.gov.bd/sites/default/files/files/erd.portal.gov.bd/page/4888c15b_292b_4624_afac_b571c23bcfa8/2F%20(7).pdf)

Economic Relations Division. (2023c). *Flow of External Resources into Bangladesh 2022-2023* [Annual]. <https://erd.portal.gov.bd/site/page/f195ff23-24b1-4af4-8775-8e906a4a9cac>

Engle, R. F., & Granger, C. W. J. (1987). Co-integration and error correction: representation, estimation, and testing. *Econometrica*, 55(2), 251–276. <https://doi.org/10.2307/1913236>

Federal Reserve History. (2013). *Latin American Debt Crisis of the 1980s*. <https://www.federalreservehistory.org/essays/latin-american-debt-crisis>

Finance Division. (2023). *Quarterly Debt Bulletin* (Quarterly Report 7). Ministry of Finance. https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/157830c6_9eaa_4ce7_be70_72b67c0f06e5/7th%20Debt%20Bulletin_r.pdf

Global Rates. (2023). *Current and historical international rates*. Global-Rates.Com. <https://www.global-rates.com/en/>

Hakura, D. (2020). *Back to basics: What is debt sustainability?* IMF F&D. International Monetary Fund. <https://www.imf.org/en/Publications/fandd/issues/2020/09/what-is-debt-sustainability-basics>

International Development Association. (2019). *IDA19*. World Bank. <https://ida.worldbank.org/en/replenishments/ida19-replenishment>

International Development Association. (2021). *IDA20 Replenishment*. World Bank. <https://ida.worldbank.org/en/replenishments/ida20-replenishment>

International Monetary Fund, & World Bank. (2018). *Guidance note on the bank-fund debt sustainability framework for low income countries*. <https://www.imf.org>

org/en/Publications/Policy-Papers/Issues/2018/02/14/pp122617guidance-note-on-lic-dsf

International Monetary Fund. (2020). *Requests for disbursement under the rapid credit facility and purchase under the rapid financing instrument* (IMF Country Report 20/187). <https://www.imf.org/en/Publications/CR/Issues/2020/06/03/Bangladesh-Requests-for-Disbursement-under-the-Rapid-Credit-Facility-and-Purchase-under-the-49483>

International Monetary Fund. (2023). *Bangladesh: Requests for an extended arrangement under the extended fund facility, an arrangement under the extended credit facility, and an arrangement under the resilience and sustainability facility – World Bank assessment letter for the resilience and sustainability facility* [IMF Country Report]. <https://www.elibrary.imf.org/view/journals/002/2023/066/article-A002-en.xml>

Jiyad, A. M. (2001). An economy in a debt trap: Iraqi debt 1980-2020. *Arab Studies Quarterly*, 23(4), 15-58.

Johnston, J. (2013). *The multilateral debt trap in Jamaica*. CEPR. <https://www.files.ethz.ch/isn/165818/jamaica-debt-2013-06.pdf>

Ministry of Finance. (2013). *Medium term debt management strategy Bangladesh*. https://mof.portal.gov.bd/sites/default/files/files/mof.portal.gov.bd/page/a1ba0f11_4d9f_41f4_81a8_386f7f1530f4/Medium-Term%20Debt%20Management%20Strategy.pdf

Ministry of Finance. (2021). *Medium term debt management strategy Bangladesh*. https://spfms.portal.gov.bd/sites/default/files/files/spfms.portal.gov.bd/page/2d20e9eb_4c34_4367_bc88_d67186f1a7fb/2022-08-04-04-31-5f5a61dfb7c5b8c9a2bd9f150c8a509d.pdf

Ministry of Finance. (2023). *Bangladesh economic review 2023* [Annual Report]. <https://mof.portal.gov.bd/site/page/28ba57f5-59ff-4426-970a-bf014242179e/Bangladesh-Economic-Review>

Ministry of Finance. (2023). *Budget in brief 2023-24*. <https://mof.gov.bd/site/page/f9aab5cd-f644-47bb-bb94-a70cb64c15ce>

Ocampo, J. A. (2012). *The Latin American debt crisis in historical perspective*. International Economic Association Project. https://policydialogue.org/files/publications/papers/The_Latin_American_Debt_Crisis_in_Historical_Perspective_Jos_Antonio_Ocampo.pdf

Ouyang, A. Y., & Rajan, R. S. (2014). What determines external debt tipping points? *Journal of Macroeconomics*, 39(PA), 215-225.

Pinto, B. (2019). *The 2017 Version of the IMF and World Bank's LIC Debt Sustainability Framework: "Significant Overhaul" or Obsolete?* (SSRN Scholarly Paper 3364653). <https://doi.org/10.2139/ssrn.3364653>

Pyeman, J., Noor, N. H. H. M., Mohamad, W. M. F. W., & Yahya, A. A. (2016). Factors affecting external debt in Malaysia: An empirical investigation. In J. Pyeman, W. E. Wan Rashid, A. Hanif, S. J. A. N. Syed Mohamad, & P. L. Tan

(Eds.), *Proceedings of the 1st AAGBS International Conference on Business Management 2014* (AiCoBM 2014) (pp. 449–455). Springer. https://doi.org/10.1007/978-981-287-426-9_39

Rahman, M., & Farabi, Md. N. S. (2022). *Ensuring Good Governance in Implementation of Public Infrastructure Projects (PIPs)*. Centre for Policy Dialogue (CPD) and The Asia Foundation. <https://cpd.org.bd/publication/ensuring-good-governance-in-implementation-of-public-infrastructure-projects-pips-2/>

Saheed, Z. S., Sani, I. E., & Idakwoji, B. O. (2015). Impact of public external debt on exchange rate in Nigeria. *International Finance and Banking*, 2(1), 15. <https://doi.org/10.5296/ibf.v2i1.7734>

Saleh, A. S., & Harvie, C. (2005). An analysis of public sector deficits and debt in Lebanon: 1970–2000. *Middle East Review of International Affairs*, 9(4).

Saungweme, T., & Odhiambo, N. M. (2018). The dynamics of public debt in Zambia: A critical review. *Euro Economica*, 37(03), 41–54.

Sims, K. (2020). *Laos set its own debt trap*. East Asia Forum. <https://www.eastasiaforum.org/2020/10/31/laos-set-its-own-debt-trap/>

Tille, C. (2003). *The Impact of Exchange Rate Movements on U.S. Foreign Debt*. Federal Reserve Bank of New York. <https://www.newyorkfed.org/newsevents/news/research/2003/rp020205>

Trading Economics. (2023). *Bangladesh – Credit Rating*. <https://tradingeconomics.com/bangladesh/rating>

United Nations Development Programme. (2022). *The sovereign debt crisis in Sri Lanka: Causes, policy response and prospects*. <https://www.undp.org/publications/sovereign-debt-crisis-sri-lanka-causes-policy-response-and-prospects>

World Bank. (2016). *2016 IDA Resource Allocation Index (IRAI) Bangladesh [Annual]*. <https://thedocs.worldbank.org/en/doc/925101466795561854-0290022017/original/IDAIRAI2015BANGLADESH.pdf>

World Bank. (2021). *2021 IDA Resource Allocation Index (IRAI) Bangladesh*. <https://thedocs.worldbank.org/en/doc/a4d31a6fae73419458750a88a5874069-0290032022/original/CPIA2021-Bangladesh.pdf>

World Bank. (2022). *2022 IDA Resource Allocation Index (IRAI) Bangladesh [Annual]*. <https://thedocs.worldbank.org/en/doc/2fd90da9bcd831b96301d8bec28a286-0290032023/original/Bangladesh.pdf>

World Bank. (2023). *International debt report 2023*. <https://openknowledge.worldbank.org/entities/publication/02225002-395f-464a-8e13-2acfa05e8f0>

World Bank. (2023). *World Bank open data*. <https://data.worldbank.org>

World Economic Outlook. (2023). *World Economic Outlook Database*. IMF. <https://www.imf.org/en/Publications/WEO/weo-database/2023/October>

Annexes

Annex 1: Bangladesh's Top 15 Major Loans: Interest Rates and Terms

Loan Description	Sign.	Loan (mln. USD)	Disbursement (mln USD)	Rest Amount (mln USD)	Repaid	Inter./Serv. Charge rate (in percentage)	Grace / Repayment Period (Years)
Rooppur Nuclear Power Plant Loan No. Rooppur 2	26-Jul-16	11380.0 (Russia)	4998.8	6381.2	-	LIBOR+1.75	10/20
Indian Line of Credit Loan No. LOC-3	4-Oct-17	4500.0 (India)	215.2	4284.8	-	I: 1.00	5/15
Rail Link on Padma Bridge	27-Apr-18	2667.9 (China)	1569.2	1098.7	-	I: 2.00 SC: 0.25	5/15
Indian Line of Credit Loan No. LOC-2	9-Mar-16	2000.0 (India)	216.4	1783.6	-	I: 1.00	5/15
Construction of Dhaka-Ashulia Elevated Expressway 503	26-Oct-21	1127.0 (China)	0.0	1127.0	-	I: 2.00, SC: 0.25	5/15
Expansion and Strengthening of Power System Network Under DPDC Area 481	4-Jul-19	1021.8 (China)	0.0	1021.8	-	I: 3.00, SC: 0.25	5/15
Matarbari Ultra Super Critical Coal Fired Power Project(V), Loan No BD-P106	30-Jun-19	943.5 (Japan)	899.9	43.6	-	I: 0.9 FEF: 0.20	10/20

(Annex 1 contid.)

Bangladesh's External Public Borrowings and Debt Servicing Capacity

(Annex 1 cont'd.)

Loan Description	Sign.	Loan (mln. USD)	Disbursement (mln USD)	Rest Amount (mln USD)	Repaid	Inter./Serv. Charge rate (in percentage)	Grace / Repayment Period (Years)
Matarbari Ultra Super Critical Coal Fired Power Project, Loan No BD-P118	22-Nov-21	904.8 (Japan)	102.6	802.2	-	I: 0.65 FEF: 0.20	10/20
Dhaka Mass Rapid Transit Development Project (Line 5 Northern Route) (II), BD-P121	28-Jun-22	879.4 (Japan)	0.0	879.4	-	I: 0.70 FEF: 0.20	10/20
Indian Line of Credit Loan No. LOC-1	7-Aug-10	862.0 (Japan)	720.4	141.6	126.6	I: 1.00	5/15
Dhaka Mass Rapid Transit Development Project, Loan No- BD-P117	22-Nov-21	758.3 (Japan)	0.0	758.3	-	I: 0.65 FEF: 0.20	10/20
Power Grid Network Strengthening Project Under PGC 484	7-Jun-20	686.6 (China)	0.0	686.6	-	I: 3.00 SC: 0.25	5/15
Jamuna Railway Bridge Construction Project (II), Loan No BD-P110	12-Aug-20	586.8 (Japan)	127.7	459.1	-	I: 0.65 FEF: 0.20	10/20
Bangladesh Power System Enhancement And Efficiency Improvement Project, Loan No 3522-BAN	29-May-17	572.6 (ADB)	533.9	38.7	-	SOFRA+0.6%+ Adj% C: 0.15%	5/20

(Annex 1 cont'd.)

(Annex 1 contd.)

Loan Description	Sign.	Loan (mln. USD)	Disbursement (mln USD)	Rest Amount (mln USD)	Repaid	Inter./Serv. Charge rate (in percentage)	Grace/ Repayment Period (Years)
Hazrat Shahjalal International Airport Expansion Project (II), Loan No BD-P111	12-Aug-20	527.4 (Japan)	7.8	519.5	-	I: 0.65 FEF: 0.20	10/20
Top-15 Total External Debt 9319.9					Share of total external debt 16.9%		

Note: I=Interest Rate, SC= Service Charge, C=Commitment, SOFR= Secured Overnight Financing Rate, LIBOR= London Interbank Offered Rate, FEF= Federal Funds Effective Rate

Source: Authors' Ranking based on ERD, (2023).

Annex 2: Diagnostic Tests of the Independent DSA

ADF Unit Root Test on Residuals

	Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value
$z(t)$	-6.731	-6.648	-5.817	-5.413

Note: Test statistic is from the ADF test and critical values are from Engle-Granger cointegration test.

As the test statistic value is higher than the critical value at 1 per cent level, that means the residuals are stationary.

White-Noise Test on Residuals

Portmanteau (Q) statistics	26.6285
Prob > chi2	0.0862

The prob. Value is higher than 0.05. So, we cannot reject the null hypothesis. That means the residuals have white-noise process.

Normality Test on Residuals

Variable	Pr (Skewness)	Pr(Kurtosis)	Joint Test
Residuals	0.981	0.902	0.992

The p-value for all of the tests is higher than 0.05. So, we cannot reject the null hypothesis. That means the residuals are normally distributed.

Recent cross-country experience evince that debt issues are emerging, once again, as a major concern for many developing countries. Some of these countries are in debt distress while some others are in danger of falling into debt trap. Bangladesh's track record in terms of debt servicing has, till now, been impeccable. However, this study argues that, in going forward, Bangladesh's policymakers should exercise due caution in managing the country's external debt, particularly in dealing with issues of public and publicly guaranteed external debt. Based on the exercise to measure the country's debt carrying capacity, the study reasons that there are telltale signs of a weakening of Bangladesh's sovereign debt carrying capacity in recent times. The study identifies some of the key underlying factors contributing to the emerging trends in this backdrop. The study offers a number of suggestions to forestall the likelihood of debt distress, with a view to strengthening Bangladesh's debt carrying capacity and ensuring debt repayment sustainability.

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