WORLD BANK GROUP

January 2023

BANGLADESH

JOINT WORLD BANK-IMF DEBT SUSTAINABILITY ANALYSIS

Approved by:

Mathew Verghis and Marcello Estevão (IDA) and Anne-Marie Gulde-Wolf and Boileau Yeyinou Loko (IMF)

Prepared by the staff of the International Development Association (IDA) and the International Monetary Fund (IMF)

BANGLADESH: JOINT BANK-FUND DEBT SUSTAINABILITY ANALYSIS	
Risk of external debt distress	Low
Overall risk of debt distress	Low
Granularity in the risk rating	Tool not applicable
Application of judgment	Yes

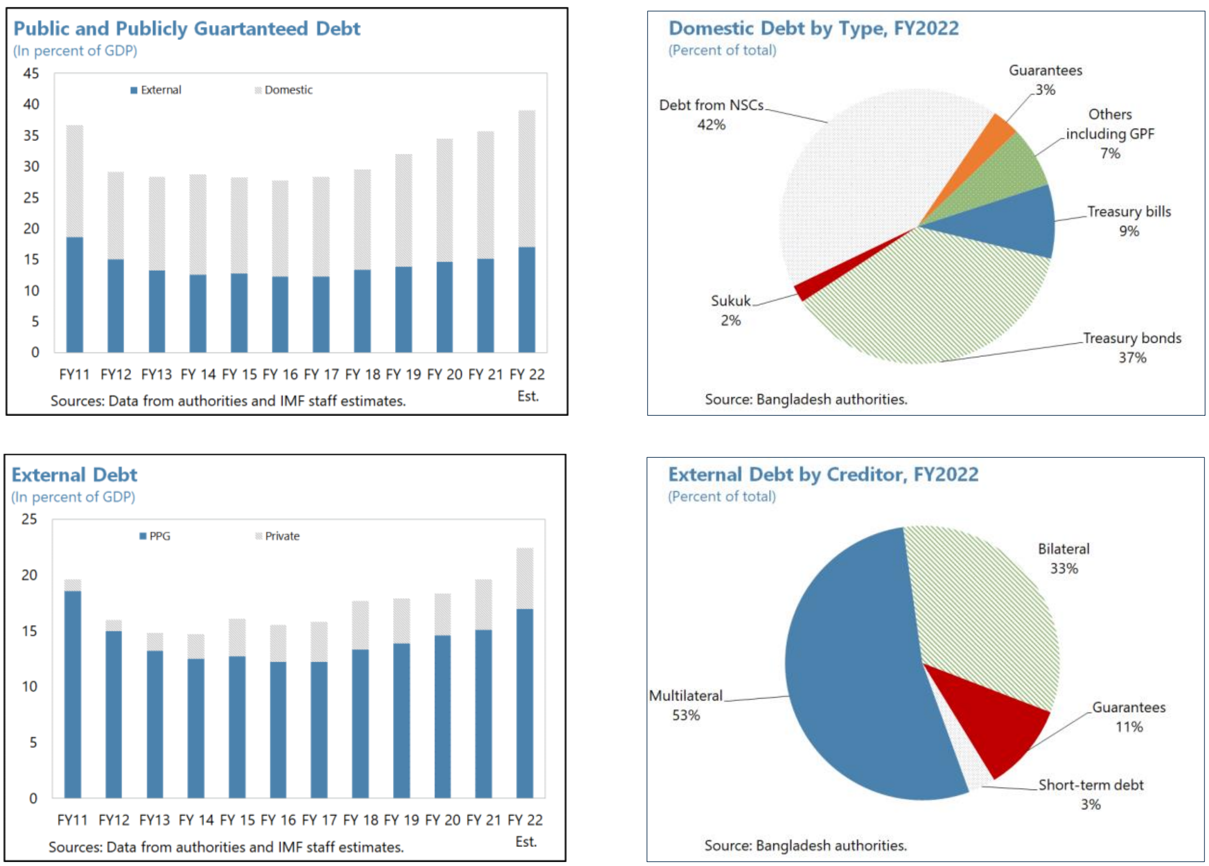
Bangladesh remains at a low risk of external and overall debt distress. Bangladesh's debt-carrying capacity is unchanged from the previous debt sustainability analysis (DSA).[1] External and overall debt indicators are below their respective thresholds under the baseline. Under a standard stress test, one threshold of external debt sustainability indicator is breached. This short duration breach of low magnitude is discounted via judgement. Growth is projected to be slower in FY23, compared to the previous DSA projection, but is expected to exceed the previous growth path in the medium to long term, supported by additional external financing and accelerated reform agenda under the IMF program and programs by development partners, including the World Bank. Despite higher external borrowing in the near-term, favorable debt dynamics in the medium term keep the public and publicly guaranteed (PPG) external debt-to-GDP ratio on a declining path, and the overall public debt-to-GDP ratio stabilizes at a similar level, compared to the previous DSA. Risks are tilted to the downside and include intensifying spillovers from Russia's invasion of Ukraine, rising commodity prices, slowdown in major export destinations, elevated NPLs, and prospective losses from natural disasters.

[1] Bangladesh's Composite Index is estimated at 2.88 and is based on October 2022 WEO update and 2021 WB CPIA. The debt carrying capacity remains medium.

BACKGROUND AND DEVELOPMENTS ON DEBT

1. **Total public and publicly guaranteed debt in Bangladesh stood at about US$166.1 billion in FY22, around 39 percent of GDP** (Text Table 1 and Text Chart 1).[2] The majority of public debt over the last decade is domestic and denominated in local currency. In FY22, domestic debt was about 56.5 percent of PPG debt stock.[3] Domestic debt service payments amounted to US$31.9 billion in FY22 (7.5 percent of GDP). External debt service payments in FY22 comprised the payments to multilateral creditor of US$ 1.5 billion (0.4 percent of GDP) and bilateral creditor of US$ 0.6 billion (around 0.1 percent of GDP). Of which, debt service payments to Paris Club and non-Paris Club creditors amounted to US$0.26 billion and US$0.28 billion, respectively.

Text Chart 1. Bangladesh: External and Domestic Debt By Type



[2] Fiscal year in Bangladesh starts in July and ends in June.

[3] These statistics reflect the rebased national accounts (base year 2015/16). In November 2021, the Bangladesh Bureau of Statistics (BBS) released a rebased series of national accounts (base year 2015/16). The rebasing has led to an increase in GDP levels and a slight decline in GDP growth rates, partly reflecting wider coverage of economic activities and methodological changes. See Annex IV of the staff report for a request for the extended credit facility (ECF), extended fund facility (EFF), and resilience and sustainability facility (RSF) arrangements.

Text Table 1. Bangladesh: Decomposition of Public Debt, FY22

	Debt Stock (end of period)		
	(In million of US$)	(Percent total debt)	(Percent GDP)
Total	166,127	100.0	39.0
External	72,288	43.5	17.0
Public external	65,482	39.4	15.4
Medium-to-long term	63,386	38.2	14.9
Multilateral creditors[2]	34,904	21.0	8.2
IMF	984	0.6	0.2
World Bank	18,164	10.9	4.3
ADB	13,277	8.0	3.1
Other Multilaterals	2,479	1.5	0.6
o/w: AIIB	808	0.5	0.2
o/w: IFAD	503	0.3	0.1
Bilateral creditors	21,675	13.0	5.1
Paris Club	15,514	9.3	3.6
o/w: Japan	9,213	5.5	2.2
o/w: Russia	5,092	3.1	1.2
Non-Paris Club	6,161	3.7	1.4
o/w: China	4,761	2.9	1.1
o/w: India	1,025	0.6	0.2
Short-term	2,096	1.3	0.5
Publically guaranteed	6,807	4.1	1.6
Domestic	93,839	56.5	22.1
Treasury bills	8,242	5.0	1.9
Treasury bonds	34,736	20.9	8.2
Sukuk	1,926	1.2	0.5
Debt from NSCs	39,119	23.5	9.2
Guarantees	3,103	1.9	0.7
Others including GPF	6,714	4.0	1.6
Memo items:			
Collateralized debt [3]	0	0	0
Contingent liabilities	9,909	6.0	2.3
o/w: Public guarantees	9,909	6.0	2.3
o/w: Other explicit contingent liabilities[4]	0	0	0
Nominal GDP[5]	425,518	…	…

1/As reported by Bangladesh authorities according to their classification of creditors.

2/ Multilateral creditors are simply institutions with more than one official shareholder and may not necessarily align with creditor classification under other IMF policies (e.g. Lending Into Arrears)

3/ Debt is collateralized when the creditor has rights over an asset or revenue stream that would allow it, if the borrower defaults on its payment obligations, to rely on the asset or revenue stream to secure repayment of the debt. Collateralization entails a borrower granting liens over specific existing assets or future receivables to a lender as security against repayment of the loan. Collateral is "unrelated" when it has no relationship to a project financed by the loan. An example would be borrowing to finance the budget deficit, collateralized by oil revenue receipts. See the joint IMF-World Bank note for the G20 "Collateralized Transactions: Key Considerations for Public Lenders and Borrowers" for a discussion of issues raised by collateral.

4/ Includes other-one off guarantees not included in publicly guaranteed debt (e.g. credit lines) and other explicit contingent liabilities not elsewhere classified (e.g. potential legal claims, payments resulting from PPP arrangements).

5/ Nominal GDP reported in this table is based on end of the period exchange rate, 93.45 Taka per dollar.

2. About half of the outstanding domestic debt is composed of National Saving Certificates (NSCs). NSCs stifle the development of a domestic bond market as they provide a yield of around 10 percent for the majority of the NSC instruments, whereas government bonds of similar maturities provide a yield around 7 percent.[4] Continued reforms to align NSC interest rates to market-determined rates, together with phasing out the interest rate caps, would help debt dynamics by lowering the cost of domestic borrowing, improving monetary policy transmission and deepening domestic debt markets.[5]

Text Table 2: Bangladesh: Selected NSCs Interest Rates

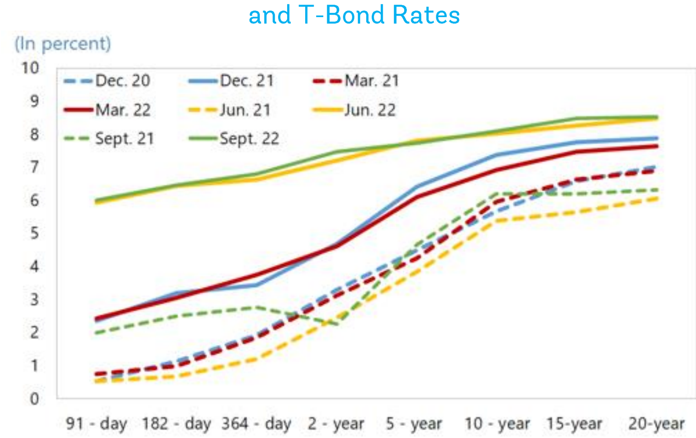
(in percent)	5 - year	3- month	Family	Pensioners'
Old Rate	11.28	11.04	11.52	11.76
Less than or equal to Tk 1.5 million	11.28	11.04	11.52	11.76
More than Tk 1.5 and up to or equal Tk 3 million	10.30	10.00	10.50	10.75
More than Tk 3 million	9.30	9.00	9.50	9.75

Source: Ministry of Finance

3. A shariah-compliant domestic investment instrument, 'Ijarah Sukuk', was launched for the first time in December 2020. In April 2022, the government launched 'Istisna Sukuk' bonds to finance a rural infrastructure development project. With this latest tranche of Tk. 50 billion, the total Sukuk bond issuance has reached at Tk. 180 billion. The authorities are planning to continue issuing these Sukuk bonds.

4. The yields on government securities have risen since March 2022. Tight financial conditions, including from policy rate hikes and unsterilized FX sales that followed a sharp depreciation of the Taka, led to a sharp increase in yields on government securities. Reflecting the interest rate caps, an increase in interest rates at the short end of the yield curve outpaced the long end (Text Chart 2). Net domestic borrowing of the central government increased by 41.8 percent in Q1 of FY23, compared to the same period in FY22, primarily stemming from higher net borrowing from banks. Meanwhile, net borrowing from non-bank declined by 62 percent, with the sales of NSCs declining by 19 percent.

Text Chart 2. Bangladesh Government T-Bill and T-Bond Rates



Source: Bangladesh Bank

[4] NSCs were introduced in the subcontinent in 1944 by the National Savings Institute of the Ministry of Finance of India. The intent was to promote savings among the population and finance the government's budget deficit. Currently, the Department of National Savings under the Bangladesh Ministry of Finance issues NSCs.

[5] Effective FY20, the authorities digitized the issuance of NSCs and linked it to the purchasers' tax identification number to enforce the existing cap on their issuance and increased the tax on interest income from 5 to 10 percent. This resulted in a decline in NSC issuance in FY20 by around 70 percent compared to FY19. NSC issuance in FY21 rebounded driven by the exceptional remittance inflows and the increase in the spread between the deposit rate and the NSC rate.

5. **External PPG debt stood at US$72.3 billion in FY22, around 17 percent of GDP.** External PPG debt is predominantly owed by the central government to multilateral and bilateral creditors, at about 48 percent and 30 percent of outstanding external PPG debt respectively, with the rest being short-term and guaranteed SOE debt. External medium- and long-term (MLT) PPG debt, mostly concessional, has helped finance infrastructure projects and is expected to jump in FY23 due to large Taka depreciation, before gradually declining to around 14.1 percent of GDP by FY33 and 8.6 percent of GDP by FY43.[6] This decline is mainly driven by a gradual reduction in concessional financing beyond FY26, while financing from bilateral donors is expected to continue to increase, partially offsetting the lower concessional financing. Private sector debt has increased to around 5.4 percent of GDP in FY22, primarily driven by an increase in short term trade credit and cross-border interbank lending to cope with rising FX demand for rising import bills.[7] Overall public debt-to-GDP (39 percent in FY22) is expected to increase moderately to around 42.1 percent by FY33.

DEBT COVERAGE

6. **Debt coverage used for the analysis appropriately captures Bangladesh's debt vulnerabilities.[8]** The DSA covers the full stock of public debt issued by the central government, as well as debt issued by SOEs and guaranteed by the central government. IMF budget support is included in the public debt, which is provided to the Bangladesh Bank (BB) and then on lent to the central government. Local governments are not allowed to borrow and are excluded from the analysis. The authorities are working to standardize the reporting of SOE debt to cover non-guaranteed debt. This DSA is prepared on a currency basis as data are not available for the residency basis. The difference between the two definitions should not materially affect the assessment.

MACROECONOMIC AND FINANCING ASSUMPTIONS

7. **The macroeconomic assumptions underlying this DSA are as follows** (Text Table 3):

- **Growth and inflation.** Russia's invasion of Ukraine interrupted the robust recovery from the pandemic. High global commodity prices and associated elevated inflation, slowdown in external demand, and policies to compress domestic demand suggest a subdued near-term growth outlook, compared to the previous DSA. Real GDP growth is projected to pick up to 6.5 percent in FY24. Inflation has risen above 9 percent in the first half of FY23, driven by domestic fuel price hike, pass-through from large Taka depreciations and elevated global commodity prices, and is expected to gradually decline to 8.1 percent at the end of FY23 (with average FY23 inflation of 8.9 percent). Inflation is expected to further moderate over the medium and long term, staying

[6] The large increase in this debt in FY23 is due to large Taka depreciations (around 21 percent by December 2022).

[7] Trade credits include the difference between the customs record and the actual transaction record, which are settled in the short term.

[8] Based on the authorities' data, non-guaranteed SOE debt (outside debt coverage) is assessed to be lower than 2 percent of GDP (informing the calibrations of the contingent liability shock) and does not represent a fiscal risk based on the information available.

anchored around 5.5 percent. External debt dynamics under the baseline are favorable under a projected medium to long term growth rate of around 6.5-7 percent and an effective nominal

Text Table 3. Bangladesh: Debt Coverage

	Subsectors of the public sector	Sub-sectors covered
1	Central government	X
2	State and local government	
3	Other elements in the general government	
4	o/w: Social security fund	
5	o/w: Extra budgetary funds (EBFs)	
6	Guarantees (to other entities in the public and private sector, including to SOEs)	X
7	Central bank (borrowed on behalf of the government)	X
8	Non-guaranteed SOE debt	

1	The country's coverage of public debt	The central government, central bank, government-guaranteed debt	
		Default	Used for the analysis
2	Other elements of the general government not captured in 1.	0 percent of GDP	0.0
3	SoE's debt (guaranteed and not guaranteed by the government) 1/	2 percent of GDP	2.0
4	PPP	35 percent of PPP stock	0.0
5	Financial market (the default value of 5 percent of GDP is the minimum value)	5 percent of GDP	5.0
	Total (2+3+4+5) (in percent of GDP)		7.0

1/ The default shock of 2% of GDP will be triggered for countries whose government-guaranteed debt is not fully captured under the country's public debt definition (1.). If it is already included in the government debt (1.) and risks associated with SoE's debt not guaranteed by the government is assessed to be negligible, a country team may reduce this to 0%.

interest rate of new external borrowing around 4.0 percent. An increase in interest payments in FY23 reflects the recent increase in benchmark interest rates (LIBOR and SOFR). In the long run, investment and productivity enhancements are assumed to play a critical role in driving growth. Exports as a share of GDP is assumed to moderate due to the impact of LDC graduation keeping growth in the long term lower than in the medium term. Downside risks to growth could arise from larger spillovers from Russia's invasion of Ukraine, including elevated global commodity prices, slowdown in major trading partners, slow implementation of macro critical structural reforms to boost productivity and exports, large currency depreciation with rising debt servicing costs without matching increases in domestic revenues, and elevated non-performing loans (NPLs).

- **Fiscal policy.** The primary fiscal balance is projected to be weaker over the medium term than in the previous DSA. The primary fiscal deficit is projected to peak at 3.8 percent of GDP in FY23—due to an increase in subsidy expenses owing to higher commodity prices— before declining to 3.3 percent of GDP between FY24 and FY26. The authorities are committed to maintaining an overall fiscal deficit broadly within 5 percent of GDP. Under the IMF program, stepped up efforts to mobilize fiscal revenues are expected to raise the revenue-to-GDP ratio by 1.5 percentage points by FY26. The additional revenues could support increasing much-needed expenditure on social, development, and climate projects.[9]

[9] Macro-fiscal assumptions under the baseline scenario for the DSA include the authorities' climate spending of around 0.6-0.7 percent of GDP in line with historical spending profile, as well as additional climate investment of 0.3-0.8 percent of GDP annually supported by RSF and other financing catalyzed through development partners. The RSF disbursements would help reduce the present value of debt and debt servicing burdens by substituting for more expensive domestic debt. The authorities

- **Current account (CA) dynamics.** The CA deficit widened substantially in FY22, due to worsening terms of trade and a strong rebound in imports. Remittance inflows, as expected, declined by 15 percent (y/y) in FY22 and reverted to pre-pandemic levels. This decline partly reflects a shift back to the use of informal channel as COVID-related travel restrictions were relaxed. The 2 percent incentive scheme introduced by the authorities in July 2019, to attract remittances through formal channels, was further increased to 2.5 percent in January 2022. A surge in import demand—reflecting strong domestic demand and export-related imports and rising global commodity prices, accompanied by declining remittance inflows, has exerted significant pressures on the Taka and FX reserves. To ease such pressures, a wide range of measures have been taken to reduce imports and compress domestic demand. Specifically, BB gradually tightened the minimum requirement of cash margin for payment by bank deposits on selected non-essential imports.[10] As a result, the CA deficit is expected to contract to around 3.2 percent of GDP in FY23. From FY24 onwards, the CA deficit is expected to increase, as external financing under an IMF program ease the financing constraints, thus helping normalize imports. In the medium to long term, the CA deficit is expected to gradually decline to around 2.5 percent of GDP, as non-RMG exports gain market share, due to structural reforms, trade facilitation, infrastructure development, and skill enhancement, as well as continued contributions from remittances.

- **Financing assumptions.** Gross public financing need is projected to stabilize around 10 percent of GDP by FY33. Reserves will be boosted by additional disbursements under an IMF program, as well as from the World Bank and other development partners.[11] Reserve coverage is expected to stabilize around 4 months of prospective import coverage by FY26. Compared to the previous DSA, the concessionality of debt is expected to increase in the short run reflecting additional disbursements. However, they are projected to decline over the medium term, as Bangladesh graduates from the LDC status and income levels rise. Despite higher external borrowing in the near-term, the current DSA projects shift to domestic financing in the long-term. Multilateral donor financing is projected to contribute to around 60 percent of total external financing in the near term, and gradually decline to 45 percent by FY43, at an interest rate of around 2 percent. The remainder of the external financing is assumed to come from bilateral donors, with an interest rate of around 2 percent. Cost of domestic debt is assumed to vary from 3½ percent for T-bills, 7 percent for domestic debt with maturity of 1–3 year, 9 percent for domestic debt with maturity above 3 years and up to 7 years, and 10.5 percent for domestic debt with maturity above 7 years. The cost of domestic debt for 1 year and above is higher than the corresponding T-bond rates, reflecting the reliance on NSC financing with above-market interest rates. The debt is assumed to be skewed toward T-bonds, with the share of T-bonds issuance with 4-year and above maturity increasing from 50 percent in the medium-term to 75 percent by FY43. The assumptions on the share are slightly more skewed towards long-term debt than the previous DSA, and interest rates are

---

do not intend to undertake additional climate-related spending, beyond what is already included in the baseline DSA, that would jeopardize risks to public and publicly guaranteed debt sustainability.

[10] The authorities' preliminary estimates suggest these restrictions apply to about 10 percent of total imports.

[11] As noted in the previous DSA, the recent SDR allocation of US$1.457 billion (0.4 percent of GDP) was used to bolster the reserves.

expected to be lower as the reliance on NSC issuance decreases, domestic bond market develops and monetary policy reforms take hold.[12]

8. Unexpected changes to debt have been small (Figures 3 and 4). Historically, PPG external debt has been driven by favorable growth and a positive CA balance. The historical residual is high due to infrastructure related increases in external debt occurring at the same time that growth was strong and the CA was in surplus. Looking forward, the residual declines due to a slowdown in short-term flows.

Text Table 4. Bangladesh: Macroeconomic Assumptions [1/]

	FY21	FY22	FY23	FY24	FY25	FY26	FY27
		Est.			Proj.		
Real GDP growth							
Current DSA	6.9	7.2	5.5	6.5	7.1	7.3	7.4
Previous DSA	5.0	6.6	7.1	7.2	7.2	7.1	6.9
Inflation							
Current	5.6	6.1	8.9	6.5	5.6	5.5	5.5
Previous DSA	5.6	5.9	5.8	5.6	5.5	5.5	5.5
Primary fiscal balance (in percent of GDP) 2/							
Current	-1.6	-2.1	-3.8	-3.3	-3.3	-3.3	-3.3
Previous DSA	-3.5	-1.9	-3.6	-3.0	-2.7	-2.3	-2.2
Current account deficit (in percent of GDP)							
Current	-1.1	-4.1	-3.2	-4.2	-3.5	-3.0	-3.0
Previous DSA	-1.7	-1.3	-2.4	-2.6	-2.5	-2.5	-2.5

1/ Previous DSA refers to the 2022 Joint DSA published in March 2022.

2/ Primary fiscal balance includes the grants. The difference in historical data are caused by GDP rebasing.

9. Realism tools suggest that the macroeconomic projections are consistent with the experience of LICs (Figure 4). The 3-year adjustment in the primary balance is below the median of the sample of 3-year fiscal adjustments for LICs since 1990 that were under an IMF supported program. The growth projections are explained only partially by the fiscal multiplier applied to the fiscal deficit, especially in FY23. This suggests that growth is determined also by other factors such as temporary domestic demand management to reduce imports and domestic energy consumptions. There is high uncertainty of long-term growth projections and, consequently the real GDP growth could be in the range of 6.5 to 7 percent.[13] Public and private investment plans are above historical projections in nominal values, but less in percent of GDP due to higher GDP following the rebasing exercise.

COUNTRY CLASSIFICATION AND DETERMINATION OF SCENARIO STRESS TESTS

10. The debt carrying capacity measure by the Composite Index (CI) for Bangladesh remains medium, based on the October 2022 IMF's World Economic Outlook (WEO) and the 2021 World

[12] For external debt, the credit terms for IDA borrowing has changed to IDA Blend, from IDA Regular in the previous DSA, reflecting the change in Bangladesh's status to Gap.

[13] Additional analysis suggests that long-term growth at the lower-end of 6.5 percent does not change external and overall debt risk ratings.

Bank's Country Policy and Institutional Assessment (CPIA). The CI is based on a weighted average of several factors such as the country's real GDP growth, remittances, international reserves, world growth, and the World Bank CPIA score. The CI is calculated for the last two WEO vintages, in this case the April 2022 and October 2021 WEO, and uses 10-year averages of the variables, with 5 years of historical data and 5 years of projections. The threshold for a medium classification is a CI score above 2.69 and below 3.05. The threshold for the overall debt carrying is 55 percent of GDP. The threshold for the PV of external debt-to-GDP ratio is 40 percent (Text Table 5).

Text Table 5. Bangladesh: Country Classification

Final	Classification based on current vintage	Classification based on the previous vintage	Classification based on the two previous vintage
Medium	Medium 2.88	Medium 2.93	Medium 2.94

Applicable thresholds

APPLICABLE	
EXTERNAL debt burden thresholds	
PV of debt in % of	
Exports	180
GDP	40
Debt service in % of	
Exports	15
Revenue	18

APPLICABLE	
TOTAL public debt benchmark	
PV of total public debt in percent of GDP	55

11. **The calibration of stress tests is broadly similar to the previous DSA.** The calibrations of the contingent liability shock is based on the default values for the SOE debt (2 percent of GDP) and financial market component (5 percent of GDP) since they are sufficient to represent potential fiscal risks. A natural disaster stress test was also applied, calibrated at the default setting of a one-time 10 percent of GDP shock to the external debt-to-GDP ratio[14]. The default setting to calibrate for the export shock could exaggerate the adverse impact, as the standard deviation (SD) of export growth over the past 10 years is much higher at 12½ due to the large fluctuation of exports under a series of external shocks since the pandemic, in contrast to the SD of 4½ over 2012–2019.

[14] A World Bank (2016) study, Bangladesh: Building Resilience to Climate Change, estimated that that with a per capita GDP of about US$1,220, the economic losses in Bangladesh over the past 40 years were an about $12 billion, depressing GDP annually by 0.5 to 1 percent.

EXTERNAL DEBT SUSTAINABILITY

12. All external debt indicators remain below their respective thresholds under the baseline (Figure 1). External PPG debt-to-GDP ratio are expected to settle at around 8.6 percent by FY43. The most extreme shock to the PV of external PPG debt-to-GDP ratio is a one-time depreciation shock. Due to large Taka depreciation in FY23 (around 21 percent year to date), the PVs of debt-to-exports and debt service-to-exports ratios are at a higher level in FY23 compared to the previous DSA. The PV of debt-to-exports breaches the threshold under the most extreme shock, an export shock. However, this temporary two-year breach (starting in 2025) of low magnitude is discounted via judgement, in which the breach is driven by large export fluctuations during the pandemic and the post-pandemic recovery periods.[15] Both debt service-to-exports and debt service-to-revenue ratios are on a declining trend and remain under the threshold under the most extreme shock of an export shock and a one-time depreciation shock respectively. Nevertheless, given the low share of external debt in financing mix, the projected increase in total debt service-to-revenue ratio could raise external debt rollover risks.

PUBLIC DEBT SUSTAINABILITY

13. Overall public debt indicators suggest a low overall risk of debt distress (Figure 2). The PV of total public debt-to-GDP (higher compared to the previous DSA) is below its indicative threshold. The largest shock to this indicator is the natural disaster shock. The shock is kept at default calibrations and is equivalent to a one-time 10 percent of GDP shock. Indicators in percent of revenues are on a rising trend, with debt service-to-revenue ratio increasing from 48.2 percent in FY23 to 65.8 percent in FY33, thus further highlighting the importance of raising the revenue-to-GDP ratio. Increasing the revenue-to-GDP ratio beyond the program period will be critical in providing non-debt financing to growth-enhancing and climate-resilient infrastructure projects. Reforms to improve investment climate remain crucial for attracting FDI.

ASSESSMENT

14. Bangladesh has a low risk of external and overall debt distress. All but one external debt indicators are below their corresponding thresholds under the most extreme shock, despite an initial increase due to large Taka depreciation in FY22 and FY23. The PV of debt-to-exports breaches the threshold under the most extreme shock to exports. However, a short-lived and small breach, as well as favorable debt dynamics with declining external debt-to-GDP ratio path, supports the use of judgment and deviation from mechanical rating. The PV of overall public debt-to-GDP is also below its indicative threshold and is projected to gradually increase to around 42.1 percent of GDP in the long term (FY33), reflecting increasing reliance on less concessional local financing. The increasing debt service to revenue ratio highlights the urgency of mobilizing tax revenue to support much-needed spending to achieve pro-poor,

---

[15] Specifically, the breach is driven by how the sharp rebound in exports in FY22 affect standard deviation of export growth. Sensitivity analyses, with different standard deviations of export growth (i.e. standard deviation excluding just FY22 or the post-pandemic period or both pandemic and post-pandemic periods), confirm that the PV of debt-to-exports remain below the threshold under an export shock.

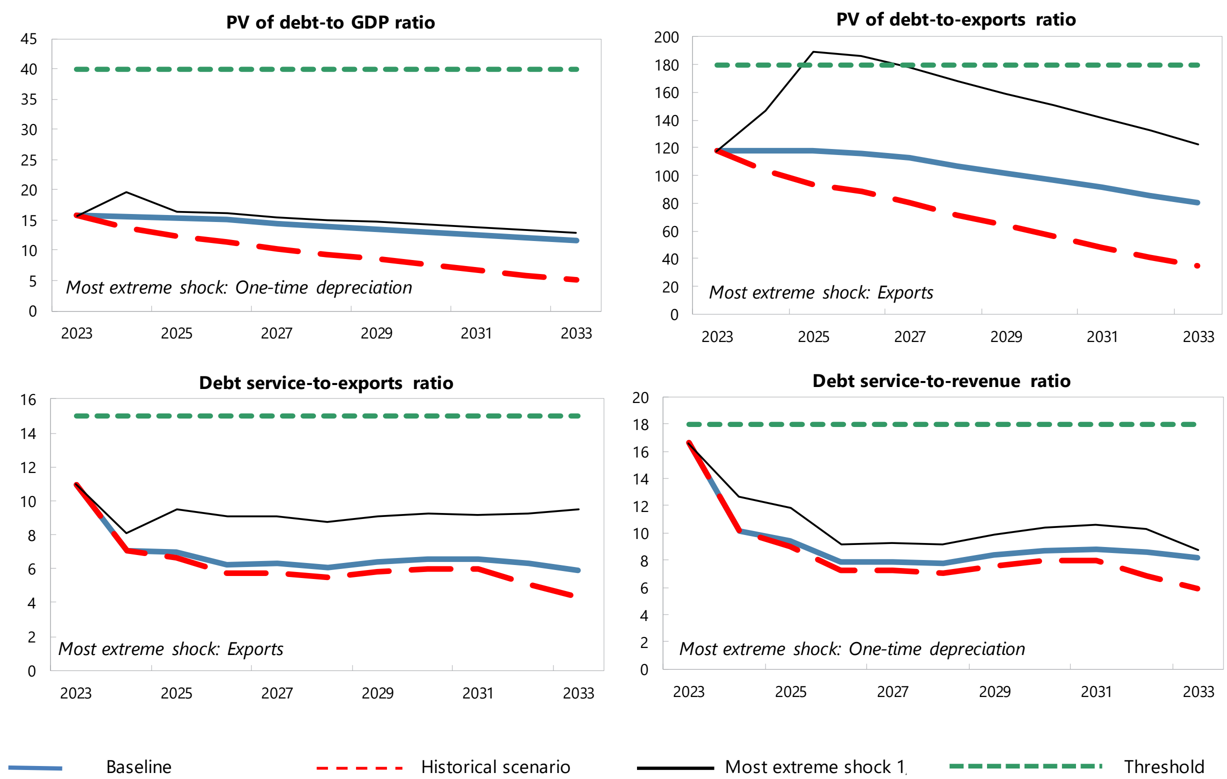
green growth recovery. Development of domestic debt and capital markets is an important component of the IMF program. Reforms to attract FDI, increase domestic revenue mobilization, enhance public investment management, build institutional capacity for public private partnerships, strengthen the financial sector including addressing banking sector vulnerabilities, and develop local capital market, and improve debt management remain essential to support much needed capital investments to support long-term growth. Improving investment climate to attract FDIs and promote investment remains high priority for boosting potential growth. Currently, multiple IDA projects are supporting adaptive delta management and climate resilience building [16]. RSF financing under the IMF program would also help finance priorities identified in the Bangladesh Delta Plan (BDP2100) and the National Adaptation Plan (NAP), crowd in other financing, substitute for more expensive domestic financing, improve public debt dynamics, and reduce BoP pressures from import-intensive climate investment.

AUTHORITIES' VIEWS

15. The authorities agreed that the risk of external debt distress and overall risk of debt distress remain low. They remained cautious about contracting external debt, especially commercial debt, and reiterated that there are no plans to issue Eurobonds. They acknowledged that access to concessional financing will gradually decline, as they proceed toward upper middle-income status. The authorities reiterated their concern about lowering of the debt carrying capacity in the previous DSA mostly due to the change in CPIA score. They noted that, while the public debt includes guaranteed debt held by the SOEs, the analysis does not consider the revenues generated by those entities. The authorities noted that they have published the updated Medium-Term Debt Strategy in FY22. They underscored that several reforms underway, including domestic revenue mobilization, public financial management, and public debt management, will help improve the debt dynamic and ensure fiscal and debt sustainability.

[16] See, Bangladesh Country Climate and Development Report, for details. World Bank Group. 2022. Bangladesh Country Climate and Development Report. CCDR Series;. World Bank Group, Washington, DC. © World Bank Group. https://openknowledge.worldbank.org/handle/10986/38181 License: CC BY-NC-ND.

Figure 1. Bangladesh: Indicators of Public and Publicly Guaranteed External Debt, FY23-FY33[1/]
(In percent, unless otherwise mentioned)



Customization of Default Settings		
	Size	Interactions
Tailored Stress		
Combined CL	No	
Natural disaster	No	No
Commodity price	n.a.	n.a.
Market financing	n.a.	n.a.

Note: "Yes" indicates any change to the size or interactions of the default settings for the stress tests. "n.a." indicates that the stress test does not apply.

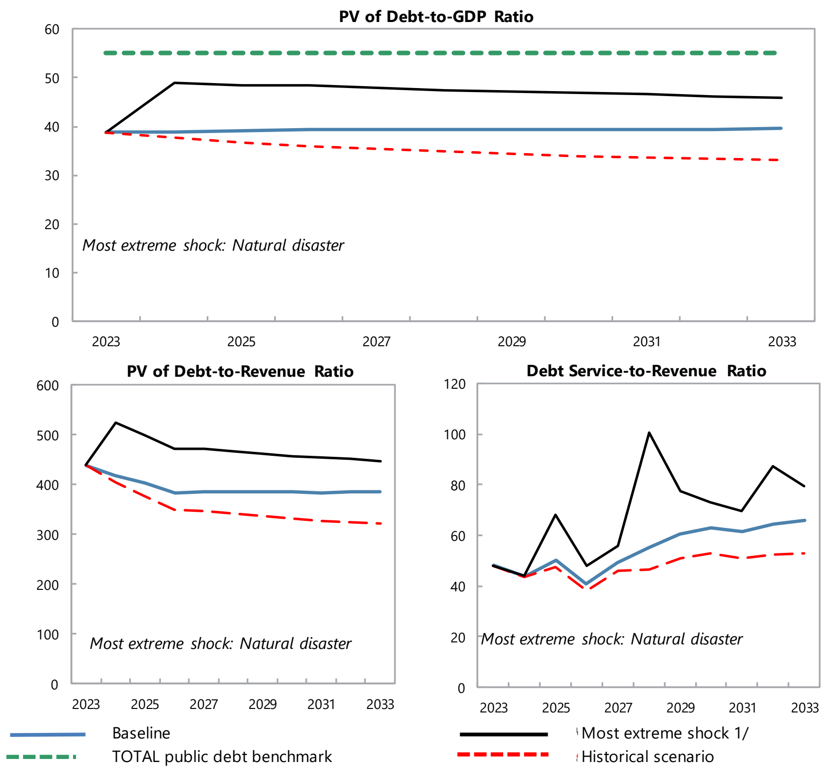
Borrowing assumptions on additional financing needs resulting from the stress tests*		
	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	1.9%	1.9%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	21	21
Avg. grace period	7	7

* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2033. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.
department.

Figure 2. Bangladesh: Indicators of Public Debt, FY23-FY33[1/]
(In percent)



Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	23%	23%
Domestic medium and long-term	63%	63%
Domestic short-term	13%	13%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	1.9%	1.9%
Avg. maturity (incl. grace period)	21	21
Avg. grace period	7	7
Domestic MLT debt		
Avg. real interest rate on new borrowing	2.2%	2.2%
Avg. maturity (incl. grace period)	4	4
Avg. grace period	3	3
Domestic short-term debt		
Avg. real interest rate	-1.6%	-1.6%

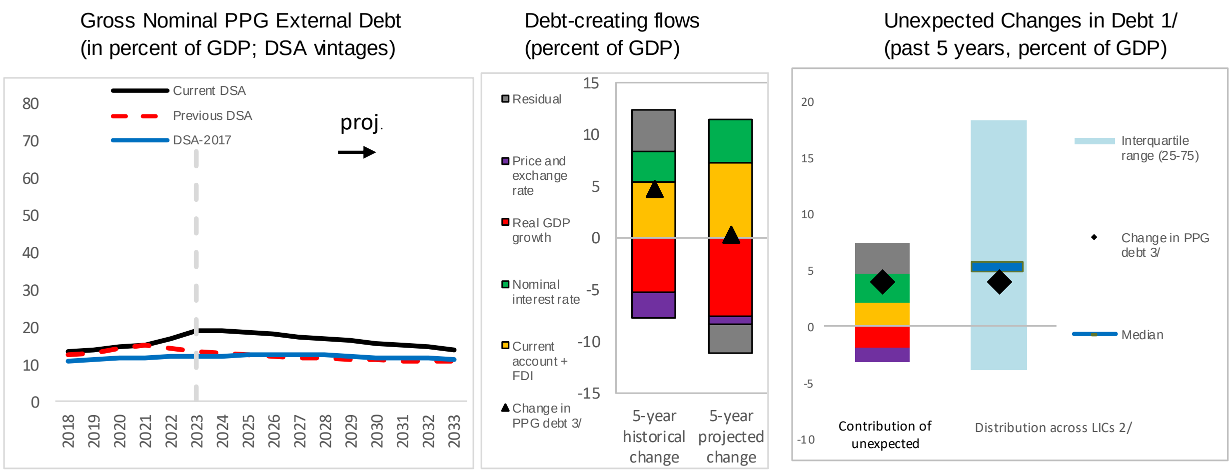
* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

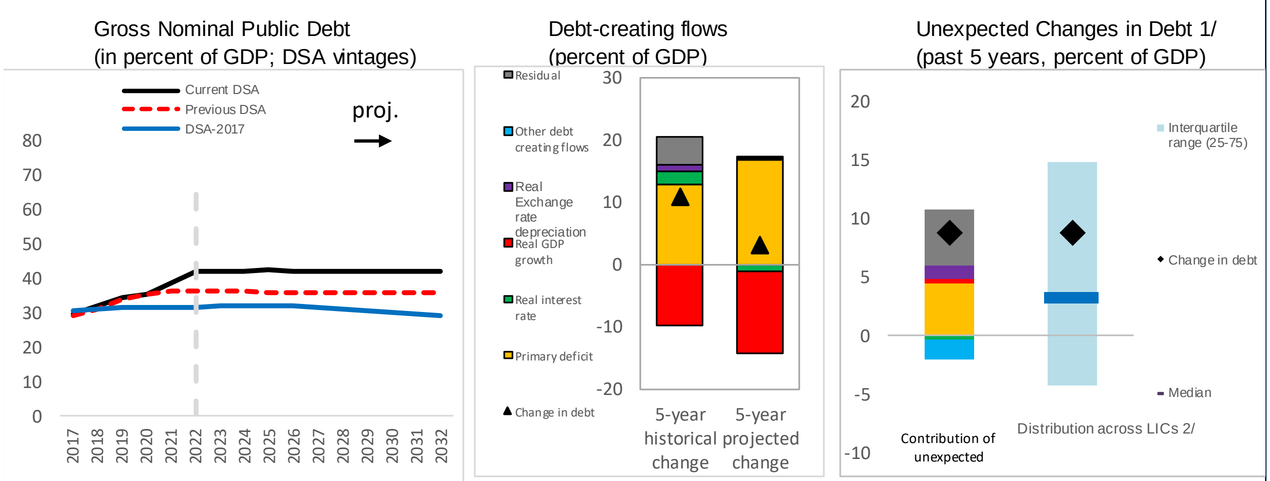
1/ The most extreme stress test is the test that yields the highest ratio in or before 2033. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

Figure 3. Bangladesh: Drivers of Debt Dynamics – Baseline Scenario

External Debt



Public debt



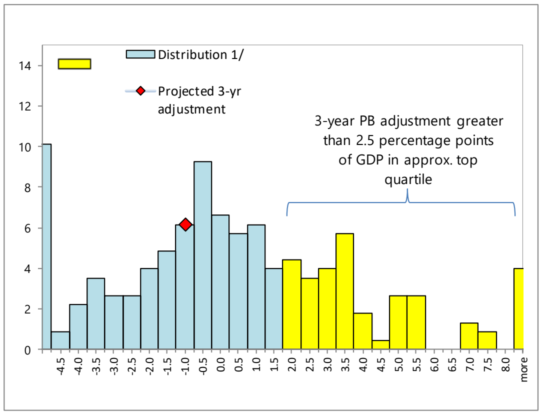
1/ Difference between anticipated and actual contributions on debt ratios.

2/ Distribution across LICs for which LIC DSAs were produced.

3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

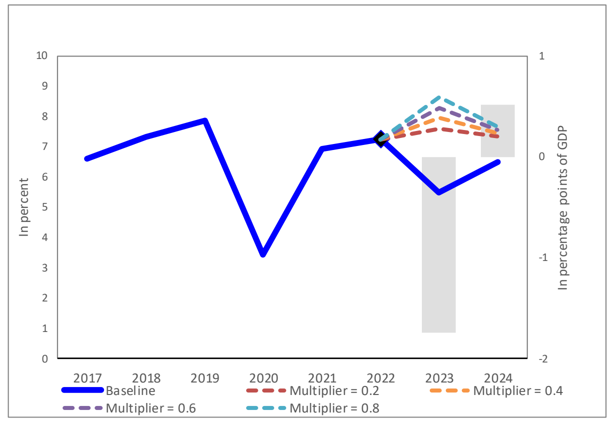
Figure 4. Bangladesh: Realism Tools

3-Year Adjustment in Primary Balance (Percentage points of GDP)



1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

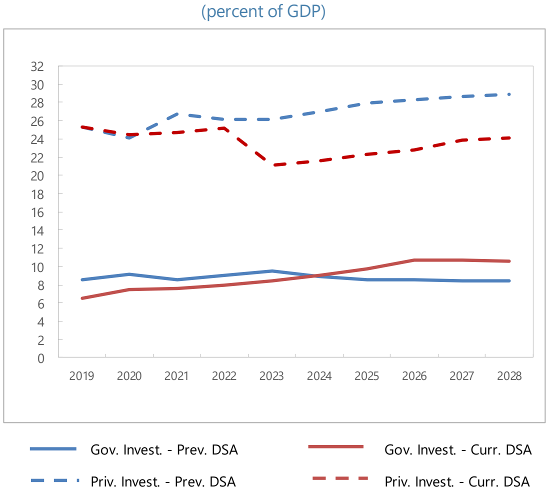
Fiscal Adjustment and Possible Growth Paths 1/



1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

Public and Private Investment Rates

(percent of GDP)



Contribution to Real GDP growth

(percent, 5-year average)

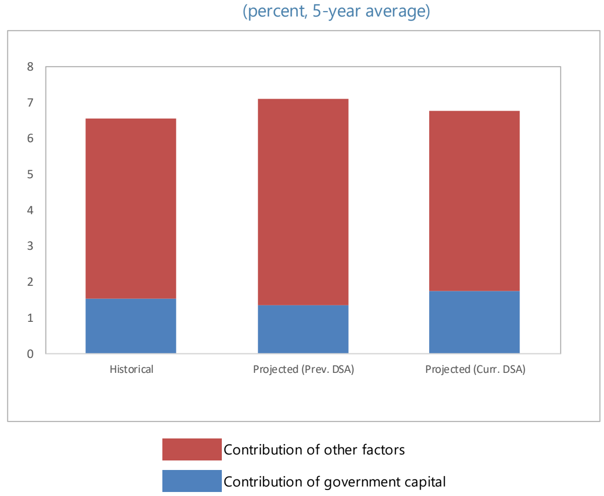
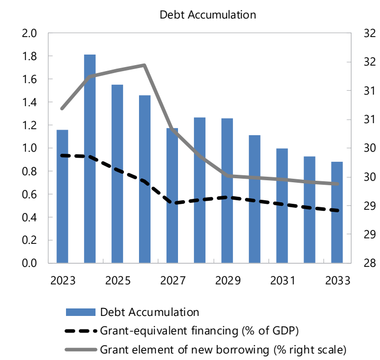
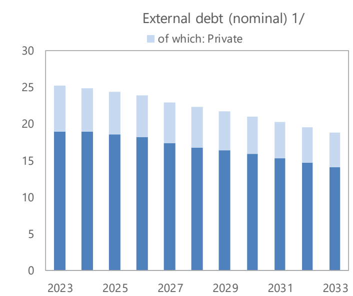


Table 1. Bangladesh: External Debt Sustainability Framework, Baseline Scenario, FY20-FY43 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 8/	
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2033	2043	Historical	Projections
External debt (nominal) 1/	**18.4**	**19.6**	**22.4**	**25.2**	**24.8**	**24.3**	**23.8**	**22.9**	**22.3**	**18.8**	**11.5**	**17.2**	**22.2**
of which: public and publicly guaranteed (PPG)	**14.6**	**15.1**	**17.0**	**18.9**	**19.0**	**18.6**	**18.1**	**17.3**	**16.8**	**14.1**	**8.6**	**13.7**	**16.8**
Change in external debt	0.5	1.2	2.8	2.8	-0.4	-0.5	-0.5	-0.9	-0.6	-0.8	-0.6		
Identified net debt-creating flows	**0.0**	**-1.1**	**1.7**	**1.2**	**1.8**	**0.8**	**0.1**	**0.1**	**0.2**	**0.4**	**0.5**	**-1.6**	**0.5**
Non-interest current account deficit	**0.9**	**0.6**	**3.5**	**2.3**	**3.4**	**2.7**	**2.2**	**2.1**	**2.0**	**2.0**	**2.0**	**0.2**	**2.3**
Deficit in balance of goods and services	5.7	6.4	8.1	7.6	8.4	7.5	6.7	6.4	6.1	5.1	3.7	**5.6**	**6.4**
Exports	10.4	10.7	12.9	13.3	13.3	13.1	12.9	12.8	13.1	14.2	15.7		
Imports	16.0	17.1	20.9	20.9	21.7	20.6	19.6	19.2	19.1	19.3	19.4		
Net current transfers (negative = inflow)	-5.0	-6.1	-4.7	-5.3	-5.1	-4.8	-4.5	-4.2	-3.9	-2.8	-1.5	**-5.8**	**-4.0**
of which: official	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other current account flows (negative = net inflow)	0.2	0.2	0.1	0.0	0.0	0.1	0.0	0.0	-0.1	-0.2	-0.2	**0.4**	**-0.1**
Net FDI (negative = inflow)	**-0.3**	**-0.3**	**-0.5**	**-0.7**	**-1.0**	**-1.2**	**-1.3**	**-1.3**	**-1.2**	**-1.2**	**-1.2**	**-0.6**	**-1.2**
Endogenous debt dynamics 2/	**-0.5**	**-1.3**	**-1.3**	**-0.4**	**-0.6**	**-0.8**	**-0.8**	**-0.7**	**-0.6**	**-0.5**	**-0.3**		
Contribution from nominal interest rate	0.6	0.5	0.6	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.5		
Contribution from real GDP growth	-0.6	-1.1	-1.3	-1.4	-1.5	-1.6	-1.6	-1.6	-1.4	-1.2	-0.8		
Contribution from price and exchange rate changes	-0.5	-0.7	-0.6	...	...	...	...	...	...	...	...		
Residual 3/	**0.4**	**2.3**	**1.1**	**1.6**	**-2.2**	**-1.3**	**-0.6**	**-1.0**	**-0.8**	**-1.2**	**-1.2**	**2.2**	**-0.9**
of which: exceptional financing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	**...**	**...**	**13.1**	**15.7**	**15.7**	**15.4**	**15.0**	**14.4**	**13.9**	**11.5**	**6.7**		
PV of PPG external debt-to-exports ratio	**...**	**...**	**102.2**	**117.6**	**117.8**	**117.4**	**116.1**	**112.3**	**106.7**	**80.8**	**42.6**		
PPG debt service-to-exports ratio	**6.8**	**6.3**	**5.1**	**10.9**	**7.0**	**6.9**	**6.2**	**6.3**	**6.1**	**5.9**	**4.0**		
PPG debt service-to-revenue ratio	**8.5**	**7.2**	**7.6**	**16.6**	**10.1**	**9.4**	**7.9**	**7.9**	**7.8**	**8.2**	**6.0**		
Gross external financing need (Million of U.S. dollars)	18964.2	16951.5	34980.2	37102.8	38335.4	35786.5	34065.6	37304.1	40508.1	63667.8	148890.1		
Key macroeconomic assumptions													
Real GDP growth (in percent)	3.4	6.9	7.2	5.5	6.5	7.1	7.3	7.4	7.0	7.0	7.0	**6.5**	**6.9**
GDP deflator in US dollar terms (change in percent)	2.9	4.1	3.2	-13.5	4.8	4.5	4.5	4.9	4.8	4.9	5.1	**4.4**	**3.1**
Effective interest rate (percent) 4/	3.5	3.3	3.4	3.8	3.7	3.6	3.7	3.9	4.0	4.3	4.3	**3.0**	**4.0**
Growth of exports of G&S (US dollar terms, in percent)	-16.9	14.2	33.6	-5.5	11.4	10.3	10.7	11.5	14.6	14.1	13.1	**9.0**	**11.2**
Growth of imports of G&S (US dollar terms, in percent)	-8.8	18.6	35.5	-8.9	16.1	6.0	7.0	10.1	11.8	12.4	12.4	**10.1**	**9.5**
Grant element of new public sector borrowing (in percent)	...	...	...	30.7	31.2	31.3	31.4	30.3	29.9	29.4	29.0	**...**	**30.2**
Government revenues (excluding grants, in percent of GDP)	8.4	9.3	8.7	8.8	9.2	9.6	10.2	10.2	10.2	10.3	10.3	**8.5**	**10.0**
Aid flows (in Million of US dollars) 5/	7298	6949	11591	2417	3071	3126	2883	1750	1750	1750	1754		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	0.9	0.9	0.8	0.7	0.5	0.6	0.5	0.3	**...**	**0.6**
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	32.2	33.6	34.1	33.6	30.6	30.1	29.6	29.1	**...**	**31.1**
Nominal GDP (Million of US dollars)	373,902	416,265	460,751	420,516	469,346	525,290	589,000	663,597	744,067	1,319,948	4,228,134		
Nominal dollar GDP growth	6.5	11.3	10.7	-8.7	11.6	11.9	12.1	12.7	12.1	12.2	12.4	**11.2**	**10.2**
Memorandum items:													
PV of external debt 7/	...	...	18.6	21.9	21.5	21.1	20.7	20.0	19.4	16.2	9.7		
In percent of exports	...	...	144.3	164.8	161.9	161.0	160.1	156.0	148.6	113.7	61.4		
Total external debt service-to-exports ratio	38.3	33.2	32.1	50.6	43.3	39.9	38.1	37.3	35.4	28.0	17.1		
PV of PPG external debt (in Million of US dollars)			60504	65850	73481	80746	88411	95349	103740	151759	283271		
(PVt-PVt-1)/GDPt-1 (in percent)				1.2	1.8	1.5	1.5	1.2	1.3	0.9	0.4		
Non-interest current account deficit that stabilizes debt ratio	0.4	-0.7	0.6	-0.5	3.8	3.3	2.7	3.1	2.7	2.8	2.6		

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	No





Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as [r - g - ρ(1+g)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = growth rate of GDP deflator in U.S. dollar terms.

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

4/ Current-year interest payments divided by previous period debt stock.

5/ Defined as grants, concessional loans, and debt relief.

6/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

7/ Assumes that PV of private sector debt is equivalent to its face value.

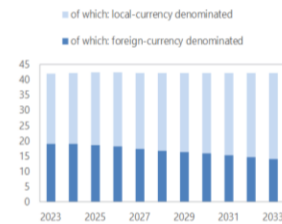
8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

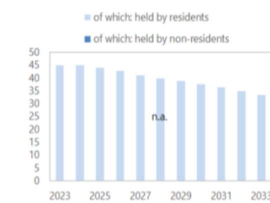
Table 2. Bangladesh: Public Sector Debt Sustainability Framework, Baseline Scenario, FY20-FY43
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 6/	
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2033	2043	Historical	Projections
Public sector debt 1/	34.5	35.6	39.0	42.1	42.2	42.3	42.5	42.3	42.2	42.1	42.1	31.2	42.2
of which: external debt	14.6	15.1	17.0	18.9	19.0	18.6	18.1	17.3	16.8	14.1	8.6	13.7	16.8
Change in public sector debt	2.6	1.1	3.4	3.0	0.2	0.1	0.1	-0.2	-0.1	0.0	0.0		
Identified debt-creating flows	1.9	0.1	0.8	1.0	0.6	0.5	0.5	0.3	0.3	0.4	0.3	0.6	0.5
Primary deficit	3.0	1.6	2.1	3.8	3.3	3.3	3.3	3.3	3.1	2.9	2.6	2.1	3.2
Revenue and grants	8.5	9.4	8.7	8.8	9.3	9.7	10.3	10.2	10.2	10.3	10.3	8.7	10.0
of which: grants	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0		
Primary (noninterest) expenditure	11.5	11.0	10.8	12.7	12.6	13.0	13.6	13.5	13.3	13.2	12.9	10.7	13.2
Automatic debt dynamics	-1.1	-1.5	-1.2	-2.8	-2.7	-2.8	-2.8	-3.0	-2.8	-2.6	-2.3		
Contribution from interest rate/growth differential	-0.9	-1.3	-2.8	-2.8	-2.7	-2.8	-2.8	-3.0	-2.8	-2.6	-2.3		
of which: contribution from average real interest rate	0.2	1.0	-0.4	-0.8	-0.1	0.0	0.0	-0.1	0.0	0.2	0.4		
of which: contribution from real GDP growth	-1.1	-2.2	-2.4	-2.0	-2.6	-2.8	-2.9	-2.9	-2.8	-2.8	-2.8		
Contribution from real exchange rate depreciation	-0.3	-0.3	1.5	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Recognition of contingent liabilities (e.g., bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Debt relief (HIPC and other)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	0.7	1.0	2.6	2.1	-0.4	-0.4	-0.3	-0.5	-0.4	-0.4	-0.2	0.4	-0.2
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	...	...	36.3	38.8	38.9	39.1	39.3	39.3	39.3	39.5	40.3		
PV of public debt-to-revenue and grants ratio	...	...	415.6	438.7	417.3	401.9	383.4	385.7	385.9	384.9	390.7		
Debt service-to-revenue and grants ratio 3/	61.1	82.0	52.0	48.2	43.7	50.0	40.9	49.2	55.0	65.8	75.9		
Gross financing need 4/	8.7	9.6	7.1	8.1	7.4	8.2	7.5	8.3	8.7	9.7	10.4		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	3.4	6.9	7.2	5.5	6.5	7.1	7.3	7.4	7.0	7.0	7.0	6.5	6.9
Average nominal interest rate on external debt (in percent)	1.6	1.5	1.4	1.9	1.6	1.6	1.8	2.0	2.1	2.4	2.3	1.5	2.0
Average real interest rate on domestic debt (in percent)	0.9	5.7	1.4	-1.1	-0.6	0.1	0.3	-0.3	0.0	0.6	1.3	4.6	0.0
Real exchange rate depreciation (in percent, + indicates depreciation)	-1.9	-2.0	11.5	...	...	...	...	...	...	...	...	-1.6	...
Inflation rate (GDP deflator, in percent)	3.8	4.1	5.0	5.2	4.8	4.5	4.5	5.4	5.3	5.4	5.6	5.3	5.1
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	2.3	5.6	23.7	6.2	10.5	11.7	6.8	5.5	6.7	7.1	7.3	9.0
Primary deficit that stabilizes the debt-to-GDP ratio 5/	0.4	0.5	-1.4	0.8	3.1	3.2	3.2	3.5	3.2	3.0	2.6	-0.1	2.9
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Definition of external/domestic debt	**Currency-based**
Is there a material difference between the two criteria?	**No**

Public sector debt 1/





Sources: Country authorities; and staff estimates and projections.
1/ Coverage of debt: The central government, central bank, government-guaranteed debt . Definition of external debt is Currency-based.
2/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.
3/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.
4/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period and other debt creating/reducing flows.
5/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio ((-): a primary surplus), which would stabilizes the debt ratio only in the year in question.
6/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Table 3. Bangladesh: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, FY23–FY33
(In percent)

	Projections 1/										
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
PV of debt-to GDP ratio											
Baseline	16	16	15	15	14	14	14	13	13	12	11
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	16	14	12	11	10	9	9	8	7	6	5
B. Bound Tests											
B1. Real GDP growth	16	16	16	16	15	14	14	14	13	12	12
B2. Primary balance	16	16	16	15	15	14	14	13	13	12	12
B3. Exports	16	17	19	18	17	17	16	16	15	14	13
B4. Other flows 3/	16	17	18	17	17	16	16	15	14	14	13
B5. Depreciation	16	20	16	16	15	15	15	14	14	13	13
B6. Combination of B1-B5	16	18	18	18	17	16	16	15	14	14	13
C. Tailored Tests											
C1. Combined contingent liabilities	16	17	17	16	16	15	15	15	14	14	13
C2. Natural disaster	16	18	17	17	16	16	16	16	15	15	14
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	40	40	40	40	40	40	40	40	40	40	40
PV of debt-to-exports ratio											
Baseline	118	118	117	116	112	107	102	97	91	86	81
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	118	104	94	88	80	72	64	56	48	41	35
B. Bound Tests											
B1. Real GDP growth	118	118	117	116	112	107	102	97	91	86	81
B2. Primary balance	118	119	120	118	115	109	105	99	94	89	83
B3. Exports	118	147	**189**	**186**	179	168	159	150	141	132	123
B4. Other flows 3/	118	128	137	135	130	123	116	110	103	97	90
B5. Depreciation	118	118	99	99	96	92	88	84	80	76	72
B6. Combination of B1-B5	118	142	130	149	144	136	129	122	115	108	101
C. Tailored Tests											
C1. Combined contingent liabilities	118	126	127	125	121	119	113	108	102	97	92
C2. Natural disaster	118	134	135	134	130	128	123	118	111	107	102
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	180	180	180	180	180	180	180	180	180	180	180
Debt service-to-exports ratio											
Baseline	11	7	7	6	6	6	6	7	7	6	6
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	11	7	7	6	6	5	6	6	6	5	4
B. Bound Tests											
B1. Real GDP growth	11	7	7	6	6	6	6	7	7	6	6
B2. Primary balance	11	7	7	6	6	6	6	7	7	6	6
B3. Exports	11	8	9	9	9	9	9	9	9	9	9
B4. Other flows 3/	11	7	7	7	7	6	7	7	7	7	7
B5. Depreciation	11	7	7	6	6	6	6	6	6	6	5
B6. Combination of B1-B5	11	8	8	8	8	7	8	8	8	8	8
C. Tailored Tests											
C1. Combined contingent liabilities	11	7	7	6	7	6	7	7	7	7	6
C2. Natural disaster	11	7	7	7	7	7	7	7	7	7	6
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	17	10	9	8	8	8	8	9	9	9	8
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	17	10	9	7	7	7	8	8	8	7	6
B. Bound Tests											
B1. Real GDP growth	17	10	10	8	8	8	9	9	9	9	9
B2. Primary balance	17	10	9	8	8	8	8	9	9	9	8
B3. Exports	17	10	10	9	9	9	9	9	9	10	10
B4. Other flows 3/	17	10	10	9	8	8	9	9	9	9	10
B5. Depreciation	17	13	12	9	9	9	10	10	11	10	9
B6. Combination of B1-B5	17	11	10	9	9	9	9	10	10	10	10
C. Tailored Tests											
C1. Combined contingent liabilities	17	10	10	8	8	8	9	9	9	9	9
C2. Natural disaster	17	10	10	8	8	8	9	9	9	9	9
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	18	18	18	18	18	18	18	18	18	18	18

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the threshold.
2/ Variables include real GDP growth, GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
3/ Includes official and private transfers and FDI.

Table 4. Bangladesh: Sensitivity Analysis for Key Indicators for Public Debt, FY23-FY33
(In percent)

	Projections 1/										
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
PV of Debt-to-GDP Ratio											
Baseline	39	39	39	39	39	39	39	39	39	40	40
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	39	38	37	36	35	35	34	34	34	33	33
B. Bound Tests											
B1. Real GDP growth	39	40	41	42	42	42	43	43	43	43	44
B2. Primary balance	39	40	41	41	41	41	41	40	40	40	40
B3. Exports	39	40	42	42	42	42	42	42	42	41	41
B4. Other flows 3/	39	40	42	42	42	41	41	41	41	41	41
B5. Depreciation	39	41	40	39	38	37	37	36	35	35	34
B6. Combination of B1-B5	39	38	38	38	38	38	38	38	38	38	38
C. Tailored Tests											
C1. Combined contingent liabilities	39	45	45	45	45	44	44	44	43	43	43
C2. Natural disaster	39	49	49	48	48	47	47	47	47	46	46
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
TOTAL public debt benchmark	55	55	55	55	55	55	55	55	55	55	55
PV of Debt-to-Revenue Ratio											
Baseline	439	417	402	383	386	386	385	385	384	385	385
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	439	403	377	350	346	341	336	331	327	324	323
B. Bound Tests											
B1. Real GDP growth	439	427	422	406	411	414	416	418	419	422	424
B2. Primary balance	439	426	418	398	399	399	397	395	394	394	394
B3. Exports	439	431	437	414	414	412	409	407	405	404	401
B4. Other flows 3/	439	431	429	407	408	406	404	402	400	399	398
B5. Depreciation	439	439	409	381	374	366	359	352	345	340	335
B6. Combination of B1-B5	439	409	395	373	374	374	373	370	369	370	370
C. Tailored Tests											
C1. Combined contingent liabilities	439	487	464	439	438	434	429	426	423	421	418
C2. Natural disaster	439	524	499	472	471	465	461	457	453	451	448
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Debt Service-to-Revenue Ratio											
Baseline	48	44	50	41	49	55	60	63	62	64	66
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	48	43	48	38	46	47	51	53	51	52	53
B. Bound Tests											
B1. Real GDP growth	48	44	52	43	52	59	66	69	68	71	73
B2. Primary balance	48	44	51	43	50	59	66	65	63	67	69
B3. Exports	48	44	50	42	50	56	61	64	62	65	68
B4. Other flows 3/	48	44	50	42	50	56	61	64	62	65	67
B5. Depreciation	48	42	50	40	48	53	57	61	60	62	63
B6. Combination of B1-B5	48	42	48	41	48	54	61	61	60	63	64
C. Tailored Tests											
C1. Combined contingent liabilities	48	44	62	45	53	86	71	68	66	79	73
C2. Natural disaster	48	44	68	48	56	100	77	73	70	88	79
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the benchmark.
2/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.
3/ Includes official and private transfers and FDI.