DEBT SUSTAINABILITY ANALYSIS

1. **Pakistan's economy that barely recovered from the COVID-19 crisis, is once again derailed by severe floods and rise in global energy prices.** Similar to other economies across the globe, Pakistan was also hard hit by the COVID-19 shock, and gross domestic product (GDP) during fiscal year (FY) 2020 declined by 0.9%. However, Pakistan managed to avoid severe COVID-19 outbreaks and with the ease of restrictions, the economy started showing signs of revival as GDP during FY2021 registered a growth of 5.7%.[1] Economic growth was assessed to be broad-based and supported by sectoral growth of agriculture (3.5%), industrial sector (10.5%) and services (6.0%). Meanwhile, the provisional estimates for FY2022 also suggest a robust growth of 6.0%. However, economic recovery appears to be short-lived, and is again derailed by significant damaged caused by severe floods as well as the spillovers from the Russian Federation-Ukraine war through high food and fuel prices. Moreover, tighter global financing conditions also pose a significant risk to domestic economic outlook in the medium-term. Accordingly, following two years of above-trend growth, initial GDP growth projection for FY2023 of 3.5% has now further been downgraded and tentatively assessed to be 1.5-2.0%.

2. **To revive the economy and correct macroeconomic imbalances, Pakistan has reached an agreement with the IMF.** The IMF through its Extended Fund Facility (EFF) has agreed to revive a bailout package for Pakistan requiring fiscal discipline and firm commitment to policies envisaged under the Program. To avoid debt distress and improving the prospects of economic outlook, the government is required to remain committed to the EFF's objectives of fiscal consolidation and macroeconomic stability. The IMF Program stresses that Pakistan's economy needs strong reforms and commitment to achieve the EFF's objectives of entrenching macroeconomic stability, and ensuring debt sustainability while maintaining sufficient fiscal space to mitigate the external shocks.

3. International Monetary Fund's (IMF) debt sustainability analysis (DSA) points out that with strong polices and robust economic growth envisaged under the Program, the public debt remains sustainable in the baseline scenario, however, substantial risks stem from higher interest rate, renewed policy reversals, and contingent liabilities related to state-owned enterprises (SOEs). The DSA also suggests that macro-fiscal shocks continue to pose a risk in the medium-term, therefore, further delays on structural reforms, particularly, those related to the financial sector could reduce the effectiveness of the monetary policy. Reviving economic activity, promoting investment, and job creation will continue to depend on addressing long-standing structural weaknesses. More importantly, this would also require enhancing public financial management, safeguarding the quality, and transparency of COVID-related spending and improving the debt management capacity of the government.

4. **Pakistan's public debt is projected to remain sustainable, but with greater uncertainty.** IMF's EFF has provided the much-needed fiscal space and introduced structural reforms, thereby, laying the foundation of a strong and sustainable growth in the medium-term. The program aims at striking a balance between supporting economy while ensuring fiscal discipline and debt sustainability. At the backdrop of policy reforms and the fiscal adjustments envisaged under the EFF, IMF September 2022 DSA projects that under the baseline scenario, the public debt-to-GDP ratio to decline from 77.9% in FY2021 to 60.7% by FY2027, and remains

[1] These estimates are based on the Press Release- National Accounts Committee Meeting, provided by Pakistan Bureau of Statistics, and downloaded on 3 June 2022: Press Release - National Accounts Committee Meeting | Pakistan Bureau of Statistics (pbs.gov.pk)

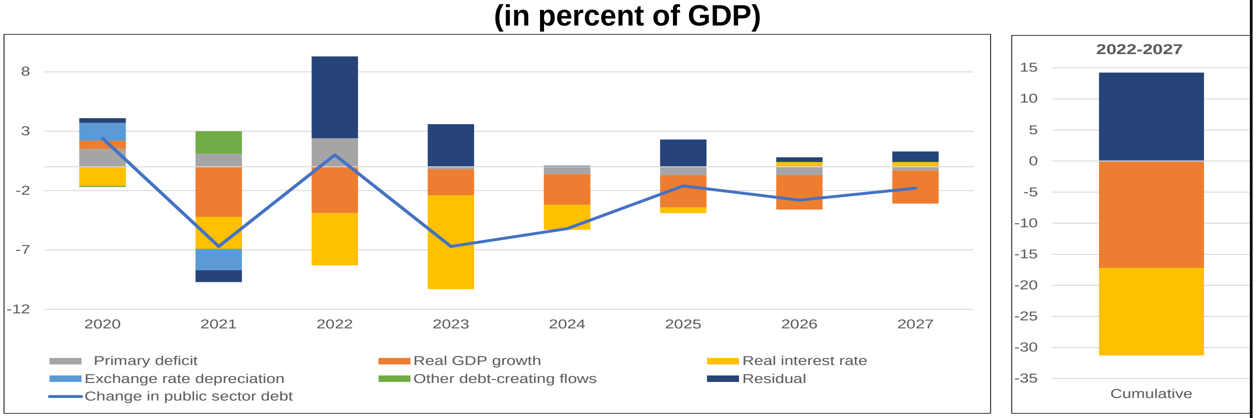
sustainable. The main contributory factors towards changes in the public debt are shown in Table 1 and Figure 1.

Table 1: Contribution to Changes in Public Debt (2020-2027)
(Baseline Scenario, IMF DSA, in percent of GDP)

	Actual		Projections						Cumulative
	2020	2021	2022	2023	2024	2025	2026	2027	2022–2027
Nominal gross public debt 1/	**84.5**	**77.9**	**78.9**	**72.1**	**66.9**	**65.3**	**62.4**	**60.7**	
Change in public sector debt	2.4	-6.7	1.0	-6.7	-5.2	-1.6	-2.8	-1.8	-17.1
Identified debt-creating flows	**2.0**	**-5.7**	**-5.9**	**-10.3**	**-5.3**	**-3.9**	**-3.2**	**-2.7**	-31.3
Primary deficit	1.5	1.1	2.4	-0.2	-0.6	-0.7	-0.7	-0.3	-0.1
Primary (noninterest) revenue and grants	13.3	12.4	12.1	12.4	12.8	12.9	12.9	12.8	75.9
Primary (noninterest) expenditure	14.8	13.5	14.5	12.2	12.2	12.2	12.2	12.5	75.8
Automatic debt dynamics /2	**0.6**	**-8.7**	**-8.3**	**-10.1**	**-4.7**	**-3.2**	**-2.5**	**-2.4**	-31.2
Interest rate/growth differential /3	-0.9	-6.9	-8.3	-10.1	-4.7	-3.2	-2.5	-2.4	-31.2
Of which: real interest rate	-1.6	-2.7	-4.4	-7.9	-2.1	-0.5	0.4	0.4	-14.1
Of which: real GDP growth	0.7	-4.2	-3.9	-2.2	-2.6	-2.7	-2.9	-2.8	-17.1
Exchange rate depreciation /4	1.5	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other identified debt-creating flows /5	**-0.1**	**1.9**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	0.0
Residual, including asset changes / 6	**0.4**	**-1.0**	**6.9**	**3.6**	**0.1**	**2.3**	**0.4**	**0.9**	14.2

Source: Based on IMF Article IV, Country Report No. 22/288, September 2022.

Figure 1: Public Debt Creating Flows
(in percent of GDP)



1/ Public sector is defined as general government and includes public guarantees, defined as guarantees to PSEs.
2/ Derived as [(r - π(1+g) - g + ae(1+r)]/(1+g+π+gπ)) times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).
3/ The real interest rate contribution is derived from the numerator in footnote 5 as r - π (1+g) and the real growth contribution as -g.
4/ The exchange rate contribution is derived from the numerator in footnote 2 as ae(1+r).
5/ In 2019 and 2020, "other identified debt creating flow" is driven by the accumulation and drawdown of cash buffers, respectively.
6/ Includes changes in the stock of guarantees, asset changes, and interest revenues (if any). For projections, includes exchange rate changes during the projection period.
Source: Based on IMF Article IV, Country Report No. 22/288, September 2022.

5. Under the baseline scenario, while the public debt is assessed as sustainable, it remains vulnerable to macro-fiscal shocks. For example, if the key variables: real GDP growth, interest rate, inflation, and primary balance, continue to grow at their historical growth rates, the public debt-to-GDP ratio will exceed the debt threshold (70 % of GDP) and converge to 76% by FY2027. The analysis further reveals that the public debt-to-GDP ratio in the historical scenario, constant primary balance scenario, and combined macro-fiscal shock is also projected to significantly exceed the 70% debt threshold, jeopardizing debt sustainability. Additionally, lower than expected economic growth, further rise in primary deficit, and surge in contingent liabilities of loss-making SOEs has the potential to put further pressure on debt sustainability.

6. It is important to note while under the EFF, the public debt-to-GDP ratio is projected to decline from 77.9% in FY2021 to 60.7% by FY2027, it crucially depends upon the policies, robust growth, and assuming the adjustment efforts in envisaged under the EFF program are fully carried out. The IMF DSA points out that higher interest rates, a larger-than expected growth slowdown due to policy tightening, pressures on exchange rate, and contingent liabilities from loss-making SOEs pose significant risks to debt sustainability. Meanwhile, keeping in view the current challenges emanating from severe floods in the country, uncertain macro environment due to political instability, and the rise in food and fuel prices because of the Russian Federation-Ukraine war, government's near-term financing needs remain elevated. IMF analysis suggests that the gross financing needs have risen from 19.8% of GDP in FY2021 to 23.5% in FY2022. GFN are projected to be 17.2% of GDP by FY2027. The government should, therefore, remain committed to fiscal consolidation and macroeconomic stability to avoid the debt distress.

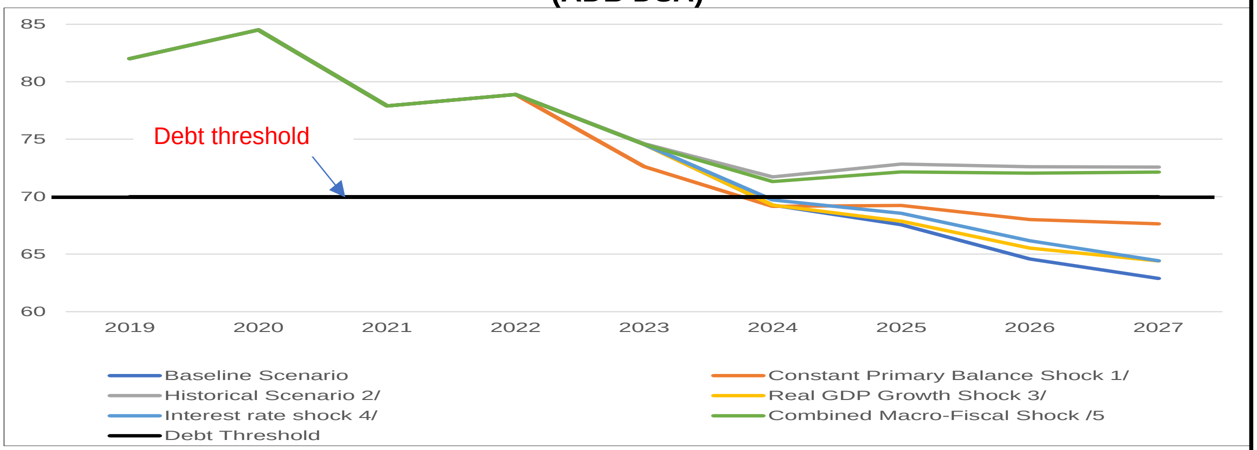
7. The Asian Development Bank's (ADB) DSA also reaches the same conclusion and assesses public debt-to-GDP as sustainable. However, the ADB analysis provides additional details including capturing the impact of the recent floods on economic growth. While the multi-donor post-disaster needs assessment to be completed by the end of October 2022 will produce credible data and information on the macro-fiscal impact of the floods, tentative estimates suggest that the production of crop and cotton has severely damaged and, as a result, the GDP is now forecast to grow at around 2.0% during FY2022-23, compared with IMF's 3.5%. Likewise, the ADB analysis also assumes that due to the damage caused by the floods, federal Government expenditures are expected to increase further while revenue collection will remain lower. Therefore, for FY2022-23 ADB's initial analysis assumes a primary deficit of 2.0% of GDP, compared to the government's primary surplus target of 0.4% of GDP. The ADB DSA indicates that the public debt-to-GDP ratio is projected to decline from 84.5% in FY2020 to 72.4% in FY2022-23, and gradually converge to 62.9% by FY2027 (Table 2). In comparison, the IMF analysis suggests that during FY2022-23, the public debt-to-GDP ratio is projected to be 72.4% and 60.7% in FY2027 (Table 1). Moreover, the ADB analysis indicates that the public debt-to-GDP ratio is vulnerable to macro-fiscal shocks wherein the debt trajectory remains elevated compared to the baseline scenario. Similarly, under the historical scenario, the debt-to-GDP is also projected to remain higher than the baseline and breach the debt threshold (Table 2 and Figure 2).

Table 2: Public Debt-to-GDP Ratio (%)
(sensitivity tests based on ADB DSA)

	2019	2020	2021	2022	2023	2024	2025	2026	2027
Baseline Scenario	82.0	84.5	77.9	78.9	74.6	69.3	67.6	64.6	62.9
Constant Primary Balance Shock 1/	82.0	84.5	77.9	78.9	72.6	69.2	69.2	68.0	67.6
Historical Scenario 2/	82.0	84.5	77.9	78.9	74.6	71.7	72.8	72.6	72.6
Real GDP Growth Shock 3/	82.0	84.5	77.9	78.9	74.6	69.3	67.9	65.5	64.4
Interest rate shock 4/	82.0	84.5	77.9	78.9	74.6	69.7	68.6	66.2	64.4
Combined Macro-Fiscal Shock /5	82.0	84.5	77.9	78.9	74.6	71.3	72.2	72.0	72.1

1/ Primary balance is assumed to grow at 2021 level.
2/ Historical scenario assumes that the key variables: GDP growth, inflation, primary balance, and interest rate continue to grow at their 10 years historical averages.
3/ Real GDP growth is assumed to grow slower than envisaged under the baseline scenario.
4/ Interest rate is assumed to remain elevated than the baseline scenario.
5/ Combination of lower growth, higher primary deficit, and higher interest rates.
Source: ADB staff estimates.

Figure 2: Baseline and Alternate Scenario
(ADB DSA)



1/ Primary balance is assumed to grow at 2021 level.
2/ Historical scenario assumes that the key variables: GDP growth, inflation, primary balance, and interest rate continue to grow at their 10 years historical averages.
3/ Real GDP growth is assumed to grow slower than envisaged under the baseline scenario.
4/ Interest rate is assumed to remain elevated than the baseline scenario.
5/ Combination of lower growth, higher primary deficit, and higher interest rates.
Source: ADB staff estimates.

8. **Pakistan's external sector remains under pressure while gross financing needs remain elevated.** IMF in its recent assessment suggests during the first 11 months of FY2022, trade deficit has widened to $40.1 billion (10.7% of GDP) and it was only partially offset by remittances inflows. As a result, the current account deficit has surged sharply, a fivefold increase over FY2021 and reached to $15 billion (4.5% of GDP) in FY2022. Gross reserves have also declined from $17.6 billion at end-December 2021 to $9.8 billion at end-June 2022, covering only 1.5 months of imports. However, the current account deficit is projected to decline to 2.5% of GDP in FY2023, reflecting lower economic growth (3.5%) and tight demand management and energy policies consistent with moving demand to sustainable levels. EFF envisages the program would improve the reserves levels as the current account deficit is projected to settle around 2% to 3% of GDP in the medium-term.

9. **External debt is also assessed to be sustainable, however, the debt trajectory remains vulnerable**. IMF September 2022 and ADB September 2022 DSA both point out that under the baseline scenario, Pakistan's external debt is considered sustainable. The major contributory factors to changes in external debt are given in Table 3.

Table 3: Dynamics of External Debt and its Drivers: 2019-2027
(IMF DSA, Baseline Scenario, percent of GDP)

	Actual			Projections						Cumulative
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2022–2027
External Debt-to-GDP Ratio	**33.5**	**37.7**	**34.9**	**32.5**	**37.0**	**36.2**	**35.0**	**32.7**	**30.2**	
Change in external debt /1	6.4	4.0	-2.8	-2.4	4.5	-0.8	-1.2	-2.3	-2.6	-2.2
Identified external debt-creating flows	6.8	2.7	-5.4	2.0	0.8	0.4	0.0	0.0	0.1	3.2
Current account deficit, excluding interest payments	3.1	0.2	-0.2	3.7	1.5	1.4	1.4	1.4	1.4	9.4
Net non-debt creating capital inflows (negative)	-0.5	-0.9	-0.5	-0.7	-0.6	-0.7	-0.9	-0.9	-0.9	-3.8
Automatic debt dynamics /2	4.2	3.4	-4.6	-1.0	-0.1	-0.4	-0.5	-0.5	-0.4	-2.5
Contribution from nominal interest rate	1.1	1.3	0.8	1.0	1.1	1.1	1.1	1.1	1.1	5.4
Contribution from real GDP growth	-0.9	0.3	-1.9	-2.0	-1.2	-1.4	-1.6	-1.6	-1.5	-7.8
Contribution from price and exchange rate changes 3/	4.0	1.8	-3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residual, incl. change in gross foreign assets /4	-0.5	1.5	2.6	-4.5	3.7	-1.2	-1.2	-2.2	-2.6	-5.4

1/ Includes both public and private sector external debt.

2/ Derived as [r - g - ρ(1+g) + Ɛα (1+r)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, ρ = growth rate of GDP deflator in U.S. dollar terms, Ɛ=nominal the local currency, and α= share of local currency denominated external debt in total external debt.

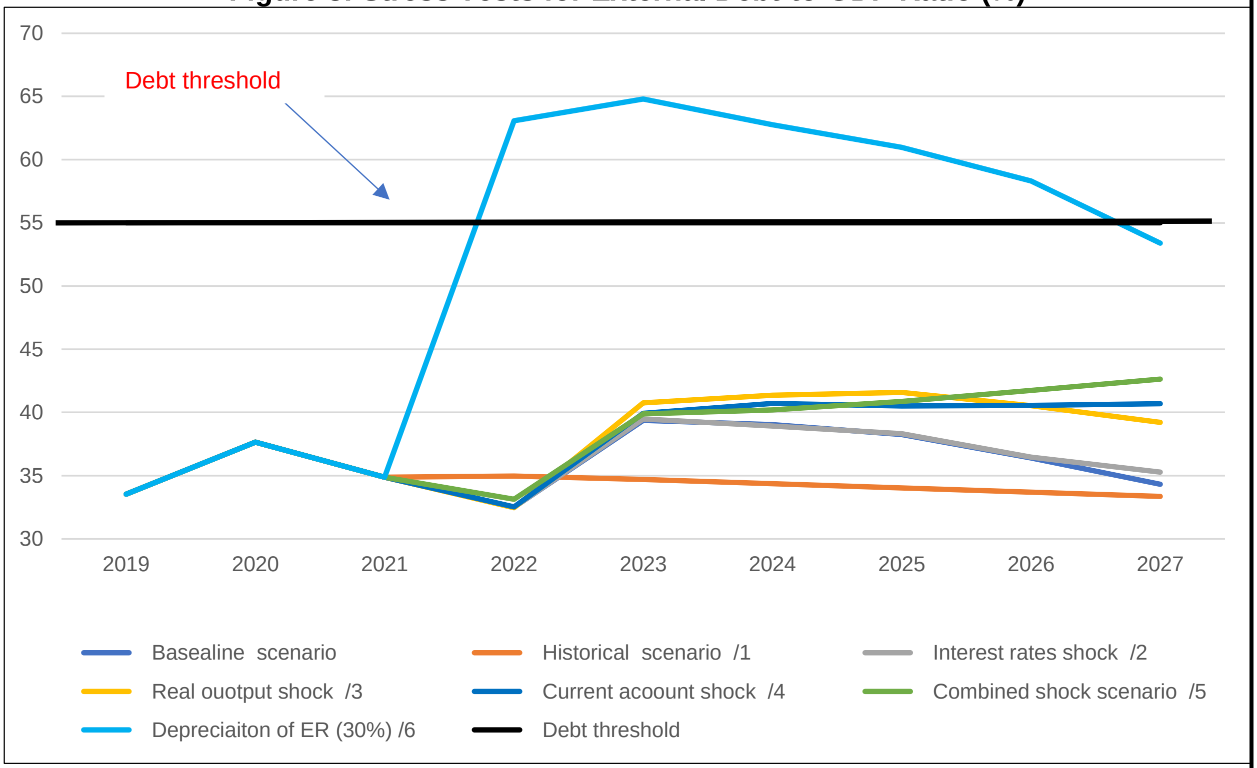
3/ The contribution from price and exchange rate changes is defined as [-r(1+g) + ea(1+r)]/(1+g+r+gr) times previous period debt stock. r increases with an appreciating domestic currency (e > 0) and rising inflation (based on GDP deflator).

4/ 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.

Source: Based on IMF Article IV, Country Report No. 22/288, September 2022.

10. The ADB DSA for the external debt further reveals that external debt-to-GDP ratio is highly vulnerable to changes in exchange rate depreciation. The results of the simulations suggests that a 30% depreciation during the first year of projection is projected to rise the external debt-to-GDP ratio to 63.1% in FY2022, and breaches the debt threshold of 55% during FY2022 to FY2026 before converging to 53.4% by FY2027. Similarly, higher than expected current account deficit and if the key variables continue to grow at their historical averages, the resulting external debt trajectory will remain higher than the baseline scenario. Given the low level of foreign exchange reserves and underperformance of exports, such a situation may also put pressure on debt distress (Figure 3).

Figure 3: Stress Tests for External Debt-to-GDP Ratio (%)



1 / The key variables at their historical averages. Variables include real GDP growth; nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.
2 / Real GDP growth is at baseline minus one-half standard deviations.
3 / Nominal interest rate is at baseline plus one-half standard deviation.
4 / Non-interest CAD is at baseline plus one-half standard deviation.
5 / Combination of growth shock, interest rate shock, and non-interest current account shock.
6 / One time 30% depreciation in FY2022.
Source: ADB staff estimates, derived from ADB DSA.

11. **Conclusions**: The analysis suggests that given Pakistan's economic fundamentals and the government's commitment to reforms envisaged in the IMF Program, under the baseline scenario, both the public and external debt are considered sustainable. However, alternate scenarios and various stress tests reveals that the public debt remains vulnerable to macro-fiscal shocks. This suggests that if the key variables: real GDP growth, interest rate, inflation, and primary balance, deteriorate significantly, the public debt-to-GDP ratio will breach the debt threshold and exert pressure on debt sustainability. Likewise, the external DSA points out that while in the baseline, the external debt is considered sustainable, however, exchange rate

depreciation and rise in the current account deficit has the potential to jeopardize the debt sustainability.

12. The analysis suggests that sustainability of debt trajectory will depend on the prospects of maintaining higher economic growth, changes in primary and fiscal deficits, and real interest rate and exchange rate depreciation. Uncertainty about domestic economic environment, trade, remittances inflows, and delay in reforms could weaken policy implementation and undermine Pakistan's adjustment and recovery path as well as debt sustainability.

13. The ADB analysis which has incorporated the impact of floods on economic growth during FY2022-23, reveals while the debt remains sustainable, lower economic growth and higher than expected primary deficit can derail the debt trajectory and the debt-to-GDP ratios under all the scenarios remain elevated than the IMF's projections. Viewed in this context, prolonged economic recovery and further rise in primary deficit has the potential to exert pressure on debt distress. Therefore, the government should continue to monitor the trends in primary deficits and remain committed to fiscal consolidation. Although, the availability of concessional financing can provide the much-needed fiscal space to the government and help reduce the debt distress, however, in going forward, the government should remain firm to policy reforms and in improving the exports competitiveness to maintain sufficient level of external buffers.