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# REPUBLIC OF TAJIKISTAN

## JOINT WORLD BANK-IMF DEBT SUSTAINABILITY ANALYSIS

**Approved by:**

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

| REPUBLIC OF TAJIKISTAN: JOINT BANK-FUND DEBT SUSTAINABILITY ANALYSIS | |
|---|---|
| **Risk of external debt distress** | High |
| **Overall risk of debt distress** | High |
| **Granularity in the risk rating** | Sustainable |
| **Application of judgment** | No |

This joint World Bank/IMF Debt Sustainability Analysis (DSA) indicates that Tajikistan's debt is sustainable while the external and overall risk of debt distress remains high (unchanged from the December 2021 DSA).[1]

Public debt declined from 49.8 percent of GDP in 2020 to 43.4 percent of GDP in 2021, reflecting strong GDP growth. Under the baseline, the debt-to-GDP ratio declines further to 31.0 percent by 2027 based on the authorities' adherence to fiscal discipline and is thus assessed as sustainable. Likewise, the present value of the public debt-to-GDP ratio is projected to decline over the same period to 24.2 percent. However, the external debt service-to-export indicator breaches its threshold, leading to a high external risk rating.

The authorities' commitment to maintain a fiscal deficit of 2.5 percent of GDP over the medium term, and to avoid non-concessional external borrowing is projected to stabilize key debt indicators below their respective sustainability thresholds by 2032.[2]

Tajikistan's public debt is sustainable but remains vulnerable, especially to export shocks and contingent fiscal liabilities. Maintaining fiscal discipline, avoiding non-concessional external borrowing, expanding and diversifying

[1] The CI for Tajikistan is estimated at 3.08, based on October 2022 WEO and 2021 World Bank's CPIA, indicating a strong Debt Carrying Capacity (DCC).

[2] The commitment is made under the IMF's Rapid Credit Facility of 2020).

exports, and containing contingent liabilities from SOEs would reduce vulnerabilities and stabilize debt Tajikistan's public debt is sustainable but remains vulnerable, especially to export shocks and contingent fiscal liabilities. Maintaining fiscal discipline, avoiding non-concessional external borrowing, expanding and diversifying exports, and containing contingent liabilities from SOEs would reduce vulnerabilities and stabilize debt.

# COVERAGE AND BACKGROUND ON PUBLIC DEBT

## BACKGROUND ON DEBT AND DEBT COVERAGE

**1. In recent years, external and financial sector factors have contributed to variations in debt-to-GDP levels**. Tajikistan's external public and publicly guaranteed (PPG) debt rose from 24 percent of GDP in 2014 to 50.4 percent of GDP at end-2020 mainly because of a sizable depreciation of the somoni, an increase in Rogun-related spending that resulted in sizable fiscal deficits in 2016 and 2017, and the fallout of the COVID-19 shock. This increase was driven by both commercial debt (the issuance of a US$500 million sovereign bond in 2017)[3] and concessional debt (emergency borrowing from development partners during the COVID-19 shock). In 2021 external PPG debt declined to 43 percent of GDP reflecting strong GDP growth. Domestic PPG debt followed a similar pattern. It increased from 3.5 percent of GDP at end-2014 to 6.6 percent of GDP at end-2020 and then declined to 5.2 percent of GDP in 2021. The increase in domestic PPG partly reflects a 6 percent of GDP recapitalization of banks in December 2016.

**2. External debt accounted for the majority of PPG debt in 2021.** External PPG debt amounted to 88 percent of total PPG debt, with over 80 percent of external PPG debt owed to multilateral and bilateral creditors. The largest single creditor was China, which held about a third of the total PPG external debt (Text Table 1).

Text Table 1. Tajikistan: Composition of External Public Debt, 2017-2021

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| **External Public Debt (US$ billion)** | 2.84 | 2.89 | 2.87 | 3.28 | 3.34 |
| **Bilateral** | 1.38 | 1.37 | 1.29 | 1.34 | 1.31 |
| *of which:* China | 1.21 | 1.21 | 1.12 | 1.15 | 1.11 |
| **Multilateral** | 0.93 | 0.99 | 1.01 | 1.35 | 1.42 |
| **Guaranteed loans** | 0.03 | 0.03 | 0.07 | 0.10 | 0.12 |
| **Bonds** | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 |

Source: Country authorities.

**3. The National Bank of Tajikistan (NBT) is the main creditor and holder of largely non-marketable domestic government debt (Text Table 2)**. Most of the government securities held by the NBT were issued at significantly below-market terms, with some interest rates as low as 0.99 percent. Since 2016, the government has been accumulating interest and principal arrears to the NBT.[4] In 2019, the

[3] The Eurobond of US$500 million issued in September 2017, with a maturity of 10 years, carried an interest rate of 7.125 percent.

[4] These arrears do not trigger debt distress as they are technical due to weak debt management capacity. The corresponding instruments are domestic and non-marketable, reflecting internal operations between the Treasury and the Central Bank only.

arrears on domestic government securities issued for the NBT recapitalization were cleared after the NBT extended new credit to the government at 2 percent interest rate with a one-year maturity. The government repaid TJS 412 million (0.4 percent of GDP) to the NBT during 2021. However, the government continues to run arrears against the NBT, with overdue credit owed by the government to the NBT amounting to 4 percent of GDP as of end-2021, including the bonds issued to recapitalize commercial banks during the 2015-16 shocks.

Text Table 2. Tajikistan: Stock of Domestic Debt
(In TJS mn, eop)

| Debt instrument | 2020 | 2021 | 2022 (9 months) |
|---|---|---|---|
| 1 Tajiksodirotbank recapitalization bonds | 2,134 | 2,133 | 2,122 |
| 2 MoF's bond related to Agroinvestbank | 1,748 | 1,707 | 1,653 |
| o.w. Agroinvestbank recapitalization bonds | 1,065 | 1,024 | 969 |
| o.w. bonds to settle Agroinvestbank's loan liabilities. | 484 | 484 | 484 |
| o.w. bond for capitalization of Agroinvestbank | 200 | 200 | 200 |
| 3 MoF's bond for Roghun financing | 251 | 122 | - |
| 4 T-bills | 278 | 73 | 90 |
| Long-term T-bills | 154 | 23 | |
| Short-term T-bills | 125 | 50 | 90 |
| 5 Amonotbank's lotteries | 10 | 10 | |
| 6 MoF's bonds to support cotton producers | 59 | 59 | |
| 7 Loan from the NBT | 1,059 | 953 | 857 |
| **Total** | **5,539** | **5,058** | **4,722** |

Source: National authorities.

**4. This DSA covers the central government, central bank, and government-guaranteed external and domestic debt (Text Table 3).** Debt coverage includes duly consolidated overall external and domestic debt and guarantees of the Central Government (CG), including extrabudgetary funds, and the social security fund. As debt recording and monitoring capacity is weak, this DSA does not include in its baseline: (i) non-guaranteed liabilities of state-owned enterprises (SOEs),[5] (ii) contingent liabilities/fiscal costs associated with liquidation of two large and troubled financial institutions, and (iii) demand or guarantees triggered from any existing public-private partnership (PPP) agreements.

[5] The Ministry of Finance does not record non-guaranteed debt of SOEs. IDA's Sustainable Development Finance Policy (SDFP) and IMF's TA are jointly supporting the improvement of SOEs' fiscal risk management in Tajikistan. See more details in paragraph 23.

Text Table 3. Tajikistan: Subsectors of the Public Sector Covered in the DSA

| | Subsectors of the public sector | Check box |
|---|---|---|
| 1 | Central government | X |
| 2 | State and local government | |
| 3 | Other elements in the general government | X |
| 4 | o/w: Social security fund | X |
| 5 | o/w: Extra budgetary funds (EBFs) | X |
| 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 | |

# BACKGROUND ON MACRO FORECASTS

**5. Compared to the previous DSA, the macroeconomic outlook has improved (Text Table 4).**[6] The new projections reflect the expected rebound from the global pandemic, which remains subject to downside risks from possible adverse spillover from Russia's invasion of Ukraine as well as geopolitical tensions with the Kyrgyz Republic and Afghanistan. The main assumptions are:

- ***External.*** The current account surplus is expected to decline in 2022 and switch to a moderate deficit over the medium term, reflecting a normalization of gold exports and remittances, and an increase in infrastructure investment. Remittances are expected to jump to 38 percent of GDP in 2022, before converging to pre-war and pre-COVID levels in the medium-term at around 30 percent of GDP. Gold exports, the largest exports item in 2020-21, are expected to decline significantly in 2022 after a one-off increase in 2021 and to remain in line with production in the medium-term. Valuation effects from somoni appreciation are expected to contribute to higher imports as well as a reduction in the public debt/GDP ratio in 2022. Despite a sizable import acceleration in 2022, remittances inflows boosted international reserves to about 8 months of imports, above Fund's adequacy metrics. The 2021 SDR allocation remains unused and adds to the stock of reserves.

- ***Interest rates.*** The immediate impact of higher world interest rates on existing external debt is projected to be limited due to the concessional nature of the current stock. In the medium term, after Roghun's power purchase agreements are in place and debt remains sustainable, the authorities are expected to increase access to market financing. As a result, medium-term effective average interest rates on external debt are expected to increase gradually. The existing domestic public debt stock has been provided at highly negative real terms by the NBT; development of the domestic bond market would help diversify sources of financing but would also likely require a convergence toward market rates.

- ***Fiscal.*** The fiscal deficit is expected to increase in 2022 owing to higher expenditures but remain below the authorities' medium-term target of 2.5 percent of GDP. Over the medium-term, the fiscal deficit is expected to remain in line with the authorities' fiscal deficit target. Spending on Roghun and other large infrastructure projects is expected to be financed by improving revenues, with

[6] The baseline includes SDR allocation of USD 238 million. in August 2021.

offsetting cuts to other non-priority spending as needed. Additionally, Roghun expenditure should remain within the sustainable financing envelope (see footnote 8). Fiscal discipline should be further reinforced by phasing out tax exemptions and strengthening state-owned enterprises (SOE).

- ***Growth and inflation.*** Growth is estimated at 8 percent in 2022 reflecting both strong remittances inflows, still favorable terms-of-trade and good domestic output performance in industry (mining). Over the medium term, growth is expected to converge to about 4 percent, as uneven structural reforms weigh on potential growth. Inflation is expected to remain within the NBT target range over the medium term supported by a tight monetary stance and macroprudential tools, if necessary. In the short term, residual effects of somoni appreciation will help manage inflationary pressures .[7]

- ***Roghun HPP***. To ensure macro-fiscal sustainability, the World Bank's "Roghun Financing Options Study" suggests completing the Roghun project in 2032 instead of 2029 as initially planned by the authorities. During the construction phase, the impact on growth is not expected to be significant due to the high import component of the project, while export proceeds from two temporarily installed turbines will barely cover operational costs. When production reaches its full capacity, the impact on the potential output is expected to be strong. After the construction phase is completed, production will increase steadily as the reservoir reaches its full supply level over the next decade, contributing to higher real GDP growth.

**6. Macroeconomic assumptions under the current baseline scenario are broadly similar to the medium-term projections in the 2021 DSA.** GDP growth is estimated to slow to estimated potential over the medium-term. The projected fiscal deficit in 2022 is lower relative to the 2021 DSA reflecting better-than-expected revenue performance. The projections also incorporate the government's commitment to fiscal discipline, with the budgets for 2023-24 expected to be in line with the medium-term fiscal deficit target of 2.5 percent of GDP. As discussed in the staff report, the external position is projected to strengthen in the 2022 DSA before stabilizing with moderate deficits in the medium term. International reserves (in months of imports) are higher in the current DSA owing to stronger than expected remittances inflows.

**7. The baseline scenario assumes that medium-term fiscal financing will be met from external financing.** Staff projections assume that domestic financing will start increasing beginning from 2025. Currently, domestic financing is limited to short-term T-bills covering 11 percent of gross financing needs. Staff projects that domestic financing will increase in the long-term as the local market develops, reaching 50 percent of gross financing needs by 2032. The staff also projects a draw-down of government's deposits in the NBT in medium-term. The average real interest rate on new publicly issued domestic debt is projected to gradually converge to the market rate.

[7] There are weaknesses in national accounts statistics.

**Text Table 4. Tajikistan: Baseline DSA Assumptions, 2019-27**
**(In percent of GDP)**

| | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028-32 |
|---|---|---|---|---|---|---|---|---|---|---|
| Real GDP growth, percent | | | | | | | | | | |
| 2022 DSA | 7.4 | 4.4 | 9.4 | 8.0 | 5.0 | 4.5 | 4.0 | 4.0 | 4.0 | 4.0 |
| 2021 DSA | 7.5 | -2.0 | 7.5 | 4.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 7.0 |
| 2020 DSA | 5.5 | 4.8 | 4.5 | 4.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 7.0 |
| CPI Inflation (period avg), percent | | | | | | | | | | |
| 2022 DSA | 7.8 | 8.6 | 9.0 | 6.6 | 5.4 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| 2021 DSA | 7.8 | 8.6 | 8.8 | 7.6 | 6.7 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| 2020 DSA | 7.5 | 7.4 | 6.7 | 6.5 | 6.5 | 6.5 | 7.5 | 8.5 | 9.5 | 12.5 |
| Primary fiscal balance | | | | | | | | | | |
| 2022 DSA | -1.2 | -3.4 | 0.2 | -0.6 | -1.8 | -1.8 | -1.9 | -1.9 | -2.2 | -2.4 |
| 2021 DSA | -1.2 | -3.5 | -1.0 | -1.9 | -1.9 | -2.0 | -2.0 | -2.1 | -1.4 | -1.7 |
| 2020 DSA | -2.7 | -3.2 | -3.3 | -3.5 | -3.5 | -3.4 | -2.4 | -1.4 | -0.4 | 2.6 |
| Overall fiscal balance (incl. PIP) | | | | | | | | | | |
| 2022 DSA | -2.1 | -4.3 | -0.7 | -1.4 | -2.5 | -2.5 | -2.5 | -2.5 | -2.5 | -2.5 |
| 2021 DSA | -2.1 | -7.7 | -4.4 | -2.6 | -2.5 | -2.5 | -2.5 | -2.5 | -2.5 | 0.5 |
| 2020 DSA | -3.8 | -4.3 | -4.3 | -4.3 | -4.3 | -4.3 | -4.3 | -4.3 | -4.3 | -1.3 |
| Current account balance | | | | | | | | | | |
| 2022 DSA | -2.2 | 4.1 | 8.2 | 6.4 | -1.6 | -2.4 | -2.8 | -2.9 | -2.9 | -3.0 |
| 2021 DSA | -2.3 | -7.8 | -4.7 | -4.6 | -4.4 | -4.3 | -4.3 | -4.3 | -4.3 | -1.3 |
| 2020 DSA | -4.5 | -5.2 | -5.3 | -5.3 | -5.4 | -5.5 | -5.5 | -5.5 | -5.5 | -2.5 |
| Public debt | | | | | | | | | | |
| 2022 DSA | 43.5 | 49.8 | 42.5 | 34.6 | 32.3 | 31.3 | 31.2 | 31.1 | 31.0 | 28.0 |
| 2021 DSA | 44.1 | 51.3 | 47.0 | 44.1 | 43.6 | 43.3 | 42.1 | 41.0 | 39.3 | 37.1 |
| 2020 DSA | 44.1 | 51.3 | 52.4 | 52.4 | 52.2 | 52.0 | 53.0 | 54.0 | 55.0 | 58.0 |

Sources: National authorities, the IMF and the WB staff estimates.

8. **The baseline scenario assumes that most financing needs will be mainly met through external borrowing from 2023 through 2027.** External financing will be provided on concessional terms in the near term, with no non-concessional financing until Roghun power purchase agreements (PPA) are signed, in line with the authorities' commitment under the 2020 Rapid Credit Facility (RCF)[8] and the IDA's Sustainable Development Finance Policy (SDFP). Concessional loans and grants are expected to be provided by international finance institutions, export credit agencies, and traditional bilateral partners; staff assumes concessional borrowing will continue in line with the levels of recent years. Residual financing needs could be potentially met from non-concessional borrowing once PPAs are in place. The baseline projects non-concessional borrowing of around 1 percent of GDP per year from 2029-2032.

[8] In the RCF Letter of Intent (LOI), the authorities committed to avoiding any additional non-concessional borrowing until the Roghun power purchase agreements have been finalized and debt is on a sustainable path over the long term. Likewise, the total Roghun financing envelope over a three-year period should be around US$1.1 billion (or on average approximately US$375 million per year). This envelope envisages US$200 million from the state budget and US$175 million from concessional borrowing.

**9. The realism tools largely suggest that staff forecasts are realistic.** Under the baseline, debt accumulation over the projection horizon is smaller than in recent years. The contribution of primary deficits to future debt accumulation is expected to be lower compared to the past few years due to continuous fiscal discipline in medium and long-term. Another important reason for the difference is that the contribution of exchange rate depreciation to external and public debt accumulation is lower than in recent years.

# COUNTRY CLASSIFICATION AND DETERMINATION OF SCENARIO STRESS TESTS

**10. Tajikistan's debt-carrying capacity (DCC) is assessed to be strong.** The revised composite indicator (CI) from the October 2022 WEO and the World Bank's 2021 CPIA rating suggest that Tajikistan's DCC is currently assessed to be strong. The DCC did not change from the previous year.

Text Table 5: Debt Carrying Capacity.

| Debt Carrying Capacity | Strong |
|---|---|

| Final | Classification based on current vintage | Classification based on the previous vintage | Classification based on the two previous vintages |
|---|---|---|---|
| Strong | Strong<br>3.08 | Strong<br>3.09 | Strong<br>3.10 |

| APPLICABLE | |
|---|---|
| **EXTERNAL debt burden thresholds** | |
| **PV of debt in % of** | |
| **Exports** | 240 |
| **GDP** | 55 |
| **Debt service in % of** | |
| **Exports** | 21 |
| **Revenue** | 23 |

| APPLICABLE | |
|---|---|
| **TOTAL public debt benchmark** | |
| PV of total public debt in percent of GDP | 70 |

**11. Stress tests for PPPs' agreements, potential size of a rescue of the financial sector, and a commodity price shock are set at default levels**. Stress test for PPPs' demand and guarantees is set at a default 1.73 percent of GDP. Stress test for the banking sector is set at default 5 percent of GDP.[9] Default tailored tests for commodity prices are also applied since non-fuel commodity exports constitute an important part of Tajikistan's exports.

**12. A tailored contingent liability stress test is designed to incorporate contingent liabilities from potential non-guaranteed debt of SOEs.** The debt coverage for Tajikistan excludes non-government guaranteed debt of non-financial public corporations (NFPC) under the baseline given uncertainties on the nature of the debt and lack of full financial information on SOEs. To illustrate the effects

[9] According to LIC DSA guidance, the default PPP stress parameter is calculated as 35 percent of the PPP capital stock, while for banking sector the default stress parameter is set at 5 percent of GDP. Staff considers default parameters to be adequate in the case of Tajikistan.

of contingent liabilities associated with large SOE debt that might have significant implications for debt sustainability, the size of shock is set at 11.2 percent of GDP. The shock reflects: (i) 8.2 percent of GPD based on available information on Barki Tojik arrears,[10] which could be transferred onto the government's balance sheet; (ii) 2 percent of GDP TALCO's external debt; and (iii) 1 percent of GDP Roghun HPP's security placed in the Pension Fund.

Text Table 6: Stress Test Parameters.

| | | | |
|---|---|---|---|
| 1 The country's coverage of public debt | The central government plus social security and extra budgetary funds, central bank, government-guaranteed debt | | |
| | Default | Used for the analysis | Reasons for deviations from the default settings |
| 2 Other elements of the general government not captured in 1. | 0 percent of GDP | 0 | |
| 3 SoE's debt (guaranteed and not guaranteed by the government) 1/ | 2 percent of GDP | 11.2 | Great uncertainty about the true size of liabilities and weak financial position and performance of SOEs |
| 4 PPP | 35 percent of PPP stock | 1.73 | |
| 5 Financial market (the default value of 5 percent of GDP is the minimum value) | 5 percent of GDP | 5 | |
| Total (2+3+4+5) (in percent of GDP) | 17.9 | | |

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%.

# DEBT SUSTAINABILITY

## EXTERNAL DEBT SUSTAINABILITY ANALYSIS

**13. Under the baseline scenario, the trajectory of external debt indicators does not change in comparison to the 2021 DSA**. External debt stabilizes in the medium-term. Under the current DSA only one indicator breaches a threshold but falls back to 2022 levels by the end of projection horizon in 2032.

**14. One external debt indicator breaches its threshold in earlier years of the projections but then falls below the threshold over the longer term (Figure 1).** More specifically, the baseline of debt-service-to-exports ratio breaches its respective threshold during 2025-27. After a jump in 2025, the flow/liquidity indicator remains elevated throughout 2027 and then falls below the threshold after 2027. The three-year pick up starting in 2025 is due to the Eurobond and the RCF principal repayments.[11] The other flow indicator, debt service-to-revenue ratio, remains below the threshold under the baseline. Both solvency indicators are stable throughout the projection horizon.

**15. Under the historical scenario, the debt burden indicators are higher than under the baseline scenario.** The historical scenario is based on averages from 2012 to 2021, during which the current account deficit was relatively higher – averaging 2.6 percent of GDP. Therefore, under this scenario, all debt burden ratios, especially for solvency indicators, remain considerably higher than the baseline trajectory and follow an upward trend throughout the projection period.

[10] Barki-Tojik is a state-owned energy company in Tajikistan. Contingent liabilities associated with the Barki-Tojik include arrears to thermal power plants, banking sector, Roghun HPP, and Uzbekistan for gas supply.
[11] Eurobond principal will be repaid in three equal instalments from September 2025 to September 2027. The IMF's RCF will be repaid from June 2025 to June 2030. These are the main reason for breaching the debt service-to-export threshold.

**16. Under the stress scenarios, two external debt indicators breach their respective thresholds**. Breaches in the debt-to-exports and debt-service-to exports ratios are significant and point to debt vulnerabilities. Shocks to exports are the most extreme and impactful for these indicators. Under a shock to exports, the PV of the debt-to-exports ratio reaches 369.7 percent (versus 240 percent threshold), while the PV of debt service-to-exports ratio reaches 43 percent (versus 21 percent threshold). The contingent liability shock also causes a deterioration in external debt sustainability. This suggests the need for the government to improve debt recording and management practices (especially for SOEs) and rebuild fiscal buffers to address the rising contingent liabilities.

**17. The market-financing risk indicator tool is moderate**. Recent tightening of global financial conditions pushed the spread on Tajikistan's sovereign bond (1750 bps) further beyond the benchmark (570bps) under the market module. The authorities' commitment to avoid non-concessional borrowing and commitment to fiscal discipline should allow the market financing risk to be moderate or low in the medium term.

## PUBLIC DEBT SUSTAINABILITY ANALYSIS

**18. Under the baseline, overall public debt-to-GDP does not breach its threshold but is assessed at high risk due to baseline breaches on the external debt indicators, in line with the 2021 DSA**. The public debt burden indicator (PV total debt-to-GDP) ratio stabilizes and remains below the 70 percent benchmark throughout the projection horizon. While the PV of debt-to-revenue ratio exhibits a relatively stable path, the debt service-to-revenue indicator significantly increases in the long term – reflecting a shift towards growing domestic financing and the associated increase in the debt service costs.

**19. The standardized sensitivity analysis shows lower risks, in comparison to the 2021 DSA.** Shock to combined contingent liabilities in the most extreme and historical shocks adversely affect all public debt indicators. The shock causes a 6.6 percent deterioration in comparison to baseline debt ratio by 2032. This highlights the need for strengthened oversight of SOE sector and streamlined borrowing policies at a time when the government is already financing a large infrastructure project.

# RISK RATING AND VULNERABILITIES

**20. The debt sustainability analysis under the new LIC DSF framework suggests that Tajikistan's risk of external and overall public debt distress is high**. These results are similar to the 2021 DSA findings. As in the 2021 DSA, debt stabilizes under the baseline.

**21. Tajikistan's risk of external debt distress remains high**. One external debt-burden (debt service-to-exports ratio) indicator breaches its threshold under the baseline for three years (2025-27). The indicator stabilizes after the Eurobond repayment is completed and falls below the threshold after 2027. The PV of debt-to-exports ratio is stable under the baseline and stays slightly below the threshold by the end of the horizon. All other debt burden ratios are stabilized during the projection horizon. External debt is most vulnerable to exports shocks and contingent liabilities. The baseline scenario and standardized stress tests indicate the importance of containing contingent liabilities and broadening the export base.

**22. The overall risk of public debt distress is high under the baseline due to a breach of an external debt indicator.** A contingent liability shock has the largest impact on public debt sustainability.

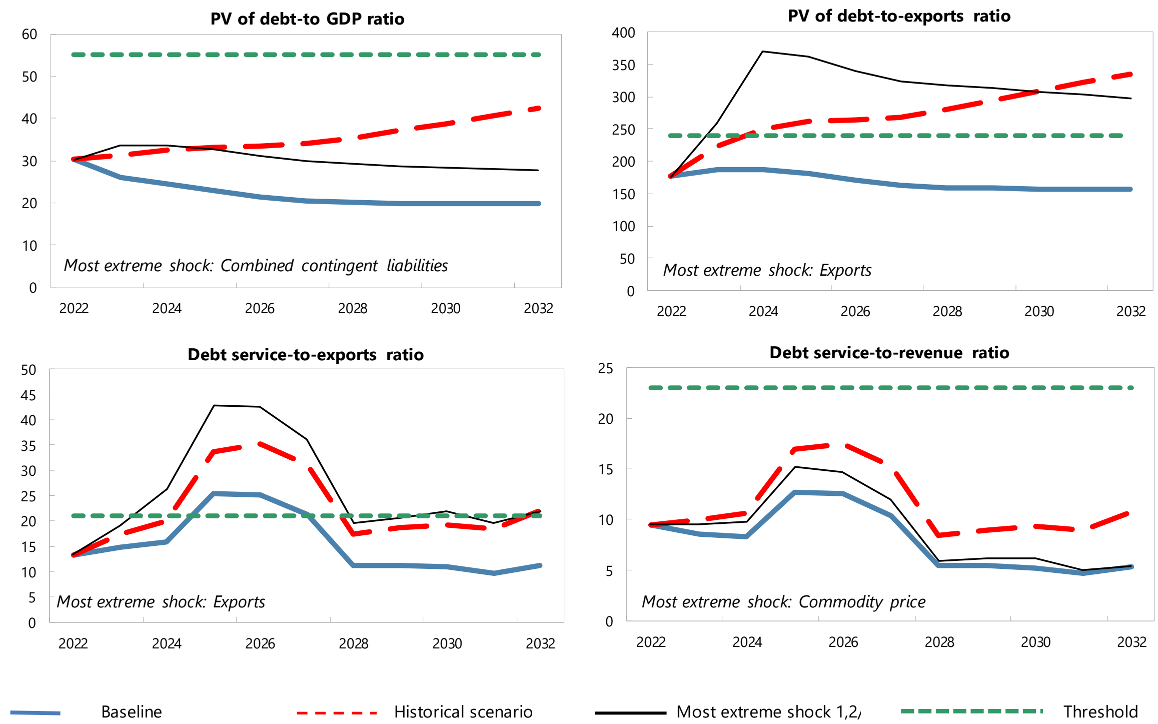
**23. Under the baseline, Tajikistan's public debt is sustainable owing to the authorities' adherence to fiscal discipline and to avoiding non-concessional external borrowing.** All stock and flow indicators are on a stable trajectory during the projection horizon. It is also worth noting that while external debt risks are high, total public debt levels do not breach thresholds in both the baseline and stress tests. In case fiscal adjustment falls short or the authorities resort to non-concessional borrowing, the debt path may deteriorate, putting debt sustainability under pressure. On the other hand, greater-than-expected progress with economic diversification or higher energy and non-energy exports would improve debt sustainability over the longer term.

**24. Other measures should also be taken to reduce debt vulnerabilities**. Diversifying exports and containing contingent liabilities will reduce the vulnerabilities of public debt to shocks. Improving debt management practices, including by smoothing the repayment profile could help address large breaches in the debt service-to-exports ratio in the medium term. Supported by the IDA's SDFP and IMF TA, Tajikistan has made significant progress in enhancing (i) debt transparency by publishing annual public debt reports, audited financial statements of top SOEs, and SOE Fiscal Risk Statements, (ii) fiscal sustainability by adopting the SOE Fiscal Risks Management Program for 2023-2027, and (iii) debt management by avoiding non-concessional borrowing and adopting a new edition of the Law on Public and Publicly Guaranteed Debt in June 2022. Continued progress in strengthening debt recording and reporting practices and enhancing the linkages between the medium-term debt management strategy and the government's borrowing plans would further help to contain debt vulnerabilities.

## AUTHORITIES' VIEWS

**25. The authorities broadly agreed with overall assessment**. They concurred with staff that debt vulnerabilities need to be better managed, including through a medium-term fiscal adjustment and seeking concessional borrowing to meet financing needs. They agreed that non-concessional borrowing would weaken debt sustainability and committed to refrain from it. The authorities agreed that contingent liabilities stemming from the SOE's sector contain a significant fiscal risk and may undermine debt sustainability.

## Figure 1. Tajikistan: Indicators of Public and Publicly Guaranteed External Debt under Alternative Scenarios, 2022-2032




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

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 | 1.4% | 1.4% |
| USD Discount rate | 5.0% | 5.0% |
| Avg. maturity (incl. grace period) | 26 | 26 |
| Avg. grace period | 5 | 5 |

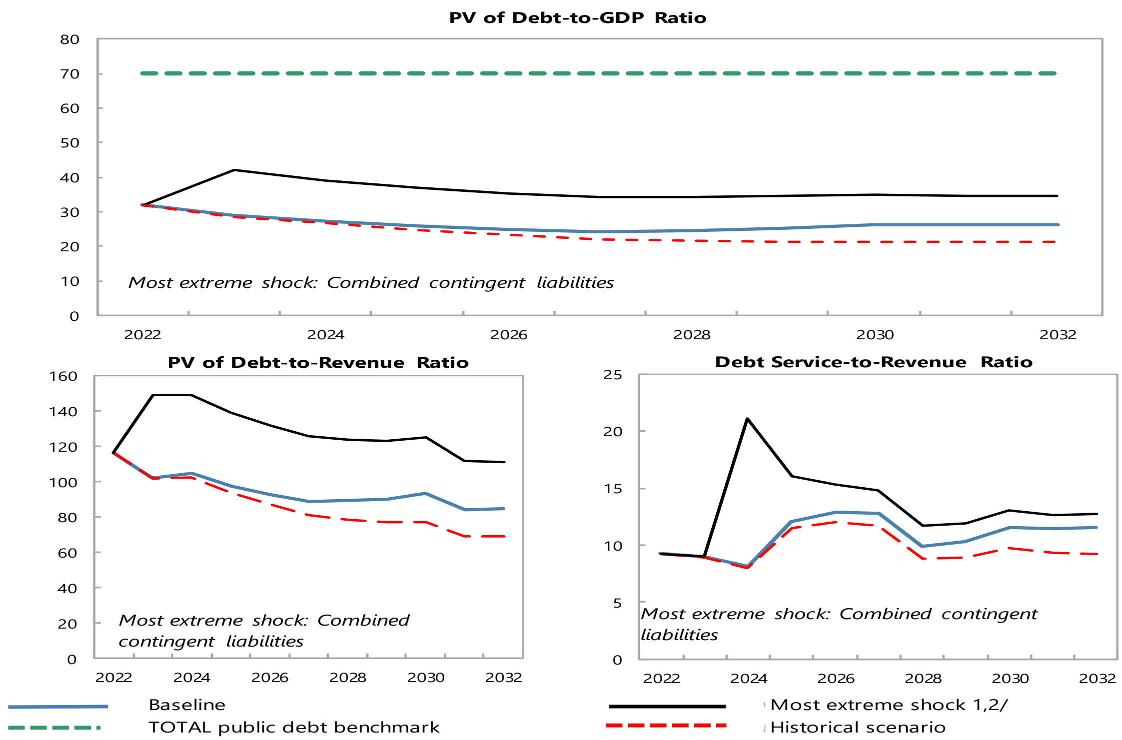
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

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 2032. 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.

2/ The magnitude of shocks used for the commodity price shock stress test are based on the commodity prices outlook prepared by the IMF research department.

## Figure 2. Tajikistan: Indicators of Public Debt Under Alternative Scenarios, 2022-2032



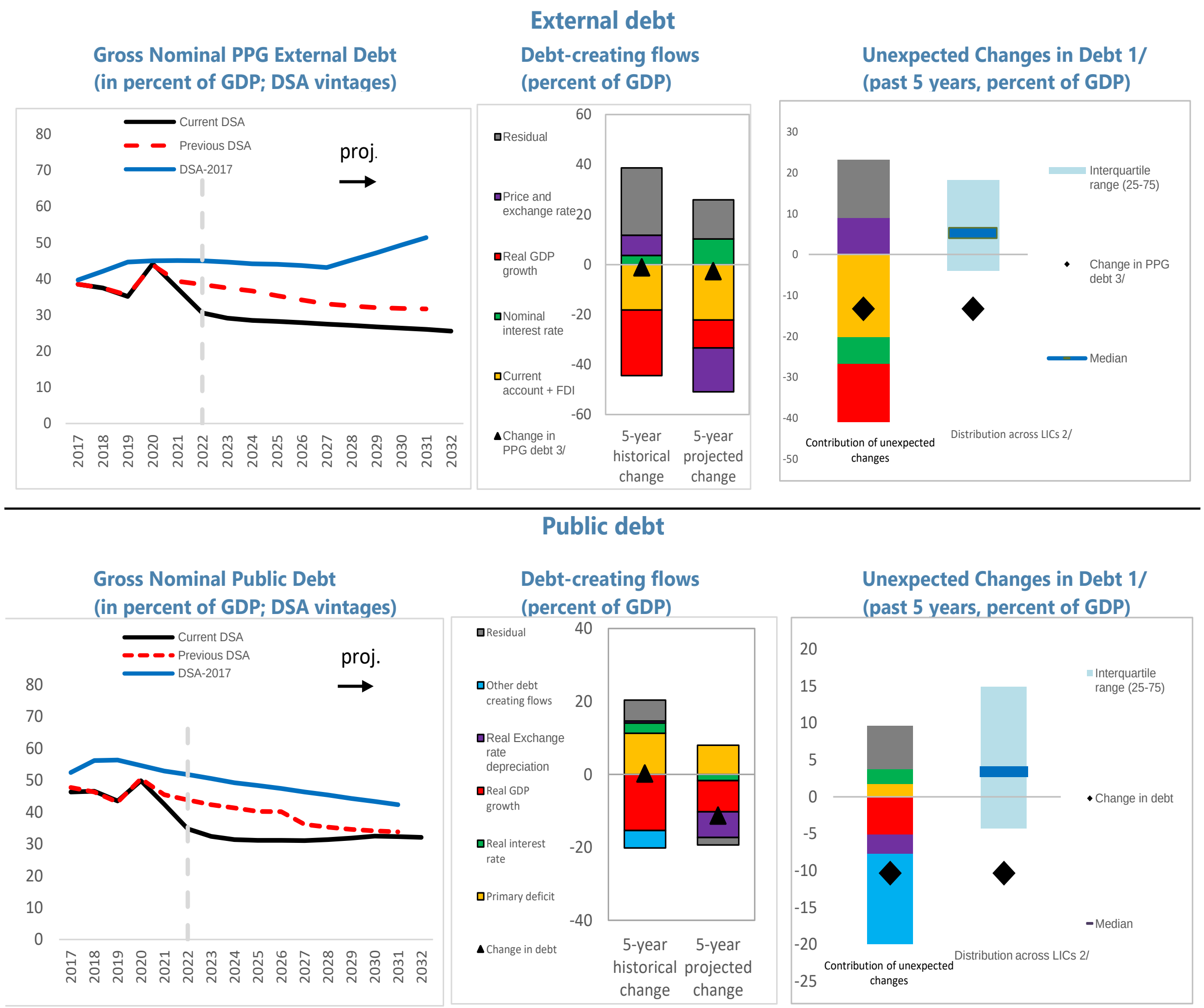

| Borrowing assumptions on additional financing needs resulting from the stress tests* | Default | User defined |
|---|---|---|
| **Shares of marginal debt** | | |
| External PPG medium and long-term | 72% | 72% |
| Domestic medium and long-term | 10% | 10% |
| Domestic short-term | 17% | 17% |
| **Terms of marginal debt** | | |
| External MLT debt | | |
| Avg. nominal interest rate on new borrowing in USD | 1.4% | 1.4% |
| Avg. maturity (incl. grace period) | 26 | 26 |
| Avg. grace period | 5 | 5 |
| Domestic MLT debt | | |
| Avg. real interest rate on new borrowing | 0.5% | 0.5% |
| Avg. maturity (incl. grace period) | 9 | 9 |
| Avg. grace period | 0 | 0 |
| Domestic short-term debt | | |
| Avg. real interest rate | -2.6% | -2.6% |

* 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 2032. 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. Tajikistan: Drivers of Debt Dynamics – Baseline Scenario




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

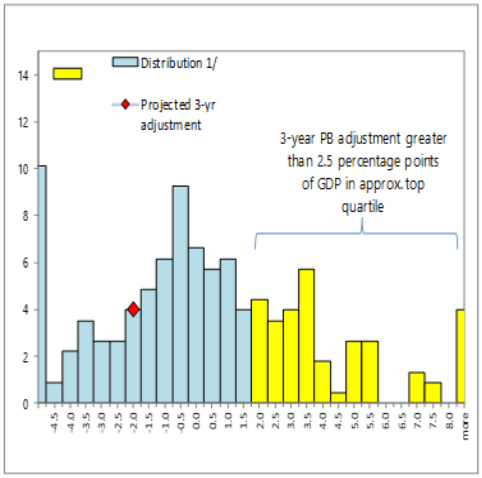
2/ Distribution across LICs for which LIC DSAs were produced.

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.

Note: Relatively high residual in debt carrying flow in part explained by price and exchange rate movements

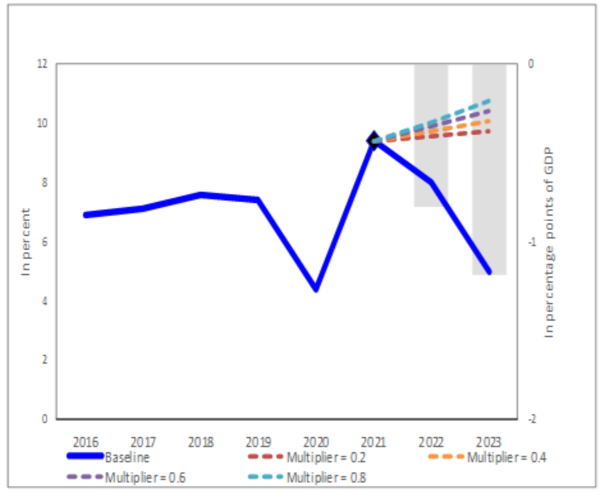
## Figure 4. Tajikistan: Realism Tools

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



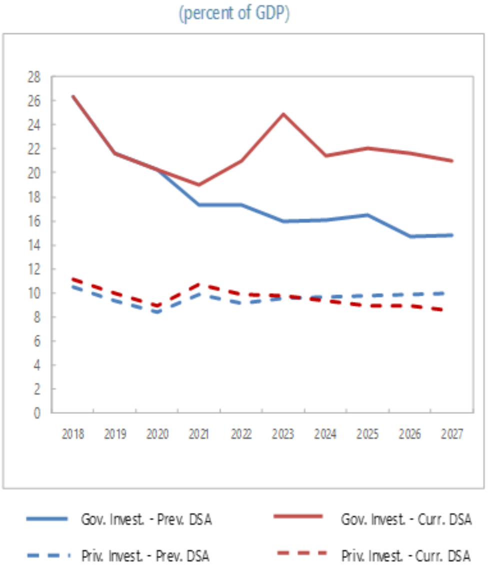

1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

**Fiscal Adjustment and Possible Growth Paths 1/**

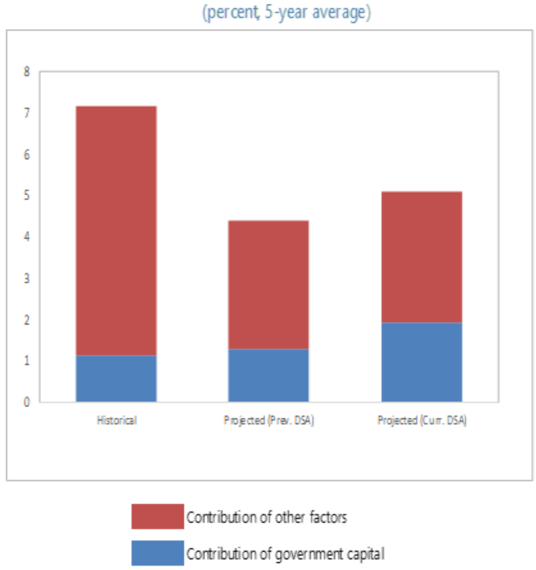



1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

**Public and Private Investment Rates**
(percent of GDP)



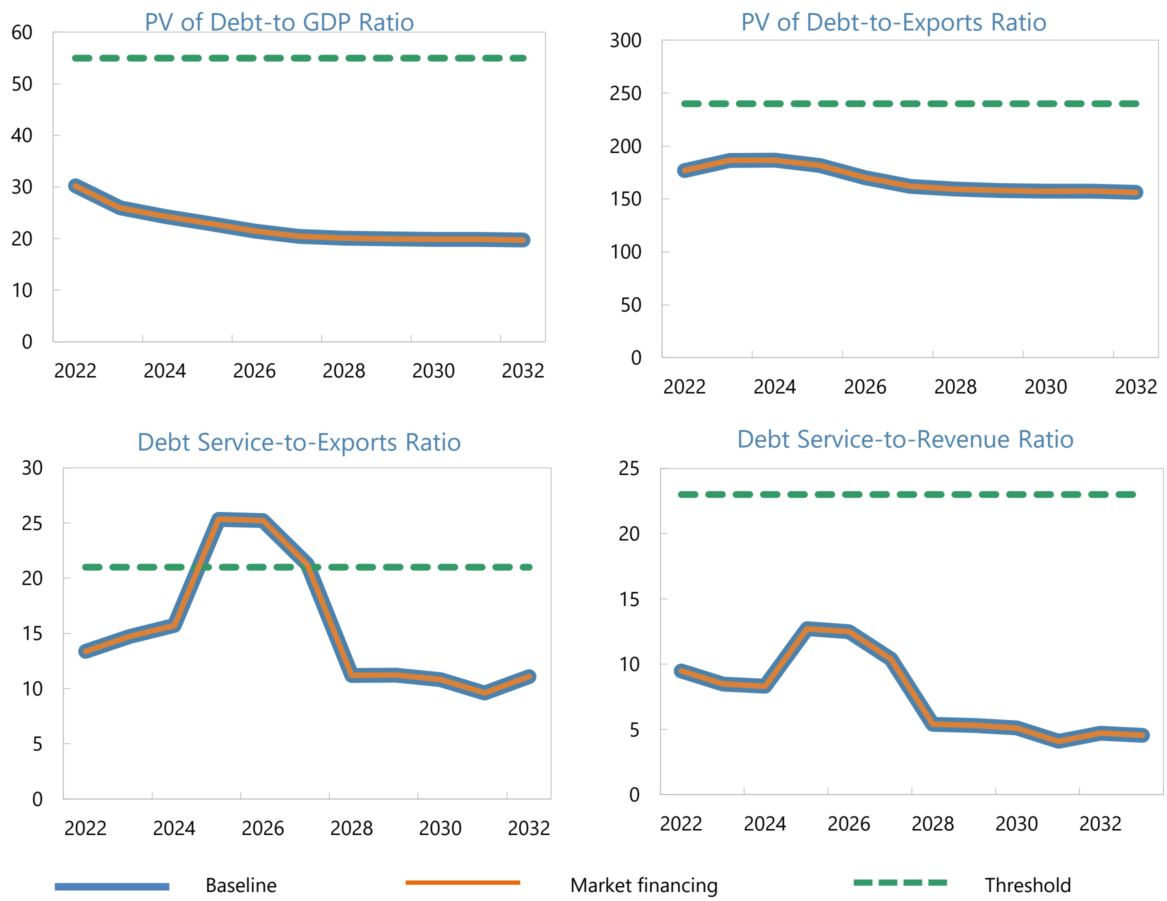

**Contribution to Real GDP growth**
(percent, 5-year average)



## Figure 5. Tajikistan: Market-Financing Risk Indicators

| | GFN 1/ | EMBI 2/ |
|---|---|---|
| Benchmarks | 14 | 570 |
| Values | 4 | 1200 |
| Breach of benchmark | No | Yes |
| Potential heightened liquidity needs | Moderate | |

1/ Maximum gross financing needs (GFN) over 3-year baseline projection horizon.
2/ EMBI spreads correspond to the latest available data.

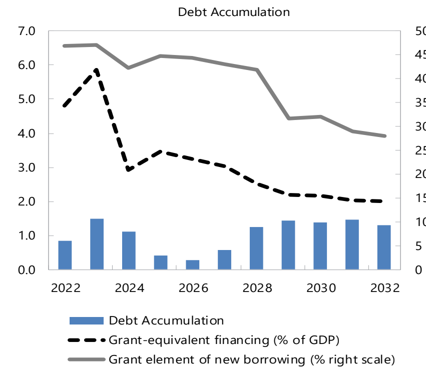


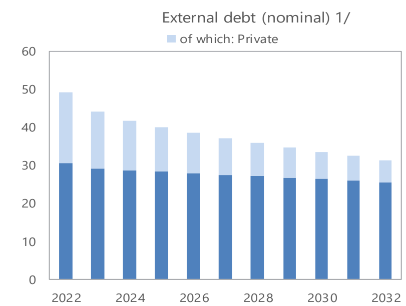

Sources: Country authorities; and staff estimates and projections.

## Table 1. Tajikistan: External Debt Sustainability Framework, Baseline Scenario, 2021-42
## (In percent of GDP, unless otherwise indicated)

| | Actual | Projections | | | | | | | | Average 8/ | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2032 | 2042 | Historical | Projections |
| **External debt (nominal) 1/** | 63.5 | 49.1 | 44.0 | 41.6 | 40.1 | 38.5 | 37.0 | 31.3 | 22.2 | 66.8 | 38.0 |
| ***of which: public and publicly guaranteed (PPG)*** | 37.5 | 30.6 | 29.1 | 28.5 | 28.3 | 27.9 | 27.5 | 25.5 | 17.7 | 33.4 | 27.6 |
| Change in external debt | -21.3 | -14.4 | -5.1 | -2.4 | -1.5 | -1.5 | -1.5 | -1.2 | 2.0 | | |
| **Identified net debt-creating flows** | -16.2 | -14.6 | -2.2 | -2.6 | -1.9 | -1.8 | -1.7 | -1.3 | -1.1 | -2.0 | -2.9 |
| **Non-interest current account deficit** | -9.1 | -8.4 | -0.4 | 0.3 | 0.8 | 0.8 | 1.0 | 1.3 | 1.1 | 1.6 | 0.0 |
| Deficit in balance of goods and services | 23.5 | 31.5 | 31.9 | 32.1 | 32.1 | 32.1 | 32.1 | 32.1 | 29.4 | 31.7 | 32.0 |
| Exports | 24.2 | 17.1 | 13.9 | 13.0 | 12.6 | 12.6 | 12.6 | 12.6 | 11.6 | | |
| Imports | 47.7 | 48.5 | 45.8 | 45.2 | 44.7 | 44.7 | 44.7 | 44.7 | 41.0 | | |
| Net current transfers (negative = inflow) | -11.3 | -12.4 | -10.1 | -9.6 | -9.4 | -9.3 | -9.3 | -9.2 | -8.4 | -8.7 | -9.6 |
| *of which: official* | -2.8 | -1.0 | -0.4 | -0.3 | -0.3 | -0.3 | -0.3 | -0.3 | 0.0 | | |
| Other current account flows (negative = net inflow) | -21.2 | -27.5 | -22.2 | -22.2 | -22.0 | -21.9 | -21.8 | -21.6 | -19.9 | -21.4 | -22.4 |
| **Net FDI (negative = inflow)** | -0.4 | -3.9 | -1.8 | -3.2 | -3.2 | -3.2 | -3.2 | -3.2 | -2.9 | -2.6 | -3.1 |
| **Endogenous debt dynamics 2/** | -6.7 | -2.3 | 0.0 | 0.3 | 0.5 | 0.6 | 0.4 | 0.6 | 0.7 | | |
| Contribution from nominal interest rate | 0.9 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | 1.9 | 1.8 | 1.7 | | |
| Contribution from real GDP growth | -7.3 | -4.3 | -2.0 | -1.8 | -1.5 | -1.5 | -1.4 | -1.2 | -0.9 | | |
| Contribution from price and exchange rate changes | -0.3 | ... | ... | ... | ... | ... | ... | ... | ... | | |
| **Residual 3/** | -5.1 | 0.2 | -2.9 | 0.1 | 0.4 | 0.2 | 0.2 | 0.1 | 3.1 | 2.5 | 0.0 |
| *of which: exceptional financing* | 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** | 34.6 | 30.2 | 25.9 | 24.3 | 22.9 | 21.5 | 20.4 | 19.7 | 15.0 | | |
| **PV of PPG external debt-to-exports ratio** | 142.9 | 176.8 | 186.5 | 186.6 | 181.7 | 170.2 | 161.9 | 156.2 | 129.4 | | |
| **PPG debt service-to-exports ratio** | 7.2 | 13.4 | 14.7 | 15.7 | 25.3 | 25.2 | 21.2 | 11.1 | 13.6 | | |
| **PPG debt service-to-revenue ratio** | 7.3 | 9.5 | 8.5 | 8.3 | 12.7 | 12.5 | 10.4 | 4.7 | 5.2 | | |
| Gross external financing need (Million of U.S. dollars) | 932.4 | 219.7 | 1370.5 | 1231.2 | 1260.5 | 1299.4 | 1338.3 | 1263.6 | 1878.0 | | |
| **Key macroeconomic assumptions** | | | | | | | | | | | |
| Real GDP growth (in percent) | 9.4 | 8.0 | 5.0 | 4.5 | 4.0 | 4.0 | 4.0 | 4.0 | 5.0 | 7.0 | 4.5 |
| GDP deflator in US dollar terms (change in percent) | 0.4 | 8.5 | 16.4 | 6.5 | 3.8 | 3.8 | 3.7 | 3.3 | 3.3 | -3.2 | 5.5 |
| Effective interest rate (percent) 4/ | 1.1 | 3.8 | 5.0 | 5.2 | 5.4 | 5.6 | 5.2 | 6.0 | 8.9 | 1.5 | 5.3 |
| Growth of exports of G&S (US dollar terms, in percent) | 53.4 | -17.2 | -0.5 | 4.2 | 4.5 | 8.1 | 7.9 | 7.4 | 7.0 | 9.6 | 4.1 |
| Growth of imports of G&S (US dollar terms, in percent) | 36.2 | 19.3 | 15.4 | 9.7 | 6.9 | 8.0 | 7.9 | 7.4 | 7.0 | 2.1 | 9.6 |
| Grant element of new public sector borrowing (in percent) | ... | 46.9 | 47.0 | 42.2 | 44.8 | 44.4 | 43.1 | 27.9 | 23.4 | ... | 39.2 |
| Government revenues (excluding grants, in percent of GDP) | 23.9 | 24.1 | 24.2 | 24.6 | 25.1 | 25.5 | 25.8 | 29.6 | 30.0 | 25.2 | 26.2 |
| Aid flows (in Million of US dollars) 5/ | 276.6 | 642.8 | 990.0 | 536.4 | 812.6 | 814.9 | 767.3 | 655.0 | 883.6 | | |
| Grant-equivalent financing (in percent of GDP) 6/ | ... | 4.8 | 5.9 | 2.9 | 3.5 | 3.3 | 3.0 | 2.0 | 1.4 | ... | 3.1 |
| Grant-equivalent financing (in percent of external financing) 6/ | ... | 75.8 | 74.3 | 61.0 | 58.5 | 57.8 | 57.8 | 54.4 | 51.0 | ... | 60.6 |
| Nominal GDP (Million of US dollars) | 8,934 | 10,467 | 12,796 | 14,241 | 15,373 | 16,601 | 17,905 | 25,820 | 57,044 | | |
| Nominal dollar GDP growth | 9.8 | 17.2 | 22.3 | 11.3 | 7.9 | 8.0 | 7.9 | 7.4 | 8.5 | 3.7 | 10.2 |
| **Memorandum items:** | | | | | | | | | | | |
| PV of external debt 7/ | 60.7 | 48.8 | 40.8 | 37.4 | 34.7 | 32.1 | 30.0 | 25.5 | 19.5 | | |
| In percent of exports | 250.7 | 285.4 | 293.4 | 286.8 | 275.2 | 254.1 | 237.4 | 201.8 | 168.3 | | |
| Total external debt service-to-exports ratio | 82.4 | 84.6 | 92.8 | 88.2 | 84.3 | 80.8 | 76.4 | 54.0 | 44.4 | | |
| PV of PPG external debt (in Million of US dollars) | 3088.0 | 3163.6 | 3319.0 | 3461.0 | 3520.4 | 3563.5 | 3657.8 | 5088.2 | 8536.4 | | |
| (PVt-PVt-1)/GDPt-1 (in percent) | | 0.8 | 1.5 | 1.1 | 0.4 | 0.3 | 0.6 | 1.3 | 0.5 | | |
| Non-interest current account deficit that stabilizes debt ratio | 12.2 | 6.0 | 4.7 | 2.8 | 2.3 | 2.4 | 2.5 | 2.4 | -0.9 | | |

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




Sources: Country authorities; and staff estimates and projections.

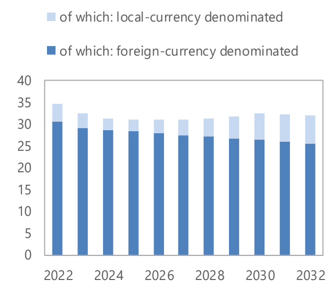
1/ Includes both public and private sector external debt.
2/ Derived as [r - g - ρ(1+g) + Ɛα (1+r)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, ρ = growth rate of GDP deflator in U.S. dollar terms, Ɛ=nominal appreciation of the local currency,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

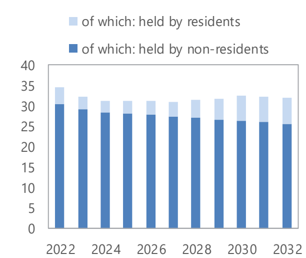
## Table 2. Tajikistan: Public Sector Debt Sustainability Framework, Baseline Scenario, 2021-42
## (In percent of GDP, unless otherwise indicated)

| | Actual | Projections | | | | | | | | Average 6/ | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2032 | 2042 | Historical | Projections |
| **Public sector debt 1/** | 42.5 | 34.7 | 32.4 | 31.4 | 31.1 | 31.1 | 31.0 | 32.0 | 35.2 | **39.6** | **32.0** |
| **of which: external debt** | 37.5 | 30.6 | 29.1 | 28.5 | 28.3 | 27.9 | 27.5 | 25.5 | 17.7 | **33.4** | **27.6** |
| | | | | | | | | | | | |
| Change in public sector debt | -7.4 | -7.8 | -2.3 | -1.0 | -0.2 | 0.0 | -0.1 | -0.2 | 0.1 | | |
| **Identified debt-creating flows** | -8.2 | -2.8 | -0.3 | 0.1 | 0.4 | 0.4 | 0.5 | -0.2 | 0.1 | **0.2** | **0.0** |
| **Primary deficit** | -0.2 | 0.6 | 1.8 | 1.8 | 1.9 | 1.9 | 2.2 | 1.5 | 1.9 | **1.8** | **1.9** |
| Revenue and grants | 27.0 | 27.5 | 28.2 | 26.2 | 26.6 | 26.8 | 27.1 | 31.0 | 31.0 | **27.5** | **28.0** |
| *of which: grants* | 3.1 | 3.4 | 4.1 | 1.6 | 1.5 | 1.4 | 1.4 | 1.4 | 1.0 | | |
| Primary (noninterest) expenditure | 26.8 | 28.1 | 30.0 | 28.0 | 28.4 | 28.8 | 29.3 | 32.5 | 32.9 | **29.3** | **29.9** |
| **Automatic debt dynamics** | -8.0 | -3.4 | -2.1 | -1.7 | -1.5 | -1.5 | -1.7 | -1.7 | -1.7 | | |
| Contribution from interest rate/growth differential | -3.6 | -3.4 | -2.1 | -1.7 | -1.5 | -1.5 | -1.7 | -1.7 | -1.7 | | |
| *of which: contribution from average real interest rate* | 0.7 | -0.2 | -0.5 | -0.3 | -0.3 | -0.3 | -0.6 | -0.4 | -0.1 | | |
| *of which: contribution from real GDP growth* | -4.3 | -3.1 | -1.7 | -1.4 | -1.2 | -1.2 | -1.2 | -1.2 | -1.7 | | |
| Contribution from real exchange rate depreciation | -4.4 | ... | ... | ... | ... | ... | ... | ... | ... | | |
| **Other identified debt-creating flows** | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | **-0.2** | **0.0** |
| Privatization receipts (negative) | 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 | | |
| Debt relief (HIPC and other) | 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 | | |
| **Residual** | 0.8 | -5.0 | -2.0 | -1.1 | -0.6 | -0.4 | -0.6 | -0.1 | 0.0 | **0.5** | **-0.9** |
| | | | | | | | | | | | |
| **Sustainability indicators** | | | | | | | | | | | |
| **PV of public debt-to-GDP ratio 2/** | **39.6** | **32.0** | **28.9** | **27.4** | **26.0** | **24.9** | **24.2** | **26.4** | **32.6** | | |
| **PV of public debt-to-revenue and grants ratio** | **146.7** | **116.3** | **102.4** | **104.6** | **97.7** | **92.8** | **89.1** | **85.2** | **105.2** | | |
| **Debt service-to-revenue and grants ratio 3/** | **7.4** | **9.3** | **9.0** | **8.1** | **12.1** | **12.9** | **12.8** | **11.9** | **27.1** | | |
| Gross financing need 4/ | 1.8 | 3.2 | 4.3 | 4.0 | 5.1 | 5.4 | 5.7 | 5.2 | 10.3 | | |
| | | | | | | | | | | | |
| **Key macroeconomic and fiscal assumptions** | | | | | | | | | | | |
| Real GDP growth (in percent) | 9.4 | 8.0 | 5.0 | 4.5 | 4.0 | 4.0 | 4.0 | 4.0 | 5.0 | **7.0** | **4.5** |
| Average nominal interest rate on external debt (in percent) | 1.1 | 1.9 | 2.0 | 2.2 | 2.3 | 2.3 | 1.5 | 1.4 | 2.3 | **0.2** | **1.7** |
| Average real interest rate on domestic debt (in percent) | -9.1 | -5.7 | -5.4 | -5.3 | -4.7 | -5.1 | -5.1 | -0.9 | 0.4 | **-0.8** | **-3.9** |
| Real exchange rate depreciation (in percent, + indicates depreciation) | -10.6 | ... | ... | ... | ... | ... | ... | ... | ... | **4.0** | **...** |
| Inflation rate (GDP deflator, in percent) | 10.0 | 6.0 | 6.3 | 6.5 | 6.0 | 6.0 | 6.0 | 5.5 | 5.5 | **5.5** | **5.9** |
| Growth of real primary spending (deflated by GDP deflator, in percent) | 3.7 | 13.4 | 12.1 | -2.5 | 5.5 | 5.2 | 6.0 | 3.5 | 4.4 | **9.0** | **6.4** |
| Primary deficit that stabilizes the debt-to-GDP ratio 5/ | 7.2 | 8.4 | 4.1 | 2.8 | 2.1 | 2.0 | 2.3 | 1.7 | 1.8 | **2.9** | **2.8** |
| 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 | | |

| | |
|---|---|
| **Definition of external/domestic debt** | **Residency-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 plus social security and extra budgetary funds, central bank, government-guaranteed debt . Definition of external debt is Residency-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. Tajikistan: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2022-2032

| | Projections 1/ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| **PV of debt-to GDP ratio** | | | | | | | | | | | |
| **Baseline** | 30 | 26 | 24 | 23 | 21 | 20 | 20 | 20 | 20 | 20 | 20 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2022-2032 2/ | 30 | 31 | 33 | 33 | 33 | 34 | 35 | 37 | 39 | 41 | 42 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 30 | 26 | 25 | 24 | 22 | 21 | 21 | 21 | 21 | 21 | 20 |
| B2. Primary balance | 30 | 27 | 29 | 28 | 26 | 25 | 25 | 24 | 24 | 24 | 23 |
| B3. Exports | 30 | 29 | 31 | 29 | 27 | 26 | 26 | 25 | 25 | 24 | 24 |
| B4. Other flows 3/ | 30 | 29 | 30 | 28 | 27 | 25 | 25 | 24 | 24 | 24 | 23 |
| B5. Depreciation | 30 | 26 | 24 | 23 | 21 | 20 | 20 | 20 | 20 | 20 | 20 |
| B6. Combination of B1-B5 | 30 | 32 | 30 | 28 | 26 | 25 | 25 | 24 | 24 | 24 | 23 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 30 | 34 | 33 | 32 | 30 | 29 | 29 | 28 | 28 | 28 | 28 |
| C2. Natural disaster | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C3. Commodity price | 30 | 29 | 29 | 27 | 24 | 21 | 19 | 17 | 15 | 13 | 11 |
| C4. Market Financing | 30 | 26 | 24 | 23 | 21 | 20 | 20 | 20 | 20 | 20 | 20 |
| **Threshold** | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| **PV of debt-to-exports ratio** | | | | | | | | | | | |
| **Baseline** | 177 | 186 | 187 | 182 | 170 | 162 | 159 | 158 | 157 | 157 | 156 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2022-2032 2/ | 177 | 224 | **250** | **262** | **264** | **269** | **281** | **295** | **308** | **322** | **336** |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 177 | 186 | 187 | 182 | 170 | 162 | 159 | 158 | 157 | 157 | 156 |
| B2. Primary balance | 177 | 196 | 224 | 221 | 208 | 199 | 195 | 192 | 190 | 188 | 186 |
| B3. Exports | 177 | **259** | **370** | **361** | **340** | **325** | **318** | **313** | **307** | **303** | **297** |
| B4. Other flows 3/ | 177 | 208 | 229 | 224 | 211 | 202 | 198 | 194 | 190 | 187 | 183 |
| B5. Depreciation | 177 | 186 | 187 | 182 | 170 | 162 | 159 | 158 | 157 | 157 | 156 |
| B6. Combination of B1-B5 | 177 | 237 | 209 | **258** | **242** | 231 | 227 | 223 | 220 | 218 | 215 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 177 | **244** | **255** | **253** | **240** | 231 | 227 | 224 | 222 | 221 | 219 |
| C2. Natural disaster | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C3. Commodity price | 177 | **263** | **279** | **255** | 218 | 185 | 159 | 142 | 125 | 110 | 95 |
| C4. Market Financing | 177 | 186 | 187 | 182 | 170 | 162 | 159 | 158 | 157 | 157 | 156 |
| **Threshold** | 240 | 240 | 240 | 240 | 240 | 240 | 240 | 240 | 240 | 240 | 240 |
| **Debt service-to-exports ratio** | | | | | | | | | | | |
| **Baseline** | 13 | 15 | 16 | 25 | 25 | 21 | 11 | 11 | 11 | 10 | 11 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2022-2032 2/ | 13 | 17 | 20 | 34 | 35 | 31 | 17 | 19 | 19 | 18 | 22 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 13 | 15 | 16 | 25 | 25 | 21 | 11 | 11 | 11 | 10 | 11 |
| B2. Primary balance | 13 | 15 | 17 | 27 | 27 | 23 | 13 | 13 | 13 | 12 | 13 |
| B3. Exports | 13 | 19 | 26 | 43 | 43 | 36 | 19 | 21 | 22 | 20 | 22 |
| B4. Other flows 3/ | 13 | 15 | 16 | 26 | 26 | 22 | 12 | 13 | 14 | 12 | 14 |
| B5. Depreciation | 13 | 15 | 16 | 25 | 25 | 21 | 11 | 11 | 11 | 10 | 11 |
| B6. Combination of B1-B5 | 13 | 17 | 20 | 33 | 32 | 27 | 15 | 16 | 15 | 14 | 16 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 13 | 15 | 17 | 27 | 27 | 23 | 12 | 12 | 12 | 11 | 12 |
| C2. Natural disaster | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C3. Commodity price | 13 | 19 | 21 | 33 | 31 | 25 | 13 | 13 | 13 | 11 | 12 |
| C4. Market Financing | 13 | 15 | 16 | 25 | 25 | 21 | 11 | 11 | 11 | 10 | 11 |
| **Threshold** | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| **Debt service-to-revenue ratio** | | | | | | | | | | | |
| **Baseline** | 9 | 8 | 8 | 13 | 12 | 10 | 5 | 5 | 5 | 4 | 5 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2022-2032 2/ | 9 | 10 | 11 | 17 | 17 | 15 | 8 | 9 | 9 | 8 | 9 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 9 | 9 | 9 | 13 | 13 | 11 | 6 | 6 | 5 | 4 | 5 |
| B2. Primary balance | 9 | 8 | 9 | 14 | 13 | 11 | 6 | 6 | 6 | 5 | 6 |
| B3. Exports | 9 | 9 | 9 | 14 | 13 | 11 | 6 | 6 | 7 | 6 | 6 |
| B4. Other flows 3/ | 9 | 8 | 9 | 13 | 13 | 11 | 6 | 6 | 6 | 5 | 6 |
| B5. Depreciation | 9 | 8 | 8 | 13 | 12 | 10 | 5 | 5 | 5 | 4 | 5 |
| B6. Combination of B1-B5 | 9 | 9 | 9 | 14 | 14 | 12 | 6 | 7 | 6 | 5 | 6 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 9 | 8 | 9 | 13 | 13 | 11 | 6 | 6 | 6 | 5 | 5 |
| C2. Natural disaster | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C3. Commodity price | 9 | 10 | 10 | 15 | 15 | 12 | 6 | 6 | 6 | 5 | 5 |
| C4. Market Financing | 9 | 8 | 8 | 13 | 12 | 10 | 5 | 5 | 5 | 4 | 5 |
| **Threshold** | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

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. Tajikistan: Sensitivity Analysis for Key Indicators of Public Debt, 2022-2032

| | Projections 1/ | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
| | **PV of Debt-to-GDP Ratio** | | | | | | | | | | |
| **Baseline** | 32 | 29 | 27 | 26 | 25 | 24 | 25 | 25 | 26 | 26 | 27 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2022-2032 2/ | 32 | 29 | 27 | 25 | 23 | 22 | 21 | 21 | 21 | 21 | 21 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 32 | 30 | 30 | 29 | 28 | 28 | 29 | 30 | 32 | 32 | 34 |
| B2. Primary balance | 32 | 31 | 34 | 32 | 30 | 29 | 29 | 30 | 31 | 31 | 31 |
| B3. Exports | 32 | 31 | 32 | 31 | 30 | 29 | 29 | 29 | 30 | 30 | 30 |
| B4. Other flows 3/ | 32 | 32 | 33 | 31 | 30 | 29 | 29 | 30 | 30 | 30 | 30 |
| B5. Depreciation | 32 | 36 | 32 | 28 | 25 | 22 | 21 | 21 | 20 | 20 | 19 |
| B6. Combination of B1-B5 | 32 | 29 | 29 | 27 | 25 | 24 | 24 | 25 | 25 | 25 | 25 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 32 | 42 | 39 | 37 | 35 | 34 | 34 | 34 | 35 | 35 | 35 |
| C2. Natural disaster | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C3. Commodity price | 32 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 39 |
| C4. Market Financing | 32 | | | | | | | | | | |
| **TOTAL public debt benchmark** | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| | **PV of Debt-to-Revenue Ratio** | | | | | | | | | | |
| **Baseline** | 116 | 102 | 105 | 98 | 93 | 89 | 89 | 90 | 93 | 88 | 86 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2022-2032 2/ | 116 | 101 | 102 | 94 | 87 | 81 | 79 | 77 | 77 | 72 | 69 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 116 | 105 | 112 | 108 | 105 | 103 | 105 | 108 | 113 | 108 | 108 |
| B2. Primary balance | 116 | 110 | 128 | 119 | 113 | 108 | 107 | 107 | 109 | 102 | 99 |
| B3. Exports | 116 | 109 | 124 | 116 | 110 | 106 | 105 | 105 | 107 | 99 | 96 |
| B4. Other flows 3/ | 116 | 113 | 126 | 118 | 112 | 108 | 107 | 107 | 108 | 100 | 97 |
| B5. Depreciation | 116 | 128 | 123 | 107 | 93 | 83 | 77 | 74 | 73 | 65 | 61 |
| B6. Combination of B1-B5 | 116 | 103 | 110 | 102 | 95 | 90 | 88 | 88 | 89 | 83 | 80 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 116 | 149 | 149 | 139 | 132 | 126 | 124 | 123 | 125 | 116 | 113 |
| C2. Natural disaster | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C3. Commodity price | 116 | 120 | 134 | 137 | 136 | 134 | 133 | 131 | 135 | 128 | 126 |
| C4. Market Financing | 116 | | | | | | | | | | |
| | **Debt Service-to-Revenue Ratio** | | | | | | | | | | |
| **Baseline** | 9 | 9 | 8 | 12 | 13 | 13 | 10 | 10 | 12 | 12 | 12 |
| **A. Alternative Scenarios** | | | | | | | | | | | |
| A1. Key variables at their historical averages in 2022-2032 2/ | 9 | 9 | 8 | 12 | 12 | 12 | 9 | 9 | 10 | 10 | 10 |
| **B. Bound Tests** | | | | | | | | | | | |
| B1. Real GDP growth | 9 | 9 | 9 | 13 | 14 | 14 | 11 | 12 | 14 | 14 | 14 |
| B2. Primary balance | 9 | 9 | 11 | 16 | 15 | 14 | 11 | 12 | 13 | 13 | 13 |
| B3. Exports | 9 | 9 | 8 | 13 | 13 | 13 | 10 | 11 | 13 | 13 | 13 |
| B4. Other flows 3/ | 9 | 9 | 8 | 13 | 13 | 13 | 10 | 11 | 13 | 13 | 13 |
| B5. Depreciation | 9 | 10 | 11 | 16 | 17 | 16 | 11 | 11 | 12 | 12 | 12 |
| B6. Combination of B1-B5 | 9 | 9 | 9 | 14 | 13 | 13 | 10 | 11 | 12 | 12 | 12 |
| **C. Tailored Tests** | | | | | | | | | | | |
| C1. Combined contingent liabilities | 9 | 9 | 21 | 16 | 15 | 15 | 12 | 12 | 13 | 13 | 13 |
| C2. Natural disaster | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| C3. Commodity price | 9 | 10 | 9 | 15 | 18 | 18 | 14 | 14 | 15 | 16 | 16 |
| C4. Market Financing | | | | | | | | | | | |

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.