

INTERNATIONAL DEVELOPMENT ASSOCIATION  
INTERNATIONAL MONETARY FUND

SUPPLEMENT TO 2018 GUIDANCE NOTE ON THE BANK-FUND DEBT SUSTAINABILITY  
FRAMEWORK FOR LOW INCOME COUNTRIES

July 18, 2024

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## EXECUTIVE SUMMARY

*This supplement provides additional guidance to IMF and World Bank staff on the implementation of the Bank-Fund Debt Sustainability Framework for Low Income Countries (LIC-DSF) approved in 2017 by the IMF and World Bank Boards. It complements the 2018 Bank-Fund guidance note on the LIC-DSF (IMF and WB, 2018). This provides further guidance and practical examples on how to account in a more structured way for risks stemming from climate change and domestic public debt vulnerabilities, which have become more prominent since the last review of the LIC-DSF in 2017, and on the use of the LIC-DSF in debt restructuring situations, which have increased in complexity in recent years. It has been prepared as a first step to address these issues, within the current IMF and World Bank Boards-approved framework, while the deeper review of the LIC-DSF is still progressing. The full review will seek to address these and other issues in greater depth, by exploring ways to adapt the framework to the evolving landscape of debt vulnerabilities and to keep it up to date with analytical advances.*

*Climate change. This supplement clarifies when climate change risks and climate investments and policies have to be explicitly taken into account in the debt sustainability analysis (DSA). It discusses the general modalities of their incorporation in the central projections in the baseline or in alternative scenarios and in their expected volatility. It also provides guidance on how to account for climate-related innovative debt instruments in DSAs.*

*Domestic public debt vulnerabilities. This supplement provides more granular guidance on how to account for domestic public debt vulnerabilities into the risk and sustainability assessments of overall public debt, through a risk-based qualitative analysis centered around the dynamics of public debt stock and debt service, and the consistency of the domestic public borrowing plan with maintaining macroeconomic and financial stability.*

*Use of the LIC-DSF in debt restructuring situations. This supplement provides further guidance on: (i) setting of debt restructuring targets where a debt restructuring is undertaken in the context of a Fund-supported program; (ii) the modalities of DSA scenario analysis to help the authorities assess the relative merits of different restructuring proposals, with special attention to cases where domestic public debt or state-contingent debt instruments (SCDIs) are involved; and (iii) on the presentation of the DSA analysis at different stages of the restructuring process.*

*All aspects of the 2018 LIC-DSF Guidance Note remain in effect, except as modified below.*

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## Abbreviations and Acronyms

BoP	Balance of Payments
CI	Composite Indicator
CAT DDO	Catastrophic Deferred Drawdown Options
CCDR	WB Country Climate and Development Report
CC-MFMod	WB Climate Change Macro-Fiscal Model
CPD	IMF Climate Policy Diagnostics
CRDC	Climate-Resilient Debt Clauses
DCC	Debt Carrying Capacity
DPO	WB Development Policy Operation
DSA	Debt Sustainability Analysis
DSF	Debt Sustainability Framework
ECF	IMF Extended Credit Facility
EFF	IMF Extended Fund Facility
FX	Foreign Exchange
GN	Guidance Note
GRA	IMF's General Resources Account
GSDR	Global Sovereign Debt Roundtable
IDA	International Development Association
IMF	International Monetary Fund
LIC	Low-Income Country
LIC-DSF	Debt Sustainability Framework for Low-Income Countries
MAC	Market-Access Country
MANAGE	Mitigation, Adaptation and New Technologies Applied General Equilibrium model
MOU	Memorandum of Understanding
NPV	Net Present Value
OCC	Official Creditor Committee
OSI	Official Sector Involvement
PRGT	IMF Poverty Reduction and Growth Trust
PV	Present value
REER	Real Effective Exchange Rate
RSF	IMF Resilience and Sustainability Facility
SCDI	State-Contingent Debt Instrument
SPR	Strategy, Policy and Review department of the IMF
SRDSF	Sovereign Risk and Debt Sustainability Framework
WB	World Bank
WEO	World Economic Outlook

## SECTION I. CONTEXT

1. Since the last LIC-DSF review (IMF and World Bank, 2017), risks stemming from climate change and domestic public debt vulnerabilities have become more prominent and a number of complex debt restructurings has been undertaken, pointing to areas where additional guidance is warranted:

### Climate change:<sup>2</sup>

- **Introducing additional considerations on climate change in the assessment**, drawing from recent World Bank and IMF policy documents;<sup>3</sup>
- **Introducing general considerations on incorporation of climate-linked debt instruments.**

### Domestic public debt vulnerabilities:<sup>4</sup>

- **Providing more granular guidance on how to account for domestic public debt vulnerabilities into the risk and sustainability assessments of overall public debt (IMF-WB, 2017, ¶154)** through a risk-based qualitative analysis of the dynamics of domestic public debt indicators, and the consistency of the domestic public borrowing plan with maintaining macroeconomic and financial stability.

### Use of the LIC-DSF in debt restructuring situations:

- **Introducing general considerations on how DSAs prepared for countries that have decided to undertake a debt restructuring** can support creditors' and debtors' decisions in the debt restructuring:
  - **Setting of debt restructuring targets**, in the case of a debt restructuring undertaken in the context of a Fund-supported program;
  - **Modalities of DSA scenario analysis** to help authorities assess the relative merits of different restructuring proposals, with special considerations where domestic public debt or state-contingent debt instruments (SCDIs) are involved;
- **Presentation of analysis in DSAs at different stages of the restructuring process.**

<sup>2</sup>Existing guidelines for incorporating climate change considerations in the DSA include the need to take into account natural disasters in long-term growth forecasts (IMF and WB, 2018, Appendix IV) when macrocritical and a requirement for activation of the natural disaster tailored stress test for countries vulnerable to natural disasters (IMF and WB, 2018, Table 10).

<sup>3</sup>IMF's Surveillance Guidance Note (IMF, 2022a) and RST Operational Guidance Note (IMF, 2023a); and World Bank Group's Ending Poverty on a Livable Planet: Report to Governors on World Bank Evolution (WB, 2023b) and Climate Change Action Plan 2021–2025 (CCAP; WB, 2021).

<sup>4</sup>The existing LIC-DSF framework analyses domestic public debt vulnerabilities through the prism of overall public debt dynamics, which can potentially mask domestic public debt vulnerabilities. The market financing pressures stress test-one of the triggers for which is high gross financing needs-is mandated only for market access countries and focuses exclusively on external market financing risks. In practice, the opportunity to use the overall risk rating to flag heightened risks originating from domestic public debt developments has rarely been used.

## SECTION II. SUPPLEMENTARY GUIDANCE

### A. Climate-Change

#### Incorporation of Climate-Change Risks and Climate Investments and Policies in Analysis

**2. Climate-change risks and climate investments and policies affect debt sustainability through their impact on the baseline macroeconomic forecasts and their expected volatility.**<sup>5</sup> Climate change encompasses both slow-moving, long-term shifts in climate and sudden, extreme weather events, which are increasing in frequency and intensity. The slow rise in temperature and associated changes in weather patterns affect the baseline of the debt sustainability assessment through, inter alia, their impact on productivity and hence the growth potential of the economy and fiscal performance via associated losses in government revenues and need for higher social protection and capital spending. An increase in the frequency and intensity of extreme weather events can increase the volatility around the baseline debt sustainability scenario, driven by larger than otherwise anticipated disruptions of economic activities, and its impact on domestic revenue mobilization, as well as the need for public spending for reconstruction, investment in adaptation (with potentially substantial import content) and social protection. Investments to increase resilience to climate change and support the green transition, and climate policies more broadly, can help mitigate both the impacts of sudden, extreme events and the slow-moving, long-term shifts in climate.

**3. Guidelines for inclusion in debt sustainability analyses (DSAs).** Coverage of climate-change risks and climate investments and policies is:

- **Required in DSAs accompanying requests for Fund Resilience and Sustainability Facility arrangement (RSF arrangement) or World Bank Development Policy Operation with Catastrophic Deferred Drawdown Options (DPOs with CAT DDOs).**<sup>6</sup>
- **Encouraged in all other cases, with a presumption for inclusion** in the DSAs accompanying or issued following the publication of WB or IMF in-depth topical analyses,<sup>7</sup> and for countries for which climate change and climate adaptation or transition management policies are assessed as macrocritical in Fund's Article IV and program reports, or considered essential to be implemented in the short- and medium-term to ensure that the macroeconomic policy framework is adequate in WB's Development Policy Financing operations. Figure 1 presents indicators of LICs' exposure and vulnerability to climate-related adaptation risks. In the absence of new information or analysis that would materially change the implications for the

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<sup>5</sup>Climate-change risks include physical and transition risks. The former includes the direct effects of extreme weather events as well as slow-moving long-term shifts in climate. The latter involve economic costs arising from the shift towards a low-carbon economy. Climate policies include policies to adapt to climate change (adaptation policies) and manage the transition to a low-carbon economy (transition management policies).

<sup>6</sup>The Resilience and Sustainability Facility (RSF) provides longer-term, affordable financing for countries to address longer-term structural challenges, including from climate change and pandemic preparedness. The DPOs with CAT DDOs provides countries with immediate access to funds in the event of a natural disaster or public health emergency.

<sup>7</sup>For example, World Bank's Country Climate and Development Reports (CCDR) and IMF's Climate Policy Diagnostics (CPD).

debt risk and/or sustainability assessments, the discussion of climate-related debt risks can be streamlined, drawing upon the findings and models presented in past DSAs, as appropriately referenced.

**4. When the DSA incorporates the impact of climate-change risks and climate investment and policies, the write-up should elaborate on how they are incorporated in the analysis:**

- **The write-up should indicate how the effects of slow-moving, long-term shifts in climate and changes to the frequency and intensity of extreme weather events (e.g., via scarring) affect the baseline,** including whether the positive effects from climate-related investment on resilience and growth are part of the baseline and whether the baseline assumptions are aligned with the authorities' climate policies (including Nationally Determined Contributions)<sup>8</sup> or adjustments have been made because of staff views on the realism of these plans (e.g., investment pledges).<sup>9</sup> In general, DSAs should be internally consistent by considering in tandem the negative effects of climate change and the positive effects of climate policies and should clearly refer to the source of the assumptions and any adjustments made.
- **The discussion should also cover whether and how the impact of extreme weather events on the volatility around the baseline debt sustainability scenario is reflected in the analysis,** including whether the positive effects of investments to increase resilience to climate change and support the green transition, and climate policies more broadly, and the use of climate-linked debt instruments, are accounted for in the design of stress-test scenarios focusing on climate-change risks.

If incorporation of climate-change risks and related investment and policies in the DSA point to the need for a changed risk or sustainability assessment compared to the previous DSA, country teams should engage early on in discussions with country authorities, including on the realism of underlying assumptions and financing sources.

**5. The effects of slow-moving long-term shifts in climate, and changes to the frequency and intensity of extreme weather events on debt risks on central projections in the baseline or in alternative scenarios, can be analyzed using different modeling techniques:**

- **Results from stand-alone, climate-change macro models and tools can inform macro assumptions** in the baseline or in alternative scenarios. Results from models used in WB or IMF in-depth analyses of climate-change impact or deployed by country teams can be used to capture different aspects of the impact of natural disasters,<sup>10</sup> slow-moving long-term shifts in climate patterns, and/or climate policies on macroeconomic variables. Box 1 provides a non-exhaustive list of examples of the use of some of these models in debt sustainability analyses.

<sup>8</sup>See <https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs>.

<sup>9</sup>When available, country teams may use estimations of climate-related investment needs from country-specific studies, such as WB's CCDR and IMF's CPD, Aligishiev, Bellon, and Massetti (2022), countries' National Adaptation Plans or Nationally Determined Contributions (NDCs) or studies by regional development banks.

<sup>10</sup>For example, WB CCDR and IMF CPD. When using results from stand-alone climate change macro models, it is important to specify whether the baseline is inclusive or exclusive of climate change, and if so the climate scenario used (e.g. IPCC's SSP1-2.6).

- **The use of alternative scenarios is encouraged, though not required.** Depending on the extent to which climate risks and policies (including investments) to address them are incorporated in the baseline, an alternative scenario (involving running the DSA on an alternative set of macroeconomic-climate assumptions) could:<sup>11</sup>
  - Capture the longer-term impact on the macroframework and debt sustainability of the interplay between climate change and climate policies. That includes climate-related investment (both public and private) that needs to be carried out over the medium- and long-run to meet adaptation needs and reach transition management objectives. It also includes social spending (where data is available) with the objective of cushioning the impact on the most vulnerable segments of the population.
  - Provide a benchmark for calibrating the government share in the additional economy-wide spending on climate-related policies that is consistent with unchanged outlook relative to the baseline for the risk of debt distress and debt sustainability. This benchmark would represent the maximum amount that can be financed by a realistic mix of higher primary deficit, loans and grants (i.e., a financing mix that does not include an unidentified financing gap). The discussion can then focus on the policy mix to ensure that the private sector is able to finance the remainder of climate-related spending needs.
- **If no stand-alone, climate-change macro model or in-depth climate analysis is available, basing the projection of the economy’s long-term growth rate on its long-term historical trend can also serve as a starting point especially for near-term analysis,** as historical growth outturns already reflect the impact of past temperature increases and extreme weather events. However, as with other drivers of structural changes, special attention should be paid to the impact of projected changes in the trend of climate patterns or increase in the frequency and severity of extreme weather events on long-term growth. Where data availability limits quantification, caveats should be made on aspects of the analysis that cannot be adequately quantified, with an indication of the type of data or analysis that will be needed to advance the understanding of these issues going forward.

**6. The impact of extreme but plausible weather events on the distribution of outcomes around the central projection can be analyzed with the help of stress tests (IMF and WB, 2018):**

- **The tailored natural disaster stress test** remains mandatory for the most vulnerable countries, defined as small developing states prone to natural disaster (IMF, 2016) and LICs that meet the criteria for frequency (around 2 disasters every 3 years) and economic losses (above 5 percent of GDP per year) from natural disasters (IMF and WB, 2018, Table 10); and is an option for other LICs. Its calibration would in general be expected to be updated, whenever an in-depth analysis of the effects of extreme events is available, as in

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<sup>11</sup>Alternative scenarios can be calibrated using the findings from the World Bank’s CCDRs, IMF’s CPDs and Climate-Public Investment Management Assessment (C-PIMA) and government’s Fiscal Risk Statements (FSRs). Approaches used in these analyses include the WB’s MANAGE and Climate Change Macro-Fiscal (CC-MFMod) models, the IMF DIGNAD, Natural Disasters Public Debt Dynamics Tool (ND\_DDT), the Quantitative Climate Risk Assessment Fiscal Tool (Q-CRAFT) and Kahn et al. (2021), and the World Bank-IMF CPAT models. If information is available, coverage of some of the following climate scenarios could be helpful: IPCC’s SSP1-2.6, SSP2-4.5, SSP3-7.0. Other resources for climate analysis can be found in the [IMF climate change knowledge hub](#) and the [World Bank Climate Change Knowledge Portal](#).



the WB's Climate Change – Macro-Fiscal Model (CC-MFMod) which informs the CCDRs,<sup>12</sup> or an IMF Climate Policy Diagnostics report is published.

- **A customized stress tests on external and overall public debt** can accommodate triggering the shock in period t+5 (as in the IMF's DIGNAD model)<sup>13</sup> or outside the 10-year forecast horizon relevant for the risk rating. This allows for the incorporation of feedback from climate policies (for adaptation and mitigation) to growth, which can be informed by stand-alone models, such as the WB's CC-MFMod and the IMF's DIGNAD model.

Results from stand-alone, climate-change macro models and tools can inform the calibration of the stress tests.

### Considerations on Incorporation of Climate-Linked Debt Instruments in Assessments

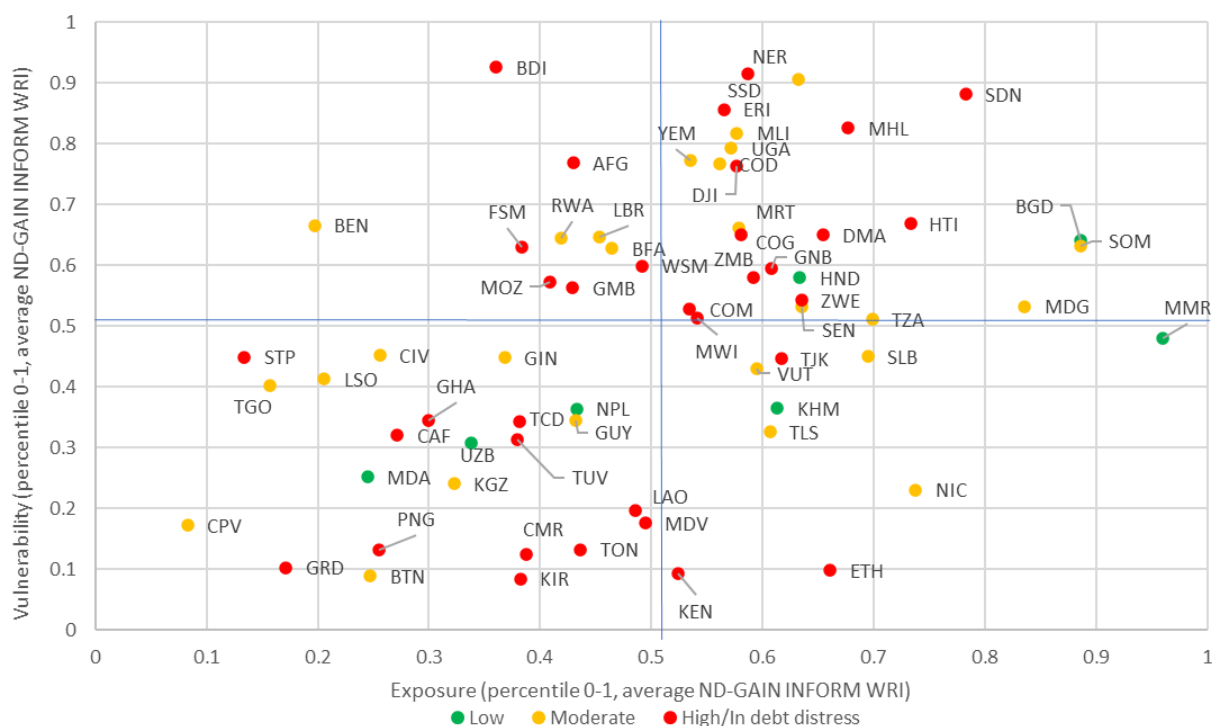
**7. Depending on their economic relevance and data availability, the impact of climate-linked debt instruments in reducing the financial impact of natural disasters and climate-related spending can be captured quantitatively in the DSA baseline and/or in the built-in, customized stress tests or used as a qualitative mitigating factor in informing judgment, especially in borderline cases (when a country's baseline debt burden indicators are just above their thresholds), as they would tend to decrease volatility (Box 2).**

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<sup>12</sup>Burns, Jooste, and Schwerhoff (2021). This model can account for different weather scenarios and differences in country vulnerabilities.

<sup>13</sup>The DIGNAD toolkit offers a user-friendly Excel interface to run the rich underlying general equilibrium model which evaluates debt sustainability risks and funding needs to rebuild public infrastructure following natural disasters <https://climatedata.imf.org/pages/dignad>. See Marto, Papageorgiou, and Klyuev (2017) and Aligishiev, Ruane, and Sultanov (2023).

**Figure 1. LICs' Exposure and Vulnerability to Climate-Related Adaptation Risks**  
(Average Percentile Ranks)



Sources: LIC DSA Database; Disaster Risk Management Knowledge Centre (DRMKC), 2022, [ND-GAIN Country Index](#), University of Notre Dame Global Adaptation Initiative; [INFORM Risk Index](#), European Commission, Bündnis Entwicklung Hilft / IFHV, 2023, [The World Risk Index](#).

Notes: LICs latest ratings at end 2023 on the risk of external debt distress shown in different colors (red – for High Risk or In Debt Distress, yellow – for Moderate risk, and green – for Low risk).

**Exposure:** simple average of the percentile ranks on IMF-adapted ND-GAIN's exposure subindex, which captures biophysical factors that are stressed by changing climate conditions; IMF-adapted INFORM's exposure subindex, which reflects the probability of physical exposure associated with specific climate-driven hazards, and the UNU EHS-WRI's exposure to climate-related risks subindex. The latter captures the extent to which populations in hazard-prone areas are exposed to and burdened by the impact of extreme natural events or the negative consequences of climate change.

**Vulnerability:** simple average of the percentile ranks on IMF-adapted ND-GAIN's sensitivity subindex, which captures the degree to which people and sectors they depend upon are affected by climate related perturbations; IMF adapted-INFORM's vulnerability subindex, which represents economic, political and social characteristics of the community that can be destabilized in case of a climate-driven hazard event, and the UNU EHS-WRI's vulnerability-susceptibility subindex. The latter captures the structural characteristics and general conditions of societies that increase the overall likelihood of populations suffering damage from extreme natural events and entering a state of disaster.

### Box 1. Examples of Coverage of Climate-Change Risks and Climate Policies in DSAs

#### Effects of Climate-Change Risks and Climate Policies on Central Projections in Baseline or Alternative Scenarios

*Use of stand-alone, climate-change macro models in baseline.* The macroframework of the Vanuatu’s 2023 Article IV staff report (IMF, 2023j), which feeds into the DSA, incorporates the long-term effect of natural disasters and climate change derived from an analysis for several Pacific Island countries by Lee et. al. (2018). Real GDP growth is lowered by 0.5 percentage points, the current account balance is lowered by 1.3 percent of GDP and the fiscal deficit is increased by 0.35 percent of GDP relative to disaster-free projections on average over the projection period. Similar approach is taken in Tonga’s 2023 Article IV staff report (IMF, 2023i), supported by the same study.

*Use of stand-alone, climate-change macro models in alternative scenarios.* The Niger’s DSA accompanying the 3<sup>rd</sup> ECF Review report (IMF, 2023f) includes a “pessimistic dry/hot climate scenario/partial adaptation” alternative scenario to capture the long-term climate impact and the benefit of measures, such as investments in irrigation systems, roads and bridges, and improvement in animal feed. The scenario is built around the long-term projections of real GDP losses and other variables from the “pessimistic and dry with partial adaptation scenario” in the G5 Sahel CCDR (WB, 2022). The main conclusions of the DSA are that the analysis has no impact on the Moderate risk rating, as whereas the debt burden indicators are considerably higher than in the baseline scenario, they do not breach their respective sustainability thresholds.

*Extrapolation of historical trends in baseline.* In the DSAs accompanying Kenya 5<sup>th</sup> EFF/ECF Reviews and RSF Request and Niger 3<sup>rd</sup> ECF review reports (IMF, 2023d; IMF, 2023f), the effect of slow-moving, long-term shifts in climate and the impact of sudden, extreme weather events on baseline projections is captured by extrapolating the historical growth trend that reflects the impact of climate-related shocks on growth and incorporating the climate-related investments planned by the authorities.

#### Effects of Climate-Change Risks and Climate Policies on Distribution of Outcomes Around Central Projections

*Use of tailored, natural-disaster stress-test.* In the Kenya’s DSA accompanying the 5<sup>th</sup> EFF/ECF Reviews and RSF Request report (IMF, 2023d), the tailored, natural-disaster, stress test is built around a shock in the second forecast year calibrated to the historical impact of the 2008-11 drought event. As Kenya is already at High Risk of debt distress, the results from the stress test are used to illustrate Kenya’s limited fiscal space for meeting additional financing needs with external, semi-concessional or commercial public borrowing without jeopardizing debt sustainability. This is then used to underline the importance of expediting institutional reforms and capacity building to improve public investment efficiency, reduce leakages, and promote private climate investments. The DSA further argues that achieving Kenya’s ambitious climate-change mitigation objectives would have to rely on private sector participation, mobilization of additional tax revenues or mobilizing additional highly concessional climate financing and private sector solutions supported by market incentives.

*Use of customized, natural-disaster stress-test.* In the Benin’s DSA accompanying the 3<sup>rd</sup> EFF/ECF Reviews report (IMF, 2024a), the customized natural disaster stress test is built around a shock in the second forecast year calibrated using the projection of GDP losses in the short run from the “pessimistic dry/hot climate scenario” from the WB’s MANAGE model reported in the CCDR (WB, 2023c) and incorporating the mitigation effects from CAT-DDO financing and additional public investment in new climate resilient infrastructure for adaptation as modelled by DIGNAD. The main conclusions of the DSA are: (i) the short-run analysis suggests no impact on the Moderate risk rating but, (ii) the DSA shows that an extreme natural disaster shock can increase debt ratios in the long term despite the presence of CAT-DDO financing.

Source: IMF-WB staff review of Joint IMF-WB LIC DSAs and Fund country reports.

## Box 2. Overview of Climate-Linked Debt Instruments

**New instruments have been developed to mobilize public and private resources to finance adaptation and mitigation investments as well as to mitigate the impact of natural disasters on debt burden indicators.** When considering those instruments, country teams should weigh their relevance in the country's overall financing envelope. In the baseline scenario, teams should include instruments that have been signed, issued, triggered, or assessed consistent with the financing envelope when that scenario is built. In other cases, some instruments can be assessed under alternative scenarios or as part of the customized natural disasters stress test.

**Climate Resilient Debt Clauses (CRDCs)** are contractual clauses to provide for a timebound standstill and debt service reprofiling that can free up fiscal space in debtor countries to respond to pre-specified natural disasters. The resulting reduction in the need to borrow in the face of natural disasters would mitigate the impact of the negative shock on debt burden indicators and can be captured either (i) in the baseline scenario, qualitatively, or quantitatively if the clause has been activated; or (ii) in the calibration of the customized natural disasters stress test for those debts which include CRDCs. The modelling of the impact of these instruments should take into account their design, including the types of events the CRDCs cover, the parametric or other thresholds that trigger the clause, the horizon of the debt service reprofiling, etc. In 2023, the World Bank provided small states and small island economies the opportunity to include in IBRD loans and IDA credits CRDCs covering tropical cyclones/hurricanes and earthquakes, with deferral of principal and/or interest up to 2 years and a modified amortization after the deferral period that maintains the original average weighted maturity of the loan, and does not extend the final maturity date of the loan.

**Country insurance (including WB CAT-DDO loans).** The presence of country insurance (or loans that trigger disbursement flows when a climate-related event happen) can provide extra fiscal space to respond to emergencies. Different to CRDCs, country insurance represents additional financing in DSA stress scenarios, which could impact the debt burden indicators in stress scenarios. The instrument can be quantitatively assessed either (i) in the baseline scenario if insurance is activated; or (ii) as part of the customized natural disasters stress test, to capture its mitigation effect. The modelling of the impact of these instruments should take into account their design, including the concessional/non-concessional financing mix and other key parameters of the disbursement profile (e.g., length and potential extension of the drawdown period). As an example, the Benin DSA accompanying the staff report for the 3<sup>rd</sup> EFF/ECF Review (IMF, 2024a) includes in its customized stress test the mitigation impact of a CAT-DDO loan triggered by an extreme but plausible natural disaster shock.

**Sustainability-linked sovereign bonds** Provide for a change in a financial or structural aspect of a bond (e.g., coupon step-up or step-down) if the issuer does not / does achieve a pre-defined environmental, social or sustainability-linked target. In assessing those instruments, country teams should include in the baseline the bond's debt service as if targets are met and consider an alternative scenario where some targets are not met, which implies triggering additional debt service payments. In addition, country teams may discuss the downside risks that might impact the government's capacity to meet the targets.

**Debt-for-Nature swaps.** The qualitative mitigating factor of those instruments is associated with a potential reduction of debt burden indicators (i.e., associated with the partial debt relief in some of those agreements) and/or change in the debt service profile (when those agreements include reduction of interest payments or a buyback of privately held debt at below-market interest rates) (see also Chamon et al., 2022). Once the swap agreement has been signed, that instrument can be directly incorporated in the baseline as part of the external financing plan in the form of stock-flow adjustment and change in debt service profile. In addition, those instruments include a redirection of expenditure from debt service to climate-related or sustainability projects that should be reflected in the underlying fiscal projections. In assessing those instruments, country teams should consider additional elements such as the related establishment of non-debt liabilities associated with the agreed climate-related/nature conservation targets and potential use of guarantees (e.g., from international financial institutions) that might have a subsidy component but, in case of a distress scenario, might change the seniority profile of creditors.

## B. Domestic Public Debt Vulnerabilities

8. In the LIC-DSF, domestic public debt vulnerabilities enter the analysis through the assessment of overall (domestic and external) debt vulnerabilities (IMF and World Bank, 2017). The mechanical risk signal for overall public debt is derived based on joint information from four external debt burden indicators, which are compared with their indicative thresholds, and the PV of overall public debt-to-GDP, which is compared with its indicative benchmark (IMF and World Bank, 2018). The need for a more granular analysis of overall public debt vulnerabilities—by considering external and overall (and hence implicitly domestic) public debt indicators separately—stems from the imperfect substitutability between foreign-currency (FX) and domestic-currency public debt (which account for the bulk of the external and domestic public debt, respectively) in LICs. This reflects their generally lower stage of economic and financial sector development, characterized by persistent negative national saving-investment balance and limited reach of the financial sector. The resultant weaker domestic savings mobilization makes LICs more prone to macroeconomic and financial stability risks stemming from potentially unsustainable domestic debt dynamics, which warrant extra scrutiny.

9. Accounting for domestic public debt vulnerabilities in the overall debt risk and sustainability assessments should be grounded in a risk-based qualitative analysis. In addition to the analysis of overall debt burden indicators, the conceptual framework should take account of the dynamics of domestic public debt indicators and the consistency of the domestic public borrowing plan with maintaining macroeconomic and financial stability, including:

- 1) **Recent developments and projections of the levels and changes over time of relevant solvency and liquidity domestic public debt indicators**, such as the domestic public debt-to-GDP and domestic public debt service-to-revenue ratios as currently defined in the framework.<sup>14</sup> To gauge the implied degree of risk, the projected dynamics of these ratios can be compared to their historical patterns, and their average projected values over the medium-term can be compared to their respective medians across countries using the LIC-DSF with projected non-zero domestic public debt and domestic public debt service as of end-2023:<sup>15,16</sup>
  - The risk signal could generally be considered benign if both the average solvency and liquidity domestic public debt indicators are below their medians across peers and their projected dynamics do not deviate significantly from historical patterns;

<sup>14</sup>The domestic public debt service generally excludes the amortization of short-term, Treasury Bills issued at a discount or at par (face value) and paid at face value at maturity.

<sup>15</sup>The average values of indicators over the medium-term are more relevant in the analysis of debt developments in low-income countries, given the expectation of financial deepening along their development path. The medium-term is generally understood to span the first five years of the forecast period.

<sup>16</sup>The medians are calculated using only the positive values of the average domestic public debt-to-GDP and domestic public debt service-to-revenue ratios over the first five years of projections in the latest batch of DSAs as of end-2023. The estimated, rounded values of the two benchmarks are: 17 percent for the average domestic public debt-to-GDP ratio and 22 percent for the average domestic public debt service-to-revenue ratio. The comparison to the medians is intended solely to provide a starting point of the analysis of domestic public debt vulnerabilities and, as such, should not be construed of being indicative of any desired level, which would be strictly country specific.

- Cases in which the average solvency or liquidity indicator exceeds its median across peers or the projected dynamics of one or both ratios deviate significantly from historical patterns would generally signal the need for closer scrutiny of potential risks stemming from the domestic public borrowing plan (see point 2 below);
- If both the average solvency and liquidity domestic public debt indicators exceed their median values or their projected dynamics deviate significantly from historical patterns, the need for closer scrutiny of potential risks stemming from the domestic public borrowing plan would be even more pronounced.

Larger deviations of forward-looking domestic public debt indicators from their historical patterns and/or median values across peers would warrant a more detailed analysis of the consistency of the domestic public borrowing plan with maintaining macroeconomic and financial stability (see point 2).

**2) Analysis of the consistency of the domestic public borrowing plan with maintaining macroeconomic and financial stability would generally encompass:**

- **The main assumptions on the projected take-up of new domestically issued public debt by the government’s main creditors operating in the domestic market** (domestic banks, domestic non-bank financial institutions, resident non-financial sector, the central bank where monetary financing of the deficit is present, and non-residents<sup>17</sup>). The analysis should seek to address the realism of these assumptions and associated risks, taking into account creditors’ business models and different rollover risks associated with different types of creditors. A useful starting point is a comparison of the projected net domestic financing with the maximum/average level observed in the recent past or an extrapolated projection consistent with historical trends. Assessing the realism of the assumptions can then be informed by the findings of the macrofinancial analysis of the health and development potential of the domestic financial sector and prospects for stable access to external financing (in the case of non-resident participation in the domestic bond market), as well as existing IMF and WB capacity development advice on debt management, including on developing the capacity of the domestic market to absorb additional domestic public debt in a sustainable manner. If the central bank is an important creditor to the government, the analysis should cover the consistency of assumed take-up of new domestic government debt by the central bank with the broader macroframework assumptions (e.g., inflation, etc.) Where the share of FX-denominated or FX-indexed debt in domestic public debt is economically significant, the analysis should also cover debt risks from REER realignment.
- **The functioning of the primary and secondary government domestic bond markets**, with a view of identifying signs of market pressures, such as surging secondary market yields, falling bid-to-offer ratios at different maturities, widening gap between offered coupon rates and effective auction

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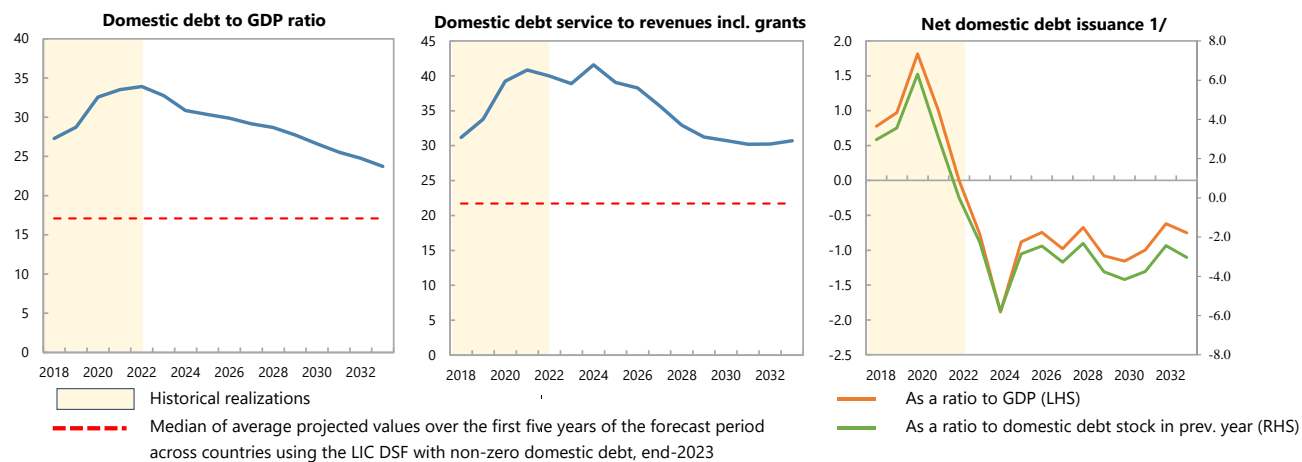
<sup>17</sup>Non-resident investor behavior can have important implications for the implementation of the domestic borrowing plan even in the case of residency-based definition of public debt, in which their holdings are counted as part of external debt.

interest rates, increased shares of variable interest rate debt, and abrupt shifts to the shorter end of the maturity spectrum or inability to rollover maturing debt in the primary market.

**10. The depth of the discussion should reflect the potential severity of risks associated with domestic public debt gleaned from the above analysis.** A panel chart presenting the dynamics of domestic public debt indicators and domestic financing assumptions should be added to the standard set of DSA charts for all countries with projected non-zero domestic public debt (see Figure 2 for a country example). In addition, Bank and Fund country teams can refer to other relevant indicators in the analysis. In carrying out the analysis, teams should leverage the policy discussions with authorities, regular publications, such as medium-term debt management strategy, annual borrowing plan, debt management report, investor presentations, debt bulletin, issuance calendar, and debt statistics. Where the depth of the analysis is constrained by data availability, teams should actively engage with the authorities to collect missing data, with the view of strengthening the analysis in future DSAs. Box 3 provides country examples of coverage of different facets of domestic public debt vulnerabilities.

**11. The joint consideration of the dynamics of domestic public debt burden indicators and any macroeconomic and financial stability risks stemming from the domestic public borrowing plan would provide signals for informing the judgment on the final overall public debt risk and sustainability assessments.** In addition to any country-specific considerations, concerns about the trajectory of domestic public debt dynamics and/or the consistency of the domestic public borrowing plan with maintaining macroeconomic and financial stability, including the realism of the projected take-up of new debt by the government's main creditors and/or the intensity of pressures in the primary and secondary government bond markets, would provide relevant signals in informing teams' judgment on the final rating of the risk of overall public debt distress and on the assessment of overall public debt sustainability. These signals would need to be weighed against any mitigating factors, such as low rollover risk associated with specific holders of domestic government debt.

**Figure 2. Example: Domestic Public Debt Indicators, 2018-33**  
(Percent)



Borrowing Assumptions (average over 10-year projection)	Value
<b>Shares in new domestic debt issuance</b>	
Medium and long-term	75%
Short-term	25%
<b>Borrowing terms</b>	
<b>Domestic MLT debt</b>	
Avg. real interest rate on new borrowing	4.2%
Avg. maturity (incl. grace period)	8
Avg. grace period	4
<b>Domestic short-term debt</b>	
Avg. real interest rate	1.1%

Sources: Country authorities and Fund staff estimates and projections.

1/ Net domestic debt issuance is an estimate based on the calculated public gross financing need net of gross external financing, drawdown of assets, other adjustments and domestic debt amortization. It excludes short-term debt that was issued and matured within the calendar year.



### Box 3. Country Examples of Coverage of Domestic Public Debt Vulnerabilities in DSAs

#### Recent Developments and Projections of Domestic Public Debt Indicators

Bangladesh's 2023 Article IV Consultation (IMF, 2023b) has a robust discussion of domestic holdings of debt, differentiating between trends in the National Saving Certificates, treasury instruments and Sukuks, as well as recent trends on government securities yields.

The DSA accompanying the Ghana's 2023 Article IV and 1<sup>st</sup> ECF Review report (IMF, 2024b) covers changes over a prolonged period (2012-22) in debt and debt service composition (e.g., share of domestic public debt in overall debt, share of debt held by different domestic creditors, share of domestic public debt service in overall debt service), as well as liquidity challenges (analyzing the historical evolution of domestic public debt service- and domestic public debt service-to-revenue ratios, and comparing to peer countries).

#### Analysis of Consistency of Domestic Public Borrowing Plan with Maintaining Macroeconomic and Financial Stability

##### *Analysis of Projected Take-Up of New Domestic Public Debt by Main Creditors*

The DSA accompanying the Kenya's 2023 Article IV and 6<sup>th</sup> ECF/EFF Reviews and 1<sup>st</sup> RSF Review report (IMF, 2024c) discusses the creditor composition and maturity profile and yields, as well as the authorities' financing strategy in the face of challenging liquidity conditions. The report also elaborates on risks arising from the sovereign-financial nexus.

The Fund staff report accompanying Ghana's 2023 DSA (IMF, 2024b) examines the sovereign-financial nexus through the discussion of the share of government securities in bank assets and in bank capital position, as well as in the balance sheet of other non-bank financial institutions.

Sierra Leone's 8<sup>th</sup> ECF Review report DSA (IMF, 2023g) critically analyzes the capacity of commercial banks to take up the projected debt issuance.

##### *Functioning of Primary and Secondary Government Domestic Bond Markets*

The DSA accompanying Burkina Faso's 2023 ECF Request report (IMF, 2023c) provides a thorough discussion of domestic financing at the WAEMU regional bond market, placements on which are treated as domestic public debt for DSA purposes.

The Fund staff report accompanying Ghana's 2023 DSA (IMF, 2024b) includes a deep dive into the composition of issuances of local currency bonds in recent years.

In Mali's 2023 Article IV DSA (IMF, 2023e), the discussion on financing pressures includes a figure portraying withheld and unfilled auctions of regional debt on the primary market.

#### Incorporation of Domestic Public Debt Vulnerabilities in Overall Risk and Sustainability Assessments

Burkina Faso's DSA (IMF, 2023c) discusses the medium-term risks related to debt cash management and their implication for debt sustainability. The DSA also notes that additional reliance on domestic public debt could lead to a change in the risk assessment, given the debt's maturity and cost characteristics.

Ghana's DSA (IMF, 2024b) examines the impact of the domestic public debt restructuring and risks emanating from domestic public debt vulnerabilities (e.g., incurrence of domestic arrears, issues with debt data transparency). The report examines the debt management and medium-term challenges for restoring domestic market access, and financial sector stability.

Sierra Leone's DSA (IMF, 2023g) highlights the impact of domestic public debt-related risks on the overall debt risk rating. The analysis in the DSA is used to underline the importance of the development of the domestic public debt market and enabling creditor institutions to effectively manage risks as part of authorities' Medium-Term Debt Strategy in the main text of the report.

Source: IMF-WB staff review of Joint IMF-WB LIC DSAs and Fund country reports.

### C. Use of the LIC-DSF in Debt Restructuring Situations

*The considerations below are focused on cases where public debt is unsustainable and the authorities have decided to seek a debt restructuring in the context of a Fund-supported program.*<sup>18</sup>

#### Setting of Debt Restructuring Targets

**12. Where public debt is unsustainable and the authorities are undertaking a debt restructuring in the context of a Fund-supported program, the restructuring strategy must aim to restore debt sustainability over the medium term.** Debt sustainability is a key requirement for Fund lending. It is a prerequisite for achieving medium-term external viability and therefore for the success of the Fund-supported program and for providing adequate safeguards that the Fund will be repaid,<sup>19</sup> with “medium term” generally understood to cover a period of five years.

**13. For countries where debt is deemed “in distress”, which is the case where debt restructuring negotiations are ongoing or impending,**<sup>20</sup> restoring debt sustainability implies reducing the risk rating to at least a moderate risk of external debt distress over the same period, with additional considerations for the PV of overall public debt to GDP ratio. As ¶199 of the 2018 LIC DSF Guidance Note underlines, *“to construct a sustainable scenario from a starting point of a DSA where debt has been deemed “in distress”, (...) significant or sustained breaches [of applicable thresholds] should no longer be observable (...). A higher probability that debt is sustainable would generally be associated with even stronger performance relative to thresholds (for instance, indicators not just converging beneath high-risk thresholds, but below the sub-thresholds in the moderate category).”*<sup>21</sup> The latter part reflects the fact that, depending on the country’s vulnerability to future shocks, the restructuring strategy may require targeting “some space” or “substantial space” to absorb shocks and limit the risk of the country falling back to high risk, considering the observed distribution of shocks applicable to the country.<sup>22</sup> Additional considerations apply for the PV of overall public debt to GDP ratio (see paragraph 16 below).

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<sup>18</sup>Countries undertaking a debt restructuring would generally request a Fund-supported program to help build confidence and facilitate their economic recovery. For cases where the country is considering a debt restructuring outside of the context of a Fund-supported program, country teams are encouraged to engage early with counterparts in the IMF’s Strategy, Policy and Review Department.

<sup>19</sup>See *Policy Reform Proposals to Promote the Fund’s Capacity to Support Countries Undertaking Debt Restructuring* (IMF, 2024e), ¶19, ¶12 footnote 10; *Reviews of the Fund’s Sovereign Arrears Policies and Perimeter* (IMF, 2022b), ¶14; *Sovereign Debt Restructuring—Recent Developments and Implications for the Fund’s Legal and Policy Framework* (IMF, 2013), ¶10. To note that safeguard requirements, including debt sustainability, also apply to emergency financing.

<sup>20</sup>See 2018 LIC DSF Guidance Note (IMF and WB, 2018), ¶190.

<sup>21</sup>See 2018 LIC DSF Guidance Note (IMF and WB, 2018), ¶199. To note this paragraph only refers to “thresholds” (which are applicable to external debt indicators) not to “benchmarks” (which are applicable to total debt).

<sup>22</sup>See 2018 LIC DSF Guidance Note (IMF and WB, 2018), ¶195.

**14. A shorter time horizon and stronger requirements would apply in the case of Fund-supported program involving PRGT exceptional access or high combined GRA-PRGT credit exposure.**<sup>23</sup> Exceptional access/high combined credit exposure requires that risks to the sustainability of public debt are adequately contained. Where the member's public debt is not assessed to be sustainable with high probability, exceptional access/high combined credit exposure can only be made available if the combination of the member's policies and financing from sources other than the Fund, which may include debt restructuring, restores public debt sustainability with high probability (i.e., to a point where application of the LIC-DSF would yield a rating of low or moderate overall risk of public debt distress): (i) within 36 months from Board approval of the financing request or within the period of a newly approved arrangement (whichever is longer); or (ii) within the remaining period of an arrangement, in cases where the Board approves an augmentation or rephrasing request.<sup>24</sup>

**15. A debt restructuring that restores debt sustainability in the medium term is also necessary for World Bank's Development Policy Financing (DPF).** The World Bank makes the funds available to the client upon maintenance of an adequate macroeconomic policy framework, as determined by the Bank with inputs from IMF assessments.<sup>25</sup> An unsustainable debt outlook, absent a debt restructuring strategy that would return the country to debt sustainability, would not be considered meeting the requirements for providing DPF financing through loans or grants.<sup>26</sup>

**16. In practice, the restructuring targets should produce a DSA which includes the following elements:**<sup>27</sup>

(i) **Required Time Horizon:**

- i. For cases of Fund-supported programs not involving PRGT exceptional access or high combined GRA-PRGT credit exposure: the required time horizon is the "medium term", generally understood to cover a period of five years.
- ii. For cases of Fund-supported programs involving PRGT exceptional access or high combined GRA-PRGT credit exposure: the required time horizon is the one set forth in the paragraph above.

(ii) **External Debt Indicators:** All external debt indicators should fall durably below their respective thresholds by the required time horizon. The restructuring strategy should ensure that, when projecting what the

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<sup>23</sup>In the case of Fund-supported program triggering both the GRA exceptional access and the high combined GRA-PRG credit exposure, satisfying the GRA exceptional access criteria would be sufficient as per Fund policies (IMF, 2021c, p. 469-471).

<sup>24</sup>See *Fund Concessional Financial Support for Low-Income Countries – Responding to the Pandemic* (IMF, 2021b).

<sup>25</sup>For DPF financing is also necessary the satisfactory implementation of the overall reform program; and completion of a set of critical policy and institutional actions agreed between the Bank and the client. See "Bank Policy: World Bank Development Policy Financing".

<sup>26</sup>DPFs can also be provided in the form of policy-based guarantees with additional conditions. If the DPF is made as a Bank Guarantee of debt of an IDA-eligible country, the country must also have low or moderate risk of debt distress and comply with applicable Bank policies relating to non-concessional borrowing.

<sup>27</sup>This approach has been implemented in particular in the recent cases of debt restructuring for Chad, Ghana, Malawi, and Zambia.

DSA and risk rating would be at the required time horizon above, the country would at that time be at low or moderate risk of external debt distress, possibly with “*some space*” or “*substantial space*” to absorb shocks. For a typical, “non-exceptional access nor high combined credit exposure” case, this would entail that, five years after program approval and beyond, the four external debt indicators should be below their respective thresholds under the baseline, and “*significant or sustained breaches should no longer be observable.*”<sup>28</sup>

- i. **Application of judgment:** When doing the projection of what the DSA and risk rating would be at the required time horizon, short-lived or marginal breaches may still be tolerated and discounted via the application of judgement,<sup>29</sup> though a stricter application of judgement would be warranted (relative to a non-restructuring situation) to limit risks that the restructuring would not restore sustainability with high probability over the longer term.<sup>30</sup>

**(iii) Overall Public Debt Indicators:** The evolution of the overall public debt indicators should support the assessment that debt sustainability will be restored within the required timeframe. This means that, in addition to restoring at least a moderate risk of external debt distress, the restructuring strategy must ensure that overall public debt is put on a sustainable path within the required time horizon, taking account of the relevant benchmark for the PV of overall public debt to GDP ratio and application of judgment,<sup>31</sup> as well as the additional considerations brought out in this Supplement.

- i. **In PRGT exceptional access/high combined GRA-PRGT credit exposure cases,** the PV of overall public debt to GDP ratio should fall below its benchmark within the required time horizon, subject to the application of judgment, which represents a stricter test of sustainability.

**17. Application of judgment:** For cases of Fund-supported programs not involving PRGT exceptional access or high combined GRA-PRGT credit exposure, unlike in the case of the four external debt indicators discussed above and taking into consideration the relative importance of domestic debt vulnerabilities, the application of judgment could go beyond the deeming away of short-lived or marginal breaches of the benchmark for the PV of overall public debt to GDP. However, any additional time envisaged for overall public debt to meet its benchmark should be adequately justified as meeting the requirement that the restructuring strategy will ensure that overall public debt is put on a sustainable path, and is consistent with the parameters of the Fund-supported program and the Fund’s financing assurances policy (see paragraph below).

**18. Note that the restructuring targets must also be consistent with the parameters of the Fund-supported program and the Fund’s financing assurances policy must be met.** Not all restructuring targets would satisfy this requirement. In particular, the Fund’s financing assurances policy requires Fund-supported

<sup>28</sup>See 2018 LIC DSF Guidance Note (IMF and WB, 2018), ¶199.

<sup>29</sup>See 2018 LIC DSF Guidance Note (IMF and WB, 2018), ¶179-80.

<sup>30</sup>An example of short-lived or marginal breaches would be a situation where the breach is associated with a debt service due to multilateral institutions placed outside the restructuring perimeter given their preferred creditor status.

<sup>31</sup>See 2018 LIC DSF Guidance Note (IMF and WB, 2018), ¶164 and ¶179-80.

programs to be “fully financed”.<sup>32</sup> This covers the period of the program but also the post-program period, where staff needs to assess whether the member’s prospective policies deliver a projected post-program macroeconomic performance that adequately safeguards repayments to the Fund. The restructuring targets should therefore ensure that the debt service projections for the program and post-program periods are consistent with the financing assurances policy. This will necessarily further constrain in practice the possible paths available to meet the target of achieving a moderate risk of external debt distress at the required time horizon.

**19. Importantly, while the DSA based on the macroframework for the Fund-supported program can be used to determine the debt restructuring envelope needed to restore sustainability:** (i) the decision about a restructuring is within the sovereign’s sole discretion; and (ii) it is up to the debtor and creditors to agree on a debt restructuring perimeter and restructuring terms to achieve debt sustainability under the macroframework for the Fund-supported program.<sup>33</sup>

### Scenario Analysis Using the LIC-DSF

**20. Scenario analysis using the LIC-DSF can help the authorities assess the relative merits of different restructuring proposals.** This analysis should consider the impact on debt indicators but also the prospect for different proposals to garner creditor support, and the economic costs of in-action or delayed or insufficient action (i.e., a shallow restructuring).<sup>34</sup>

**21. When evaluating the impact on debt indicators of proposals involving a domestic public debt restructuring, due consideration should be given to both potential benefits and costs (IMF, 2021a).** The user should:

- 1) Adapt the macro framework to capture feedback effects.** These include feedback effects on:
  - **Financial stability.** The imposition of losses on holdings of domestic public debt will typically affect banks’ profitability and capital. Users should draw on available financial sector analysis (e.g., a recent FSAP) to understand this impact and whether the government would have to step in to recapitalize banks. Note that potential fiscal costs can be mitigated where (i) banks are holding capital in excess of the prudential minimum or (ii) foreign-bank parents of subsidiaries can provide additional capital, and/or an industry-funded recapitalization fund is available.
  - **Monetary policy transmission mechanism.** The spillover impact on inflation, including the effectiveness of the central bank’s tools to implement monetary policy, and on the private sector’s

<sup>32</sup>See *Reviews of the Fund’s Sovereign Arrears Policies and Perimeter* (IMF, 2022b), ¶15; *Sovereign Debt Restructuring – Recent Developments and Implications for the Fund’s Legal and Policy Framework* (IMF, 2013).

<sup>33</sup>The program macro-framework would generally reflect a mix of fiscal consolidation, strengthened public debt management, growth-promoting structural reforms, new financing from multilateral creditors, and contributions by other creditors, including debt relief.

<sup>34</sup>For example, scenarios with a broad perimeter of treated debt may help boost creditor participation by lowering the relief sought from each creditor group.

access to finance also needs to be considered. The damage to the banking sector's balance sheet may also constrain credit growth to both firms and consumers, slowing investment in particular.

- **The fiscal deficit and effectiveness of fiscal policy.** By imposing losses on holder of domestic debt, a domestic public debt restructuring could reduce fiscal revenues from holders of debt. In addition, it could compromise access to domestic capital markets for a protracted period – reducing the volume of available financing and increasing its cost, and, thus, disrupting budget implementation and effectiveness of fiscal policy. The impact on households' savings (e.g., restructuring of domestic pension funds) also needs to be included in the analysis, both to account for potential fiscal measures to mitigate the first-round impact of the restructuring for certain groups of the population, and to ensure the political and social feasibility of the restructuring strategy.
  - **Growth.** Any macro financial feedback effects (as noted above) would be expected to reduce growth.
  - **Legal uncertainty.** The authorities should complement the economic analysis with related analysis of the legal features of the domestic public debt and feasibility of required legal reforms to implement a domestic public debt restructuring. This could, in turn, have an impact on the timing of the process, with delays likely to exacerbate the macroeconomic risks outlined above.
- 2) **Assess the impact on debt sustainability, drawing on the techniques outlined in Section B.** The analysis should assess whether the post-restructuring dynamics of domestic public debt burden indicators and the domestic public borrowing plan support the assessment that debt sustainability will be restored within the required timeframe.

Box 4 provides country examples of analysis of macrofinancial implications of domestic debt restructurings.

#### Box 4. Country Examples of Analysis of Macrofinancial Implications of Domestic Debt Restructurings

##### Financial Stability

The IMF staff report for Ghana's 2023 ECF Request (IMF, 2023k) discusses the implications for banks' balance sheets of the domestic public debt exchange operation. The report included estimates of the NPV reduction likely to result from the domestic debt exchange, based on expert calculations of the discount rates banks would adopt in their accounting of the operation. Staff also discussed the impact on banks' capital adequacy ratios based on the presumed regulatory adjustments.

In the case of Sri Lanka (IMF, 2023l, IMF 2023m), the authorities conducted a diagnostic exercise for major banks, including a comprehensive asset quality review (AQR), to assess the impact of the 2023 domestic public debt restructuring. The contingency for recapitalization costs for public banks was included in the DSA (as private banks were expected to meet their own capital needs).

##### Monetary Policy Transmission Mechanism

In the case of Sri Lanka (IMF, 2024d), authorities and staff estimated a significant drop in the central bank's net worth due to the 2023 domestic debt restructuring operation, in which its holdings of T-bills were converted to T-bonds, and the agreement to settle past due bills to the Asian Clearing Union (ACU). The report highlighted the importance of rebuilding the central bank's capital position to enhance its credibility in conducting independent monetary policy.

##### Impact on Effectiveness of Fiscal Policy

The IMF staff report for Ghana's 2023 ECF Request (IMF, 2023k) discusses how debt management following the 2023 domestic debt exchange aimed at maintaining minimal functioning of domestic debt markets, while developing a roadmap for the gradual resumption of activity. It noted that T-bills were not included in the restructuring, so the short-term domestic debt market would remain functional and a critical instrument for both investors and the government until the functioning of the longer-term bond market would be restored.

##### Assessing the Impact on Debt Sustainability

The DSA accompanying the IMF staff report for Ghana's 2023 ECF Request (IMF, 2023k) discussed the impact of the public debt restructuring operation (which includes a domestic public debt exchange) on debt sustainability. While the baseline scenario did not include the yet-to-be-finalized public debt restructuring, it drew on the techniques outlined in Section B to highlight how it would impact the overall risk and sustainability assessment.

Source: IMF-WB staff review of Fund country reports.

**22. A scenario analysis would help the authorities decide whether to include or exclude domestic public debt from their restructuring strategy.** Situations can differ significantly from one country to another and there should be no presumption of inclusion or exclusion. In some cases, restructuring domestic public debt can be a significant, or even indispensable part of the broader strategy. In other cases, it can bring very little, or even have a negative impact overall. Where a large share of the debt is held by public sector entities and deep debt relief is needed to restore debt sustainability, or where domestic banks' holdings of government bonds are large relative to their capital buffers and restructuring losses trigger the need for government support of the financial system, the contribution of a domestic public debt restructuring may be very limited, and possibly negative.<sup>35</sup> In addition, where an external financing gap is present, domestic public debt

<sup>35</sup>For example, to avoid compromising the viability of the domestic financial system, the government may be required to recapitalize some banks or non-bank financial institutions, and/or fund financial stability mechanisms, such as deposit insurance. Similarly, ensuring the continued effective functioning of the central bank may require fiscal support. Both situations imply a lower *net* debt relief from the exchange, defined as gross fiscal relief less any fiscal costs of, for example, recapitalizing affected banks as a last resort.

restructuring can directly contribute to its closing only to the extent that foreign investors are holders of domestically issued public debt. Using the LIC-DSF can help the country authorities develop a data driven, country specific, scenario analysis, to inform both their decision to include or exclude domestic public debt in the restructuring strategy, and to estimate the capacity to repay their external creditors under the different scenarios.

**23. Where state-contingent debt instruments (SCDIs) are part of the restructuring scenarios being considered,<sup>36, 37</sup> the impact of these instruments on the likely achievement of Fund program goals and the dynamics of debt indicators compared to LIC DSA thresholds needs to be carefully assessed.<sup>38, 39</sup>** SCDIs costs and associated risks need to be evaluated to confirm that their inclusion is consistent with preserving debt sustainability. There are several steps to this assessment:

- **First, the user needs to understand which creditors will receive the instrument.** In the absence of specific information, it is recommended to assume that all do, in line with the usual creditor principle of comparability of treatment.
- **Second, an assessment is needed of how the SCDI would on average impact external debt burden indicators and the risk of distress if triggered.** Depending on the complexity of the SCDI design, the assessment can be informed by either a scenario analysis around the baseline DSA or by a stochastic approach to determine the relative probabilities of potential outcomes. A scenario analysis would be recommended when precise triggers, which are not included in the baseline, would result in a higher or lower payoff.<sup>40</sup> For a stochastic approach the user can consider options-pricing methodology or adapting the techniques underpinning the Debt Fanchart Module of the Sovereign Risk and Debt Sustainability Framework for Market Access Countries (MAC SR-DSF) to place an expected value on the SCDI.

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<sup>36</sup>SCDIs are instruments that bear contractual debt service obligations tied to a pre-defined state variable.

<sup>37</sup>Whereas timely agreement on an unconditional debt treatment is the first best option in a restructuring, SCDIs can help bridge debtor-creditor differences, containing the costs of prolonged negotiations. This is especially true in cases when uncertainty around the economic outlook and future capacity to repay of the country is so high that it is difficult for the debtor and its creditors to find common ground in a timely manner. SCDIs can also have a positive role in future debt crisis prevention, by adjusting debt service in adverse states of the world. At the same time, given the complexities involved, the assessment of whether a restructuring proposal that includes an SCDI is consistent with restoring debt sustainability is likely to take more time than a proposal that does not include such an instrument with associated economic costs of the delay.

<sup>38</sup>Fund programs aim at solving the member's BoP problems without recourse to measures destructive of national or international prosperity and achieving medium-term external viability, including the restoration of debt sustainability, while fostering sustainable economic growth.

<sup>39</sup>While the definition of SCDIs encompasses CRDCs, the introduction of CRDCs in debt contracts does not constitute a debt restructuring event. CRDCs benefit both borrowers and lenders as they offer a liquidity relief mechanism, contractually agreed before the occurrence of the triggering event, aimed at preventing the initiation of a disorganized debt restructuring process or an expensive payment default.

<sup>40</sup>For example, in the case of Zambia's debt restructuring, creditors agreed on an accelerated repayment schedule if Zambia's debt carrying capacity (DCC) would improve from weak to medium within a specified period. In addition, bondholders' would also benefit were the average U.S. dollar value of Zambia's exports and fiscal revenues (consistent with a likely improvement in its debt carrying capacity) would exceed the projections included in the second review of the IMF-supported program.



**Third, an assessment is needed of whether the SCDI leaves exposures uncapped or produces pay-off in too many states of the world where the country’s repayment capacity is diminished.** For the latter, the analyst needs to consider the types of shocks that the country is subject to, their scale, and whether this would tend to produce unsustainable dynamics too frequently. The techniques underpinning MAC SRDSF Debt Fanchart Module can be utilized in this.

### **Presentation of Analysis in DSAs at Different Stages in the Restructuring Process Under a Fund-Supported Program<sup>41</sup>**

**24. At the outset of a debt restructuring, the baseline DSA scenario will show the impact of all debt obligations, as originally contracted or as modified in any earlier restructuring or debt management exercises, on the debt burden indicators under the program macro-framework.** In such a “pre-restructuring DSA”, the estimated residual BoP financing gap would typically be assumed to be financed through the accumulation of arrears on existing obligations, which in the DSA can be assumed to be rolled over by a long-term PV-neutral bond (a notional security with an interest rate of 5 percent and grace period and maturity longer than the 20-year LIC DSF projection horizon). In the presence of significant or sustained breaches of debt thresholds that cannot be deemed away (IMF and WB, 2018, ¶197), any of the following conditions will generally trigger an “In Debt Distress, Unsustainable” rating of the risk of overall and external debt distress and overall debt sustainability: (1) Presence of external or domestic arrears that cannot be deemed away (IMF and WB, 2018, ¶190); (2) Impending debt restructuring negotiations other than voluntary market-based debt re-profiling operations (IMF and WB, 2018, ¶190); (3) High probability of future distress event (IMF and WB, 2018, ¶191); (4) Unidentified external financing gap, where resources for payment cannot be identified (IMF and WB, 2018, ¶191). However, the final assessment must incorporate broader judgment that also takes into account the degree of confidence in the macroeconomic framework.

**25. Debt treatments can be incorporated in the baseline of the DSA only once agreements are firm.** Negotiations with creditors are likely to first yield an “agreement-in-principle” (AIP) on the main financial terms of the agreement; while this is an important milestone in the restructuring process, this agreement is not sufficiently firm to be included in the DSA baseline. The latter would generally require sufficient confidence that the agreement will be implemented as agreed, which can be informed, for example, by an agreed Memorandum of Understanding (MOU) with an Official Creditor Committee (OCC) of official bilateral creditors or a bilateral agreement with an individual creditor,<sup>42</sup> or the settlement of a bond exchange. As including only a partial treatment (i.e., an agreement with one creditor group when agreements with other significant creditor groups remain outstanding) could prove confusing, teams should use judgement when determining whether to include a treatment in the baseline or not. Where an MOU or other representative agreement has been reached with a permanent standing forum (Paris Club or Common Framework OCC with the participation of the Paris Club), the baseline DSA could also incorporate a comparable treatment of all other official creditors

<sup>41</sup>Similar considerations on the manner (baseline vs illustrative scenarios) and timing of incorporation of resulting changes in the debt profile in the DSA also apply to debt restructurings carried out in the absence of Fund-supported programs and to debt operations where debt had been assessed as sustainable. Special consideration included in the 2018 LIC-DSF Guidance Note, Appendix V (IMF and WB, 2018) apply to countries seeking debt relief under the Enhanced HIPC Initiative.

<sup>42</sup>In cases where official bilateral creditors are included in the restructuring perimeter, i.e., cases of an “official-sector involvement” (OSI).

(even those that did not participate in that OCC); alternatively, the treatment could be included sequentially as bilateral agreements with other official bilateral creditors are concluded. Claims for which a treatment is not yet sufficiently finalized by the time the DSA is prepared should be included in the analysis at their pre-restructuring terms.

**26. When public debt is assessed to be unsustainable in the baseline DSA scenario, an alternative restructuring scenario could be presented in the staff report supporting the request for an IMF-supported program or DSA to illustrate how debt sustainability would be restored on a forward-looking basis.** Such a scenario can be used to illustrate the adjustment effort needed to restore sustainability and/or capture any AIPs and/or the authorities' strategy for dealing with different creditors. These scenarios can facilitate the sharing of information underlying the country's program and staff's assessment of debt sustainability, which can be especially important in informing creditors' decisions on the provision of financing assurances and the implementation of a debt restructuring consistent with IMF program parameters. Sharing of information should remain consistent with the guidance note on information sharing in the context of sovereign debt restructurings (WB, 2023a and IMF, 2023h). Such an illustrative scenario may be particularly helpful in the staff report, supporting the request for an IMF-supported program, where the required post-restructuring debt targets reflect some idiosyncratic factors.<sup>43</sup> However, especially as restructuring agreements are reached with significant creditors, care is needed to ensure that any such alternative analysis is not seen to prejudge any specific treatment for any residual creditor.

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<sup>43</sup>For example, in the case of Zambia's 2022 ECF-supported program, to restore debt sustainability, the PV of external debt was required to fall to 84 percent of exports over the medium-term - a level generally consistent with substantial space to absorb shocks for a weak debt-carrying capacity country. However, given that no specific target for the PV of external debt to GDP was set, due to concerns about the quality of the measurement of GDP (reflecting delays in the rebasing exercise), the illustrative scenario helped explain why a tighter target on the PV of external debt to exports was needed. The scenario showed that, even with such a large reduction in the PV of external debt, a substantive upward rebasing of GDP would be needed for the resultant PV of external debt to GDP to be consistent with the general threshold for that indicator.

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