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Debt Sustainability Framework for Low-Income Countries - LIC-DSF

1. Introduction to Debt Sustainability Frameworks

Low-income countries (LICs) face significant challenges in managing their sovereign liabilities. At no stage in the history of sovereign debt management have the repercussions of an unsustainable debt situation for macroeconomic stability been more palpable than during the recent global financial crisis. The Debt Sustainability Analysis (DSA) framework for LICs, known formally as the LIC-DSF (Debt Sustainability Framework for Low-Income Countries), was adopted by the IMF and the World Bank in 2005 and 2006. This marked a significant step in developing analytical tools to help LICs make informed borrowing and fiscal policy decisions. The joint Bank and Fund objective in supporting this latest development in the LIC-DSF is to help country authorities continue their good policies, shake off the negative implications of an unsustainable debt situation and ensure borrowing is sustainable.

Under the HIPCs debt sustainability assessment, it had become clear that a better methodology was needed to publicise the magic entry point (when assistance flows reached their maximum). The new framework tailored to the financial structures faced by LICs is seen as a significant improvement. Its implementation over the past four years has proved very helpful. It confirmed little need for concessional borrowing by most LICs and has played a prominent role in identifying countries on an unsustainable borrowing path. Providing benchmarks for discussing the appropriate level of lending and macroeconomic policy challenges can only improve decision-making processes. With the help of a sound framework, the probability of LICs becoming entangled in frequent debt crises is reduced. Indeed, the LIC-DSF can be seen as complementary to the WG architecture process in managing sovereign debt.

1.1. Definition and Importance of Debt Sustainability

The Debt Sustainability Framework for Low-Income Countries (LIC-DSF) is integral to the joint Bank-Fund debt sustainability framework. The LIC-DSF has two primary objectives. First, it is intended to help LICs cope with their challenging debt dynamics by ensuring their borrowing activities are consistent with their overall development goals and providing guidance for LICs and their development partners on concessional support and grant resource allocation. Second, the LIC-DSF helps to ensure that the risk of debt distress in LICs is contained. Thus, it provides a durable opportunity for the LICs to borrow to finance their development projects sustainably. Recently, the LIC-DSF underwent a significant review, mainly to strengthen its empirical elements and to introduce the ability to conduct scenario analysis on the debt vulnerabilities of LICs.

The Debt Sustainability Framework (DSF) provides an analytical tool to guide countries in managing their external debt and avoiding crises. It was developed in 2001 as a successor to the forward-looking vulnerability analyses that international financial institutions traditionally performed. Since financial crises can often lead to economic, social, and political crises, drawing on lessons from the past, the DSF aims to enable countries to avoid taking on debt over what they can manage. The DSF considers the long-term aspects of resource requirements and flows to guide the country and its development partners. It should be noted that the DSF primarily represents a tool that informs the World Bank and the International Monetary Fund and that these institutions operate with different financial incentives and responsibilities than their development partners.

1.2. Historical Background and Evolution of Debt Sustainability Frameworks

The origins and development of debt sustainability analyses pre-date the emergence of a debt sustainability framework. The most frequent application of such analyses was in concessional lending. A typical objective in such lending contexts was to establish the borrowing envelope for an economy that would permit a benevolent social planner to optimally exploit the externalities generated by the provision of financial resources. Typically, these applications can be found in the Annual Loan Limit processes used by the IMF for many years in assessing the balance of payments support and, subsequently, in the Inter-American Development Bank (IDB) work on Development Effectiveness indicators for IDA countries.

Assessing the comprehensive debt sustainability of low-income countries has undergone several significant advances over the past fifty years. This section

touches on some of the critical elements of this evolution. Crucially, two essential stages in LIC-DSF development were the choice of an appropriately simple approach and identifying a suitable empirical override for exceptional conditions. The recent shifts in the external financing landscape and associated data availability influenced the evolution of the LIC-DSF in an authentic way. This historical background helps set the stage for introducing the latest addition to LIC-DSF – the LIC-specific DSA.

2. Characteristics of Low-Income Countries

Low-income countries (LICs) are characterised by several factors that give rise to specific debt sustainability concerns. These include per capita income, which to a large extent is a proxy for other determinants of capacity; weak and often declining economic structure; decline in terms of trade or the loss of traditional trade preferences; susceptibility to external/exogenous shocks, including natural disasters and conflicts, and other social factors; high levels of vulnerability with limited social safety nets in place; and lack of Early Warning Systems (EWSs) to signal broad-based resolution of capacity and liquidity constraints promptly. The LIC-DSF takes account of these peculiarities while recognising that some countries may have higher levels of capacity and be more vulnerable. Many of the factors might influence each other.

About one-third of LICs are in or recovering from conflict and post-conflict situations. Conflict drives down their development prospects and leads to high vulnerability, including increased mortality, substantial emigration flows, disruptions in investment and loss of human capital, decline in the terms of trade, and increased financial vulnerability. The study on conflict identifies elevated fiscal risk and limited resistance to shocks as the primary sources of vulnerability to conflict. It finds that income and opportunity inequality and regional and ethnic rivalries were typically the source of conflict, often within countries rather than across countries.

2.1. Economic Indicators and Vulnerabilities

External debt sustainability is assessed using a framework that considers public and publicly guaranteed (PPG) and non-guaranteed external debt. This broader approach corresponds to the enhanced Heavily Indebted Poor Countries (HIPC) debt sustainability framework for joint Bank/Fund decisions on debt relief. For low-income members who remain in the HIPC Initiative, informed assessments of debt sustainability use the same framework for lower-middle-income countries.

For HIPCs, the staff uses the Debt Sustainability Framework for Low-Income Countries (LIC DSF), which comprises two parts.

The LIC-DSF considers several vulnerabilities that LICs face in handling their debt levels, which are inherent in the absolute level of external financing required and the rapid increase in non-concessional sources of finance used by many LICs. The framework does not yet capture all the characteristics of debt that may be relevant for other debt vulnerabilities, particularly the increasing use of non-guaranteed debt or the greater importance of market finance by countries that have successfully reintegrated into global financial markets and are growing faster. These essential considerations will be integrated into the framework when more data becomes available.

2.2. Challenges in Debt Management

A stable and sustainable macroeconomic environment is a necessary condition for economic development, including the delivery of public services and the implementation of poverty reduction programs. National debt crises have been recurrent economic events closely related to sovereigns' inability to service and manage outstanding debt. Debt sustainability is often limited by the need to maintain a development-promoting fiscal stance to increase investment in human, physical, and social infrastructure. All of these are necessary for sustained growth. Budget restrictions imposed by debt services can make the government unable to adjust policies when expansionary fiscal policy is needed to help the economic recovery in times of recession.

Heavily indebted low-income countries (LICs) continue to bear a heavy debt burden. Although the heavily indebted poor country (HIPC) initiative originated to provide substantial debt relief on a case-by-case basis and enhance the probability that borrowing will once again be undertaken on a sustainable basis, led to significant progress in reducing debt burdens, a large group of low-income countries is highly or moderately vulnerable to debt distress or faces a high risk of debt distress. The 1999 HIPC initiative aimed to boost investment and human capital with enhanced debt relief under IMF and credit agencies' programs. In sum, the HIPC initiative outlay depends on legitimate policies set out by the debtor, and it hinges on implementing approaches to reform budgetary and security management structures.

3. Overview of the LIC-DSF

The LIC-DSF is a forward-looking tool designed to help LICs establish their future debt trajectories as a critical part of their overall macroeconomic policy strategies by reducing the vulnerabilities associated with public debt and minimising the risk of debt distress. The LIC-DSF uses a risk-based macro-fiscal framework to set benchmarks for direct public debt ratios, net present value (NPV) and gross financing requirements (GFRs), contingent debt (domestic and external) and the composition of debt to assess potential exposure to the market, rollover, interest rate, investment, liquidity, insolvency, and general balance of payments risks, including currency and other macroeconomic policy vulnerabilities.

The LIC-DSF adopts a holistic approach to risk and vulnerability assessment by focusing on the liquidity properties and other risk characteristics (including the use of fiscal space) of debt concentrations, the public sector balance sheet, the macroeconomic framework, and the policy environment. The LIC-DSF is an ideal tool for international development partners working with LICs to grow their economies, create jobs, reduce poverty, and align their debt dynamics with sustainable development goals. The CS-DRM PSIA Working Group adopted the LIC-DSF at the third meeting of the Global Network of LIC DSA Practitioners held in Washington, D.C., on 11 October 2019. The LIC-DSF is accompanied by a Blue Book that expands on the formal aspects of the model and a White Book that includes template definitions, diagrammatic exposition, and colour-coding for how best to apply the critical constructs of the framework.

3.1. Purpose and Objectives

The LIC-Debt Sustainability Framework (LIC-DSF) assesses the risk of debt distress in low-income countries (LICs). The framework results from two years of work, which included extensive research and consultative exercises with low-income country authorities and development partners. It was approved by the Executive Boards of the International Monetary Fund (IMF) and the World Bank on September 3, 2014. The LIC-DSF is not directly linked to conditional debt relief outcomes. Still, its primary goal is to provide LICs and their development partners with information about LIC debt vulnerabilities.

By informing country authorities through the LIC-DSF about the level of risk posed by debt vulnerabilities, borrowing and spending decisions can be better coordinated and designed, leading to better-managed debt practices in coordination with domestic and international financial support and risk sharing. The LIC-DSF aims to remain as unintrusive as possible while fulfilling these

objectives. It restates and simplifies existing good practice guidance and best practices rather than introducing new elements. It uses existing country-specific macroeconomic data and indicators to conduct debt sustainability analysis (DSA) and needs analysis at two different levels of country engagement. At the lower level, DSA is performed yearly with the necessary regular updating of macroeconomic data used by country authorities. At the higher level, the LIC-DSA examines different scenarios based on a sensitivity analysis of higher risk parameters and provides estimates of potential financing gaps resulting from requested external borrowing.

3.2. Key Components and Indicators

On a continuum from structural to financial, we specify five core components standard to all low-income countries: governance, domestic arrears, external arrears, borrowing capacity, and vulnerability. Each of these components has a defining feature, and a choice of underlying indicators provides insight into the state of the economy. For instance, the percentage of revenue collected at the customs office is the benchmark ratio to assess customs governance; increasing customs efficiency could involve rapid clearance of imports and reducing the number of consignments that would otherwise not be processed on time. Complementing these core components, two important facilitating indicators can affect the state of the economy, namely revenue mobilisation and the real effective exchange rate.

Good governance is the first essential component because it provides the foundations of an economy's ability to generate revenue. The literature points to three areas: customs, where tariffs and other import duties account for the dominant share of trade taxes; VAT and income taxes based on wages are the primary sources of revenue. The removal of technical, logistical, and corrupt obstacles is suggested to be of great importance; public expenditure management, where ministries need to engage in a transparent, consultative, and accountable manner to achieve set targets; and corruption and waste, a pervasive problem reflected in the poor institutional quality. Government support for corruption protection may involve soft loans, including forgiveness of arrears on the bottom line, tax avoidance, and a reluctance to introduce collective action measures to enhance deterrents. Policymakers, therefore, have an indirect incentive to allow suboptimal governance. These three areas have multiple dimensions: tariff structure and corresponding tariff dissemination external arrears structure; public

expenditure extra-budgetary project support through domestic borrowing or borrowing capacity support; and the various sizes of institutional quality.

4. Implementation of the LIC-DSF

The LIC-DSF considers the specific institutional conditions of LICs, including less developed financial markets, inadequate statistical capacity, constrained administrative frameworks, and limited access to market-based financing. Therefore, it is designed to be a flexible tool for adjusting context-specific features. Moreover, to allow for its effective implementation in the joint country strategies, the LIC-DSF is intended to share the same joint planning and decision-making framework of the other enhanced framework members, including the Joint World Bank/IMF staff agreements, country commitments and improvements, joint World Bank/IMF staff recommendations, and conditionality development, back-to-back debt relief operations.

The LIC-DSF will be implemented in the overall context of the enhanced HIPC initiative for LICs. Still, only the more indebted graduates will benefit from calculations of the new triggers of the improved initiative. The LIC-DSF will not necessarily alter the candidates' debt sustainability classification but is expected to improve debt sustainability estimation and policy design in LICs and could help explore the design of market-based permanent solutions for candidates to exit from the transactional debt management track of the enhanced HIPC initiative.

4.1. Data Requirements and Collection

High-frequency indicators related to the fiscal development of LICs are only available for a subset of LICs. Namely, data on interest rate payments, new borrowing, or previously accumulated arrears is often unavailable. Data on previous and future interest payments, new financing, whether debt service is being treated as first charge, and any new funding non-concessional has been collected to address this gap. Updating the baseline is required when debt data (from IMF-CDR) is outside the 30-day lag. You will need the most recent Public Debt Sustainability Analysis—DSALIC—date to do this. The forecasts are constructed from the country-by-country data produced yearly by the International Monetary Fund (IMF)—Capital Data Reporting System (CDR). Data was collected for the years 2000-2015. Gathering non-debt data can be more problematic.

Data quality is low (or not compiled) for much of Sub-Saharan Africa. Given the findings on growth at risk relating to SDR and HIPC, internal domestic arrears are

particularly interesting. These data are not currently collected, and despite this being recognised as a significant fiscal risk, it is unclear where this data can be found. Furthermore, characteristics of external debt that are debt sustainability indicators for HIPC (e.g., the average of the share of foreign-currency debt in total public and publicly guaranteed external debt as well as the average of the ratio of external reserve to the outstanding stock of public and publicly guaranteed external debt) are not, to our knowledge, released to the public. Consequently, a more limited subset of low-frequency data is used.

4.2. Analytical Tools and Techniques

Economic projections are complex in the best circumstances, but this is particularly true for LICs owing to the fragile data and limited resource availability. Nevertheless, having some projections of critical variables is essential to designing a forward-looking debt strategy. This could generally be informed by highly uncertain and fragile economic projections and a range of official institutions and private sector assessments to construct reasonable, forward-looking scenarios.

This section discusses three approaches: flow-based models (including the LIC-DSF), stock-flow models, and numerous others based on modelling the drivers of debt dynamics.

The DSA is generally based on static and steady-state guidelines. Using the flow-based LIC-DSF guidelines, a smoothed adjustment path of critical variables is discussed. This adjustment path builds up a picture of debt dynamics that can be used to gauge the macroeconomic situations under which the country may be susceptible to a debt trap and to guide one's analysis, assuming restrictiveness is imposed.

The stock-flow consistency approach points to some long-run constraints in the debt level, beyond which the debt stock becomes economically inconsistent. In contrast to flow-based assessments, this implies (sharp) adjustments up to an adjustment horizon.

The third approach draws on various models to access underlying drivers of debt dynamics. These include long-term debt sustainability analyses.

5. Case Studies and Applications

This section provides three case studies. The first is an application of the LIC-DSF by a country in the WAEMU. Section II presents an application of the LIC-DSF to Madagascar. The first part of the section presents the macroeconomic stability and

management performance and relates the performance to the outlook on debt and its management. The government's fiscal and external performance illustrates the macroeconomic track record from 2000 to 2012. The behaviour of the nominal exchange rate is compared with cross-country utilities for a sample of LICs. Section III presents Burundi and the sixth review under the Extended Credit Facility Arrangement and Extended Fund Facility for Burundi. In January 2015, the Fund's Executive Board finalised the sixth review under the Extended Credit Facility and the Extended Fund Facility Arrangements with Burundi. It approved a 12-month extension of the current arrangement. This media report study examines some of the risks associated with the extension decisions and some possible strategies that Burundi and the authorities might have pondered while responsible for the Fund Arrangements.

Country Papers: The primary data sources are the data in Article IV staff reports for Burundi and those published for Burundi in the WAEMU regional documents (Country Report, Selected Issues). The cabinet noted 201in 4 that the Staff reports have been negative for the economy since 2009, the population's quality of life since 2008, and for outside investment since 2004. None of the comments propose an alternative examination and possible solutions. Six articles report on the liaison. This means that the staff have visited the country six times recently in three years (2011–2013). At the end of the first five reviews, the performance of Burundi, in program terms, relative to its targets, was observed to have been "satisfactory." However, the macroeconomic has slowly deteriorated over the past two years due to delays in anticipated policy responses, weak export performance and prices, and a decline in specific bilateral grants. The exports of Burundi are significantly affected by fluctuations in the Belgium market as a destination for Burundi exports. The arrival of the Disana.com competitor in Belgium and the availability of electronics assistance from Belgium have likely played some part in the Belgian market share. Burundi's domestic developments, such as the ongoing operation of conflict and inflation risk factors, are also assessed using the LIC-DSF methodologies in the commentary notes. However, verifying the availability of any complementary audit assurance that the fund may need to implement one of two alternative adjustments related to valid information provided to the fund's Managing Director is also essential.

5.1. Country-Specific Applications

An essential feature of the LIC-DSF is that it can capture country-specific characteristics, especially regarding small states' export projections and growth

paths. The primary aim is to compare the path of LIC-specific financial sustainability indicators ratios under a range of potential future scenarios for the primary balance, the real interest rate, growth, and the net present value of the total debt. This unifies the Debt Dynamics Analysis (DDA) view of debt due to Berg, Karam, and Laxton (2006) with the original DSF.

To capture export growth differentials compared to global trade in the short run, forecasts of the current account in the long run, the real effective exchange rate, and the import compression factor are included. In addition, as is standard in the original DSF, the approach allows for changing ratios for the amortisation profile of external debt and a partial oil-price accommodation.

The calculation of the LIC-DSF is based on the public sector balance sheet. The net financial position of the public sector (domestic plus external combined) is the starting point of the DDA, which measures the underlying sustainability of public debt in the absence of fiscal variables that might not be taken as given. For domestic debt, domestic primary balance, real growth rate, and genuine interest rate, any components of this relationship are endogenously related. As a result, for each interest-rate projection from the DSA framework, there is a corresponding impending imbalance in the financial position of the public sector. Similarly, each projected growth path has a quasi-steady-state (extended period) current-account-to-GDP adjustment. The requirement that the public sector service at least some external debt on a quasi-steady state basis also drives the long-run current account adjustment. Any or all of these combinations can be used to explain why the DDA framework helps explain debt dynamics.

5.2. Lessons Learned and Best Practices

Part II of the paper presented a new debt sustainability framework, the LIC-DSF, that the Fund is developing for low-income members. To respond to unique features, including shallow financial markets and significant aid dependence, the LIC-DSF is more straightforward and conservative. However, like the existing DSF, it is designed to maintain market access in a solid, durable debt sustainability environment. This part focuses mainly on lessons learned, best practices, and shortcomings of the Fund's current DSF, presenting them under three different categories of countries: global, market-accessible, and low-income countries.

In conclusion, the new LIC-DSF represents a more pragmatic and prudent approach to the policies aimed at maintaining debt sustainability while at the same time seeking not to impede access to much-needed development financing. The

results of the existing DSF, following its implementation over several years, are the stories of solid, market-accessible debt sustainability. However, continued large budget deficits, including those arising in the context of ongoing market access, imply still-high debt levels over the entire projection period. There are low probabilities of public debt posing a significant threat to financial stability, and sustainability is strongly contingent not only on unlikely improvements in macroeconomic management but also on the availability of continued external official financing.

These procedures and an overreliance on donor money to bail out financially irresponsible governmental policies risk undermining member countries' incentives to maintain sound macroeconomic policies. This could weaken the Fund's role as a catalyst for and promoter of sound balance-of-payment positions.

6. Critiques and Challenges

In this paper, we reviewed the design and early implementation of the LIC-DSF, which aims to introduce more transparent debt sustainability assessments for low-income countries as they face rising development financing needs. The LIC-DSF represents a significant advance over existing LIC debt sustainability frameworks in terms of modernisation and offers a more coherent debt assessment framework, as well as tools that can help improve the transparency of debt sustainability assessments as part of Article IV exercises. The LIC-DSF rests upon solid foundations and has been developed by knowledgeable staff. However, like any new tool, there will be elements of the framework that will require further evolution over time, given practical experiences in its implementation.

While recognising the need for differentiation among countries echoes analyses offered by other researchers on threshold effects in the relationship between debt and growth, it is unclear whether statistically paradigm-shifting thresholds exist. There is empirical evidence showing a more gradual correlation between the two. Thus, one might question the usefulness and potential distortions of a rules-of-thumb approach in public statements that can be made concerning public debt limits. This difficulty is particularly significant since a debt ratio of 70 per cent is above the CTI's optimum threshold. In comparison, the 100 per cent threshold of searches is lower than the one followed in the 2017 DSF in guiding Fund lending in this area. A related potential distortion is that new aspects of debt assessments offered by the 2017 DSF might lead to a wrongly inferred sense of security that could arguably be created at a higher level of debt, possibly even above 100 per cent. If public numerics end up playing a role normatively and if analysts do not

go beyond them when assessing country vulnerability, a case could be made for the use of a single higher threshold, above the 70 per cent level, that captures the fundamental nature of fiscal and debt-related risks while still guiding operational lending criteria. Is this a risk that actual surveillance may become ever more rules-based and cross-country uniform following the release of public DSF-related debt thresholds?

6.1. Limitations of the LIC-DSF

Public-sector balance sheet data are often poor, and overall data quality in LICs leaves much to be desired. These are problems that face any attempt to conduct any debt sustainability analysis for LICs, including the LIC-DSF. Though the LIC-DSF takes as its starting point the publicly available debt data from IMF and World Bank sources, in practice, one might not stop at the diagnostic if problematic public sector instruments were imprudently or too frequently used. Several LICs recently experienced sharp spikes in apparent public debt problems due to financial sector problems (including propping up ailing banks). The LIC-DSF would also miss public sector guarantees without special attention and treatment and semi-concessional and non-concessional debt under the HIPCs Initiative, perhaps without a specific concessional "HIPCs factor".

A significant advantage of using balance sheet techniques is that compiling internationally comparable financial accounts is already heavily underway in most middle-income (and industrial) countries. Many LICs are reaping the benefits of this work by tracking their fiscal performance and risks and adopting modern cash and debt management practices (using internationally comparable monetary and financial statistics to calibrate macro models). Limitations of the LIC-DSF, including (but not limited to) data quality, are a severe impediment. Future improvements in public sector statistics will permit the LIC-DSF to be similarly enhanced.

6.2. Political and Institutional Challenges

Sustained efforts to build a track record of fiscal sustainability are particularly challenging for LICs. The challenges are not just economic and technical. Political economy dangers dominate the medium-term horizon, especially in countries emerging from conflict or natural disasters and are compounded by weak capacity on the part of the executive branch, poor civil society buy-in, and occasionally, inability either to maintain effectively and transparently the monopoly of force or to counter aggressively rent-seeking special interests. Assessments of the likelihood that a country with overindebtedness will experience a debt crisis or a

HIPC stock crisis due to a cutoff in donor financing depend upon a reading of the political economy of adjustment. Moreover, the availability of concessional funding can undermine the emergence of any domestic consensus on the need for painful and necessary fiscal retrenchment if external support becomes feasible and a de facto endogenous ceiling exists.

To sustain and deepen the HIPC initiative, both LAP and the PRSP process will face high demands on their human resource capacity, which will take several years to meet if realistic PRSPs are to be developed and if stability, governance and policy consistency are to be achieved in the post-debt relief era. There are often long lags between the emergence of an initiative such as the LAP and donor capacity to program disbursements under conditions that respect the procedures, safeguards, fiduciary and debt relief criteria agreed for new financing. Several Ministers of Finance and civil society activists in low-income countries are expressing concerns that these commitments should be made when the capacity to assess whether these objectives are being met already exists on a predictable and transparent basis – and that otherwise, lip service through show intent rather than capacity in fact to act, will be beneath the genuine interest in participating in the LAP or the challenge strategy, poverty reduction debates, or in voting in the affirmative supporting such PRGFs.

7. Comparative Analysis with Other Debt Sustainability Frameworks

Based on the extent to which each has been informally formulated or documented and its coverage of the critical elements (cost, benefits, and shocks) generally considered important in debt sustainability analysis, there are several frameworks for sovereign debt sustainability analysis that the LIC-DSF can be compared with. This section outlines the key features of these other frameworks and compares them with those of the LIC-DSF. Specifically, it provides a quick review of approaches to debt sustainability analysis employed in some IMF country work, as well as specific tools – the IMF's joint World Bank-IMF Debt Sustainability Framework for low-income countries, the World Bank's Debt Management Performance Assessment, and the World Bank's Debt Sustainability Analysis Template – that are compared with the LIC-DSF.

The Informal Frameworks for Debt Sustainability Analysis section provides a list of tools and models for debt sustainability analysis used in IMF country surveillance, which include "Debt Sustainability Analyses: The Joint World Bank–IMF Tools", "World Bank Debt Management Performance Report", and "World Bank Debt Sustainability Analysis Template". For each tool and model, critical

features of the approach taken to the economic, fiscal, and macro-financial environment, as well as general and risk/crisis scenarios analysis, which are the critical elements in debt sustainability analysis, are outlined in this framework. Also discussed in this section is the Debt Management Performance Assessment, where key features of the approach taken to economic, fiscal, and macro-financial environment and general and risk/crisis scenarios analysis are provided.

7.1. IMF-DSF vs. LIC-DSF

The recently issued Debt Sustainability Framework for Low-Income Countries (LIC-DSF) replaces the LIC-DSF v1.5, which was based on the 2005 HIPC initiative. This framework's novelty is its four components: African Development Bank et al. Debt Sustainability Framework for Low-Income Countries. These components result in oil and metal exporters having an alternative smoothing component that better accounts for the inherent volatility in their terms of trade. Alternative Default Scenarios also expand the DSF's forms and demographics.

Despite international efforts to create specific debt sustainability assessment frameworks to assess the stance of low-income countries' national external debt, these countries (especially the Sub-Saharan countries) have significantly been vulnerable to high levels of external debt that have led them to harmful social and economic consequences on several occasions.

7.1.1. IMF-DSF vs LIC-DSF On the IMF Debt Sustainability Framework, the credit-constrained countries known as low-income countries comprise the panel listed present value of debts arising from external creditors (i.e. excluding PPG for an officer vantage of a Firm perspective of its Area Department). IMF-DSF uses country-specific data, of which 20 per cent of the countries are LICs that use different thresholds for the debt sustainability analysis (e.g. the threshold for the debt-related variables) from the middle-income and other developing countries.

7.2. World Bank's LIC-DSF vs. Other Frameworks

In line with the low-income country policy, like the DSAs, the LIC-DSF is formulated, estimating the evolution of crucial debt indicators over the projection period ending with the Policy Decision Points (PDP) of ongoing commitments and the completion point of (remaining) gap debt relief. The LIC-DSF relies not just on debt-to-GDP and export ratios but also takes account of GDP and export revenue growth, relative costs, refinancing, and immediate post-debt relief fiscal effects to assess the risks to debt sustainability. It then integrates the classification of debt indicators into macroeconomic and structural components with the rescaling of

debt relief to the alternative uses of funds through an integrated Debt Relief Graduation Matrix.

Compared with debt dynamics and debt impact assessment, which involves the evolution of stabilisation and adjustment programs, there are, thus, several substantial architectural differences in the structure of the DSF for LICs. As a result, LIC-DSF can work with forward-looking DSAs that take account of actual and projected quantitative cost estimates. At the same time, debt relief scenarios are assessed through the Debt Relief Graduation Matrix embedded in the debt framework to ascertain actual and practical financial needs. Among other things, we have argued that while the DSAs may be a requirement for Fund staff-monitored programs in the case of systemic or solvency crises, the LIC-DSF and choice among alternative macroeconomic, fiscal and monetary reforms involved should be part of a more flexible and integrated debt approach focusing on country strategies for LICs.

8. Future Directions and Research Agenda

The LIC-DSF provides useful benchmarks tailored to the circumstances of low-income countries to be considered, as well as all other relevant factors in forming judgments on overall debt sustainability. Yet it is also clear that there remains considerable unfinished business in completing the LIC-DSF, as well as the process of regular revisions and updates of the DSF that the forthcoming remaining phases of work on implementing the G-20 Action Plan on Transparency could also address. Some issues addressed are the five main conceptual and operational improvements that must be addressed in the coming years. The ongoing work defining improved lagging indicators and collecting data for all licensed tasks can also provide valuable pointers for further LIC-DSF revisions and updating its benchmark database.

Over time, judgmental and time-depleted indicators and options for adjustments related to long-term sustainability could also be developed and introduced, utilising judgmental bounds that avoid the many weaknesses found in some of the early efforts to do so. Under this approach, improved or new composite debt sustainability assessments could be produced and released at intervals that support a comprehensive, forward-looking view of overall public finances based on a menu of possibilities considered in detail by members. This would make comparisons and milestone achievements more transparent, thereby better aligning the activities with other ongoing initiatives to improve the coherence, coverage, and quality of fiscal analysis in low-income countries.

8.1. Potential Enhancements and Updates

We expect the LIC-DSF to be regularly updated to reflect ongoing research, feedback from the Fund and other stakeholders, evolving financing instruments, and other lessons from the surveillance process. As a first step, a natural avenue for future work is to refine and improve the modelling accuracy of the LIC-DSF. We aim to make an updated version of the Calculations Technical Reference publicly available at that time. Second, modelling improvements aside, stakeholders, including LIC authorities closely involved in the surveillance process, view debt distress and the debt sustainability analysis as a critical input into policy design. As we have sought to emphasise throughout, the LIC-DSF should not be considered as necessarily providing binding policy guidance or prescriptive rules. Nevertheless, given that spatial and intertemporal factors partly inform the appropriateness of the dynamic properties of debt and other quantities, stakeholder discussions about extending the core LIC-DSF to include additional aspects of debt sustainability analysis are an essential avenue for future work. This discussion often centres on broader critiques of the WBLR framework in which LIC debt limits are embedded and the relevance of the underlying sustainability rationale.

8.2. Emerging Issues in Debt Sustainability

In the context of the comprehensive debt-dominated strategy that many African LICs have followed for sustaining growth and maintaining macroeconomic stability through significant shifts to public priority sectors, the potential to create other types of debt servicing problems has become apparent. These problems sometimes become evident when designing forward-looking, simple, medium-term fiscal frameworks. To consider how the LIC-DSF may anticipate such issues in its examining debt sustainability and provide early issues to avoid them, this subsection addresses potential problems that may, at the very least, interrupt the LICs' growth and development or, at worst, lead to another debt crisis.

In some LICs, there is increasing realisation that it will be some time before their country situations or country gestalts stabilise, or their IMF Special and first credit access conditionality come to an end. At such times, a paradox intervenes in their efforts to program (objectives, changes of public sector policy and financing) revenue. It outlays into viable scenarios within a genuinely longer-term context. The fiscal proposals that one would like to make would depend on expected changes in their country's situations or gestalts, and once these gestalts had stabilised, be programmed adjustment choices at those times. Productive

investment decisions would also be forthcoming. On the other hand, funding arrangements in support of the programs that LICs are formulating and financing for the IMF's Board approval provide security only for a 3-year horizon, or 4-12 quarters, with large Fund arrangements including European bilateral support, providing continuous large disbursements over an 18- to 36-months horizon. At these times, the critical question becomes, "What happens afterwards?" Regardless of their implementation, FIRs almost inevitably result in further periods of high deficits to achieve their objectives. Since they are unlikely to be sustained in a long-term fiscal framework, they engender budgetary uncertainty and may jeopardise future fiscal sustainability. While stable gestalts provide time for more gradual and healthy public expenditure "adjustment" through a reduction of the relative weight of projects and activities that have proven to be a bad investment, the use of the considerable fiscal space that may come from the external assistance and grants that developing countries can expect with their vital PRGF-supported programs may work only briefly and have negative long-run consequences.