Policy Brief N° 3 September 2016

ACROPOLIS BeFinD

Belgian Policy Research Group on Financing for Development.

The IMF-WB Debt Sustainability Framework: procedures, applications and criticisms

Danny Cassimon
Institute of Development Policy and Management, University of Antwerp

Karel Verbeke
Institute of Development Policy and Management, University of Antwerp

Dennis Essers
Institute of Development Policy and Management, University of Antwerp

Introduction

At the completion of the Heavily Indebted Poor Countries (HIPC) initiative and the Multilateral Debt Relief Initiative (MDRI), eligible countries' public debt sustainability was restored. In view of large development needs (and limited tax revenues), it is only rational that former HIPCs accumulate new debt. Indeed, the purpose of debt relief was not to keep debt ratios forever at their post-relief lows, but rather to provide new borrowing space. While the HIPC/MDRI initiatives provided beneficiary countries with a 'clean slate' at exit, irresponsible borrowing (and lending) policies could well derail debt again. To monitor the debt sustainability of low-income countries (LICs) over the longer term, the World Bank and IMF jointly developed the Debt Sustainability Framework (DSF).[1] The results of this DSF inform the lending policies of creditors and borrowing decisions of recipient countries.

In this policy brief we explain how the DSF works, discuss the different creditor policies the output of the DSF informs, and highlight a number of critiques on the framework. In Appendix we provide an overview of the current status of key DSF inputs and outputs for each of the partner countries of Belgian development cooperation.

The World Bank-IMF DSF[2]

The DSF is an analytical framework to guide future borrowing decisions of LICs and lending policies of their creditors, with the aim of balancing countries' financing needs and debt sustainability. It was endorsed by the Executive Boards of the World

1 The IMF also developed a separate debt sustainability framework for Market Access Countries (MAC), i.e., countries that have significant access to international capital markets. For more info, see https://www.imf.org/external/pubs/ft/dsa/mac.htm.

2 This section draws heavily on IMF (2013).

Bank and the IMF in April 2005 and has been regularly reviewed and updated.[3] The framework applies to all countries eligible for support from the Poverty Reduction and Growth Trust (PRGT)[4] of the IMF and/or the International Development Association (IDA) of the World Bank.[5]

While in theory the DSF covers three components of a country's debt, i.e., public and publicly guaranteed (PPG) external debt, private external debt and public domestic debt, in its external Debt Sustainability Analysis (DSA) and public DSA modules, the focus tends to be almost exclusively on PPG external debt, still the largest debt component in LICs (often by a large margin). Generally speaking, DSA updates for LICs are produced every year, although their exact timing depends on the planning of IMF Article IV missions, new requests for IMF financing and other planned borrowing.

A first, crucial ingredient in any DSA is the macroeconomic framework, an interrelated set of real, external, and public sector variables, including current debt stock and service. For most of these variables 10-year historical series as well as 20-year projections are required, the latter to capture the consequences of concessional, long-maturity loans and investment returns in LICs.

Based on the country-specific assumptions underlying the macroeconomic framework, the DSA's (Excel-based) template then generates time series of external and public debt burden indicators for the next 20 years. These indicators measure both solvency (debt stock ratios) and liquidity (debt service ratios) and take into account the composition and concessionality of debt (measured in present value terms) and different proxies of repayment capacity (GDP, exports or public sector revenue). In addition, the external and public DSA templates apply a set of 16 standardized stress tests in total to gauge the sensitivity of the baseline scenario to permanent changes in assumptions (5 so-called 'alternative' scenarios) and to temporary shocks (11 bound tests). Customized scenarios can be added if the standard stress tests do not sufficiently cover country-specific risks.

The 20-year paths of PPG external debt burden indicators generated under the baseline scenario and stress tests are compared to their policy-dependent thresholds to assign LICs with an external risk rating. These thresholds, above which the risk of debt distress is deemed to be elevated, have been empirically estimated based on the historical occurrence of external debt crises (see IMF and World Bank, 2012 for further details) and are differentiated according to LICs' policy performance (measured by the three-year moving average of the World Bank's Country Policy and Institutional Assessment or CPIA scores; see Table 1).

The external risk rating can take four different values:

- **low risk**, when none of the debt burden indicators breaches a threshold;
- **moderate risk**, when all indicators remain below their thresholds in the baseline scenario, but at least one threshold is breached in the stress tests;
- **high risk**, when at least one threshold is breached in both baseline and stress test scenarios, but the country currently does not face repayment difficulties;
- **in debt distress**, when the country is already in arrears or experiences other repayment difficulties.

While this rating procedure is very transparent, its mechanical classification can be overruled by the team performing the assessment if marginal or temporary breaches (e.g., a one-time bullet

3 Major reviews took place in 2006, 2009 and 2012. Another review was ongoing at the moment of writing.

4 The PRGT has three concessional lending windows: the Standby Credit Facility (SCF), to address short-term and precautionary financing needs; the Extended Credit Facility (ECF), to provide flexible medium-term support; and the Rapid Credit Facility (RCF), to provide emergency support. Countries can also request non-financial assistance from the IMF under a Policy Support Instrument (PSI), potentially in conjunction with an SCF or RCF arrangement.

5 All Belgian partner countries have access to PRGT and IDA facilities, except Morocco and West Bank and Gaza.

repayment of a large loan) are considered not to imply a significant vulnerability.

Table 1: Policy-dependent debt burden thresholds/benchmarks under the DSF

Policy performance	PV of PPG external debt in percentage of			PPG external debt service in percentage of		PV of total public debt in percentage of
	GDP	Exports	Revenue	Exports	Revenue	GDP
Weak CPIA<3.25	30	100	200	15	18	38
Medium 3.25<CPIA<3.75	40	150	250	20	20	56
Strong CPIA>3.75	50	200	300	25	22	74

Note: When remittances inflows are large, defined as both greater than 10% of GDP and 20% of exports of goods and services, these can be added to the GDP and exports denominators.

Since the above risk rating is solely based on an analysis of PPG external debt, it may provide an incomplete picture of the risk of debt distress. To the extent that public domestic debt or private external debt create additional risks for the LIC in question, these can be reflected in a complementary 'overall' risk of debt distress assessment. For the analysis of total public debt, indicative benchmarks were defined during the latest (2012) review of the DSF (see last column of Table 1), in relation to GDP only. Also in contrast to the thresholds in the external DSA, these policy-dependent benchmarks serve as reference points. A deeper discussion of public domestic debt is required if public debt approaches or exceeds the benchmarks in the baseline scenarios and/or under stress tests. Moreover, an analysis of private sector external debt can be included if it is already substantial or projected to grow rapidly.

Use of the DSF by creditors[6]

External risk ratings and other outputs of DSAs are used by different creditors to inform their lending strategies.

The IMF itself uses the DSA results for its broader macroeconomic assessment of the country and its Debt Limit Policy (DLP) in Fund-supported programs. Based on the DSA risk ratings and borrowing countries' macroeconomic and public financial management capacity, the IMF sets more or less stringent debt limits in its programs. Table 2 summarizes the possible forms of debt conditionality and how they relate to the risk of external debt distress.

Table 2: Choosing the form of debt conditionality for countries normally reliant on concessional financing

[6] Obviously, the DSF also helps to inform policy decisions in the borrowing country. Over time, recipient countries have built capacity, often with the help of donor-financed technical assistance, to monitor debt sustainability, develop their own DSAs and integrate the analysis in a Medium-Term Debt Management Strategy.

<table>
<tr><td colspan="2" rowspan="2"></td><td>Weak quality of debt monitoring*</td><td colspan="2">Sufficient quality of debt monitoring</td></tr>
<tr><td></td><td>Limited financial integration</td><td>Significant links to international capital markets</td></tr>
<tr><td rowspan="5">Risk of external debt distress</td><td rowspan="2">High</td><td>PC on nominal external NCB + Memo item on nominal external CB</td><td>PC on nominal external NCB + PC/IT on nominal external CB</td><td>PC on nominal foreign currency NCB + PC/IT on nominal foreign currency CB</td></tr>
<tr><td>Target on domestic borrowing, if needed**</td><td>Target on domestic borrowing, if needed**</td><td>Target on domestic borrowing, if needed**</td></tr>
<tr><td rowspan="2">Moderate</td><td>PC on nominal external NCB + Memo item on nominal external CB</td><td>PC on PV of new external debt</td><td rowspan="2">PC on total nominal public debt</td></tr>
<tr><td>Target on domestic borrowing, if needed*</td><td>Target on domestic borrowing, if needed**</td></tr>
<tr><td>Low</td><td colspan="3">The design of debt limits, if needed, would be country specific***</td></tr>
</table>

Notes: PC: performance criteria; NCB: non-concessional borrowing; IT: indicative target; CB: concessional borrowing; PV: present value.
* The quality of debt monitoring can be evaluated as 'weak' based on selected components of the CPIA (debt policy rating equal to or below 3), the Public Expenditure and Financial Assessment (PEFA) (indicator PI 17i, quality of debt data recording and reporting, rating D or lower) or the Debt Management Performance Assessment (DeMPA) (indicator DPI-14(1), completeness and timeliness of central government records on its debt, loan guarantees and debt-related transactions, rating D or lower).
** An explicit target on domestic borrowing would be required in cases where the overall risk of debt distress indicates significant risks related to public domestic debt, and where these risks are not adequately covered by fiscal conditionality.
*** No limits on external debt are required. Debt conditionality may be warranted when the quality and/or coverage of fiscal conditionality favours the use of limits on budgetary financing. Again, an explicit target on domestic borrowing would be required in cases where the overall risk of debt distress indicates significant risks related to public domestic debt, and where these risks are not adequately covered by fiscal conditionality.
Source: Public Debt Limits in IMF-Supported Programs: http://www.imf.org/external/np/spr/2015/conc/index.htm.

For eligible countries, the World Bank determines IDA's grant allocation on the basis of DSA results, in order to proactively mitigate risks of debt distress. Countries with a low risk of debt distress receive loans on standard IDA terms[7]; countries facing a moderate risk receive a blend of 50% IDA loans and 50% grants; and countries with a high risk or in debt distress receive IDA grant-only financing. To avoid moral hazard, a country's IDA allocation is reduced by 20% if disbursed in grants. Regional development banks operate an allocation system similar to that of the World Bank.

Other actors who rely on the DSAs are the Paris Club bilateral creditors. Under the Evian Approach[8] debt sustainability considerations are taken into account to adapt the creditors' response to the financial situation of the debtor country. Members of the OECD Working Group on Export Credit and Credit Guarantees use the DSAs when providing official credits.

Critiques on the DSF

A first set of criticisms focuses on the very concept of 'debt sustainability' the DSF uses. For example, Eurodad (2001) proposes a poverty-centred debt sustainability instead. It is argued that resources available to LIC governments should first of all be used for poverty-reducing expenditures; the remaining resources (if any) can be spent on less-essential expenditures, including servicing external debt (see also Berlage et al., 2003). Under this alternative approach, the levels of debt that can be considered 'sustainable' will be (much) below the thresholds put forward by the DSF, at which debt servicing problems have historically manifested themselves.

7 As of 1 April 2016, standard IDA loans have a maturity of 38 years, a 6-year grace period and an interest rate of 3.125%.
8 The Evian Approach formalized the treatment by the Paris Club of debt sustainability problems in non-HIPC countries.

The IMF's own Berg et al. (2014) take issue with the DSF's threshold approach, which implies a loss of information, and the DSF's 'worst-case aggregator' (WCA), whereby the risk of debt distress is evaluated as high if a *single* debt burden indicator crosses its threshold in the baseline scenario. They show that the WCA makes the DSF 'too conservative' (i.e., it predicts debt crises too often) and less accurate than a number of alternative aggregating methods.

Panizza (2015) critiques the use of the DSF as a 'crystal ball' to decide between grants and loans (by the IDA and others), based on the well-documented unreliability of long-term growth projections and other macroeconomic forecasts (see e.g., Blanchard and Leigh, 2013).[9] His own suggestion is to index concessional loans to the *ex post* realisation of GDP, on which lenders and borrowers have more accurate information than on future GDP.

Also the central role of the CPIA within the DSF has been challenged. Besides general critiques on the CPIA and its limited availability (see e.g., UN, 2007 and Rodrik, 2008), Panizza (2008) points out that by using the CPIA as the only criterion to differentiate the debt thresholds, the DSF ignores other relevant country characteristics, say the level of international reserves. Moreover, grouping very diverse countries in three categories according to their CPIA scores may result in an underestimation (overestimation) of the borrowing capacity of countries that perform well (poorly) in other areas (UN, 2007).

Finally, the DSF has been critiqued for not adequately capturing the potentially beneficial effects of debt-financed public investment on growth, exports and/or revenues, and thus on debt sustainability. In response to these concerns, IMF and World Bank staff, together with academics, have developed a set of analytical models that make the investment-growth nexus and the role of public investment efficiency explicit, to complement the usual DSAs. The IMF workhorse model by Buffie et al. (2012) has already seen numerous applications, often with adaptations and extensions to better fit specific LICs' circumstances.[10] To be sure, while these (often very complex) models may provide extra guidance to borrowers and lenders alike, they cannot take away the inevitable uncertainties surrounding debt sustainability.

Further information

To inform Belgian development cooperation, we add in appendix a list of all Belgian partner countries for whom a LIC-DSA is prepared (see footnote 5). We look at their overall CPIA policy performance, the quality of their debt monitoring and their DSA external risk rating. When applicable, we also look at the conditionalities related to the IMF DLP.

More about the DSA for LICs on the World Bank and IMF websites.
A list of DSAs for all LICs.
A map with all countries that have an IMF program.

9 Of course, over-optimistic growth projections may counterbalance the conservative bias of the DSF's WCA. However, it is 'unlikely that two wrongs make a right' (Panizza, 2015, p. 10).

10 For more details, see http://www.imf.org/external/np/res/dfidimf/topic2.htm.

Bibliography

Berg, A., Berkes, E., Pattillo, C., Presbitero, A.F. and Yakhshilikov, Y. (2014) "Assessing Bias and Accuracy in the World Bank – IMF's Debt Sustainability Framework for Low-Income Countries", *IMF Working Paper*, No. 14/48.

Berlage, L., Cassimon, D., Dreze, J. and Reding, P. (2003) "Prospective Aid and Indebtedness Relief: A Proposal", *World Development*, Vol. 31, No. 10, pp. 1635–1654.

Blanchard, O.J. and Leigh, D. (2013) "Growth Forecast Errors and Fiscal Multipliers", *American Economic Review: Papers and Proceedings*, Vol. 103, No. 3, pp. 117-120.

Buffie, E.E., Berg, A., Pattillo, C., Portillo, R., Zanna, L.-F. (2012) "Public Investment, Growth, and Debt Sustainability: Putting Together the Pieces", *IMF Working Paper*, No. 12/144.

Eurodad (2001) "Putting Poverty Reduction First. Why a Poverty Approach to Debt Sustainability Must Be Adopted", European Network on Debt and Development, Brussels.

IMF and World Bank (2012) "Revisiting the Debt Sustainability Framework for Low-Income Countries", International Monetary Fund, Washington, DC.

IMF (2013) "Staff Guidance Note on the Application of the Joint Bank-Fund Debt Sustainability Framework for Low-Income Countries.", International Monetary Fund, Washington, DC.

Panizza, U. (2008) "The External Debt Contentious Six Years after the Monterrey Consensus", *G-24 Discussion Paper*, No. 51.

Panizza, U. (2015) "Debt Sustainability in Low-Income Countries. The Grants versus Loans Debate in a World without Crystal Balls", *FERDI Working Paper*, No. 120.

Rodrik, D. (2008) "Second-Best Institutions", *NBER Working Paper*, No.14050, National Bureau of Economic Research, Cambridge, MA.

UN (2007) "Recent Developments in External Debt", Report of the Secretary-General, United Nations General Assembly, New York, NY.

This research has been supported by the Belgian Development Cooperation through VLIR-UOS. VLIR-UOS supports partnerships between universities and university colleges in Flanders (Belgium) and the South looking for innovative responses to global and local challenges. Visit www.vliruos.be for more information.

Appendix: DSF inputs and outputs for Belgian partner countries as of June 2016 (and trends since HIPC completion point if applicable)

Partner country	Overall policy performance	Quality of debt monitoring	DSA external risk rating	IMF PRGT program?
Benin	01/2007: medium	CPIA: 4.0 (2014) PI17i: B (2007)	01/2007: moderate 08/2011: low	No. Discussions on ECF started in June 2016.
Burkina Faso	09/2005: strong 07/2008: medium 06/2013: strong	CPIA: 4.0 (2014) PI17i: B (2014) DPI14(1): C (2011)	09/2005: moderate 07/2008: high 05/2012: moderate	Yes, ECF 2013-2016 • Low debt-monitoring capacity • PC on the amount of new non-concessional external debt contracted or guaranteed by government (cumulative of 230bln CFAF as of June 2016) • Memo item: ceiling on the amount of new concessional external debt contracted or guaranteed by government (256.4bln CFAF for 2016, June 2016)
Burundi	01/2009: weak	CPIA: 3.0 (2014) PI17i: C (2012)	01/2009: high	Yes, ECF 2012-2015, extended to 2016. Currently off track. • PC on non-concessional external debt contracted or guaranteed by the government or the Central Bank (28bln BIF, cumulative from beginning of the program, Dec 2015).[11]
DR Congo	06/2010: weak	CPIA: 3.5 (2014) PI17i: D (2008)	06/2010: high 05/2014: moderate	No
Guinea	09/2012: weak	CPIA: 3.0 (2014)	09/2012: moderate	Yes, ECF • Low debt-monitoring capacity • PC on new non-concessional medium or long-term external debt contracted or guaranteed by the government or Central Bank (ceiling of 0 for June 2016) • Memo item on new concessional external debt contracted or guaranteed by the government or Central Bank (cumulative ceiling of 780mln USD for June 2016)
Mali	03/2006: medium	CPIA: 3.5 (2014) PI17i: B (2011) DPI14(1): D (2011)	03/2006: moderate 10/2007: low 01/2011: moderate	Yes, ECF 2013-2017 • PC on new external debt contracted or guaranteed by the government on non-concessional terms (cumulative ceiling of 250bln CFAF for December 2016)

11 The latest conditionalities of the Burundian program were changed before the new rules were to be applied.

				• Memo item on new external debt contracted or guaranteed by the government on concessional terms (cumulative ceiling of 557bln CFAF for December 2016)
Mozambique	07/2006: medium	CPIA: 4.0 (2014) PI17i: A (2015) DPI14(1): D (2008)	07/2006: low 06/2013: moderate 06/2016: High	Yes, SCF 2015-2017 • PC for PV of new external debt contracted or guaranteed by the central government or the Central Bank or selected state-owned enterprises with maturity of one year or more (ceiling covering the period December 18, 2015 through December 31, 2016 180mln USD)
Niger	02/2006: medium	CPIA: 4.0 (2014) PI17i: C (2013)	02/2006: High 01/2007: moderate 01/2010: low 11/2011: moderate	Yes, ECF 2012-2016 • PC on new non-concessional external debt contracted or guaranteed by the government and public enterprises with maturities of 1 year or more (0 by end of June 2016). • Memo item on new external debt contracted or guaranteed by the government on concessional terms (800bln CFAF per fiscal year by end June 2016).
Rwanda	07/2006: medium 12/2013: strong	CPIA: 4.0 (2014) PI17i: B (2015)	07/2006: High 12/2008: moderate 12/2013: low	Yes, PSI 2013-2017 and SCF 2016-2017 • IT on new external debt contracted or guaranteed by nonfinancial public enterprises (500mln USD ceiling on stock in June 2017)
Senegal	09/2007: strong 05/2008: medium 12/2014: strong	CPIA: 4.5 (2014) PI17i: C (2011) DPI14(1): D (2010)	09/2007: low	Yes, PSI 2015-2017 • AC[12] on floor on net lending/borrowing (-276bln CFAF in September 2016, cumulative since the beginning of the year)
Tanzania	08/2005: strong 06/2015: medium	CPIA: 4.0 (2014) PI17i: B (2013)	08/2005: moderate 04/2007: low	Yes, PSI 2014-2017 • AC on external nonconcessional borrowing disbursements to the budget (cumulative from the beginning of the fiscal year, 1,093bln TSH by June 2016)
Uganda	02/2006: Strong 07/2015: medium	CPIA: 4.5 (2014) PI17i: B (2012)	02/2006: moderate 01/2007: low	Yes, PSI 2013-2017 • No AC, IT or memo item related to debt build-up.

See notes table 2 for abbreviations.

12 Performance Criteria are called Assessment Criteria (AC) in the case of a PSI.