

INTERNATIONAL DEVELOPMENT ASSOCIATION
AND
INTERNATIONAL MONETARY FUND

**Staff Guidance Note on the Application of the Joint Bank-Fund Debt Sustainability
Framework for Low-Income Countries**

Prepared by Staffs of the World Bank
and the International Monetary Fund

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ABBREVIATIONS AND ACRONYMS

CIRR	Commercial Interest Reference Rate
CPIA	Country Policy and Institutional Assessment
DSA	Debt Sustainability Analysis
DS	Debt Service
DSF	Debt Sustainability Framework
FDI	Foreign Direct Investment
GE	Grant Element
GDP	Gross Domestic Product
IDA	International Development Association
IMF	International Monetary Fund
LIC	Low-Income Country
MAC	Market-Access Country
MDG	Millennium Development Goals
MTDS	Medium-Term Debt Management Strategy
OECD	Organisation for Economic Co-operation and Development
PPG	Public and Publicly Guaranteed
PPP	Public-Private Partnership
PRMET	Economic Policy, Debt and Trade Department
PRGT	Poverty Reduction Growth Trust
PV	Present Value
SDR	Special Drawing Rights
SPR	Strategy, Policy, and Review
WEO	World Economic Outlook

EXECUTIVE SUMMARY

Low-income countries (LICs) face significant challenges in meeting their development objectives while at the same time ensuring that their external debt remains sustainable. In April 2005, the Executive Boards of the International Development Association (IDA) and the International Monetary Fund (IMF) endorsed the Debt Sustainability Framework (DSF), a tool developed jointly by World Bank and IMF staff to conduct public and external debt sustainability analysis in low-income countries. The DSF aims to help guide the borrowing decisions of LICs, provide guidance for creditors' lending and grant allocation decisions, and improve World Bank and IMF assessments and policy advice.

Since its inception, the DSF has been reviewed on three occasions. The most recent review, discussed by the IDA and IMF Executive Boards in February 2012, took a comprehensive look at all aspects of the DSF to see whether the framework remained adequate in light of changing circumstance in LICs. Executive Directors concluded that the DSF had performed relatively well and fulfilled its main objectives, but they agreed that some modest improvements were necessary to ensure that the framework remained robust and relevant.

This following guidance note incorporates modifications and innovations to the framework approved by the Executive Boards at the time of the 2012 review. These include revised thresholds for public and publicly guaranteed external debt; new benchmarks for total public debt; revised guidance on incorporating remittances; an additional "probability approach" that uses country-specific information to help determine the risk of external debt distress; and a new assessment of the overall risk of debt distress.

Whereas previous guidance notes were written mainly for World Bank and IMF staff and assumed a fair amount of prior knowledge about the DSF and its underlying concepts, this guidance note targets both staff and country authorities, regardless of their level of experience with the framework. It is a comprehensive guide to using the DSF.

This Guidance Note was prepared by an IMF team led by Andrew Jewell, consisting of Natalia Novikova and Yan Sun-Wang, under the overall guidance of Hugh Bredenkamp, Peter Allum and Reza Baqir (all SPR). Hou Wang provided very able research assistance. The Note also benefitted from discussions with Andrew Berg (IMF-RES) and Saul Lizondo (IMF-WHD). The World Bank team was led by Sudarshan Gooptu under the overall guidance of Jeffrey Lewis, and consisted of Juan Pradelli, Dino Merotto, Carlos Cavalcanti, Ralph Van Doorn, and Sonia Plaza (all PRMET).

I. INTRODUCTION

1. The Debt Sustainability Framework (DSF) was introduced in 2005 and has been reviewed on three occasions: 2006, 2009, and 2012.¹ The 2006 review assessed the initial experience with the framework and examined the implications of debt relief under the Multilateral Debt Relief Initiative. The 2009 review, which came in the wake of wide-ranging reforms of the IMF’s financial facilities for LICs, focused on options to enhance the flexibility of the DSF. This guidance note incorporates modifications and innovations to the framework approved by the Executive Boards of the International Development Association (IDA) and the International Monetary Fund (IMF) in the context of the 2012 review.

2. Whereas previous guidance notes were written mainly for World Bank and IMF staff and assumed a fair amount of prior knowledge about the DSF and its underlying concepts, this guidance note targets both staff and country authorities, regardless of their level of experience with the framework.² For beginners, it is a step-by-step guide to doing debt sustainability analysis (DSA). For more experienced users, it serves as a comprehensive reference manual. This guidance note complements the document approved by the Executive Boards of the IDA and IMF context of the 2012 review.³

3. A number of modifications to the DSF are documented in this guidance note. The changes, which are discussed in more detail together with the DSF in the remainder of the guidance note, are summarized in Box 1:

Box 1. Main Changes from Previous Guidance

- **Revised thresholds.** The thresholds for debt service to revenue, the present value (PV) of debt to the sum of exports and remittances, and debt service to the sum of exports and remittances have been revised (see pages 10 and 23).
- **New benchmarks for total public debt.** Benchmarks for total public debt to GDP have been introduced to help determine when to conduct deeper analysis of public domestic debt (see page 14).
- **Revised guidance on remittances.** Guidance on how to incorporate remittances into DSAs has been updated (see page 23).
- **New “probability approach.”** An additional approach for assessing debt sustainability in a limited number of borderline cases has been introduced. The approach uses country-specific information to help determine the risk of external debt distress (see page 38).
- **New assessment of the overall risk of debt distress.** Countries with significant vulnerabilities related to public domestic debt or private external debt, or both, are now assigned an overall risk of debt distress that flags these risks (see page 39).

¹See IDA (2004a, 2004c, 2005, 2006a, 2009, 2012) and IMF (2004a, 2004c, 2005, 2006a, 2009f, 2012b).

²For previous guidance notes, see IDA (2006b, 2008, 2010) and IMF (2006b, 2008b, 2010).

³See IDA (2012) and IMF (2012b)

II. WHAT IS THE DEBT SUSTAINABILITY FRAMEWORK

4. The Debt Sustainability Framework is a standardized framework for conducting debt sustainability analysis in low-income countries (LICs). Its main objectives are to help guide the borrowing decisions of LICs, provide guidance for creditors' lending and grant allocation decisions, and improve World Bank and IMF analysis and policy advice. Although the terms "DSF" and "DSA" are sometimes used interchangeably, they are in fact distinct: the DSF is the framework within which a DSA is produced for a particular country.

5. The DSF is also distinct from the framework used to assess debt sustainability in market-access countries (MACs). The DSF was developed jointly by World Bank and IMF staff and applies only to LICs. The MAC framework was developed by IMF staff and is used for emerging market and advanced economies. All DSAs produced under the DSF include a risk rating—an explicit assessment of the risk of external debt distress—whereas MAC DSAs do not. Another important difference is that the Excel-based DSA template created for the DSF is intended to be used not only by World Bank and IMF staff, but also by LIC authorities to produce their own DSAs for their own internal purposes.

A. Analytical underpinnings of debt sustainability analysis

6. An economic agent (or a sector of an economy, or a country as a whole) is solvent if the present value of its income stream is at least as large as the PV of its expenditure plus any initial debt. If this condition is met, the agent is meeting its intertemporal budget constraint. For a *government* to be solvent, the PV of future primary balances must be greater than or equal to the public debt stock.⁴ For a *country* as a whole, the PV of future non-interest current account balances must be greater than or equal to its external debt.

7. The relation between this condition and the ratio of debt to GDP—a key focus in DSAs—can be easily established. It can be shown that if the ratio of debt to GDP is on a non-explosive path (i.e., either stable or declining in the long run), the solvency condition is automatically met. This provides a strong rationale for evaluating solvency by looking at the projected behavior of debt ratios.⁵

8. Beyond solvency, the agent may face liquidity risk—that is, a situation where available financing and liquid assets are insufficient to meet maturing obligations. The currency composition of debt, its maturity structure, its interest rate structure, and the availability

⁴This assumes that the government will not service its future debt by printing money, i.e., through seigniorage. Alternatively, one needs to include seigniorage as part of the primary surplus, as central bank profits are typically transferred to the budget.

⁵Even if the ratio of debt to GDP is declining, it is worth examining whether this is the result of a continued primary deficit offset by an assumed GDP growth rate in excess of the interest rate on the debt. While it is certainly possible to have GDP growth rates in excess of the interest rate, it would be imprudent to assume that this condition holds over the long run.

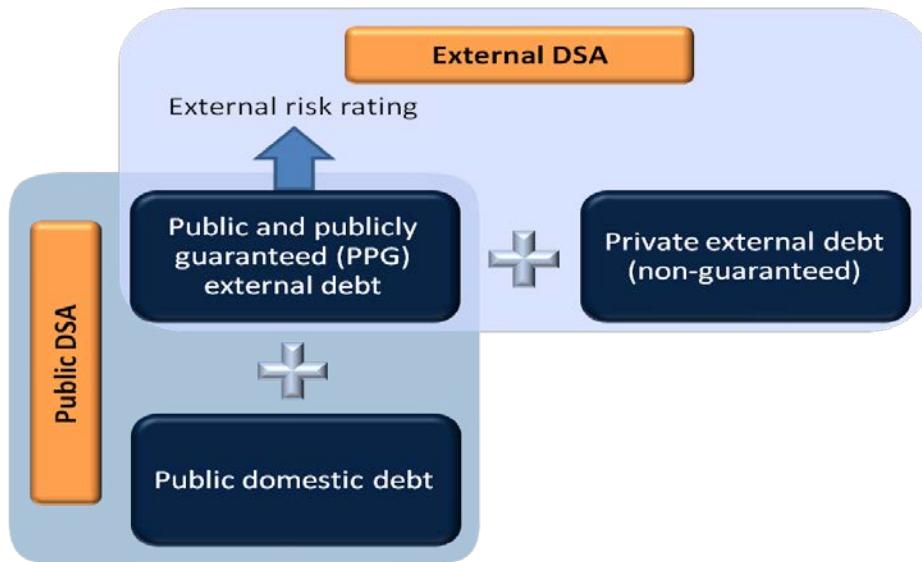
of liquid assets are key determinants of the vulnerability of an economy to liquidity crises. As liquidity problems often emerge in circumstances that may give rise to insolvency (e.g., a prolonged increase in interest rates), it may be difficult to distinguish between solvency and liquidity situations.

9. The DSF includes indicative thresholds that facilitate the assessment of solvency and liquidity risk. The thresholds are not uniform across all countries. Instead, they vary depending on the quality of a country's policies and institutions, reflecting the empirical observation that LICs with weaker policies and institutions are more likely to face repayment problems at lower debt ratios.

B. External DSA vs. Public DSA

10. The DSF has two components: an external DSA and a public DSA (Figure 1). The external DSA covers total external debt in the economy, owed by both the public sector and the private sector. The public DSA (sometimes referred to as the fiscal DSA) covers total debt of the public sector, both external and domestic. Public external debt, which is common to both DSAs, includes both external debt owed by the public sector and external debt guaranteed by the public sector.⁶ The DSF lumps these two elements together into what is referred to as public and publicly guaranteed (PPG) external debt. The DSF does not capture private domestic debt. (See page 12) for definitions of external debt and domestic debt.)

Figure 1. External and Public DSAs

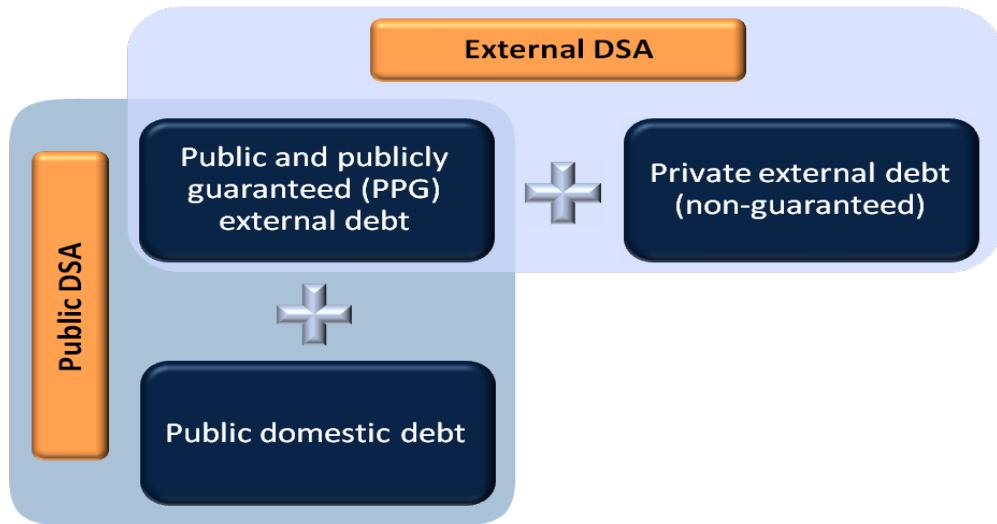


⁶Publicly guaranteed debt is defined as debt liabilities of public and private sector units, the servicing of which is contractually guaranteed by public sector units.

C. External risk rating

11. All DSAs include an external risk rating—an explicit assessment of a country's risk of external debt distress. The rating is based on an analysis of PPG external debt in the external DSA (Figure 2). Although the external DSA captures all external debt in the economy (both public and private, as discussed above), the risk rating is guided solely by the outlook for PPG external debt. The central role of PPG external debt in the DSF stems from the fact that, historically, PPG external debt has been the largest component of debt in LICs and the largest source of risk.

Figure 2. External Risk Rating

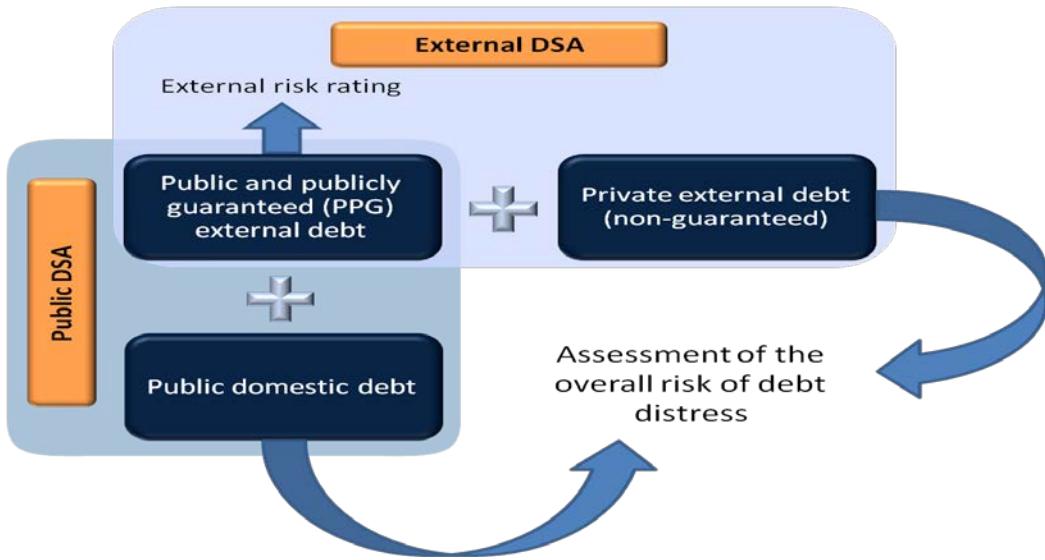


12. Countries are assigned one of four risk ratings: low, moderate, high, and in debt distress. For guidance on how to assign these ratings, see page 37.

D. Overall risk of debt distress

13. To the extent that there are vulnerabilities related to private external debt or public domestic debt, these vulnerabilities are reflected in the assessment of the overall risk of debt distress (Figure 3). The assessment of the overall risk of debt distress is meant to complement the external risk rating by highlighting sources of risk that the external risk rating does not capture. The assessment of the overall risk of debt distress is intended to inform the macroeconomic and structural policy dialogue with country authorities, including as it relates to the design of debt limits in Fund-supported programs. For guidance on how to determine the overall risk of debt distress, see page 39.

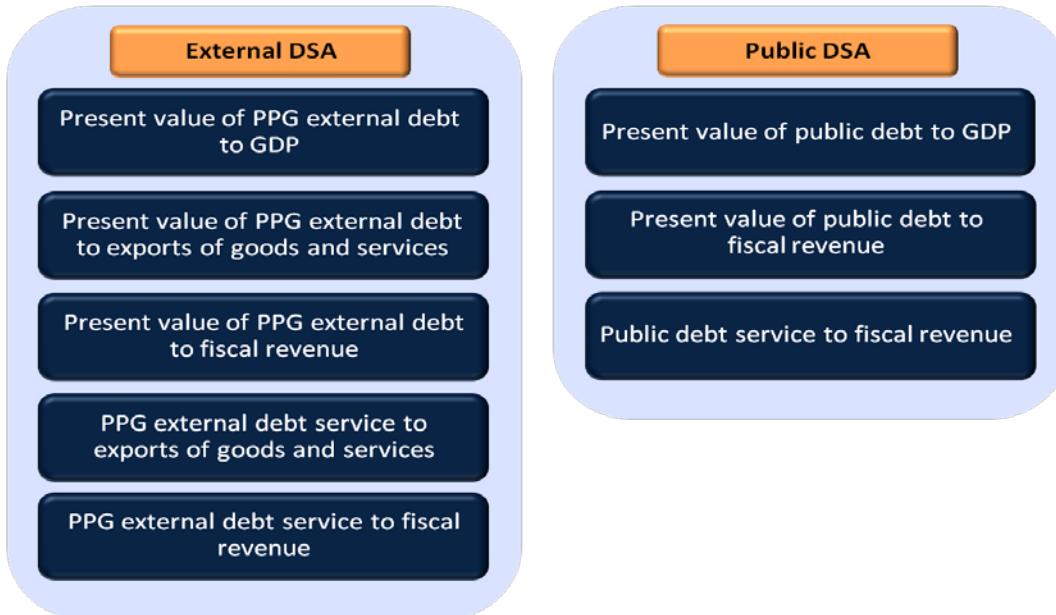
Figure 3. Assessment of the Overall Risk of Debt Distress



E. Debt burden indicators

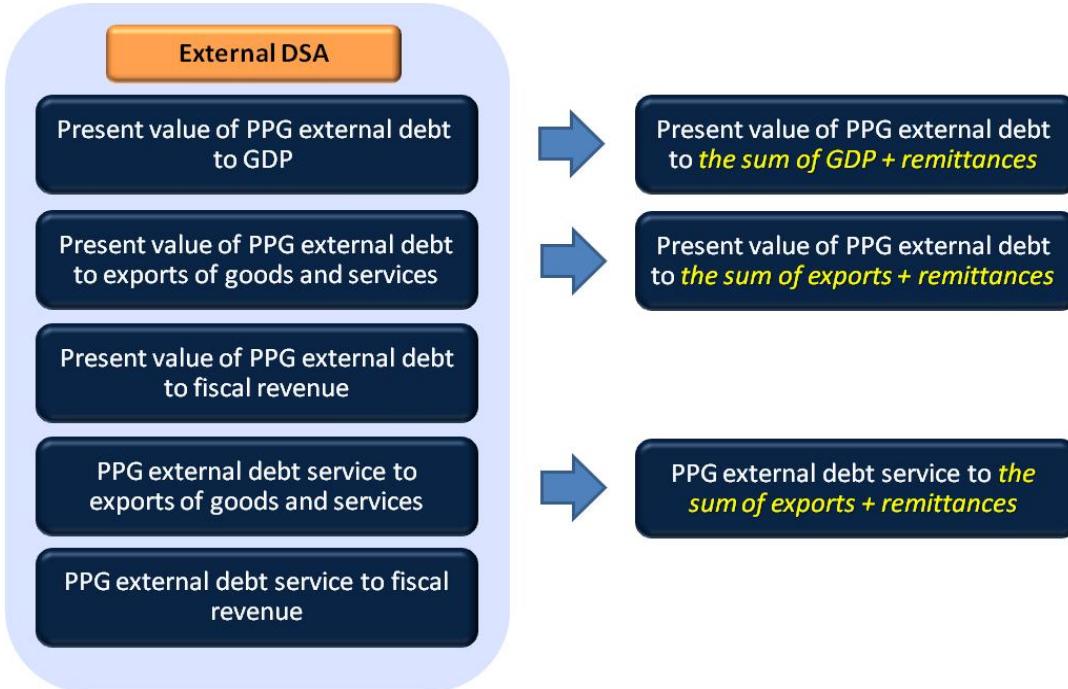
14. Debt sustainability is assessed by examining the projected evolution of a set of debt burden indicators over time. Debt burden indicators in the DSF consist of ratios of debt stock or debt service relative to measures of repayment capacity (GDP, export proceeds, or fiscal revenue). There are a total of eight debt burden indicators in the DSF: five in the external DSA and three in the public DSA (Figure 4).

Figure 4. Debt Burden Indicators in the DSF



15. When remittances are incorporated into the analysis (see page 22), three of the five debt burden indicators in the external DSA are modified, as shown in Figure 5:

Figure 5. Remittance-Adjusted External Debt Burden Indicators



16. Ratios of debt stock relative to repayment capacity measures are indicators of the burden represented by future obligations of a country and thus reflect long-term risks to solvency, whereas the evolution of debt-service ratios provides an indication of the likelihood and possible timing of liquidity problems. Table 1 describes the debt burden indicators used in the DSF in more detail.

Table 1. Debt Burden Indicators in the DSF

Solvency indicators	Use
Present value of PPG external or public debt to GDP	Compares the debt burden with the resource base. This indicator is commonly used, but may be misleading. For example, a low debt-to-GDP ratio could coexist with a high debt-to-exports ratio if exports make up a very small proportion of GDP.
Present value of PPG external debt to exports of goods and services	Compares the debt burden with the country's capacity to generate foreign exchange receipts. A debt-to-exports ratio that is increasing over time, for a given interest rate, implies that total debt is growing faster than the economy's basic source of external income. This ratio is more precise than the debt-to-GDP ratio but may be volatile (given the price volatility of exports) and incomplete (because countries may have other important sources of external income, such as remittances).
Present value of PPG external or public debt to fiscal revenue	Compares the debt burden with public resources available for repayment. This is a critical ratio for relatively open economies facing a heavy debt-service burden. An increase in this indicator over time suggests that the country may have budgetary problems in servicing the debt.
Liquidity indicators	Use
PPG external debt service to exports	Indicates how much of a country's export revenue is used to service the debt, and how vulnerable the payment of debt service is to an unexpected fall in export proceeds. This ratio tends to highlight vulnerabilities in countries with significant short-term debt. The higher the share of short-term debt to overall debt, the larger and more vulnerable is the annual flow of debt-service payments.
PPG external or public debt service to fiscal revenue	Indicates how much of a country's fiscal revenue are used for debt-service payments, and captures the associated vulnerability of debt service to variations in fiscal revenue.

F. Present value and grant element

17. Debt stock indicators in the DSF are in present value rather than nominal terms.

The PV of debt is a more relevant indicator for LICs, as it takes into account the concessionality, or grant element, of the debt. Mathematically, the PV of debt is equal to the sum of all future debt service (DS) payments (principal and interest), discounted to the present using a given discount rate (β):

$$PV_t = \frac{DS_{t+1}}{(1 + \beta)^1} + \frac{DS_{t+2}}{(1 + \beta)^2} + \frac{DS_{t+3}}{(1 + \beta)^3} + \frac{DS_{t+4}}{(1 + \beta)^4} + \dots$$

18. If the discount rate and the contractual interest rate of a loan are the same, then the PV is equal to (or close to) the face value. If, however, the contractual interest rate of the loan is less than the discount rate, then the PV of the debt is less than the face value, implying that the loan has some degree of concessionality. The grace period, maturity, and frequency of payments associated with the loan also affect its concessionality.

19. The grant element (GE) measures the concessionality of a loan, calculated as the difference between the nominal and present value, expressed as a percentage of the nominal value:

$$GE = \frac{(nominal\ value - PV)}{nominal\ value}$$

20. Loans with a relatively high grant element (i.e., a relatively high degree of concessionality) are typically provided by multilateral and bilateral external creditors. The nominal value of these loans therefore tends to be higher than the PV. By contrast, loans from external commercial creditors and domestic creditors are typically contracted on market terms, with little or no concessionality. The DSF assumes that the present value of public domestic debt is equal to its nominal value – i.e., the discount rate and the contractual interest rate of domestic liabilities are assumed to be the same.

G. Discount rate

21. The DSF uses a single discount rate of 5 percent. Following the decisions of the Executive Boards of the Bank and the Fund on October 12, 2013 to reform the system of discount rates used in analysis of debt in low income countries, a single uniform discount rate is used in calculating the present value of external debt in the DSF and in calculating the grant element of loans for the implementation of the Bank's Non-Concessional Borrowing Policy and the Fund's policy on debt limits in Fund-supported programs.⁷ The rate will remain unchanged

⁷For a discussion of how the discount rate was set, see Unification of Discount Rates Used in External Debt Analysis for Low Income Countries.

until the completion of the next review of the DSF by the Executive Boards of the Bank and the Fund, expected in 2015.

H. Thresholds for PPG external debt

22. A core feature of the DSF is the existence of indicative thresholds in the external DSA to anchor the analysis of PPG external debt (Table 2). Thresholds can be thought of as demarcating “danger zones” where the risk of debt distress is elevated. The external risk rating is assigned by comparing the projected evolution of the five PPG external debt indicators to their respective thresholds (see page 34).

23. Thresholds are policy-dependent: they vary depending on the quality of the country’s policies and institutions. The quality of a country’s policies and institutions is measured by its Country Policy and Institutional Assessment (CPIA) score (see below). Countries with higher CPIA scores face higher thresholds.

24. The thresholds were re-estimated econometrically by World Bank and IMF staff at the time of the 2012 review of the DSF.⁸ The results validated the thresholds that had been in existence since the framework’s inception, with the exception of the thresholds for the ratio of debt service to revenue, which were revised lower. The updated thresholds are presented in Table 2.

Table 2. PPG External Debt Thresholds

Quality of policies and institutions (CPIA)	PV of PPG external debt in percent of			PPG external debt service in percent of	
	GDP	Exports	Revenue	Exports	Revenue
Weak	30	100	200	15	18
Medium	40	150	250	20	20
Strong	50	200	300	25	22

I. Benchmarks for total public debt

25. A new feature of the DSF is the inclusion of benchmarks in the public DSA to help guide the analysis of total public debt. Heretofore, public DSAs have been conducted without the benefit of any benchmarks or thresholds. For the 2012 review, IMF staff derived benchmarks for the PV of public debt to GDP⁹ (Table 3). Similar to the thresholds for PPG external debt, the

⁸See IDA (2012) and IMF (2012b) for a detailed explanation of how the thresholds were estimated.

⁹ See IMF (2012b) for details on benchmark estimations.

benchmarks for total public debt vary depending on a country's CPIA score and designate levels above which the risk of public debt distress is heightened.¹⁰

Table 3: Public Debt Benchmarks

Quality of policies and institutions (CPIA)	PV of total public debt in percent of GDP
Weak	38
Medium	56
Strong	74

26. Benchmarks differ from thresholds in their functionality. Whereas the thresholds for PPG external debt play a fundamental role in the determination of the external risk rating, the benchmarks for total public debt serve as reference points for triggering a deeper discussion of public domestic debt (see page 34). For countries with total public debt to GDP moving rapidly toward or exceeding benchmarks, an in-depth analysis is required to determine the extent of public domestic debt vulnerabilities. If significant vulnerabilities are detected, they are to be reflected in the assessment of the overall risk of debt distress (see page 39).

J. CPIA index

27. The CPIA is an index compiled annually by the World Bank for all IDA-eligible countries, including blend countries. The index consists of 16 indicators grouped into four categories: (1) economic management; (2) structural policies; (3) policies for social inclusion and equity; and (4) public sector management and institutions. Countries are rated on their current status in each of these performance criteria, with scores from 1 (lowest) to 6 (highest).

28. The DSF uses the CPIA index to classify countries into one of three policy performance categories according to the strength of their policies and institutions.

Countries with a CPIA score less than or equal to 3.25 are considered to have weak policies and institutions. Those with a CPIA score greater than 3.25 and less than 3.75 have medium policies and institutions. Countries with a CPIA score greater than or equal to 3.75 have strong policies and institutions.

29. As discussed above, a country's CPIA score determines the set of PPG external thresholds and total public debt benchmarks it faces. To reduce variations in the assessment of risk stemming from small annual fluctuations in the CPIA score that do not represent a material change in countries' capacity to service their debt, the three-year moving average CPIA is used to determine a country's policy performance category. In addition, for countries where,

¹⁰The benchmarks are in PV terms and are therefore not comparable to the benchmarks derived in IMF (2013c).

following the release of the new annual CPIA score, the updated three-year moving average CPIA rating breaches the applicable CPIA boundary, the country's policy performance category would change immediately only if the size of the breach exceeds 0.05. If the size of the breach is at or below 0.05, the country's performance category would change only if the breach is sustained for two consecutive years. The DSA write-up should highlight any changes to a country's CPIA score and discuss the impact on the external risk rating.

K. Coverage of public sector debt

30. The coverage of public sector debt in the DSA should be as broad as possible, while being consistent with the coverage of the fiscal accounts monitored for surveillance and program purposes. Public sector debt (referred to throughout this guidance note as public debt) should include the obligations of the central government, regional and local governments, the central bank, and public enterprises. The latter includes all enterprises that the government controls, such as by owning more than half of the voting shares (Annex 3). In some cases, however, data limitations may limit the coverage of public debt to something more narrow (e.g., just the central government). Country teams should seek to have as broad a coverage as the data allow.¹¹

L. External vs. domestic debt

31. The DSF generally defines external and domestic debt based on the residency of the creditor to whom the debt is owed. Thus, debt owed to a non-resident is considered external, while debt owed to a resident is considered domestic. According to this definition, external debt could include debt denominated in local currency and owed to a non-resident, while domestic debt could include debt denominated in foreign currency and owed to a resident.

32. It may not always be possible to define or identify external and domestic debt on a residency basis. In relatively advanced LICs with open capital accounts, debt issued by the government may be traded on the secondary market and passed between residents and non-residents. Because of difficulties in record-keeping, it may be more practical to use domestically-issued debt as a proxy for domestic debt, even if some of the debt ends up in the hands of non-residents. Another option is to define external and domestic debt on a currency of denomination basis. The DSA write-up should disclose which definition is used and should note when there are large divergence in the shares of domestic and external debt depending on the definition.

M. Gross vs. net debt

33. The DSF is primarily concerned with the evolution of gross public debt—the total stock of outstanding liabilities of the public sector. However, if the government has significant

¹¹See “[What Lies Beneath: The Statistical Definition of Public Sector Debt](#)” (SDN/12/09) for a discussion of other important issues such as (i) instrument coverage; (ii) valuation of debt instruments (market or nominal); and (iii) consolidation of intra-government holdings.

financial assets that could be liquidated quickly to service debt (e.g., large government deposits from oil revenue), then gross debt may overstate a country's probability of debt distress. In this case, in addition to the DSA based on gross basis, public net debt could be reported as a complementary measure to reflect factors that could mitigate risks associated with high levels of gross debt. The write-up should clearly disclose the definition of net debt used. The use of a standard statistical definition of net debt in line with the Public Sector Debt Statistics Guide is recommended.

N. Baseline scenario and stress tests

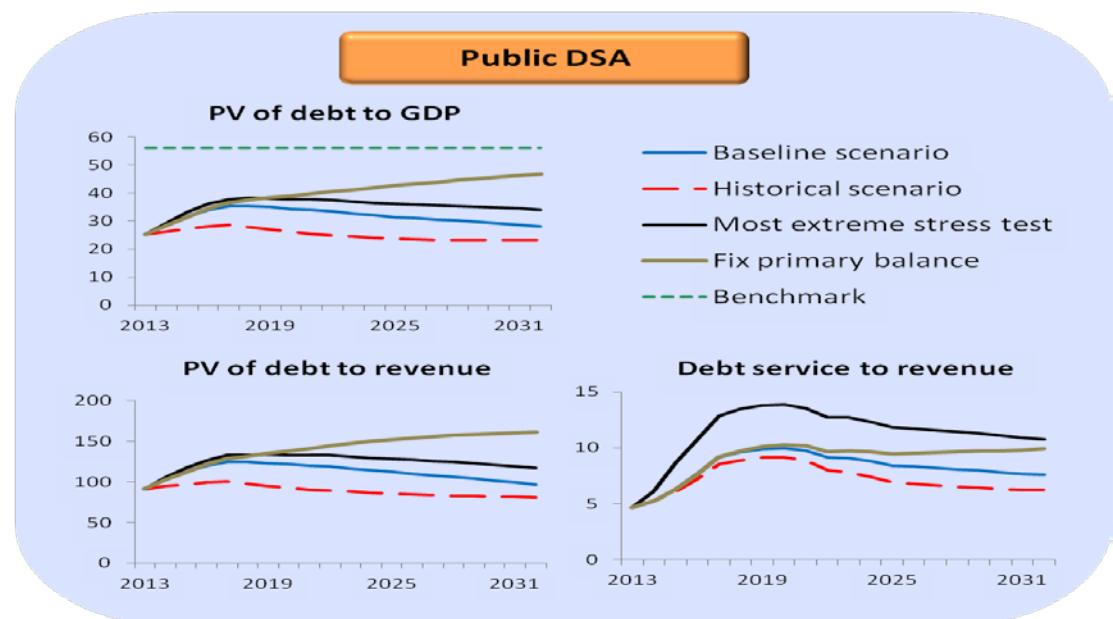
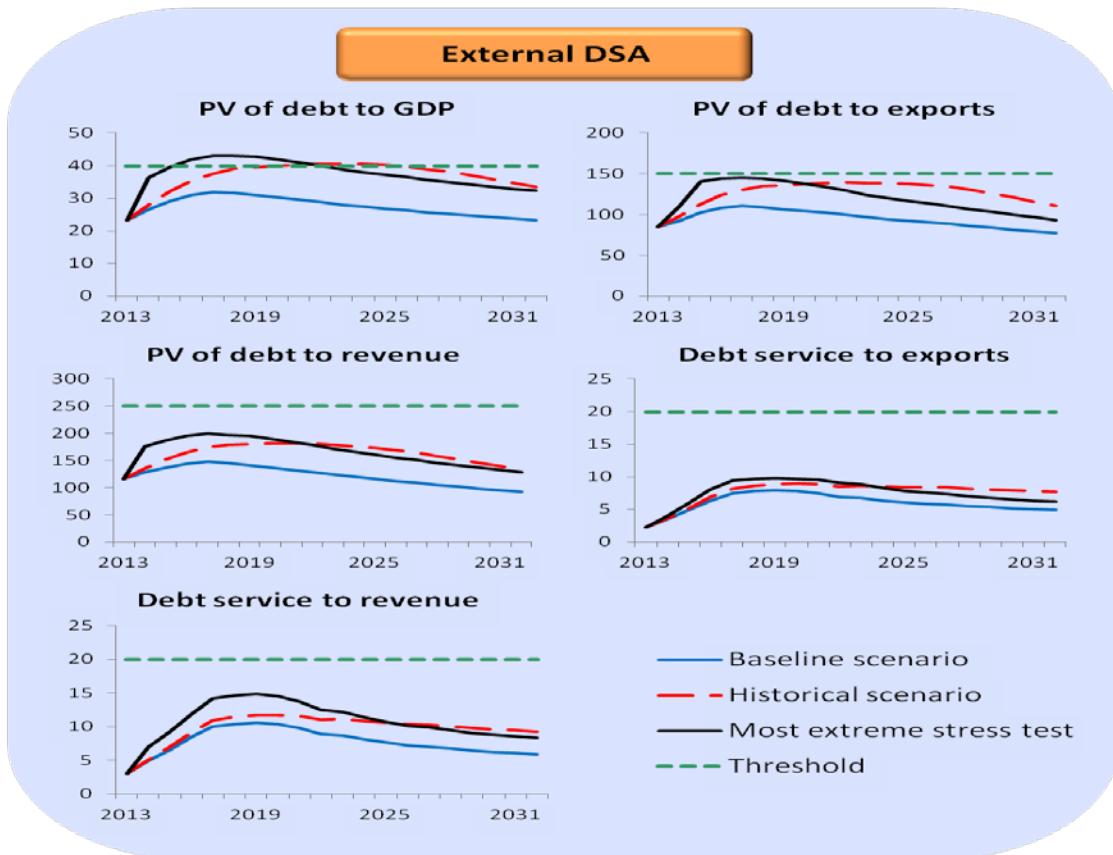
34. Debt sustainability analysis is built around a baseline scenario and stress tests. The baseline scenario represents the path of a country's debt that is deemed to be the most likely, derived from a series of assumptions and projections of key macroeconomic variables. Stress tests gauge the sensitivity of the baseline scenario to shocks and changes in assumptions.

35. Once the macroeconomic framework has been finalized (see next section), the DSA template automatically generates the projected path, over the next 20 years, of each of the debt burden indicators in the external DSA and the public DSA.¹² This is the baseline scenario. The template simultaneously applies a set of standardized stress tests (see page 24), causing the debt burden indicators to deviate from their baseline path. The evolution of debt burden indicators in the baseline scenario and under stress tests is then assessed against the relevant thresholds in the external DSA and the relevant benchmark in the public DSA to determine the external risk rating and the overall risk of debt distress.

36. Figure 6 presents a sample set of figures produced by the DSA template. For each debt burden indicator in the external DSA, the template displays the baseline scenario, the historical scenario (a type of stress test), the most extreme stress test,¹³ and the relevant threshold. For each debt burden indicator in the public DSA, the template displays the baseline scenario, the historical scenario, the most extreme stress test, and the stress test that fixes the primary balance. In addition, in the public DSA, the template displays the relevant benchmark for public debt to GDP.

¹²The DSF's 20-year projection horizon is intended to capture returns on investment and the long maturities and grace periods associated with concessional debt.

¹³The most extreme stress test is defined as the test that yields the highest level of debt on or before the tenth year of the projection period.

Figure 6. Baseline Scenarios and Stress Tests

III. WHO USES THE DSF

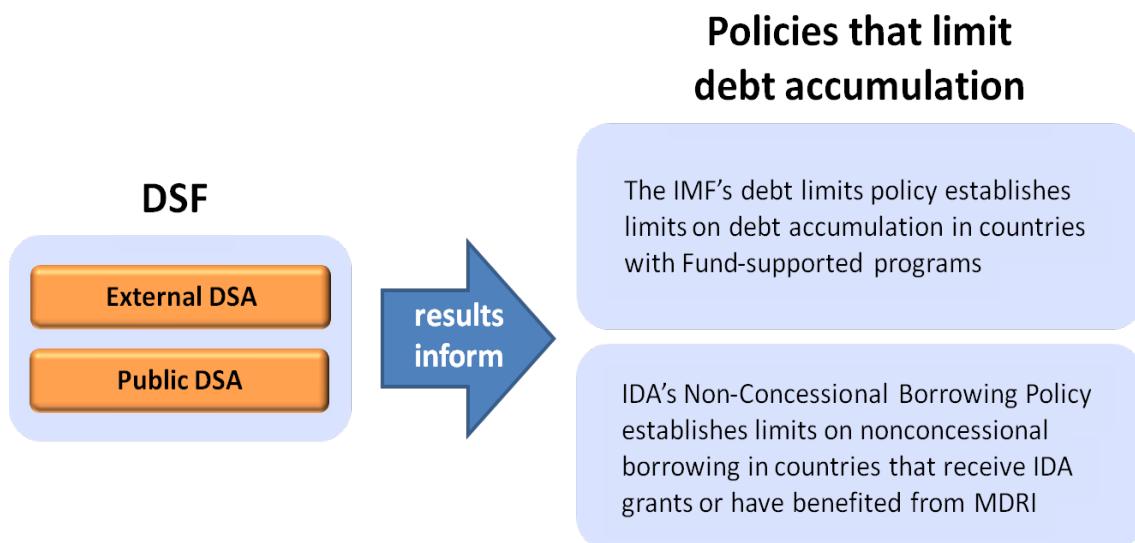
37. The DSF is used by World Bank and IMF staff, by creditors who provide financing to LICs, and by LICs themselves. Each of these stakeholders uses the framework in different ways.

A. World Bank and IMF staff

38. Bank and Fund staff use the DSF to inform their analysis and policy advice. The DSF plays an important role in the assessment of macroeconomic stability, the long-term sustainability of fiscal policy, and overall debt sustainability. It also informs IMF program design, including the design of debt limits.

39. A common misperception is that the DSF itself imposes limits on how much a country can borrow. In fact, the DSF is strictly a tool for assessing debt sustainability. The results of a country's DSA inform separate policies at the Fund and the Bank that establish limits on debt accumulation (Figure 7). Specifically, the results of the DSA inform the IMF's policy on debt limits in Fund-supported programs and IDA's Non-Concessional Borrowing Policy.¹⁴

Figure 7. The DSF and its Relation to Policies that Limit Debt Accumulation



¹⁴See IMF (2009e and 2013b). Details on IDA's Non-concessional borrowing policy can be found [here](#).

B. Creditors

40. The DSF is used by a growing community of donors and lenders to help inform their financing decisions. Since 2005, IDA has used DSA external risk ratings to determine the share of grants and loans in its assistance to LICs (Box 2). Regional development banks, such as the African Development Bank, the Asian Development Bank, the Inter-American Development Bank, and the International Fund for Agricultural Development, have adopted similar systems for their grant and lending decisions. The Paris Club group of official creditors relies on DSAs in the context of debt restructurings under the Evian Approach, and member countries of the OECD Working Group on Export Credit and Credit Guarantees agreed in 2008 to take DSAs into account when providing official export credits.

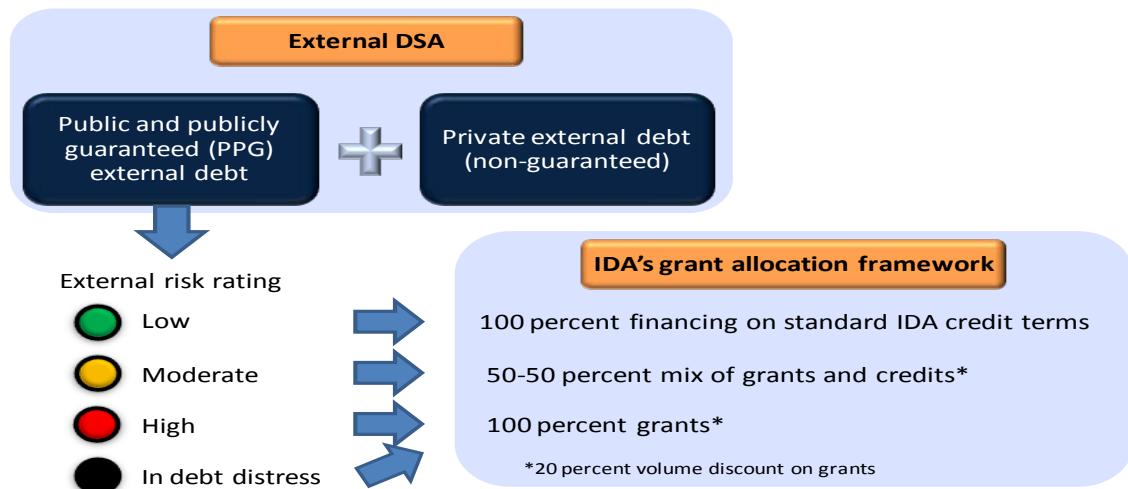
C. Borrowers

41. The DSF is intended to guide the borrowing decision of LICs in a way that balances their development goals with preserving debt sustainability. It allows country authorities to identify debt-related vulnerabilities and formulate policies that are consistent with maintaining or achieving debt sustainability. It can be used to evaluate the impact of debt-financed investment, alternative financing options, and potential shocks. For countries that have benefited from debt relief, the DSF can help determine the appropriate pace of debt reaccumulation. Although DSAs entail the analysis of debt, the preparation of DSAs should involve officials responsible for macro-fiscal policy and forecasting.

42. The DSF can also help provide LICs with key macroeconomic variables and inputs to develop their own medium-term debt management strategy (MTDS). An MTDS helps to operationalize a country's debt management objectives by outlining cost-risk tradeoffs and debt service profiles associated with alternative borrowing strategies for meeting the government's financing needs and payment obligations (Box 3). It should seek to address the vulnerabilities uncovered in the DSA (such as spikes in debt service payments due).

Box 2. The International Development Association's Grant Allocation Framework

IDA's grant allocation framework was adopted during the IDA14 Replenishment agreement in mid-2005. Its objective is to proactively mitigate the risks of external debt distress revealed by the DSF. Under the framework, grant eligibility is determined by the assessment of a country's external risk of debt distress, as indicated by the risk rating that emerges from the external DSA. For countries with a low risk rating, IDA provides financing on standard IDA credit terms. For countries with a moderate risk rating, IDA provides 50 percent of its financing on standard IDA credit terms and 50 percent on grant terms. Countries assessed to be in debt distress or at a high risk of external debt distress receive all of their assistance on grant terms. To mitigate equity and moral hazard concerns, the amount of IDA financing is reduced when funds are disbursed as grants rather than loans. Specifically, the grant portion of a country's IDA allocation is reduced by 20 percent. Eligibility for IDA grants is limited to IDA-only countries. IBRD/IDA blend countries and gap countries are not eligible for grants, irrespective of their external debt situation.¹



¹Blend countries are those that are IDA-eligible based on GNI per capita income and are also creditworthy for some borrowing from the International Bank for Reconstruction and Development (IBRD). Gap countries are IDA-only countries with a GNI per capita that has been above the operational cut-off for IDA eligibility for more than two consecutive years but are not sufficiently creditworthy to borrow from the IBRD.

Box 3. The Medium Term Debt Management Strategy Framework¹

The MTDS framework provides a systematic and analytical approach for developing an effective debt management strategy. An effective debt management strategy is a plan that the government intends to implement over the medium term to achieve a desired composition of the government debt portfolio. It should operationalize country authorities' debt management objectives—e.g., ensuring the government's financing needs and payment obligations are met at the lowest possible cost consistent with a prudent degree of risk.

Using the MTDS framework to develop clear medium-term strategic goals helps debt managers avoid making poor decisions based solely on cost considerations or immediate fiscal pressures. Even where financing choices are limited, the MTDS helps identify and monitor key financial risks (refinancing, interest, and foreign exchange risks) and establish strategies to help countries better manage new borrowing opportunities in a consistent and prudent way.

Designing an MTDS generally involves eight steps:

- (1) Identify the authorities' objectives for debt management and the scope of the analysis.
- (2) Examine the characteristics of the current debt management strategy and analyze the cost and risk properties of the existing debt portfolio.
- (3) Identify and analyze potential funding sources, including their cost and risk characteristics.
- (4) Identify baseline projections and risks in key policy areas: fiscal, monetary, external, and market.
- (5) Review key longer term structural factors that could affect the design of the strategy.
- (6) Assess and rank alternative debt strategies on the basis of cost-risk tradeoffs.
- (7) Review implication of candidate debt management strategies with fiscal and monetary policy authorities, and their implications for the market.
- (8) Submit and secure relevant policymakers' agreement on the strategy.

IV. HOW ARE DSAs PRODUCED

A. Preparing the Macroeconomic Framework

What is the macroeconomic framework?

43. A DSA starts with a macroeconomic framework—a set of interrelated projections of key macroeconomic variables from different sectors of the economy. For newcomers to the DSF, it is important to understand that a DSA is only as good as the macroeconomic framework that underlies it. The projections must be realistic, consistent with each other, and consistent with the policies of the country authorities. An unrealistic or incoherent macroeconomic framework will lead to inaccurate and possibly misleading results in the DSA.

44. The DSA template captures some, but not all, of the macroeconomic variables that constitute a typical macroeconomic framework constructed by World Bank and IMF staff. Table 4 summarizes the macroeconomic variables included in the DSA template. For most variables, the user is required to input both historical data (previous 10 years) and projected values (next 20 years). Data must be entered in either national currency or converted into U.S. dollars, depending on the variable.

45. **World Bank and IMF staff should engage with country authorities during the preparation of the DSA.** In particular, staff should consult with the authorities on the amount and terms of projected new public borrowing, both external and domestic. For the first one or two years of the projection period, the authorities should have a good sense for how the budget will be financed. Staff may also wish to check with key multilateral creditors to see what loans they have in the pipeline. Beyond the initial years, borrowing projections will have a greater degree of uncertainty. Staff should discuss with the authorities the general trends assumed in the medium and long term (for example, a trend toward less concessional borrowing as the economy matures, or an increasing reliance on domestic financing). Ideally, this information should derive from the debt management strategy of the authorities, based on an MTDS analysis.

46. **In addition to the macroeconomic variables listed in Table 4 and the terms of projected new borrowing, the template requires the user to enter assumptions about the terms of marginal public borrowing.** These terms are used by the template in conjunction with stress tests that result in additional public borrowing. For example, the stress test that simulates a temporary shock to real GDP growth results in lower nominal GDP, lower revenue, a higher primary deficit, a larger gross financing requirement, and new public borrowing. The template relies on the user to define the terms of this additional public borrowing

Table 4. Macroeconomic Variables in the DSA Template

Variable	Currency	Historical	Projections
Balance of payments			
Current account balance	U.S. dollars	✓	✓
Exports of goods and services	U.S. dollars	✓	✓
Imports of goods and services	U.S. dollars	✓	✓
Current transfers, net total	U.S. dollars	✓	✓
Current transfers, official	U.S. dollars	✓	✓
Gross workers' remittances ("personal transfers" in BPM6)	U.S. dollars	✓	✓
Net foreign direct investment (excluding debt instruments)	U.S. dollars	✓	✓
Exceptional financing	U.S. dollars	✓	✓
Gross reserves (flow)	U.S. dollars	✓	✓
Public sector			
Public sector revenue (including grants)	National currency	✓	✓
Public sector grants	National currency	✓	✓
Privatization receipts	National currency	✓	✓
Public sector expenditure	National currency	✓	✓
Public sector assets	National currency	✓	✓
Recognition of implicit or contingent liabilities	National currency	✓	✓
Other debt creating or reducing flows	National currency	✓	✓
Debt relief	National currency	✓	✓
Debt			
Stock of PPG external debt (medium and long term)	U.S. dollars	✓	
Stock of PPG external debt (short term)	U.S. dollars	✓	✓
Stock of private external debt (medium and long term)	U.S. dollars	✓	✓
Stock of private external debt (short term)	U.S. dollars	✓	✓
Stock of public domestic debt (medium and long term)	National currency	✓	✓
Stock of public domestic debt (short term)	National currency	✓	✓
o/w foreign currency denominated public domestic debt	National currency	✓	✓
Interest due on PPG external debt	U.S. dollars	✓	
Interest due on private external debt	U.S. dollars	✓	✓
Interest due on public domestic debt	National currency	✓	✓
o/w foreign currency denominated public domestic debt	National currency	✓	✓
Amortization due on PPG external debt	U.S. dollars	✓	
Amortization due on private external debt (MLT)	U.S. dollars	✓	✓
Amortization due on public domestic debt	U.S. dollars	✓	✓
New disbursements of PPG external debt	U.S. dollars		✓
Stock of outstanding PPG arrears	U.S. dollars		✓
Interest due on existing PPG external debt	U.S. dollars		✓
Amortization due on existing PPG external debt	U.S. dollars		✓

Other			
GDP, current prices	U.S. dollars	✓	✓
GDP, constant prices	National currency	✓	✓
U.S. GDP deflator	None	✓	✓
Exchange rate versus U.S. dollar, end of period	National currency	✓	✓
Exchange rate versus U.S. dollar, average	National currency	✓	✓

Assessing the realism of macroeconomic assumptions

47. As noted above, a DSA is only as good as the macroeconomic framework that underlies it. It is therefore critical for users and reviewers alike to carefully assess the realism of the DSA’s macroeconomic assumptions. While all assumptions should be subject to scrutiny, the following areas warrant special attention:

- **Financing mix and terms.** The DSA write-up should discuss the financing mix assumptions, between domestic and external debt on the one hand, and concessional and nonconcessional debt on the other hand (along with grants). For many LICs, one would expect the terms of new external borrowing to gradually worsen over time as the country relies less on highly concessional donor financing and more on market-based financing. An assumption of continuous borrowing on highly concessional terms—or an improvement in terms—needs to be explained, particularly for countries that have already begun to borrow nonconventionally. For LICs that have taken steps to develop domestic debt markets, the share of domestic debt in total public debt would normally be expected to increase over time, but a rapid increase may not be consistent with market capacity.
- **Large fiscal adjustments.** Fiscal adjustment in LICs is often rendered more difficult by the need to address large infrastructure gaps, pressures stemming from important social needs, and shallow tax bases that limit the scope for increasing revenue. For these reasons, a large fiscal adjustment in the DSA needs to be well justified. Is the magnitude of the adjustment unprecedented in the country’s history or exceptionally large compared to outcomes in other LICs? What are the factors driving the adjustment?
- **Large growth accelerations.** Similar to large fiscal adjustments, large GDP growth accelerations need to be justified. Growth projections should try to capture the impact of public investment on growth (see below), while being mindful of the country’s past performance and trends in other LICs. A baseline scenario that assumes a large scaling up of investment with associated high-growth dividends should be substantiated.
- **Large FDI projections.** DSAs should not achieve debt sustainability by financing current account deficits with unrealistically large non-debt creating inflows of foreign direct investment (FDI) as a share of GDP. While FDI helps finance a current account deficit without creating debt, it can lead to an increase in the import of capital goods and, once the investment matures, outflows in the form of profits and dividends.

- **Large deviations between baseline and historical scenarios.** Among the DSF's standardized stress tests is a "historical scenario" that tests the realism of the baseline scenario by comparing it to historical trends. The historical scenario generates a new path of debt by freezing key macroeconomic variables at their 10-year historical average. A situation where debt ratios are significantly lower in the baseline scenario than in the historical scenario may indicate excessive optimism and should be explained. Plausible reasons for a large deviation between the baseline and historical scenarios include a structural break (such as the end of civil conflict), recent structural improvements that are not adequately reflected in the 10-year historical average, or a depletion of a natural resource endowment that leads to slower economic growth.
- **Past projections.** Scrutinizing past projections is another way to assess the realism of current forecasts. If previous projections proved too optimistic, current forecasts should be subject to increased scrutiny. In these cases, the write-up should include a table comparing current projections with past projections, along with an explanation of major forecast errors.

Strengthening the analysis of public investment and growth

48. A recurring criticism of the DSF is that it does not adequately capture the benefits of debt-financed public investment. Proponents of scaling up public investment maintain that productive investment, while increasing debt ratios in the short run, can generate higher growth, revenue, and exports, leading to lower debt ratios over time. Some argue that LIC DSAs, by failing to take sufficiently into account the assets and future income that public investment may generate, lead to overly pessimistic risk assessments.

49. In this context, when producing a DSA, it is important to give careful consideration to the relationship between debt-financed public investment and GDP growth in the macroeconomic framework. Assessing the impact of public investment on growth, however, is not a straightforward task. The empirical literature offers some general conclusions, most of which caution against excessive optimism:

- Prolonged growth accelerations are rare.
- Even if individual projects have high rates of returns, the macroeconomic returns (notably the impact on GDP, government revenues, and exports) tend to be considerably lower than the rates of return on individual projects.
- The quality of policies and institutions has a large influence on the macroeconomic return of public investment.

50. Given the importance of this issue, full DSA write-ups should include, at a minimum, a discussion of the determinants of growth, including public investment. In many cases, the use of simple analytical techniques, such as growth accounting, would be appropriate.

In countries where a scaling-up of public investment is ongoing or anticipated, more complex and resource-intensive analytical techniques could be used to inform the discussion. To assist in this effort, World Bank and IMF staff have developed models that examine the nexus between public investment and growth. Annex 2 contains more information about these models, as well as further guidance on how to estimate the impact of public investment on growth.

Incorporating remittances

51. Remittances have become a significant source of foreign exchange for many LICs.

The World Bank estimates that remittance flows to LICs increased from \$1.4 billion in 1990 to \$32 billion in 2011. Among the top ten recipients, remittances ranged in size between 18 and 47 percent of GDP. Remittances are also relatively reliable compared to other inflows.

52. From a debt sustainability perspective, remittances share similar characteristics with other variables that measure capacity to repay. For this reason, they can be used in the DSF to inform the assessment of a country's risk of external debt distress.¹⁵ The DSF incorporates remittances by adding them to the denominator of three debt burden indicators in the external DSA:

53. Adding remittances to the denominator lowers the value of the debt burden indicators, everything else equal. The downwardly-adjusted debt burden indicators are then compared to remittance-adjusted indicative thresholds, shown in Table 5¹⁶ The remittance-adjusted thresholds for the PV of debt to GDP are 10 percent lower than the corresponding thresholds without remittances, while the remittance-adjusted thresholds for the PV of debt to exports and debt service to exports are 20 percent lower.

- PV of debt to the sum of GDP + remittances
- PV of debt to the sum of exports + remittances
- Debt service to the sum of exports + remittances

¹⁵The DSF uses the concept of gross workers' remittances. Workers' remittances are defined in the fifth edition of the Balance of Payments Manual (BPM5) as current transfers by migrant workers employed in new economies and considered residents there. In the sixth edition of the manual (BPM6), workers' remittances are referred to as "personal transfers."

¹⁶The remittance-adjusted indicative thresholds were econometrically estimated by World Bank and IMF staff for the 2012 review of the DSF.

Table 5. PPG External Debt Thresholds with Remittances

Quality of policies and institutions (CPIA)	PV of PPG external debt in percent of			PPG external debt service in percent of	
	GDP + remittances	Exports + remittances	Revenue	Exports + remittances	Revenue
Weak	-30► 27	100► 80	200	-15► 12	18
Medium	-40► 36	150► 120	250	-20► 16	20
Strong	-50► 45	200► 160	300	-25► 20	22

54. Note that incorporating remittances does not necessarily lead to a more favorable debt outlook. Although debt burden indicators fall, so do the indicative thresholds against which the debt burden indicators are assessed. The larger the remittances, the more likely it is that incorporating them into the analysis will improve the debt outlook. Another factor is the rate of growth of remittances relative to the rate of growth of GDP and exports. If remittances are large initially but forecast to grow more slowly than GDP and exports, their inclusion may not improve the picture.

55. Staff should apply the following guidance when deciding when to incorporate remittances into the analysis:

- Remittances must be presented as the *base case* in the DSA if they are large. Large is defined as both greater than 10 percent of GDP and greater than 20 percent of exports of goods and services. Both ratios should be measured on a backward-looking, three-year average basis.¹⁷
- If remittances are large, staff still have the option of presenting the results without remittances as an alternative case. Conversely, if remittances are not large, staff may still present the results with remittances as an alternative case. If the alternative case incorporates remittances, the write-up should discuss the reliability and significance of remittances.
- If the alternative case yields a more favorable debt outlook compared to the base case, staff may use the alternative case to inform the risk rating, but must provide a thorough justification. The same flexibility applies if the alternative case yields a less favorable debt outlook compared to the base case.

¹⁷For example, if 2013 is the first year of the projection period, the size of remittances should be measured using the three-year average ratio of remittances to GDP and the three-year average ratio of remittances to exports over the years 2010-2012. If data are not available for the last year of the projection period, the most recent three years of data should be used.

Accounting for HIPC and MDRI debt relief

56. HIPC Initiative and MDRI debt relief should be accounted for in the baseline or in a customized scenario, depending on a country's HIPC status. The DSA should include the following baseline and customized scenarios (see page 28 for a further discussion of customized scenarios):

- For post-completion point countries, the DSA should incorporate HIPC Initiative and MDRI debt relief in the baseline scenario. This assumption of full debt relief on HIPC terms from all external creditors should be maintained as long as country authorities are actively working toward concluding bilateral agreements, and the prospects for concluding such agreements are deemed reasonable. Once it becomes apparent that full debt relief on HIPC terms is unlikely, the baseline scenario should reflect the amount of debt legally owed less any debt relief expected.
- For countries in the interim period between decision point and completion point, the baseline scenario should assume HIPC interim relief (the risk rating should not be predicated on the country reaching completion point). HIPC and MDRI debt relief starting at the assumed completion point date should be incorporated in a customized scenario.
- For countries that have not yet reached the decision point, but for which the IDA and IMF Executive Boards have reviewed the HIPC preliminary document, the baseline scenario should incorporate only traditional debt relief. Interim HIPC relief starting at the assumed decision point date should be incorporate in a customized scenario.

B. Assessing Risks

Standardized stress tests

57. The assumptions in the macroeconomic framework determine the evolution of debt burden indicators in the baseline scenario. To gauge the sensitivity of the baseline scenario to shocks and changes in assumptions, the DSA template automatically applies a series of standardized stress tests, both within the external DSA and the public DSA. The same standardized stress tests are applied across all countries, regardless of their circumstances. At the same time, by using 10 years of historical data to calibrate the magnitude of the shocks, the stress tests are able to capture country-specific characteristics (e.g., a history of slow or volatile export growth). The stress tests constitute a partial-equilibrium analysis since the macroeconomic adjustment process triggered by a shock is not taken into account.

58. There are two types of stress tests: *alternative scenarios* and *bound tests*. Alternative scenarios are *permanent* modifications to key assumptions in the baseline scenario. Bound tests are *temporary* shocks that last one or two years, after which the modified variables return to their

baseline values.¹⁸ There are a total of 16 standardized stress tests in the DSF, as presented in Table 6. The external DSA has 2 alternative scenarios and 6 bound tests; the public DSA has 3 alternative scenarios and 5 bound tests. Box 4 describes in more detail how these stress tests work, taking as examples the A1 alternative scenario in the external DSA and the B1 bound test in the public DSA. For a complete description of stress tests in the DSF, see [Stress Testing in the Debt Sustainability Framework \(DSF\) for Low-Income Countries](#).

Table 6. Stress Tests

External DSA	Public DSA
Alternative scenarios (permanent shocks over the entire projection period)	
A1. Historical Real GDP growth, GDP deflator, non-interest current account, and net FDI flows set to their historical averages	A1. Historical Primary balance-to-GDP ratio and real GDP growth set to their historical averages
A2. External financing External borrowing assumed to be less concessional (by 200 basis points)	A2. Primary balance Primary balance-to-GDP ratio set to its value in the first year of the projection period A3. Lower real GDP growth Real GDP growth lowered by a fraction of its standard deviation
Bound tests (temporary shocks in the second and third year of the projection period, unless otherwise noted)	
B1. Real GDP growth Real GDP growth set to its historical average minus one standard deviation	B1. Real GDP growth Real GDP growth set to its historical average minus one standard deviation
B2. Exports Nominal export growth (in USD) set to its historical average minus one standard deviation	B2. Primary balance Primary balance-to-GDP ratio set to its historical average minus one standard deviation
B3. Deflator Domestic GDP deflator (in USD) set to its historical average minus one standard deviation	B3. Combination of B1 and B2 Real GDP growth and primary balance-to-GDP ratio set to their historical average minus half a standard deviation
B4. Other flows Current transfers-to-GDP and FDI-to-GDP ratios set to their historical average minus one standard deviation	B4. Depreciation One-time 30 percent nominal depreciation of the domestic currency in the first year of the projection period
B5. Combination of B1 through B4 Each variable set to its historical average minus half a standard deviation	B5. Other debt-creating flows One-time increase in other debt-creating flows amounting to 10 percent of GDP in the second year of the projection period
B6. Depreciation One-time 30 percent nominal depreciation of the domestic currency in the first year of the projection period	

¹⁸The bound tests were calibrated to yield roughly a 25 percent probability of shock occurrence at a 10-year horizon, based on stochastic simulations for a representative PRGT-eligible country. The 10-year horizon was intended to strike a balance between the uncertainty of long-term projections and the desire to capture debt service on loans with long maturities and grace periods.

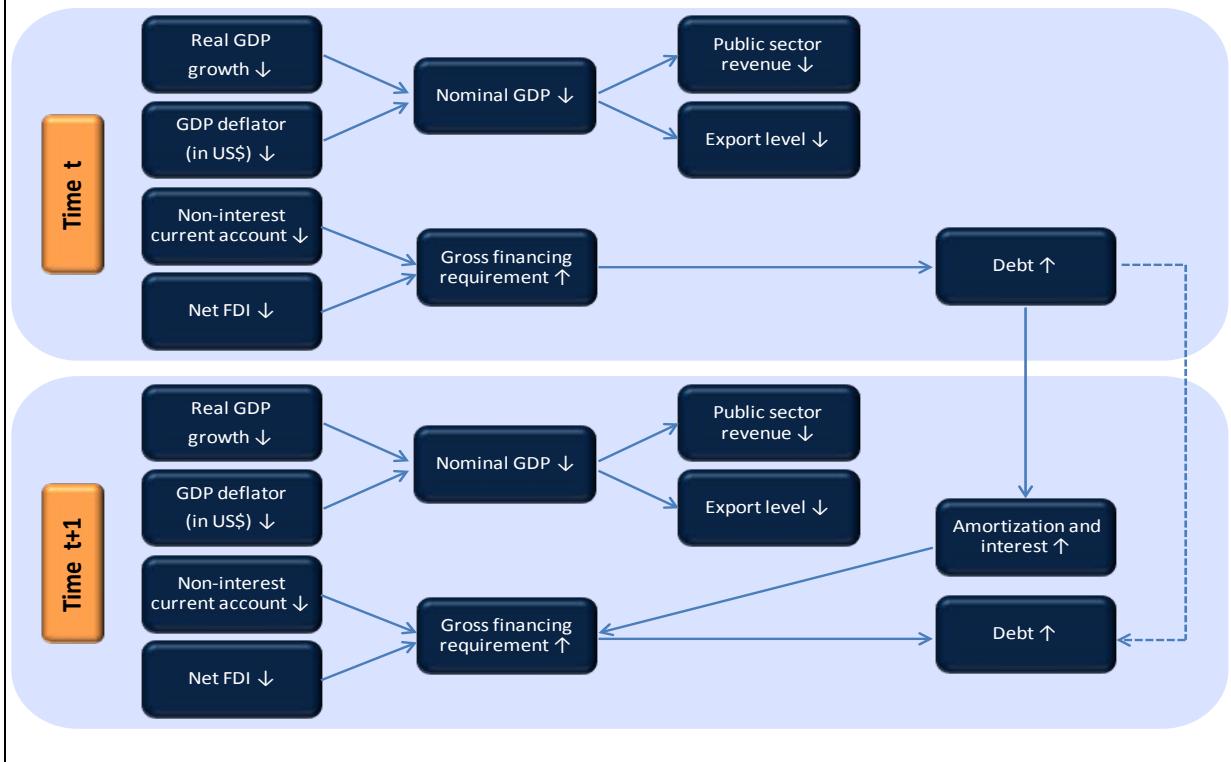
Box 4. How Stress Tests Work in the DSF

Stress tests in DSF are deterministic rather than stochastic, meaning that shocks of a certain magnitude are assumed to take place with certainty, based on a particular algorithm. The impact of stress tests is channeled in two ways: through changes in the evolution of indebtedness and through changes in the capacity to repay.

A1 alternative scenario in the external DSA (the historical scenario)

The historical scenario generates an alternative path of debt by freezing four key variables at their 10-year historical averages: the non-interest current account balance, net FDI, real GDP growth, and the GDP deflator in U.S. dollar terms. The historical scenario tries to capture the structural characteristics of the economy by assuming a continuation of the average historical performance. It is a key benchmark against which the realism of the baseline scenario is tested.

In the hypothetical example illustrated in the figure, the reduction in real GDP growth and the GDP deflator (compared to the baseline scenario) results in a reduced growth rate of nominal GDP, and therefore a smaller nominal GDP. The DSF assumes that all current account components, as well as public sector revenue, are unchanged in percent of GDP. Thus, the reduction in nominal GDP implies a proportional reduction in exports and public sector revenue.



Shocks to the non-interest current account balance and net FDI impact the financing need. The increase in the financing need is met by additional public external borrowing; private sector external borrowing is assumed to be unchanged. The additional public external borrowing occurs on terms specified in the template. Note that the DSF assumes that the increase in the financing need is met only by additional public borrowing and not by adjustments in government policies. The additional borrowing leads to an increase in indebtedness and more debt service payments, which in turn increase future financing needs.

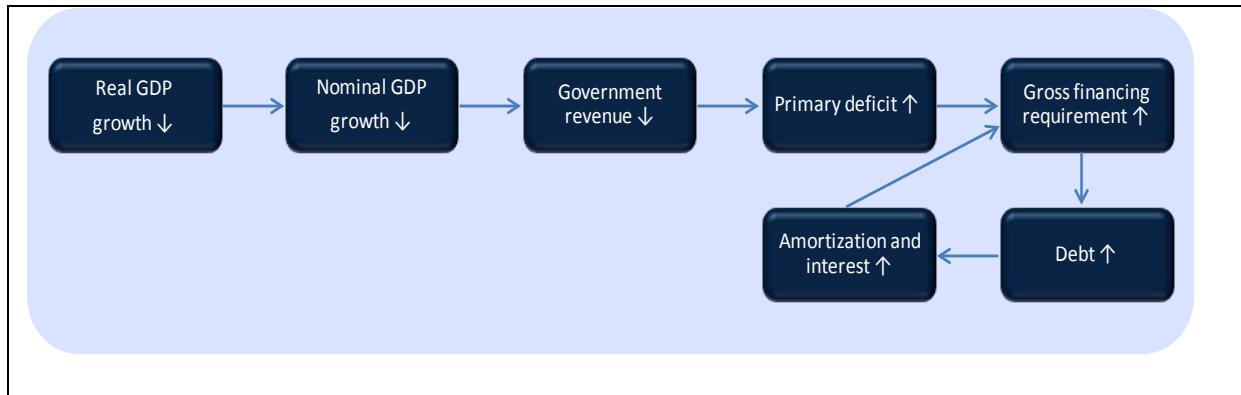
The historical scenario typically causes debt burden indicators to deteriorate, reflecting a decline in the measure of the capacity to repay (nominal GDP, exports, and public sector revenue) in conjunction with an increase in indebtedness (as shown in the figure). If, however, a country's historical performance was stronger than the projected performance in the future, the historical scenario can yield a more favorable path of debt compared to the baseline scenario.

B1 bound test in the public DSA (temporary shock to real GDP growth)

The B1 bound test simulates a temporary shock to real GDP growth. In the second and third year of the projection period, real GDP growth is set to its 10-year historical average minus one standard deviation. Thereafter, real GDP growth returns to its baseline projection.

In the public DSA, the shock to real GDP growth impacts both capacity to pay and indebtedness. The shock has a permanent impact on the level of real GDP and nominal GDP. This is a consequence of two assumptions: (1) real GDP growth returns to its baseline projection after the shock, and (2) inflation remains unchanged, as measured by the GDP deflator. The decline in nominal GDP compared to the baseline has in turn a proportional decline in public sector revenue, given the assumption that the revenue-to-GDP ratio is unchanged.

While the real GDP shock adversely affects nominal revenue, it is assumed not to have an impact on the level of government spending. Lower tax revenue and unchanged spending result in a wider non-interest (primary) fiscal deficit, and therefore increased financing needs and additional borrowing. Grants are assumed to remain the same in nominal terms as in the baseline scenario, and therefore increase as a percent of GDP. The additional borrowing leads to an increase in indebtedness and more debt service payments, which in turn increase future financing needs.



59. There may be times when stress tests lead to extreme or improbable results. For example, the 10-year historical period could include a non-representative event, such as a war, that skews the historical averages and standard deviations used to calibrate the stress test parameters. Another example is when a country experiences a structural break, such as a large natural resource discovery, that leads to higher GDP growth rates. If the structural break occurred only recently, historical averages may not be indicative of future performance. In these situations, rather than modify the stress tests, staff should present the results as they are, but explain in the write-up why they should be interpreted with caution. In rare cases, a stress test can be excluded altogether when there is a consensus that it is uninformative or misleading.

Customized scenarios

60. The DSF's stress tests, by using 10 years of historical data, capture some country-specific characteristics. But the same types of shocks (e.g., to real GDP growth, to exports, to the primary balance) are applied across all countries. Given the key role of stress tests in the assessment of the risk of debt distress, the use of standardized tests ensures that risk ratings—which have operational implications for some creditors (see page 15)—are comparable from one country to the next.

61. The disadvantage of standardization is that certain idiosyncratic vulnerabilities could be overlooked, or the magnitude of a potential shock could be underestimated. For example, the baseline scenario may suggest a benign outlook for public debt, but large contingent liabilities in the domestic financial system could pose substantial risks not captured in the stress tests. A country debating legislation that would explode the wage bill could be vulnerable to a much larger shock to the primary deficit than modeled in the DSF.

62. For these types of situations, staff may wish to introduce customized scenarios to analyze country-specific risks (Box 5). The template allows users to design customized scenarios in both the external DSA and the public DSA. The results of customized scenarios are displayed alongside the results of the standardized stress tests.

Box 5. Customized Scenarios

The following are examples of situations that may warrant the inclusion of a customized scenario:

- **High investment/high growth.** Special scrutiny is needed when the baseline scenario assumes large growth dividends from an ambitious debt-financed investment program. (One benchmark for “large” is growth rates of at least one standard deviation above the historical average.) In this situation, a customized scenario that assumes little or no growth payoff is strongly recommended. If such a scenario is not provided, the DSA should document staffs’ view of the realism of the assumed growth dividends and why a customized scenario was not viewed as relevant.
- **Contingent liabilities.** The DSF includes one standardized stress test—a 10-percent-of-GDP increase in debt creating flows in the second year of the projection period—that resembles a generic contingent liability shock. Where information is available, a more country-specific scenario may be warranted to capture contingent liabilities arising from, *inter alia*, state-owned enterprises (to the extent that such enterprises are not included in the definition of the public sector), sub-national governments, public-private partnerships (PPPs), and weaknesses in the financial sector.¹
- **Narrow export base.** For countries whose exports are highly concentrated on a single commodity, it may be useful to design a customized scenario that explores the sensitivity of debt ratios to changes in the price of that commodity. For example, for a country that is heavily dependent on oil exports, staff may wish to assess the impact of a significant drop in oil prices that goes beyond the standardized export shock stress test in the external DSA.
- **Tail risks.** The standardized stress tests are intended to capture the most likely risks to debt sustainability. A customized scenario can be designed to assess the impact of tail risks—that is, low probability events with potentially severe consequences, such as a catastrophic financial shock or natural disaster.
- **Fund financing.** For countries with IMF programs, all projected disbursements from the Fund should be included in the baseline scenario. In some cases, it may be appropriate to design a customized scenario that excludes Fund financing (and possibly other financing tied to Fund financing) in order to assess the impact of Fund financial support on the evolution of debt burden indicators.

¹For further guidance on the treatment of contingent liabilities, see Hemming et al. (2006), Cebotari (2008), and Everaert et al. (2009).

63. To what extent should customized scenarios inform the assessment of the risk of debt distress? The assessment of the risk of debt distress should begin with the evolution of debt

burden indicators in the baseline scenario and in standardized stress tests (see page 37). Customized scenarios can be taken into account when determining the risk of debt distress, but any departure from the risk rating implied by the standardized stress tests needs to be justified. It would be reasonable to consider the impact of a customized scenario if it captures an important vulnerability in the economy that is overlooked by the standardized stress tests. It would not be reasonable to downgrade a country based on a customized stress test with very low probability (e.g., a tail risk).

When and how to conduct deeper analysis of domestic debt

64. Although external public debt remains the largest component of debt in most LICs, domestic public debt is becoming more prominent in some countries. Domestic public debt (henceforth referred to as “domestic debt”) carries benefits (e.g., development of local financial markets, no exchange rate risk) but also costs (e.g., crowding out of private investment, incentives for financial repression). Compared to external debt, domestic debt tends to be more expensive and have shorter maturities.

65. The public DSA now includes benchmarks for the PV of public debt to GDP. Similar to the thresholds for PPG external debt, the benchmarks for public debts vary depending on a country’s CPIA score (Table 3). The benchmarks represent levels of public debt above which the risk of public debt distress is heightened. Although they apply to total public debt (both external and domestic), the benchmarks serve primarily as triggers for conducting a deeper analysis of domestic debt. In other words, when total public debt reaches levels that imply elevated risks, the next step is to determine the extent to which domestic debt is a contributing factor.

66. Specifically, for countries where public debt to GDP is moving rapidly toward, or exceeds, the relevant benchmark in the baseline scenario, the DSA write-up should include an in-depth analysis of the extent of domestic debt vulnerabilities. The following characteristics of domestic debt should be discussed where relevant, and where information is available:

- **Level.** A breach (or near breach) of the public debt-to-GDP benchmark does not necessarily imply an elevated level of domestic debt. Indeed, it could be the case that domestic debt is negligible, and that the breach of the benchmark is caused entirely by PPG external debt. The opposite case is one where PPG external debt levels are comfortably below the external debt thresholds in the external DSA, but domestic debt is high, leading to a breach of the benchmark in the public DSA.
- **Trends.** Has domestic debt been accumulating rapidly in recent years? What is the projected pace of domestic debt accumulation over the medium and long term?
- **Maturity.** As noted earlier, domestic debt tends to have shorter maturities compared to external debt. Shorter maturities imply greater rollover risk (i.e., the risk that the debt must

be refinanced at excessive cost or cannot be refinanced at all) and greater interest rate risk (i.e., the risk that interest costs will increase).

- **Currency composition.** Domestic debt is typically associated with debt denominated in local currency. But when defined on a residency basis, domestic debt could include foreign currency-denominated obligations. A high share of foreign currency-denominated debt increases vulnerabilities to exchange rate adjustment and can put pressure on foreign exchange reserves.
- **Creditor base.** The nature of the creditor base—whether it is diversified, reliable, captive, domestic, or foreign—also matters for rollover risk. Domestic debt is typically owed to residents, but could also be owed to non-residents when defined on a currency basis.
- **Fixed vs. floating interest rates.** Floating interest rates are more volatile and imply greater interest rate risk.
- **Contingent liabilities.** What is the extent of contingent liabilities not reflected in the domestic debt stock?

If the risks associated with domestic debt are deemed to be significant, they should be reflected in the assessment of the overall risk of debt distress (see page 42).

Risks associated with private sector external debt

67. The external DSA covers total external debt in the economy—both public and private—but in practice the analysis has tended to focus almost exclusively on public external debt. This is not surprising considering the dominant share of public external debt in total external debt in most LICs, and given that there is often little data on private external debt. For this reason, the external risk rating is based solely on the evolution of PPG external debt.

68. Nevertheless, as private investor interest in LICs increases, private external debt levels stand to increase. High levels of private external debt could create balance of payments pressures by competing with the public sector for foreign exchange and could increase the government's exposure to contingent liabilities. Excessive external borrowing by the banking sector could lead to government intervention, recapitalization, and a spike in public debt.

69. In LICs where private external debt is substantial or projected to grow rapidly, the DSA write-up should include a discussion of these risks. If the risks associated with private sector external debt are deemed to be significant, they should be reflected in the assessment of the overall risk of debt distress (see page 39).

Risks associated with debt owed to private external creditors

70. For more advanced LICs with a high share of public debt contracted on market terms with private external creditors (e.g., international bonds), the DSA should assess

risks that may not be captured in standardized stress tests or customized scenarios. In particular, debt owed to external commercial creditors exposes a country to abrupt shifts in market sentiment that can lead to sudden capital outflows and put pressure on foreign exchange reserves. The DSA should pay particular attention to liquidity and interest rate risks stemming from spikes in debt service as bonds mature, and to the adequacy of foreign exchange reserves. This is especially important in cases where short-term interest rates on treasury bills are high and the average time to maturity of outstanding domestic debt is short.

C. Determining the external risk rating

Determining the external risk rating

71. The external risk rating is derived within the external DSA based on an analysis of PPG external debt indicators. It is an explicit assessment of a country's risk of external debt distress. The rating is arguably the most important outcome of the DSA, as it has operational implications for IDA and other creditors, and it informs both the IMF's policy on debt limits in Fund-supported programs and IDA's Non-Concessional Borrowing Policy. All DSAs should include a risk rating.

72. Although the external DSA captures total external debt of the economy, the risk rating is based strictly on the projected evolution of PPG external debt indicators. Private external debt is not taken into account, unless it carries an explicit government guarantee—in which case it should be part of the PPG external debt stock.

73. A country can be assigned one of four risk ratings, depending on how current and projected PPG external debt indicators compare with the indicative thresholds under the baseline scenario and standardized stress tests:

- **Low risk.** All debt indicators are below their relevant thresholds, including under stress tests.
- **Moderate risk:** Although the baseline scenario does not lead to breaches of thresholds, stress tests result in one or more breaches.
- **High risk:** The baseline scenario results in a breach of one or more thresholds, but the country does not currently face any payment difficulties.
- **In debt distress:** Current debt and debt service ratios are in significant or sustained breach of thresholds. Actual or impending debt restructuring negotiations, or the existence of arrears, would generally suggest that a country is in debt distress.

74. As noted earlier (see page 31), customized scenarios can also inform the assessment of the risk of external debt distress. However, any departure from the risk rating implied by the standardized stress tests needs to be justified.

75. Although the indicative thresholds play a fundamental role in the determination of the risk rating, they should not be interpreted mechanistically. The assessment of risk needs to strike a balance between paying due attention to debt levels rising toward or above thresholds and using judgment. Thus, a marginal or temporary breach of a threshold may not necessarily imply a significant vulnerability. Conversely, a near breach should not be dismissed without careful consideration.

76. Factors to consider when applying judgment include:

- **The magnitude, duration, and number of breaches.** Large, protracted breaches are more worrisome than small, temporary ones. Breaches of multiple thresholds suggest greater vulnerabilities than a single breach, though a single breach could still warrant a downgrade in the risk rating, depending on its severity and other country-specific considerations.
- **The pace of debt accumulation.** A rapid increase in debt indicators (particularly debt service indicators) may be cause for concern, even if the increase falls short of breaching thresholds.
- **Ability to pay not captured in the template.** A country with large foreign exchange reserves, or other public sector assets that could be liquidated quickly at prices reflecting fair value (i.e., not fire-sale prices) and used to service debt, may not be as vulnerable to debt distress as the DSF's standard debt burden indicators suggest.
- **Relevance of a given stress test.** In cases where there is a single breach of a threshold, the relevance of the stress test causing the breach should be considered. For example, the standardized stress test that simulates a 30-percent depreciation of the currency may overstate risks in a country with a longstanding fixed exchange rate whose external debt is denominated primarily in the pegged currency.

Using the probability approach

77. A new feature of the DSF is the option to use, in borderline cases, an alternative methodology for assessing the risk of external debt distress. Referred to as the “probability approach,” this methodology focuses on the evolution of the probability of **debt distress** over time, rather than on the evolution of debt burden indicators. The probability approach provides complementary, country-specific information to help decide cases where a country’s risk rating is on the border between two categories.

78. Figure 8 presents the “traditional” DSF approach alongside the probability approach for a hypothetical country case. Under the traditional approach, the assessment of the risk of external debt distress is made by comparing the evolution of the five PPG external debt burden indicators to their respective thresholds in the baseline scenario and under standardized stress tests. Under the probability approach, the projected probability of debt

distress (expressed as a percent) associated with each debt burden indicator is compared to a threshold level, once again in the baseline scenario and under standardized stress tests.

79. The probability of debt distress is derived from the same equation used to estimate the PPG external debt thresholds. The key difference is that the probability approach incorporates a country's *individual CPIA score* and *average GDP growth rate*, whereas the traditional approach uses one of three discrete CPIA values (3.25 for weak performers, 3.50 for medium performers, and 3.75 for strong performers) and an average growth rate across LICs.¹⁹ The probability thresholds are consistent with the probability values used to re-estimate the PPG external debt thresholds for the 2012 review.²⁰

80. As noted above, the probability approach is applied only in borderline cases. A borderline case is defined as one where the largest breach, or near breach, of a threshold falls within a 10-percent band around the threshold.²¹ In Figure 8, the largest breach occurs in 2025, when the PV of debt to export rises to 156.8 compared to a threshold of 150. A 10-percent band around the threshold implies a range of 142.5 to 157.5. Therefore, the breach falls within the band, and the country is considered a borderline case. Table 7 specifies the bands for all thresholds in the DSF, including remittance-based thresholds.

¹⁹Under the probability approach, the DSF uses the same three-year moving average CPIA used to determine a country's policy performance category. To generate a country-specific growth rate, the DSF calculates the average real GDP growth rate over a 25-year period consisting of 5 years of historical growth rates and 20 years of projected growth rates.

²⁰For more information about the probability approach and how it compares to the traditional approach, see IDA (2012) and IMF (2012b).

²¹When determining whether a country is a borderline case, the template considers breaches or near breaches of thresholds in the baseline scenario, the historical scenario, and the most extreme stress test.

Figure 8. Traditional Approach vs. Probability Approach

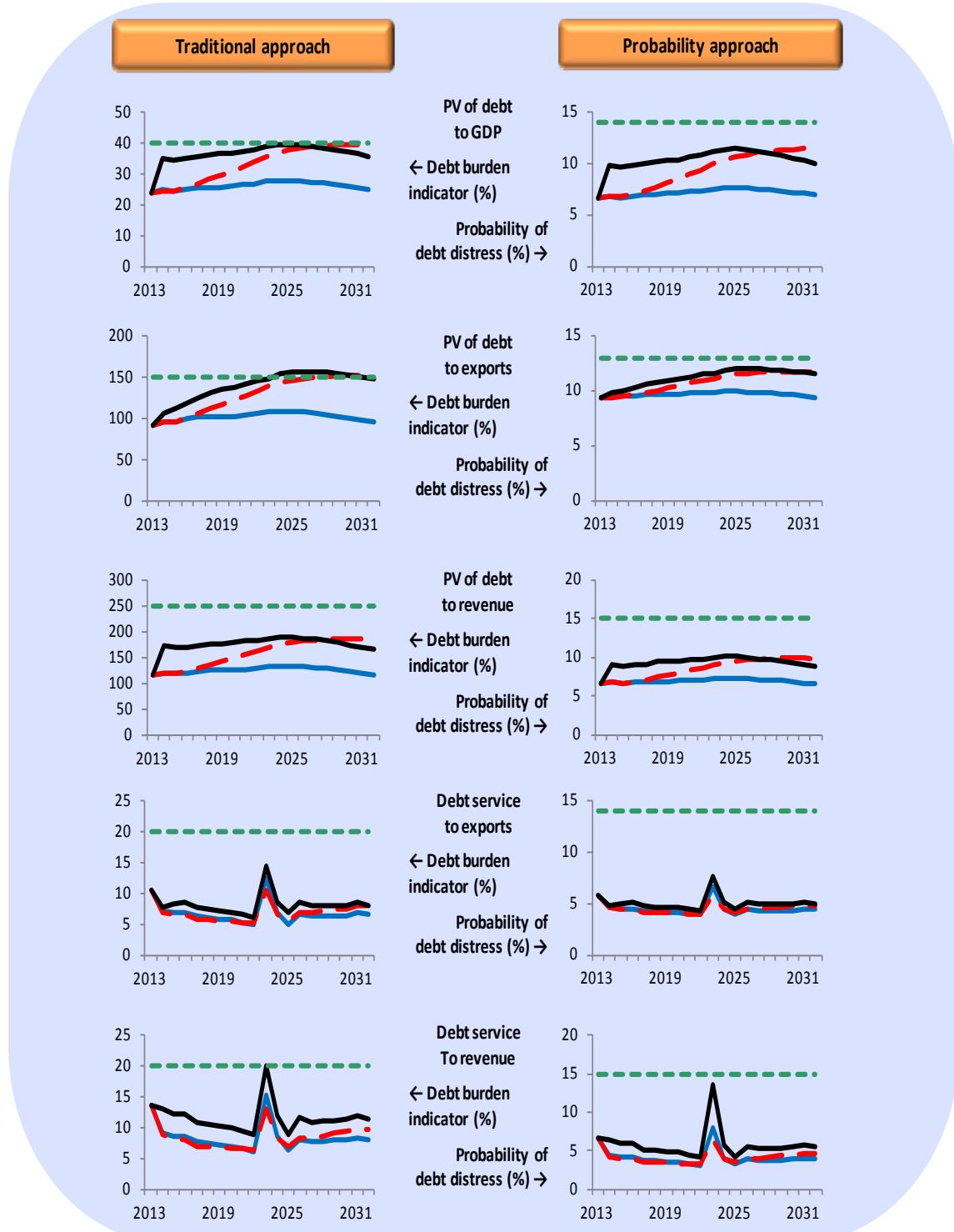


Table 7. Bands Used to Determine Borderline Cases**Without remittances**

Quality of policies and institutions (CPIA)	PV of PPG external debt in percent of			PPG external debt service in percent of	
	GDP	Exports	Revenue	Exports	Revenue
Weak	28.5–31.5	95–105	190–210	14.25–15.75	17.1–18.9
Medium	38–42	142.5–157.5	237.5–262.5	19–21	19–21
Strong	47.5–52.5	190–210	285–315	23.75–26.25	20.9–23.1

With remittances

Quality of policies and institutions (CPIA)	PV of PPG external debt in percent of			PPG external debt service in percent of	
	GDP + remittances	Exports + remittances	Revenue	Exports + remittances	Revenue
Weak	25.65–28.35	76–84	190–210	11.4–12.6	17.1–18.9
Medium	34.2–37.8	114–126	237.5–262.5	15.2–16.8	19–21
Strong	42.75–47.25	152–168	285–315	19–21	20.9–23.1

81. In practice, there are four types of borderline cases:²²

- A borderline **low/moderate** case is one where debt burden indicators are below thresholds in the baseline scenario, but a threshold is *nearly* breached (i.e., within the band) under a standardized stress test.
- A borderline **moderate/low** case is one where debt burden indicators are below thresholds in the baseline scenario, but there is a *small* breach of a threshold (i.e., within the band) under a standardized stress test.
- A borderline **moderate/high** case is one where stress tests result in one or more breaches, and a threshold is *nearly* breached (i.e., within the band) in the baseline scenario.
- A borderline **high/moderate** case is one where stress tests result in one or more breaches, and there is a *small* breach (i.e., within the band) of a threshold in the baseline scenario.

²²In theory, a country could be simultaneously borderline low/moderate risk and borderline moderate/high risk if all debt burden indicators are within 10-percent band in both the baseline and under the stress tests (for example a near breach in both the baseline scenario and under a standardized stress test, or a near breach in the baseline and a small breach under the stress tests). This situation is unlikely, however, since it assumes little difference between the baseline and the most extreme stress test. A country with a near breach in the baseline scenario is likely to have a breach under a standardized stress test, implying a borderline moderate/high risk.

82. The hypothetical country shown in Figure 8 is a borderline moderate/low case, since all debt burden indicators are below thresholds in the baseline scenario, but there is a small breach of the PV of debt-to-exports threshold under a standardized stress test. The probability approach, which draws on country-specific CPIA and GDP growth information to project debt distress probabilities, shows no breaches, suggesting a low risk of external debt distress. The final determination of the risk rating should take into account the results of both the traditional approach and the probability approach, as well as country-specific factors other than the CPIA score and the average GDP growth rate.

Determining the overall risk of debt distress

83. As explained earlier, the external risk rating is based strictly on risks emanating from PPG external debt. As such, it may provide an incomplete picture of the overall risk of debt distress in the economy, to the extent that there are significant risks associated with public domestic debt or private external debt. The purpose of providing an assessment of the overall risk of debt distress is to flag additional risks that aren't captured by the external risk rating. The external risk rating continues to inform the financing decisions of IDA and other creditors, while the assessment of the overall risk of debt distress informs the macroeconomic and structural policy dialogue with country authorities.

84. If there are no significant vulnerabilities related to either public domestic debt or private external debt, there is no need to assess the overall risk of debt distress. If, however, significant vulnerabilities related to public domestic debt or private external debts (or both) are identified, this should be indicated clearly at the beginning of the write-up (Annex 1). In addition, the chapeau paragraph in the write-up should contain language along the following lines:

- (**Low external risk rating**) → Country X faces a low risk of debt distress, based on an assessment of public external debt, but a heightened overall risk of debt distress, reflecting significant vulnerabilities related to [domestic debt and/or private external debt].
- (**Moderate external risk rating**) → Country X faces a moderate risk of debt distress, based on an assessment of public external debt, but a heightened overall risk of debt distress, reflecting significant vulnerabilities related to [domestic debt and/or private external debt].
- (**High external risk rating**) → Country X faces a high risk of debt distress, based on an assessment of public external debt. The assessment of high risk is reinforced by significant vulnerabilities related to [domestic debt and/or private external debt].
- (**In debt distress**) → Country X is in debt distress, based on an assessment of public external debt. Moreover, there are significant vulnerabilities related to [domestic debt and/or private external debt].

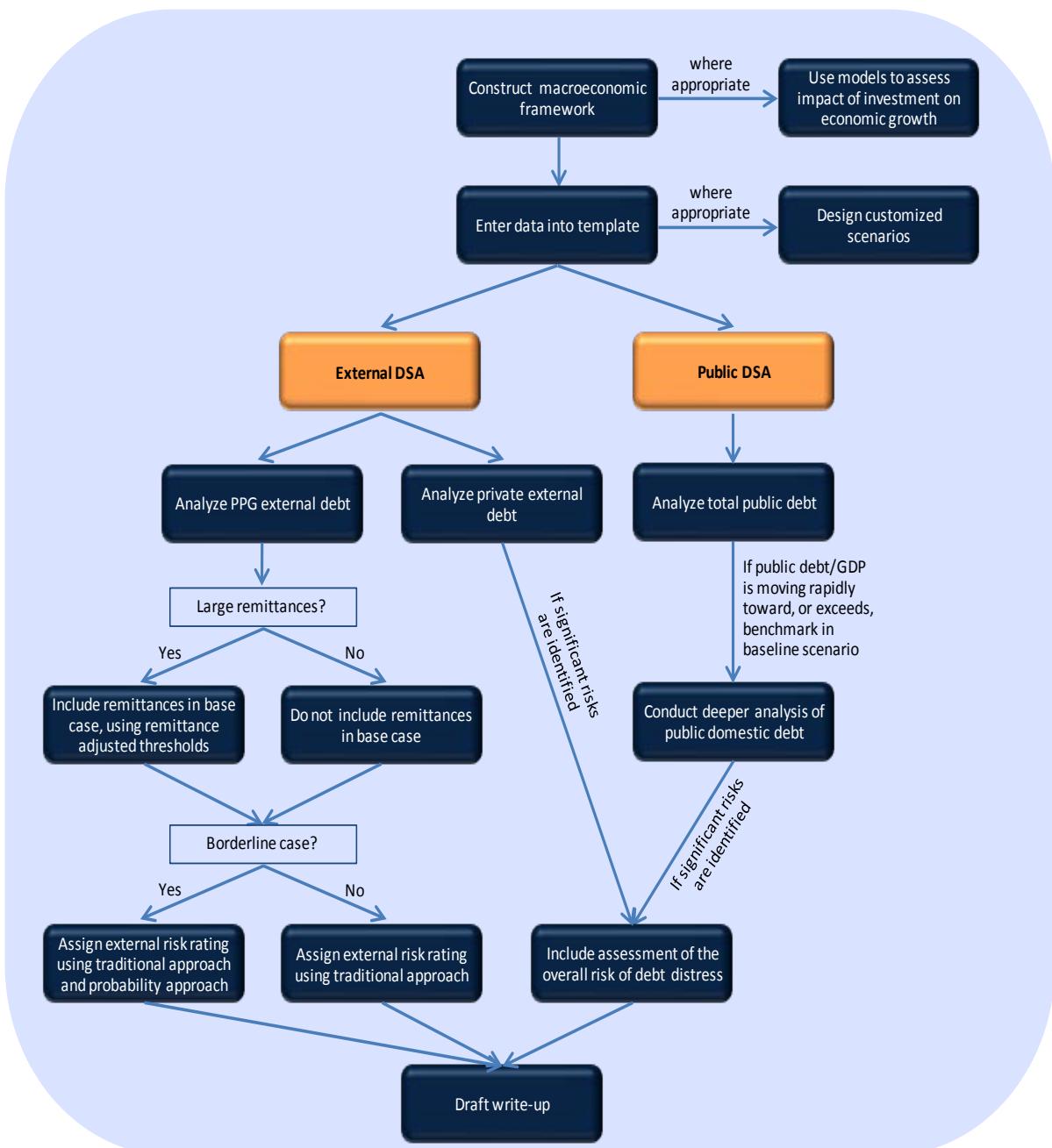
85. For countries with a low or moderate external risk rating, and where public debt to GDP is moving rapidly toward, or exceeds, the relevant benchmark in the baseline scenario, the presumption is that significant vulnerabilities related to public domestic debt exist unless otherwise justified. If confirmed by the analysis, these vulnerabilities should be captured in the overall risk of debt distress. The rationale for this presumption is that countries with a low or moderate external risk rating should not have excessive levels of public external debt, and therefore the breach or near breach of the public debt benchmark necessarily reflects elevated levels of public domestic debt. For countries rated high or in debt distress, there is no presumption regarding vulnerabilities related to public domestic debt.

V. PUTTING IT ALL TOGETHER

86. To summarize, producing a DSA entails the following steps:

- **Step 1: Construct the macroeconomic framework.** Make sure that projections are realistic and internally consistent. In cases where a country is considering a significant scaling up of public investment, consider using models developed by World Bank and IMF staff to help assess the impact of the planned investment on economic growth.
- **Step 2: Enter data from the macroeconomic framework into the DSA template.** Historical data covers the previous 10 years; projections cover the next 20 years. Projections include new PPG external borrowing, along with the terms of borrowing. Where appropriate, design customized scenarios that model relevant risks not captured by standardized stress tests.
- **Step 3: Assess risks within the external and public DSAs.**
 - **External DSA.** Compare the projected evolution of PPG external debt indicators to thresholds in the baseline scenario and under stress tests. If remittances are large, include them in the base case and use remittance-adjusted thresholds. Determine the risk of external debt distress. For borderline cases, take into account the results of the probability approach. Separately, analyze the projected evolution of private external debt. If risks are significant, flag them in the assessment of the overall risk of debt distress
 - **Public DSA.** Analyze the projected evolution of public debt indicators in the baseline scenario and under stress tests. If public debt to GDP is moving rapidly toward, or exceeds, the relevant benchmark in the baseline scenario, conduct in-depth analysis to determine the extent of public domestic debt vulnerabilities. If significant vulnerabilities are detected, flag them in the assessment of the overall risk of debt distress.
- **Step 4: Draft the write-up.** Depending on the circumstances, the write-up can take the form of either a full DSA or a light update (Annex 1).

These steps are illustrated in Figure 9.

Figure 9. Producing a DSA

VI. WHEN MUST A DSA BE PRODUCED

87. Whether staff needs to produce a DSA depends on the country in question and operational considerations at the IMF and the World Bank. All DSAs must be prepared jointly by both institutions, regardless of whether the DSA is included in a Board document of one institution only, following procedures described in Annex 5. The write-up can take the form of either a “full DSA” or a “light update,” depending on the circumstances. These elements are discussed in more detail below.

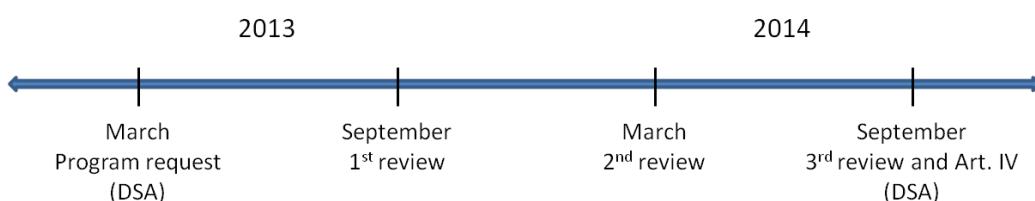
A. Country coverage

88. DSAs using the LIC template should be produced for all PRGT-eligible countries that also have access to IDA resources. In those cases where PRGT-eligible countries have durable and substantial access to market financing, Fund staff may deem it more appropriate to instead produce a DSA using the template for market access countries (MAC template); in such cases, close consultation with Bank staff would be desirable. A list of PRGT-eligible countries can be found [here](#) while a list of countries with access to IDA resources (IDA-only, gap, and blend countries) can be found [here](#).

B. Frequency of DSAs

89. As a general rule, a DSA should be produced at least once every calendar year, in the context of an IMF Board document (e.g., Article IV consultation or a program review or request) or an IDA Board document. DSAs need not, however, be produced exactly one year apart. Figure 10 illustrates the case of producing DSAs for a country with an IMF-supported program. In this hypothetical example, a DSA is produced in March 2013, at the time a program is requested. The first review of the program takes place in September, the second in March 2014, and the third in September 2014, together with the Article IV consultation. Rather than produce another DSA in March 2014, exactly one year after the previous DSA, staff may wish to wait until the Article IV consultation in September 2014. On the Bank side, an annually produced DSA is desirable for determining the IDA credit-grant allocation. If not available, the allocation will take place based on the most recently available risk rating.

Figure 10: Example DSA timeline



90. A new DSA is required in the following situations (which could result in more than one DSA in the same calendar year):

- A request for IMF financing that would (i) involve exceptional access; and/or (ii) bring total access to more than 40 percent of quota, based on past scheduled (not necessarily drawn) and future scheduled disbursements, in any 24-month period; and/or (iii) involve a member with a high risk of debt distress or in debt distress.²³ In these situations, the DSA helps to establish the member's capacity to repay the Fund.
- For IMF program countries, any modification to a performance criterion related to debt limits, or request for a waiver for non-compliance with a performance criterion related to debt limits, where this would result in borrowing non-negligibly above levels assessed in the most recent DSA.²⁴ The purpose of the DSA is to assess the impact of the modification or waiver on debt sustainability.
- For countries that are subject to IDA's Non-Concessional Borrowing Policy (NCBP), whenever the authorities seek non-concessional borrowing going beyond levels assessed in the most recent DSA.²⁵

91. All DSAs must be submitted to both the IMF's and IDA's Executive Boards, be it for discussion or for information. If the World Bank requires, for its own operations, a DSA for a country that is not expected to be discussed by the IMF's Executive Board in the next two months, the DSA should be sent to the Fund's Executive Board for information at the same time it is sent to IDA's Executive Board. Conversely, if the IMF requires, for its own operations, a DSA for a country that is not expected to be discussed by the IDA's Executive Board in the next two months, the DSA should be sent to the IDA's Executive Board for information at the same time it is sent to the Fund's Executive Board.

C. Full DSA or light update?

92. The DSA write-up can take the form of a full DSA or a light update. Full DSAs should be prepared jointly by IMF and World Bank staff every three years, or whenever circumstances have changed significantly since the previous DSA. A change in the external risk rating or in the assessment of the overall risk of debt distress since the previous DSA would warrant a full DSA. Light updates should be prepared jointly by IMF and World Bank staff in intervening years, or when more than one DSA is required in a given calendar year and circumstances haven't changed significantly since the previous DSA. For light updates, the write-up should focus on the main changes in assumptions and other variables and summarize their impact on debt ratios. (For information about the differences between the two formats, see Annex 1.)

²³The requirement to produce a new DSA can be waived for financing requests of 5 percent of quota or less.

²⁴The requirement to produce a new DSA can be waived if the impact of the modification or waiver is negligible.

²⁵Countries subject to the NCBP include current IDA grant recipients or MDRI recipients. A list of countries can be found [here](#).

VII. WHERE TO GO TO LEARN MORE ABOUT THE DSF

93. On the internet. The following pages [The Joint World Bank–IMF Debt Sustainability Framework for Low-Income Countries](#) and [Debt Sustainability Framework for Low-Income Countries \(DSF\)](#) on World Bank and IMF external websites contain links to further reading materials and presentations.

94. DSF workshops. World Bank and IMF staff conduct periodic DSF workshops, both in Washington and in regional centers around the world. Workshops in Washington are offered primarily to World Bank and IMF staff members. Workshops abroad are organized for country authorities. For more information, contact [The Economic Policy and Debt Department \(PRMED\) of the World Bank](#) and [IMF Institute for Capacity Development](#).

References

- Abdih, Y., R. Chami, M. Gapen, and A. Mati, 2009, “Fiscal Sustainability in Remittance-Dependent Economies,” IMF Working Paper No. 09/190 (Washington: International Monetary Fund).
- Barkbu, B., C. Beddies, and M. Le Manchec, 2008, “The Debt Sustainability Framework for Low-Income Countries,” IMF Occasional Paper, No. 266 (Washington: International Monetary Fund).
- Buffie, Edward F., A. Berg, C. Pattillo, R. Portillo and L.F. Zanna, 2012, “Public Investment, Growth, and Debt Sustainability: Putting Together the Pieces,” IMF Working Paper forthcoming (Washington: International Monetary Fund).
- Cebotari, Aliona, 2008, “Contingent Liabilities: Issues and Practice,” IMF Working Paper No. 08/245 (Washington: International Monetary Fund).
- Chakraborty S. and E. Dabla-Norris, 2009, “The Quality of Public Investment,” IMF Working Paper No. 09/154 (Washington: International Monetary Fund).
- Chami, R., A. Barajas, T. Cosimano, C. Fullenkamp, M. Gapen and P. Montiel, 2008, “Macroeconomic Consequences of Remittances,” IMF Occasional Paper, No. 259 (Washington: International Monetary Fund).
- Everaert, Greetje, M. Fouad, E. Martin, R. Velloso, 2009, “Disclosing Fiscal Risks in the Post-Crisis World,” IMF Staff Position Note 09/18 (Washington: International Monetary Fund).
- Haque, M. and R. Kneller, 2008, “Public Investment and Growth: The Role of Corruption,” Centre for Growth and Business Cycle Research Discussion Paper Series 98, Economics, The University of Manchester.
- Hemming, Richard et al, 2006, “Public-Private Partnerships, Government Guarantees, and Fiscal Risk,” (Washington: International Monetary Fund).
- International Development Association, 2004a, “Debt-Sustainability in Low-Income Countries—Proposal for an Operational Framework and Policy Implications,” IDA/SecM2004-0051.
- _____, 2004c, “Debt-Sustainability in Low-Income Countries—Further Considerations on an Operational Framework and Policy Implications,” IDA/SecM2004-0629.
- _____, 2005, “Operational Framework for Debt-Sustainability Assessments in Low-Income Countries—Further Considerations,” IDA/R2005-0056
- _____, 2006a, “Review of Low-Income Country Debt Sustainability Framework and Implications of the Multilateral Debt Relief Initiative (MDRI),” IDA/R2006-0046.

- _____, 2006b, "Applying the Debt Sustainability Framework for Low-Income Countries Post Debt Relief," IDA/SecM2006-0564.
- _____, 2008, "Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework for Low-Income Countries," SecM2008-0441.
- _____, 2009, "A Review of Some Aspects of the Low-Income Country Debt Sustainability Framework," IDA/SecM2009-0467.
- _____, 2010, "Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework for Low-Income Countries," SecM2010-0029.
- _____, 2012, "Revisiting the Debt Sustainability Framework for Low-Income Countries," IDA/R2010-0013.
- International Monetary Fund, 2004a, "Debt-Sustainability in Low-Income Countries—Proposal for an Operational Framework and Policy Implications," SM/04/27 (Washington).
- _____, 2003, *External Debt Statistics: Guide for Compilers and Users*. IMF: Washington DC.
- _____, 2004c, "Debt-Sustainability in Low-Income Countries—Further Considerations," SM/04/318 (Washington).
- _____, 2005, "Operational Framework for Debt-Sustainability Assessments in Low-Income Countries—Further Considerations," SM/05/109 (Washington).
- _____, 2006a, "Review of Low-Income Country Debt Sustainability Framework and Implications of the Multilateral Debt Relief Initiative (MDRI)," SM/06/123 (Washington).
- _____, 2006b, "Applying the Debt Sustainability Framework for Low-Income Countries Post Debt Relief," SM/06/364 (Washington).
- _____, 2008a, "The Macroeconomics of Scaling Up Aid: the Cases of Benin, Niger and Togo," SM/08/306 (Washington).
- _____, 2008b, "Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework for Low-Income Countries," SM/08/317 (Washington).
- _____, 2008c, "The Macroeconomics of Scaling-up Aid Scenarios—the Cases of Central African Republic, Rwanda, and Sierra Leone," SM/08/333 (Washington).
- _____, 2009a, "The Chairman's Summing Up—Proposal for a General Allocation of SDRs." Executive Board Meeting 09/64, June 26. (BUFF/09/111).

- _____, 2009b, "Changing Patterns in Low-Income Country Financing and Implications for Fund Policies on External Financing and Debt," SM/09/56 (Washington).
- _____, 2009c, "Debt Limits in Fund Supported Programs: Proposed New Guidelines," SM/09/215 (Washington).
- _____, 2009d, "Guidance Note for Fund Staff on the Treatment and Use of SDR Allocations," SM/09/228 (Washington).
- _____, 2009e, "Staff Guidance Note on Debt Limits in Fund-Supported Programs," SM/09/294 (Washington).
- _____, 2009f, "A Review of Some Aspects of the Low-Income Country Debt Sustainability Framework," SM/09/216 (Washington).
- _____, 2010, "Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework for Low-Income Countries," SM/10/16 (Washington).
- _____, 2011, *Sixth Edition of the Balance of Payments and International Investment Position Manual*. IMF: Washington DC.
- _____, 2011, "Modernizing the Framework for Fiscal Policy and Public Debt Sustainability Analysis," SM/11/211 (Washington).
- _____, 2012a, "Macroeconomic Policy Frameworks for Resource-Rich Countries," SM/12/224 (Washington).
- _____, 2012b, "Revisiting the Debt Sustainability Framework for Low-Income Countries," SM/12/10 (Washington).
- _____, 2013a, "Helping Developing Countries Address Public Debt Management Challenges—Background Paper," SM/13/56, Sup. 1, (Washington).
- _____, 2013b, "Review of the Policy on Debt Limits in Fund-Supported Programs," SM/13/53, (Washington).
- _____, 2013c, "Staff Guidance Note for Public Debt Sustainability Analysis in Market-Access Countries," SM/13/86, (Washington).
- Irwin, Timothy C., 2007, "Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects," The World Bank, Washington, D.C.
- Kraay, A., and V. Nehru, 2004, "When is Debt Sustainable?" World Bank, Policy Research Working Paper No. 3200.

- Reinhart, Carmen and Kenneth Rogoff, 2009, "This Time Is Different: Eight Centuries of Financial Folly," Princeton, New Jersey: Princeton University Press.
- Servén L., 2007, "Fiscal Rules, Public Investment, and Growth," Policy Research Working Paper Series 4382, The World Bank.
- Straub, S., 2008a, "Infrastructure and Growth in Developing Countries: Recent Advances and Research Challenges," World Bank Policy Research Working Paper No. 4460.
- _____, 2008b, "Infrastructure and Development: A Critical Appraisal of the Macro Level Literature," World Bank Policy Research Working Paper No. 4590.

Annex 1. The DSA Write-up

The format of the DSA write-up will depend on whether the DSA is a full DSA or a light update. Staff are encouraged to follow the outlines below, attaching in each case the standard figures and tables. Both full DSAs and light updates should be presented to the IMF and IDA Executive Boards as a standalone document.

Outline for a full DSA

Country X
Staff Report for [...]
Debt Sustainability Analysis

Risk of external debt distress:	[low/medium/high/in debt distress]
Augmented by significant risks stemming from domestic public and/or private external debt?	[yes/no]

The chapeau paragraph should specify the country's external risk rating, based on the external DSA, and provide a brief assessment of public debt dynamics, based on the public DSA. If significant vulnerabilities related to public domestic debt and/or private external debt exist, the chapeau paragraph should include an assessment of the overall risk of debt distress. A footnote linked to the chapeau paragraph should report the country's three-year average CPIA score and policy performance category (weak, medium, or strong)

A. Background

- Evolution of PPG external debt and total public debt in recent years.
- Developments related to debt relief, where relevant.
- Scope of debt included in the DSA (central government, general government, guaranteed debt, etc.)
- Composition and structure of PPG external debt (creditors, concessionality of debt).
- Composition and structure of public domestic debt. (This section should be more developed for countries with total public debt to GDP moving rapidly toward or exceeding the benchmark in the public DSA.)
- Evolution of private external debt in recent years, where relevant.

B. Underlying Assumptions

- Main changes to macroeconomic projections compared to the previous DSA.
- Explanation of differences between prior projections and actual outcomes, where differences are large.
- Box describing the main assumptions in the macroeconomic framework underlying the DSA, including projections of current account variables, external financing sources (FDI, public external borrowing, private external borrowing, exceptional financing) and dynamics of foreign reserves.

C. External DSA

- Projected evolution of PPG external debt burden indicators compared to thresholds in the baseline scenario. Discussion of breaches, if any.
- Projected evolution of PPG external debt burden indicators under alternative scenarios and bound tests, compared to thresholds. Discussion of breaches, if any.
- Results of probability approach, where relevant.
- Results of customized scenarios or alternative cases (e.g., with or without remittances), where relevant.
- Vulnerabilities related to private external debt, where relevant

D. Public DSA

- Projected evolution of total public debt, including with respect to the benchmark on public debt to GDP.
- Projected evolution of total public debt under alternative scenarios and bound tests.
- Vulnerabilities related to public domestic debt, where relevant. Conclusion
- Determination of the external risk rating.
- Assessment of the overall risk of debt distress, where relevant.
- Authorities' views.²⁶

²⁶ The DSA assumptions and results should be discussed with the authorities. The authorities' views, including any disagreement with staff's main findings, should be reflected in the concluding section of full DSAs.

E. Conclusion

- Determination of the external risk rating.
- Assessment of the overall risk of debt distress, where relevant.
- Authorities' views.²⁷

Outline for a light update

Country X Staff Report for [...] Debt Sustainability Analysis	
Risk of external debt distress:	[low/medium/high/in debt distress]
Augmented by significant risks stemming from domestic public and/or private external debt?	[yes/no]

The chapeau paragraph should specify the country's external risk rating, based on the external DSA, and provide a brief assessment of public debt dynamics, based on the public DSA. If significant vulnerabilities related to public domestic debt and/or private external debt exist, the chapeau paragraph should include an assessment of the overall risk of debt distress. A footnote linked to the chapeau paragraph should report the country's three-year average CPIA score and policy performance category (weak, medium, or strong).

A. Underlying Assumptions

- Main changes to macroeconomic projections compared to the previous DSA.

B. External DSA

- Projected evolution of PPG external debt burden indicators compared to thresholds in the baseline scenario. Discussion of breaches, if any.
- Projected evolution of PPG external debt burden indicators under alternative scenarios and bound tests, compared to thresholds. Discussion of breaches, if any.
- Results of probability approach, where relevant.
- Results of customized scenarios or alternative cases (e.g., with or without remittances), where relevant.
- Vulnerabilities related to private external debt, where relevant.

²⁷The DSA assumptions and results should be discussed with the authorities. The authorities' views, including any disagreement with staff's main findings, should be reflected in the concluding section of full DSAs.

C. Public DSA

- Projected evolution of total public debt, including with respect to the benchmark on public debt to GDP.
- Projected evolution of total public debt under alternative scenarios and bound tests.
- Vulnerabilities related to public domestic debt, where relevant.

D. Conclusion

- Determination of the external risk rating.
- Assessment of the overall risk of debt distress, where relevant.

Annex 2. Investment-Growth Models

Country teams may wish to apply macroeconomic models that analyze the links between public investment and economic growth, and their implications for debt sustainability. This annex provides a brief overview of models developed by World Bank and IMF staff.

The Bank’s MAMS model (Maquette for MDG Simulations) quantifies investment needed to meet the Millennium Development Goals (MDG), and estimates its impact on growth. Under the MAMS model—which now runs in about 40 countries—government spending is split between: (i) recurrent consumption, transfers, interest; and (ii) capital (investment) spending. Spending is then classified by function: (i) social services, (ii) infrastructure, and (iii) “other government.” Simulations can show the productivity gains, growth, and poverty reduction dividends of sector investments.

A second example is the World Bank’s Spatial Approach, created to help countries assess their proposed infrastructure investment plans by identifying priorities and formulating an adequate sequencing of projects. The Spatial Approach uses geo-referenced data for productive sectors and infrastructure networks.²⁸ It analyses a country’s economic geography, evaluates returns from investment packages, and the returns to coordinated projects.

IMF staff have developed a fully-articulated, dynamic macroeconomic model to support debt sustainability analysis in LICs.²⁹ The model is especially suited to inform analysis of public investment surges since it makes explicit: (i) investment-growth linkages; (ii) public external and domestic debt accumulation; (iii) the fiscal policy reactions necessary to ensure debt sustainability; and (iv) the macroeconomic adjustment required to ensure internal and external balance. The model considers external commercial, concessional, and domestic borrowing to help finance the investment surge, with taxes and transfers responding to help stabilize debt levels over time. Where there are constraints on the pace or level of tax adjustments, debt sustainability problems may arise.

Judgment and country knowledge complement analytic evidence and modeling. No single model can reflect all country-specific conditions which affect the growth impact of public investment. Nor can model specification substitute for experience evaluating the returns to sector policies and investments in LICs. A spectrum of models, analytical tools and practical experience should inform the macroeconomic projections underlying the DSA, and country teams should choose from tools and country knowledge that best suits each particular case.

²⁸See [World Development Report](#), World Bank, 2009.

²⁹See Buffie et al. (2012). More information about the model can also be found [here](#).

Annex 3. Treatment of Public Enterprises

The DSF defines the public sector as the central government, regional and local governments, the central bank, and public enterprises. The latter includes all enterprises that the government controls, such as by owning more than half of the voting shares.³⁰ This annex discusses the criteria for excluding the debt of a public enterprise from the DSA.

Removing a public enterprise from the DSA can be considered if the enterprise can borrow externally without a public guarantee and its operations pose limited fiscal risk. If the enterprise is judged to meet these conditions, its external debt would be excluded from the external DSA and its total debt from the public DSA. The case for such exclusions, which should be explicitly described in the write-up, should be based on the following:

- For each enterprise being considered, staff should collect available information regarding its managerial independence; relations with the government; the periodicity of audits; publication of comprehensive annual reports and protection of shareholders' rights; financial indices and sustainability; and other risk factors (see box below).
- Given that comprehensive information on public enterprises may not be readily available in LICs, two criteria would be binding in the determination of fiscal risks: an enterprise would normally be judged to pose a high fiscal risk if it carries out uncompensated quasi-fiscal activities or has negative operating balances.
- By contrast, an enterprise could be deemed to have a low fiscal risk even if the criteria listed above paint a mixed picture, or when not all information is available. For example, such a judgment could be based on an enterprise's financial strength or its track record.

The decision to remove a public enterprise from the DSA is simplified in cases where there is an IMF-supported program. In such cases, the technical memorandum of understanding would specify any exclusion of enterprises for the purpose of the external debt limits. The same exclusions would be expected to apply in the DSA.

³⁰While ownership by the government of at least 50 percent of the shares guarantees its control over the enterprise, such control may exist even when it owns a smaller proportion of the total share capital of the company.

Indicator for the Exclusion of SOEs

- **Managerial independence, including pricing and employment policies.** Relevant criteria include: (i) cost-covering price setting for non-tradables; (ii) average prices within 10 percent of the international benchmark for producers of tradables; and (iii) a tariff setting regime compatible with the long-term sustainability of the SOE in regulated sectors, which is comparable to private firms in the sector. Employment policies should be independent of civil service laws and should not be subject to intervention by the government in wage setting or hiring, except when clearly justified to address specific risks.
- **Relations with the government, including:** (i) the absence of direct or indirect subsidies, on-lending by the government and/or explicit or implicit loan guarantees that go beyond those given to private enterprises; (ii) the absence of quasi-fiscal activities such as uncompensated functions or absorbed costs which are not directly related to the SOE's business objective and/or substituted for government spending (e.g. subsidies to the public given directly by the SOE compensated with government transfers); (iii) the nature of the regulatory and tax regimes, wherein the SOE should be subjected to the same standards as private firms in the industry; and (iv) a high frequency of profit transfers from the SOE to the central budget.
- **Periodic audits.** There should be periodic audits carried out and published by a reputable private accounting firm applying international standards. A major international firm should ideally audit large public enterprises.
- **Publication of comprehensive annual reports and protection of shareholders' rights.** Published annual reports should include i) audited balance sheets; ii) profit and loss statements; iii) off-balance sheet liabilities; iv) levels and changes in the enterprise's overall activity; v) employment and investment; and vi) comparisons against other firms in the industry and international benchmarks. Moreover, the governance structure should allow for the appropriate protection of minority shareholder rights.
- **Financial conditions and sustainability.** Relevant indicators include: i) market access, including industry-wide comparable costs of debt and borrowing rates comparable to private firms without a government loan guarantee; ii) less-than-full leveraging entailing a debt-to-asset ratio comparable to the industry average; iii) profitability, defined as operating balance to assets ratio, or defined as a positive ratio and higher than the average cost of debt in cases where there is no relevant comparator; and iv) records and evaluations of past investments, demonstrating an average rate of return at least equivalent to that required by cost-benefit analyses to approve new projects.
- **Absence of other risk factors** including, but not limited to, vulnerabilities stemming from i) contingent liabilities relative to its operating balance; ii) currency mismatches between the SOE's main sources of revenue and its debt; and iii) the importance of the public enterprise, as defined by size (e.g. debt service, employment, customer base, sales) and/or function (e.g. the provision of essential inputs or services).

Annex 4. Treatment of SDR Allocations

Against the backdrop of the global financial crisis, the IMF in 2009 proceeded with a general allocation of special drawing rights (SDRs), intended to meet a long-term global need for reserve assets by supplementing Fund member countries' foreign exchange reserves. In the same year, a special one-time allocation of SDR went into force. The general and special allocations led to a significant increase in Fund members' total allocation of SDRs, from SDR 21.4 billion to SDR 204 billion (about US\$316 billion). The Executive Board asked that the debt sustainability implications of members' use of SDRs be systematically assessed in DSAs.³¹

Why does an SDR allocation matter for debt sustainability analysis?

An SDR allocation involves two elements: an increase in the member's *allocation* of SDRs (liabilities) and a matching increase in its *holdings* of SDRs (assets). Such an allocation provides each member with a costless, unconditional international reserve asset. Members receive interest on their holdings of SDRs and pay charges on their cumulative allocations of SDRs at the same rate—the SDR interest rate. Accordingly, no interest is paid by members or earned by members where their SDR holdings equal their cumulative SDR allocations. If, however, a member's SDR holdings rise above its cumulative allocations, it earns interest on the excess. Conversely, if it holds fewer SDRs than allocated, it pays interest on the shortfall. In the latter case, the net interest payments become a debt service obligation of the member to the IMF SDR Department. These interest payments will impact the magnitude of debt service and the PV of PPG external debt, and hence all of the debt burden indicators in the DSF.

How should an SDR allocation be taken into account in DSAs?

A country's SDR allocation should not be included in the nominal stock of gross external debt. Instead, the DSA should estimate the impact of the SDR allocation on debt sustainability by capturing the net interest payments that arise when SDR holdings fall below a member's SDR allocation. The DSA template provides a projection of the future path of the SDR interest rate, which serves as a basis for calculating interest paid to member countries on their SDR holdings and interest charged to members on their SDR allocation.³² A country's current SDR allocation and its total SDR holdings should be entered into the template, along with any expected drawdown of SDR holdings over the projection period.³³ Once this information is entered, the template automatically calculates the PV of the future net interest payments, which in turn is included in the total PV of debt.

³¹For more information, see [Guidance Note for Fund Staff on the Treatment and Use of SDR Allocations](#).

³²The SDR interest rate is projected using projected exchange rates and short-term deposit rates from WEO, as well as current SDR weights.

³³See [IMF Members' Financial Data by Country](#). A country's net cumulative allocation of SDRs, and its SDR holdings, can be found in Section III of each member's page.

Annex 5. Coordination between the World Bank and the IMF

All LIC DSAs must be produced jointly by World Bank and IMF staff. This annex discusses the coordination expected between World Bank and IMF staff in producing DSAs.

World Bank and IMF staff need to agree on a schedule for the preparation of DSAs (full DSAs or updates) for individual countries each calendar year. IMF and World Bank staff should coordinate closely in producing DSAs, based on their respective areas of expertise. The Fund generally takes the lead on medium-term macroeconomic projections, while the Bank provides input on long-term growth prospects. Bank and Fund country teams should agree on the broad parameters and projections of the DSA, including new borrowing, prior to producing the DSA draft. Early consultation is critical to avoid last-minute disagreements and requests for changes. The table below presents a typical timeline for the preparation, review, and clearance of a DSA.

Dispute resolution

Although the DSA should normally represent a common Bank-Fund assessment of a country's debt outlook, there may be cases of disagreement. In such rare cases, country teams should first seek to resolve the disagreement at the working level before resorting to the dispute resolution mechanism agreed in 2005.¹

- At the working level, country economists should discuss the basis for their disagreements and seek to determine whether the different viewpoints lead to a material difference in risk classification. If not, they should seek to accommodate differences. If material differences arise, the Fund mission chief and the Bank's regional PREM director should attempt to reach an agreement.
- The mission chief and the regional director should, after consultation with their respective review departments (SPR in the Fund, PRMET in the Bank), seek a resolution within five working days. If they are unsuccessful, the matter should be elevated to the level of area department director at the Fund and vice president at the Bank to seek resolution, again within five working days. Failures to resolve differences at this level will cause the matter to be brought to the attention of the managements of the two institutions.
- The managements can, within five working days, either resolve the dispute or decide that the DSA document will present the different views of the staffs to the Executive Boards of the two institutions. In the latter case, each institution will present its views in its own words.

¹See IDA (2005) and IMF (2005).

Stage	Preparation of DSA
Preparation of the draft DSA.	<p>World Bank and IMF country teams begin to jointly prepare a draft DSA (write-up and template). A preliminary meeting is held between the teams to discuss the macroeconomic assumptions (minutes recorded).</p> <p>The draft DSA is included in the IMF policy note.</p> <p>World Bank country team informs the Economic Policy, Debt, and Trade Department (PRMET) on the schedule for the preparation of DSA. At this stage, the World Bank country team can request technical support (“upstream comments”) from PRMET.</p>
Departmental review of the draft DSA.	<p>IMF country team sends the draft DSA (write-up, charts, and tables), together with the policy note, to SPR and other departments.</p> <p>World Bank country team sends the draft DSA (write-up and template) to the Regional PREM Director for formal review (allow three days).</p> <p>At this stage, it should be understood that the draft DSA is subject to change depending on the mission’s findings (if any). This review of the draft DSA in the IMF and World Bank has the objective of raising and resolving all major issues related to content, coverage, and broad assumptions.</p>
Policy consultation meeting (PCM)	Where possible, contentious issues related to the draft DSA should be discussed at the PCM, with World Bank staff participation. Where this is not possible, every effort should be made to resolve these issues at the earliest date between IMF and World Bank staff
Management clearance of the draft DSA	<p>IMF Management clears the policy note and draft DSA.</p> <p>World Bank Regional PREM Director clears the draft DSA.</p>
Mission	IMF and World Bank country teams continue to refine the DSA, with input from country authorities. If one of the two teams did not participate in the mission, another meeting must be held between the teams to discuss the new information gathered during the mission and possible changes to the draft DSA. Any significant differences in views between IMF and World Bank country teams should be resolved at this stage.
Departmental review of the DSA	<p>IMF country team sends the DSA, along with the staff report, to SPR and other departments.</p> <p>World Bank country team sends the DSA (write-up and template) to the Regional PREM Director for formal clearance (allow three days).</p> <p>World Bank country team sends the DSA (write-up and template) to PRMET Director for review and formal clearance (allow three days for review, “downstream comments”, and clearance).</p>

Management clearance of the DSA	IMF Management clears the staff report and the DSA. World Bank Regional PREM Director clears the DSA. World Bank PRMET Director clears the DSA.
Circulation of the staff report to IMF's Executive Board (this step concerns the IMF country team only)	IMF country team sends the staff report and the DSA to SEC for circulation to the Executive Board. Following IMF's Executive Board meeting, the DSA is published as a supplement to the staff report, assuming the country authorities have given their consent.
Circulation of the DSA to IDA's Executive Board (this step concerns the World Bank team only)	World Bank country team ensures circulation of the DSA to IDA's Executive Board if the DSA is included in a Board document. Otherwise, PRMET ensures circulation of the DSA to IDA's Executive Board for information only.