

Non Technical Summary of the Report commissioned by the African Development Bank

Managing Sovereign Debt for Productive Investment and Development in Africa

-A Critical Appraisal of the Joint Bank-Fund Debt Sustainability Framework and Its Implications for Sovereign Debt Management-

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I. Introduction

Given the two-decade long history of dealing with the debilitating debt crisis of low-income countries (LICs) *ex-post*, the International Financial Institutions (IMF/World Bank) proposed in 2004 the Debt Sustainability Framework (DSF) for LICs as a basis for ensuring better debt management *ex-ante* to prevent the re-emergence of debt distresses and crises through more informed borrowing and lending decisions. As a forward-looking analysis with a focus on the future path of debt-burden indicators over a 20 year period, it is designed for use as a tool to assess potential debt vulnerabilities and to make borrowing/lending decisions by sovereign governments as well as by lending institutions and creditor governments. The DSF, which is embedded in the IDA allocation, including decisions over the grant-loan mix, is now widely used by other Multilateral Development Banks (MDBs) and export credit agencies as well as bilateral governments in their aid allocation and lending policy towards LICs. Furthermore, on the basis of the DSF, IDA, IMF and other MDB developed their non-concessional borrowing policy (NCBP), in order to discourage unchecked non-concessional borrowing with a view to preventing the accumulation of new non-concessional debts and not allowing the risk of free-riding on substantial debt reduction granted through the Multilateral Debt Relief Initiative (MDRI) by third party lenders. Thus, the Debt Sustainability Analyses (DSAs) applied to individual LICs embedded in the DSF occupies a central place in all sovereign borrowing/lending decisions taken with respect to LICs.

However, a number of criticisms and concerns have been expressed over the analytical construct of the DSF since its inception. In particular, a question is raised whether DSAs capture adequately the critical relationship between public investment and growth, giving rise to fear of constraining the potential of financing Africa's development with debt instruments. In responding to this specific concern, the recent review of the DSF recognized the need to examine explicitly the link between debt-financed investment and growth, along with the necessity for strengthening the analysis of total public debt and fiscal vulnerabilities (IMF/World Bank, 2012). Hence, it recommends the DSAs to include more extensive analyses and discussions of investment-growth linkages, using an open-economy Dynamic General Equilibrium (DGE) model.

Now, the urgency for a critical evaluation of the DSF as a focal framework for examining debt dynamics and sustainability in relation to the complex interrelationships in the debt-investment-growth nexus becomes apparent when we consider the strong pressure on furthering Africa's economic development through increased investment, especially financing the huge infrastructure gap considered to be acting as a binding constraint for Africa's growth and poverty reduction. Africa's current infrastructure financing requirements are estimated to be at US\$93 billion annually. Yet, only about a half of this amount is presently available for infrastructure investment from various domestic and external sources combined. Africa's funding gap for economic infrastructure needs alone is therefore far exceeds what traditional donors and MDBs can provide LICs through conventional

concessional lending windows. Hence, accessing funds offered on non-concessional terms, including those from emerging development partners through South-South Cooperation as well as from international capital markets has become an attractive option for a number of African LICs. Since, if properly structured, debt instruments can be an appropriate vehicle for infrastructure and development financing at large, it is of paramount importance to find ways to strike the right balance between the policy objectives of debt sustainability and financing for development.

Given this background, the present study is commissioned by the African Development Bank : i) to evaluate critically the methodological approaches and analytical framework of the DSF; ii) to elaborate ways to allow African LICs to receive a higher level of non-concessional resources to finance their development, without compromising their debt sustainability and in light of their absorptive capacity; and iii) analyse how the Bank could increase its own provision of non-concessional resources to LICs without compromising its AAA credit ratings. The study is structured as follows: After Introduction (Section I), Section II examines critically the analytical and empirical basis on which the debt-burden thresholds are determined, and suggest alternative approaches. Section III examines the methodological issues involved in the DSA exercises, including the recent attempts to incorporate an analysis of the debt-investment-growth nexus into the DSAs. Section IV reviews an evolution of debt profile of African LICs from various sources (concessional and non-concessional) since 2006/7, including a comparison of the types and terms of debt contracts. This is followed by discussions on the debt-investment –growth nexus in a historical context from a comparative perspective with East Asia. Section V presents policy implications from our analyses: i) a potential use of DSAs as a monitoring mechanism and “indicative guide” for prudent sovereign debt management; ii) the rationale for, and a design, of more efficient, incentive-compatible sovereign debt contracts for dealing with downside risks, i.e. debt vulnerability of LICs in face of large external shocks. Then we discuss ways forward for the African Development Bank as a premier development financial institution for African LICs.

This shorter report presents a non-technical summary of our analyses and discussions found in the main report.

II. Critical Appraisal of the CPIA-centred System of Aid Allocation and Establishing Debt Burden Thresholds

In the DSF, a country’s external public debt distress risk is assessed against policy-dependent external debt-burden thresholds. This is based on the empirical analysis carried out at the IFIs, which claim that the debt carrying capacity of LICs is dependent on the quality of their policies and institutions as measured by the Country Policy and Institutional Assessment (CPIA) index. However, a serious concern can be raised over the legitimacy of the use of the CPIA for measuring and rating the quality of institutions and policies of LICs for aid allocation. First, the CPIA is not an *objective* measure of the quality of policies and institutions, but is a set of *subjective* scores by Bank staff. Despite the claim that the CPIA reflects *inputs* which are within the country’s control, as opposed to *outcome* influenced by exogenous events, the CPIA is constructed in terms of mixed score parameters: while some rank policy choices and institutional quality, others reflect outcomes or, more often, both outcomes and policy choices. In fact, some of the criteria used in the CPIA scores should be treated as a manifestation of their stage of economic development rather than that of societal subjective preferences or simple choice parameters of recipient governments. Some of these structural characteristics should evolve and change as development proceeds. Thus, the practice of interpreting

of the CPIA as an “input”, “choice variable” on the part of LICs, hence as “efforts and actions” under their own control can be questioned.

In this regard, it should be noted that aid allocated in the IDA-DSF is reduced by 10 percent for yellow-light countries and 20 percent for red-light countries, penalising severely countries with a lower CPIA rating upfront. Hence, the CPIA-based aid allocation formula cannot be seen as a fair rule, since it gives a common scoring to all countries with the equal weighting of the different factors, irrespective of the level of development and structural characteristics of each country. Indeed, the CPIA scores overlap in many aspects with those included in the extended policy conditionality list that the recipient governments had to comply in return for aid disbursements under the Washington Consensus (SAPs) and the Post-Washington Consensus. Thus, the construct of the DSF reflects the shift from *ex ante* conditionality on the promises of reforms to performance-based *ex-post* conditionality in the method of aid allocation mechanisms, while keeping the nature of policy conditionality largely intact. In this sense, the CPIA based aid allocation amounts to imposing a monolithic model for economic development and reforms. It is not well aligned with the principle of “ownership” and “partnership”, which is critical for success of reforms and donor-recipient relationships. The institutional and policy design for economic development has to be context-specific. Hence, the quality of institutions and policies should not be so mechanically and quantitatively rated as practiced in the CPIA.

The empirical models used to establish CPIA-centred debt burden thresholds have been equally questioned on a number of methodological and technical grounds such as the use of real GDP for exogenous shocks or the issues of omitted variable of aid disbursements and the arbitrary choice of a particular probability to establish thresholds in their model specifications. In fact, these empirical studies share many methodological flaws detected in other studies based on cross-country regression analyses to justify the performance-based selectivity for a basis of aid allocation. Thus, the empirical basis used to rationalise the current CPIA-dominated, performance-based selectivity approach to aid allocation as *ex-post* conditionality, in which the DSF is structurally embedded, is thin and unconvincing. Furthermore, using discrete CPIA cut-offs as practiced in the current DSF gives rise to ‘CPIA threshold effects’, whereby a small change in a country’s CPIA score near the boundary of policy performance categories results in artificial ‘cliff-like effects’, i.e. a large shift in debt burden thresholds.

All in all, the CPIA-centred system would penalise many structurally handicapped LICs. Such a system is not conducive to delivering aid to those countries where transformation of economic structures and increasing their resilience to exogenous shocks is most needed. There are alternatives approaches to determine a country’s debt distress thresholds. For example, an overwhelming case can be made for introducing key indicators of measuring structural handicaps into the aid allocation system on grounds of equity, effectiveness and transparency. Structural handicaps facing LICs do stem from their economic vulnerability and low human capital, which cannot be regarded as their “choice” and “will”. The Economic Vulnerability Index (EVI) and the Human Asset Index (HAI) can be a good candidate for representing structural vulnerability for country performance rating and a country’s “needs” respectively. A new index, which assesses LICs in terms of their adherence to universally accepted international codes of conduct and norms as well as to efforts in making social progress, can be added to reflect a country’s quality of policy and institutions as an incentive based screening device. Such codes could include a strict adherence to basic human right as embedded in the UN convention/resolution, a degree of transparency and accountability to domestic stakeholders in policy making and governance as well as efforts of governments to achieve MDGs and post-MDGs,

which are agreed collectively by the international community at large. The UN charter on responsible lending could also guide us in decide on indicators in these aspects.

Finally, the current practice of a mechanical application of the traffic light system for determining the grant-loan mix should also require an urgent amendment. First of all, in deciding on the grant-loan mix, a country's overall debt carrying capacity should be primarily assessed against its performance in public finance and debt management, not the mixed score such as the CPIA. Further, grants cannot be seen always a better modality of aid delivery compared with debt contracts. For donor governments, if grants are the only instruments for aid provision, the size of aid envelope would be limited by their budget constraints. In contrast, increasing aid through loans entails them lower real costs, as they can utilize efficient inter-temporal management of their resources, including recycling principal repayments and any interest payments on the loans made earlier.

Importantly, an appropriate configuration of the grant-loan mix should be decided dependent on what aid is used for. Infrastructure projects which alleviate various absorption capacity constraints and critical supply bottlenecks can in principle generate high growth dividends and social returns within a reasonable time horizon of debt contracts. For financing these types of projects, concessional loans can be a superior instrument to grants. More generally, the use of properly structured, incentive-compatible loan contracts offered on generous concessional terms is preferable to outright grants in financing productive investment, provided that projects are carefully selected, well designed and managed. What is needed is to address LICs' high vulnerability to exogenous shocks with an efficiently structured contingent financing facility, and to provide valuable technical assistance for managing financed projects to generate tangible growth dividends, enhanced cash flows and tax revenues so that debt is serviced on time. On the other hand, grants can well be more appropriate for financing social infrastructures such as education and health or economic infrastructure such as rural roads or water supply to the poor. Investment in education and health, for example, would take a longer time to generate growth dividends. It is also hard to project cash flows over time from such investments. Returns to investment in human capital accruing to individuals are widely dispersed, requiring an efficient tax system to recuperate. The latter itself takes a longer time to create. All these point to a great care required in deciding which aid instruments are appropriate on a case-by-case basis.

III. Critical Appraisal of the Debt Sustainability Analysis (DSA) embedded in the DSF

The Debt Sustainability Analyses (DSAs) applied to an individual country are used to be carried out separately for external debt and public debt, involving constructing baseline and alternative scenarios of debt dynamics and; conducting a series of stress tests. The DSAs cover uniformly a period of over 20 years for LICs, instead of a five-year projection used for Middle-Income Countries (MICs), on account of the long maturities of LIC debt, while the debt indicators are expressed in PV on the ground of predominance of concessional debt. A country is assigned one of the four debt distress rankings (low, moderate, high, and in debt distress) solely on the basis of the level of external public debt relative to the indicative CPIA-based thresholds over a 20-year projection period. After a series of minor modifications made through regular review processes, the recent Review is more comprehensive to this component of the DSF in contrast to little change in the methods of determining debt distress thresholds. The Review proposed to strengthen DSAs by: 1) refining stress tests to reflect better dynamic linkages between macroeconomic variables; 2) deepening the analysis of total public debt and fiscal vulnerabilities; 3) carrying out an additional risk rating for countries with significant vulnerabilities related to domestic public debt or private external debt; 4)

incorporating explicitly the link between debt-financed investment and growth into DSAs; and 5) simplifying the template for the use by country authorities (IMF/World Bank, 2012).

The pre-Review DSAs take a deterministic approach, first projecting one base scenario for debt indicators on the basis of historical series of averages, then apply various stress tests utilising the historical pattern of volatilities. This approach has a number of technical weaknesses. Above all, simple historical averages would not generate a future trajectory with any volatility close to the real world phenomenon. Macroeconomic conditions could undergo some significant changes, as underlying macroeconomic interrelationships are typically highly unstable in LICs, constantly exposed to political turmoil, structural breaks or other shocks.

The Review in 2011 accepted criticisms of the pre-deterministic approaches taken hitherto and recommended the use of more dynamic simulation techniques, such as the Value at Risk analysis (fan charts analyses) in parallel on an experimental basis to exploit dynamic interactions among key macroeconomic variables in a country-specific context. However, irrespective of computational techniques, the accuracies in forward-looking projections over a 20 year time horizon are seriously in doubt. In fact, the fan charts analyses with a distinctly probabilistic approach show that the projected paths lose progressively its predictive ability as the forecasting period lengthens, certainly with little accuracy beyond a five year period. In short, it reminds us plentifully of 'futile' nature of exercises of predicting debt sustainability in a world governed by high uncertainty. This is because the future is unknown inherently, particularly so because we live in an ever-increasing, highly uncertain, globally integrated world, which can expose LICs more frequently to larger exogenous shocks.

Given that the concept of debt sustainability used in the DSAs is elusive, especially targeting at debt sustainability through its projections over a medium-to-long time horizon is illusory as policy purpose, it is important to consider an alternative approach to debt sustainability by having a policy of 'debt distress avoidance' *at times of shocks*. In this alternative approach, the policy target is to avoid debt burden indicators following an explosive path over time upon shocks by using *the debt-stabilizing primary balance* as the prime instrument. This approach provides a forum for a more meaningful dialogue over policy options to effect adjustment paths upon shocks between borrowers and lenders than under the DSAs. It also indicates that temporary shocks could be dealt with policies that spread adjustment costs over time. There is no need to raise serious concerns over the jump in debt levels resulting from shocks originally, if sovereign borrowers are allowed adequate time to adjust. Importantly, this points to the need for a new facility to deal with shocks facing LICs. If upon shocks critical contingent financing is available to make adjustments as palatable as possible, the debt level can be kept under control, while allowing avoid a sharp contraction in aggregate demand to produce a primary balance surplus in a short time framework.

Now, the traditional dominance by official concessional loans both in external debt and public debt in LICs has been a rationale for focusing on the risks associated with external public debt distresses only in the DSF. Therefore, domestic debt or external private debt was not included in the pre-Review DSA exercises. However, this situation has been rapidly changing over the past decade in several African LICs. In these "frontier" markets economies, domestic financial markets have deepened and domestic debt increased its share in public debt, while non-resident purchases of domestic public and private debt have become non-negligible. This would lead to an exposure to the risk of a sudden shift in investors' sentiment, followed by increased difficulties in managing domestic debt. Since governments also have to treat private external debt as contingent liability at times of crises, the distinction between domestic and external debt as well as between public and private debt could

become blurred and hazy. In addition, several countries started issuing sovereign bonds in international markets. New domestic and international debt instruments offered on non-concessional terms carry much elevated costs of servicing with higher interest payments and shorter maturities attached. Accordingly, debt management will become much more complicated in LICs with the emerging need to address the question on debt structures and compositions in terms of maturities and currency denominations.

Given this, the recent Review recommends deepening the analysis of sustainability of total debt all inclusive of domestic public debt and private external debt and associated fiscal vulnerability. However, its emphasis is placed more on deriving definite CPIA-determined benchmarks of total public debt, similar to thresholds established for external public debt under the DSF. Yet, what is more critical is to examine emerging interrelationships among different components of total debt and to discuss possible adjustment paths in face with shocks.

Further, in the DSF, discussions on the discount rate remain conducted purely as a technical matter regarding one of the scaling factors to debt, i.e. as to which rate should be selected for calculating the present value (PV) of debt. However, importantly, the discount rate should be discussed from a borrower's *long-run* developmental perspective as well. It plays a critical role in a country's inter-temporal resource allocation, wherein a sovereign borrower should decide upon how much weight the society should place, in aggregate, on current enjoyment (consumption) against one in the future (investment). Then, the high discount rate exercised by governments of LICs, and the resultant condition of liability accumulation may reflect their pressing need to address developmental bottlenecks through investment in economic and social infrastructures. If so, *temporary* liability accumulation resulting from a high discount rate can be viewed as a precondition for asset accumulation over time as part of development processes.

In the pre-Review DSAs, this aspect of growth/development dividends expected from debt is significantly underplayed. In responding to recurrent criticism of the DSF for not adequately capturing the benefits of debt-financed public investment, the recent Review recommended the use of an open economy Dynamic General Equilibrium (DGE) Model. It attempts to capture key features of a typical LIC, including: the limited absorptive capacity and the low efficiency of public investment spending; the slow response of the private sector; the difficulty in adjusting domestic taxes and spending necessary for servicing debt; the dominance of hand-to-mouth consumers; and the limited availability of external financing at times of fiscal problems.

Built as an internally consistent macro model for a forward-looking debt sustainability analysis of effects of debt-led public investment scaling ups, the DEG is claimed to have a number of advantages by incorporating both public external and domestic debt accumulation in one unified model; and analyses of fiscal policy reactions necessary to ensure debt-sustainability and associated macroeconomic adjustments. For example, within the confinement dictated by a particular construct of the DEG model and its associated assumptions, it could serve a richer menu to discuss different simulated scenarios; help apply a different set of empirical information on project rates of return and other parameters; and hence allow more systematic risk assessments. It certainly provides with a useful tool kit for making some informed decisions on opting for different financing mechanisms, since the DGE model allows for financing schemes that mix concessional, external commercial and domestic debt, while taking into account the impact of public investment on growth and constraints on the speed and magnitude of fiscal adjustment.

Based on calibrations of the DGE model to a data set of the average SSA-LIC under alternative policy scenarios, the study carried out at the IMF concludes that well-executed high-yielding public investment programs can substantially raise output and consumption and be self-financing in the long run. However, it warns that even if the long run looks good, LICs can face transitional repayment problems down the road without additional concessional financing. Extra domestic borrowing or external commercial borrowing required to ride through emerging resource gaps in the transition period would be costly and risky, leading to formidable macroeconomic adjustment problems. Hence, in the absence of concessional financing available at times of fiscal strains over an extended period, such a situation would lead to unsustainable public debt dynamics. With these results behind, their simulation exercises tilt against front-loaded investment programs under weak structural conditions found in LICs.

However, these conclusions are contingent on the assumptions made regarding the key parameters as well as the construct of the model itself, and they are based on the results from the calibration to the historical data series of average figures in SSA over the past 10-20 years. Furthermore, strong demand for scaling up of public investment today comes from the imperatives to address structural bottlenecks to facilitate the process of transformation of socio-economic structures and laid down a foundation for inclusive, broad based development. If investment can indeed succeed in bringing about a major shift in economic structures, large externalities and high social returns within a reasonable time span as happened in East Asia in the 1980s and 1990s, predictions made on historical data may not be so informative. An interpretation of calibrated results of debt sustainability in a distant future should be made with this in mind, exercising a good judgement backed up by detailed country-specific knowledge.

The technically improved DSAs does not provide a decisive verdict in settling policy-makers' dilemma over the scale and pace of acceleration of public investment against the fear of making debt unsustainable. Rather, more subtle policy inferences can be drawn from their calibration results of the DGE. First, the results, especially those from the stress tests, point to the critically important role of the availability of concessional financing facilities at the time of repayment difficulties. Debt can be made sustainable if an appropriate facility to deal with such a debt distress situation is in place. The crux of the matter is whether LICs can obtain additional aid in the event of adverse shocks. Second, since debt sustainability of productive investment surge is critically dependent on the structural conditions, discussions should be focused on how to increase the efficiency of public investment, the absorptive capacity and the revenue raising capacity. Finally, the analyses clearly point to the danger of too much reliance on non concessional borrowing for public investment surge.

IV. Emerging patterns of Sovereign borrowing and Imperatives for Public Investment Surge in African LICs

On the whole, countries in SSA, where all African LICs are presently located, have significantly reduced their debt burden since 2006 largely thanks to the MDRI. Only 6 countries out of 27 African LICs have exceeded their CPIA-determined thresholds as measured in PV external debt to exports so far, while none of SSA countries have shown any distress in their ability to cover debt service payments by exports in 2011. This overall picture is confirmed by the recent IMF analysis of public debt, covering both external and domestic debt, of SSA countries. The most recent DSAs for 33 low-income countries classified 14 countries at low risk of experiencing external debt distress; 14 countries at moderate risk under some adverse scenarios; and only five countries at high risk of debt distress.

However, one of notable emerging patterns is that several “frontier” countries in Africa, including some LICs, started raising capital from international capital markets by issuing sovereign bonds after recording historically high growth at the back of resource and commodity boom over the past decade. Among 11 countries so far, some have issued for obtaining a benchmark for governments and corporate bond markets, while others issued for debt restructuring. However, Ghana, Senegal and Zambia - low-middle income countries (LMICs) - issued bonds for financing infrastructure in the energy and transport sectors. Certainly, several others, including LICs such as Tanzania and Rwanda have followed suit, despite the fact that not only do these bonds carry considerable currency risk, but these instruments are much more expensive than concessional borrowing in all aspects such as yields, spreads and bond types. Although the cost currently offered is not prohibitively high under the prevailing global environments of historically low interest rates, there is a risk of steeply escalating costs, as soon as interests start edging up and investors’ risk appetites shift abruptly. The maturity attached is much shorter, typically 8-10 years, compared with those available under concessional windows. For example, the standard IDA credit offered to LICs are payable over 40 years with a 10-year grace period with grant elements of 62 % at 6% discount rates, while blend term credit to LMICs is payable over 25 years with a 5-year grace period with grant elements of 35 %.

Furthermore, even among debt instruments, bonds can be more expensive for financing infrastructure projects compared with loan contracts structured for specific projects. Bond contracts can entail additional ‘carry costs’, and lack often flexibility. The history of sovereign debt restructuring processes is littered with difficult and costly negotiations, and internationally accepted, orderly workout mechanisms of sovereign bonds are yet to establish. Hence, restructuring sovereign bonds with private bond holders can be a very lengthy and costly exercise for LMICs and LICs at times of payment difficulties in future.

Information on precise terms of loans provided by emerging partners is not so easily obtainable. For example, the details of the negotiated contracts, and in particular the shadow relative prices used in the calculations for long-term barter arrangements implicit in China’s “resources for infrastructure” contracts, are not disclosed. It is reported that Chinese preferential loans charge on average an interest rate of 3.6 %, with a grace period of 4 years and a maturity of 14 years, which amounts to a grant element of less than 25 % and hence not classified as official aid according to the OECD-DAC definition. However, this cannot be easily verified, as the terms of each contract are usually left opaque and not disclosed. The degree of concessional elements is also known to be not uniform, with some variations observed depending on projects.

For the time being at least, with concessional borrowing from MDBs and RDBs far dominating, LICs in SSA have so far benefitted from obtaining most financing in their generous terms. Presently, borrowing from concessional windows plays a vital role in making LICs’ debt much more manageable than otherwise. However, resources available for concessional borrowing are limited and likely to be constrained or cut sharply given the scale of fiscal problems facing traditional donor governments. Even without much reduction, these traditional official sources are inadequate for filling the huge infrastructure deficits in the region. A temptation is very strong for resorting to less concessional debt instruments when demand for public investment scaling up is so high.

There is no doubt that most LICs in Africa are now at a critical historical juncture. It is blessed with new opportunities hitherto rarely available, while challenges facing policy-makers how to seize upon the new opportunities for turning optimism into reality are equally daunting. Key to realizing their development aspiration lies in the question whether they can facilitate the process of structural transformation by increasing both the scale and efficiency of productive investment. There is

universal acknowledgement of the urgent needs to scale up investments and address enormous infrastructure gaps the continent faces.

Indeed, productive investment is a critical link in the debt-growth nexus. That is, the paucity of *productive* investment, both private and public, does give rise to a negative feedback loop in the two-way causalities in the growth-debt nexus as vividly illustrated by the prolonged episode of the debt crisis of the 1980s and 1990s experiences by HIPC. Under the debt overhang condition prevailed then, a *vicious* circle was at work in the growth-investment-debt nexus, i.e. the causality running from high debt via lower investment to lower growth as well as from lower growth via lower investment to higher debt burden. This is exactly an opposite to the virtuous circle of the debt induced growth emphasised in the earlier post-war literature on the debt-cum growth model.

Therefore, one of critical policy questions is how to ensure that sovereign borrowing is used productively for investment and development, and growth dividends are delivered definitely and on time. That is, the real challenge confronting the development community is how to raise both the rate and efficiency of investment financed through debt instruments in LICs. If external borrowing is growth enhancing, the risk of over borrowing is rather small. Hence, it is imperative to examine these conditions under which different outcomes come about by exploring various debt-investment-growth links.

In SSA, with the advent of the debt crisis in the 1980s, fiscal retrenchment (hence, reduced spending on public goods provision) had been consistently pursued as part of the stabilization-cum-adjustment policies. Governments were generally left with little capacity and dwindling resources to implement development-oriented policies and in particular, to undertake public investment on a sustained basis. Typically, it is large-scale infrastructure projects that get first axed at times of crises. In reality, the fiscal retrenchment at the height of the debt crisis in the 1980s was so deep that essential public goods provision in social infrastructure such as basic education and health were also axed and it was then assumed that these services could be provided on a fee-paying basis. This had often resulted in a fragile state with a seriously depleted and impaired institutional capability to deliver social services and to build physical and social infrastructure. Under these conditions, the scope and quality of public social services and infrastructure provision had progressively deteriorated.

Particularly, the dwindling capacity to undertake public investment on the part of governments burdened with high debt resulted in their inability to promote, and crowd-in private investment. In the absence of reliable public goods provisions, economic transactions were conducted in highly uncertain and risky environments, which engender eminently volatile returns to investment and income streams, deterring private investment with a longer gestation. Such political and economic environments have also kept economic activities of private agents away from the *official* economy to the *informal* economy, reinforcing further the fiscal fragility. Hence, the poor public goods provision and the fragile fiscal condition develop its own loop of vicious circle for condemning an economy to a low equilibrium. In parallel, the donor community had steadily reduced aid to economic infrastructure projects in relative to overall aid as well as to social spending in the 1980s and 1990. These factors together have acted as a serious impediment to structural transformation of these economies. This is a sharp contrast to the East Asian experiences where economic infrastructure development has been well supported by the donor community throughout, which helped sustain high private investment and facilitated the process of structural transformation in a remarkably short period altogether.

Today, after such a costly neglect, the vital role of economic infrastructure and public investment for development in Africa is widely acknowledged. Emerging partners have become visibly active in

infrastructure development by providing preferential loans on the basis of a “coalition” engagement, i.e. a collaborative state-business approach through aid-trade-investment as a package through South-South Cooperation. The surge in interests in resource rich Africa from the new development partners has also had tangible spill-over effects, as private investors started targeting at some of African countries as one of key destinations of their direct and portfolio investment. Accordingly, debt dynamics in Africa would change dramatically with private capital flows and engagements by emerging partners. Their absorptive capacity of debt carrying capacity may increase gradually with these investment activities as well. After all, whether a potential *virtuous* cycle of growth-cum-debt could be finally established in LICs would depend critically on productivity of investment made with new capital and economy-wide rates of social returns from investment.

V. Policy Implications

The DGE model introduced recently as a coherent macroeconomic framework to underpin calibration and stress tests has made substantial improvements to DSAs in critical technical aspects. However, an increasing sophistication of the models and computation techniques applied to DSAs by itself does not substitute for engaging with the concept of debt sustainability at a deeper level. From this perspective, we argue that the present DSF requires substantial rethinking for its operational use as the definite tool for ensuring debt sustainability. More care and caution should be exercised when the DSAs are used for lending/borrowing decisions as a *prescriptive* tool. Instead, the DSAs should be regarded as an indicative guide for monitoring debt profiles and one of useful informational bases for prudent debt management.

The mechanical application of the DSAs is certainly harmful than useful. This is particularly so in light of problems associated with the CPIA-determined debt burden thresholds. Furthermore, the IFIs overstate the utilitarian value of the DSF in relation to today’s highly uncertain world. Any forecasting of debt burden indicators beyond a five year period or so is likely to lose a predictive power. Hence, much less weight should be attached to a predicted debt profile of a longer time horizon, even though forecasting over a 20 year period is still performed on account of concessional debt with a long grace/maturity. If the DSAs have an inherent tendency to produce systematically pessimistic projections of debt sustainability, the use of the DSAs rigidly at face value for lending/borrowing decisions amounts to sacrificing economic growth and development on the basis of the imprecise nature of exercises, as concessional loans are meant for financing development in LICs. Certainly, we could not make sensible decisions affecting economic development only on the basis of a 25 % of probability of debt distress as the DSF implies presently.

To facilitate development processes LICs are by nature indebted to development finance institutions and partner countries that provide aid. Development agencies are in business of providing development finance in concessional loans and grants. LICs are also by their nature much more vulnerable to exogenous shocks. An application of more refined models for prediction of debt distresses by itself cannot guarantee that the debt profile of LICs remain within a zone free from distresses. At the same time, we should bear in mind that indebtedness on its own would not pose a danger and debt can be made sustainable in principle, so long as sensible debt management and an appropriate facility to deal with adjustments to various shocks are in place, and accordingly illiquidity facing debtors are attended efficiently and timely.

In this context, a strong case can be made for establishing an *innovative* contingent facility to deal with exogenous shocks as part of programmes to make debt sustainable for LICs. Such a facility is badly missing in the current DSF. In fact, one of the fundamental weaknesses of the DSF is a missing facility for debt distress management. It systematically avoids addressing a critical question of how to

deal effectively with downside risks facing LICs which are subject to frequent exogenous shocks. Insofar as vulnerability to shocks represents a key determinant of debt distress, any debt sustainability framework that does not effectively translate vulnerability assessments into appropriate policy responses in terms of liquidity provision is bound to fail in providing a lasting solution to debt distress. Under the current practice, the DSF can create a false sense of security as if they are free from debt distress altogether, so long as LICs adhere to the recommendation resulting from the DSA exercises.

Now, we can recall that the protracted debt crisis in HIPCs is associated with the absence of an effective and flexible facility of *contingency financing* to deal with external shocks facing HIPCs on an *ex-ante* basis. Throughout 1980s and 1990, official creditors had instead kept applying *ex-post* debt relief mechanisms with policy conditionality attached in response to recurrent liquidity crises and the ensued ‘debt overhang’ condition. Given this history, it is best to structure aid and debt contracts *ex ante* with an automatic debt relief mechanism incorporated already in original sovereign debt contracts. There are several proposals on table. One of them is the Counter-Cyclical Loan facility (CCL) - a proposal based on the research project carried out jointly by the AFD and OECD. It involves a reduction of the grace period of a typical concessional loan from ten to five years, while keeping the remaining grace periods as an asset that the country can draw upon, when a negative shock takes place.

Another is a *state-contingent* debt relief facility in which contingency is explicitly indexed to a verifiable *state of nature* (i.e. “good” or “bad” events occurring in future) rather than to debtor’s capacity to pay such as GDP growth to eschew the ‘incentive’ problem. It would entail explicitly addressing a potential moral hazard problem by distinguishing between the consequences of a borrower’s own efforts and events beyond her/his control instead. This is important because standard sovereign debt contracts do not make a distinction between ability and willingness to pay. The state-contingent contract is incentive-compatible, and more efficient than standard sovereign debt contracts because it specifies contractual obligations by borrowing and lending parties contingent on the ‘nature of states’, and hence deals explicitly and effectively with uncertainty associated with exogenous shocks. Lending institutions would bear obligations associated with global systemic risk, while sovereign borrowers take responsibility for outcomes of their own actions. *State-contingent* debt contracts would allow sovereign borrowers *automatic* access to contingency financing when they are hit by adverse unforeseen events outside their control, by-passing protracted time-consuming negotiations. Thus, such a contingency facility can make policy makers more accountable to domestic stakeholders for their decisions on policies and subsequent courses of action, since the outcome of their efforts are made transparent by netting out external shocks and events.

The two proposals outlined above are a facility with a *pre-qualified automatic line of assistance* at times of debt distress by introducing flexibility of adjusting either the grace periods or subsidised interest rates into contracts. Giving assurance that liquidity is made available immediately upon shocks through such a facility can create incentives for sovereign borrowers to make efforts for attaining better performance than the current CPIA-centred performance based aid allocation and DSF. It would also provide a space and time for more orderly sovereign debt restructuring without having pressures from immediate liquidity crises, even if shocks are of rather prolonged nature. Sovereign borrowers are then encouraged to focus on achieving development objectives. Such a contingent debt contract can also incorporate a clause of accelerating repayment schedules at times of positive shocks such as commodity booms.

As a premier development finance institution, the African Development Bank could take an initiative of pioneering an effective contingent facility into its own concessional loan contracts offered to

RMCs. The facility itself can self-finance such a scheme at least partially through making some adjustments to the grace periods or raising marginally subsidised interest rates of the standard loan contracts issued under the African Development Fund (AfDF). More generally, the terms of loan contracts offered under the AfDF may be too standardised to fit the different purposes of loan usages. Presently, lending terms of regular loans of the AfDF are a 50/10-year maturity and grace period with no interest payments attached, and a very attractive repayment schedule, making estimated concessionality at 66% at discount rate of 6 %. It offers blend/gap countries loan contracts packaged with a 30/8-year maturity/ grace period, interest rates of 1 %, making concessionality of 41 %. These are one of the most generous terms available among all development financing facilities. There is a proposal to sub-divide regular loans into regular and advanced regular loans with a shorter grace/maturity period of 10/40 years and 5/40 years and some adjustments to repayment schedule respectively with concessionality elements of 61 % and 51 % respectively, while reducing concessionality of blend terms to 35 %.

Comparison across the loan facilities reveals a huge difference in lending terms between highly concessional loans offered by MDBs and very expensive commercial instruments. The availability in the “bipolar products” has given rise to a very marked “missing middle” in the spectrum of financial products. Loan packages offered by emerging partners for infrastructure and other investment appear to play a vital role of filling this “missing middle”. This may well explain the popularity of loans offered by emerging partners, in addition to quicker disbursement and no ‘policy’ conditionality attached. Evaluated from this perspective, though the rationale given is understandable and monitoring of all debt levels is important, the non-concessional borrowing policy (NCBP) enacted in fear of “free-riding” on the part of non-traditional sovereign lenders may be somewhat misplaced. The crux of the matter is again more to do with questions such as whether financial deals from emerging partners are carefully considered in interests of RMCs, in prior to taking up, in their appropriateness for financing the project in question and whether investment thus financed would produce high growth and development dividends on time to honour repayment schedule. What is more helpful for MDBs such as the AfDF is to introduce more flexibility in their debt contracts, and provide a variety of financial instruments and products with a varied degree of concessionality, probably more differentiated and individually packaged for different usages in all aspects of lending terms in a country-specific context.

Furthermore, the AfDF is currently handicapped with the very limited resource envelope for playing a leading role in provision of concessional finance, as it is mainly sourced from grant contribution by partner countries. Providing loans in differentiated products, in particular, shortening the grace/maturity periods, accelerating the amortization period, or charging slightly higher subsidized interest rates in some portions of the AfDF’s contracts would eventually enhance its resource base by increasing reflows from repayment of principals on outstanding credits. As part of its own resource mobilization, the African Development Bank may also consider making resource transfers between its Fund and Bank facilities easier, whenever this is appropriate, by offering financial products that can be jointly financed by the Fund and Bank. It would lead the AfDF *indirectly* accessing to international capital markets on the terms available to the Bank operation, which currently enjoy the AAA rating. Given the historically low interest rate environments currently prevailing, there is a temptation for the AfDF to go for raising funds directly from international capital market on behalf of some RMCs on accounts of its own strong balance sheets. This can be done only if prudential risk assessment would permit. The African Development Bank could support large-scale transformational projects by providing partial credit guarantees based on its solid country-specific knowledge and high quality technical assistances. This would allow RMCs leverage in additional funding from private

sources on more favourable terms. Encouraging co-financing projects with concessional loans from partner countries or other MDBs such as IDA would also allow many big investment projects to go ahead. It is also helpful to encourage, wherever it is appropriate, a mixed financing mode combining concessional loans and equity participation through PPP schemes, tailor-made for individual investment projects.

As final concluding remarks, we again highlight the importance to draw appropriate, invaluable lessons from the historical experiences to understand under which conditions debt cannot be growth-enhancing, and what should be done to avoid the repeat of the protracted debt crisis that had trapped many LICs in a low equilibrium of low growth with high debt. Key to preventing this is, first of all, the rate and efficiency of investment where loans are deployed. Therefore, a critical analysis of *what* and *how* debt is used for should be a part of debt sustainability analyses. Debt contracted by LICs can be made sustainable if concessional loans are effectively and responsibly deployed for efficient investment in projects with high social returns with a view to overcoming structural handicaps these countries currently suffer.

Second, it is important to design more efficient debt contracts so as to align better the incentives for sovereign borrowers and lenders as development partners. This would enable borrowers and lenders to forge a true partnership for engaging in the development *process* of LICs while strengthening sovereign borrowers' debt carrying capacity. Taking a long term view of economic development process, we should endeavour to create a forum for debt sustainability through participatory sovereign debt management as a way forward for making debt truly sustainable. It is up to responsible lenders and borrowers to make sure that concessional loans and debt instruments are used to facilitate the process of transformation of their economic structures, while consolidating their debt servicing capacity over time. In this endeavour, the African Development Bank can assume a leading role by providing local institutions with technical assistances in project management through project cycle as well as in structuring appropriately financial products. The DSAs should be used in this process as one of monitoring devices, not the dominant prescriptive tool.