

INTERNATIONAL DEVELOPMENT ASSOCIATION
INTERNATIONAL MONETARY FUND

**THE EVOLUTION OF PUBLIC DEBT VULNERABILITIES IN LOWER INCOME
ECONOMIES**

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Prepared by the staffs of the World Bank Group and the International Monetary Fund

Approved by Marcello Estevão (WB) and Seán Nolan (IMF)

The World Bank team was led by Luca Bandiera and included Sebastian Essl, Diego Rivetti, Yuto Kanematsu, Zeljka Sedlo, and Ying Li under the overall guidance of Doerte Doemeland. The IMF team was led by Dalia Hakura and included Narcissa Balta, Amr Hosny, Mike Li, Keiichi Nakatani, Yahia Said, and Modeste Some (all SPR), and Dimitris Drakopoulos, Rohit Goel, Thor Jonasson, James Knight, and Miriam Tamene (all MCM), under the overall guidance of Mark Flanagan. Research assistance was provided by Samuel LaRussa and Joyce Saito.

EXECUTIVE SUMMARY

Public debt in lower-income economies (LIEs) has risen in recent years, with half of the countries covered in this report now assessed to be at high risk of or already in debt distress.

The pace of debt accumulation has slowed somewhat since 2017, helped by gradual recovery in oil-exporting LIEs. But debt-to-GDP ratios have continued to rise in non-oil exporting LIEs, reflecting increased commercial borrowing, which worsened interest-growth differentials, and large primary deficits.

Accommodative global financial conditions and expanded funding from non-Paris Club creditors have allowed LIEs to mobilize larger volumes of external financing. Expanded access to credit has provided opportunities for borrower countries to accelerate development, provided that the additional funding is used effectively. But increased reliance on funding on commercial or near-commercial terms has raised the exposure of LIEs to interest rate, exchange rate, and rollover risks. Also, recent experience indicates that the increasingly diverse creditor base and types of debt instruments used can complicate (and lengthen) the process of debt restructuring, where such restructuring is needed. Rising debt servicing costs, now at multi-year highs, are diminishing already constricted fiscal space.

Staffs' projections point to a gradual decline in debt levels over the next five years, but these projections in many cases, are dependent on ambitious fiscal adjustment and growth assumptions (a feature also observed in IMF (2018a)). There are also downside risks to the projections from potentially weaker global growth and rising protectionism, which would reduce demand for LIEs' exports.

Important gaps with respect to debt management and debt data transparency remain. Evaluations by World Bank staff point to some improvement in debt management strategies in recent years, while several LIEs have expanded debt coverage to include guarantees and contingent liabilities and have improved public debt reporting. But many countries still have much to do in expanding the coverage of public sector debt data and in improving debt management governance. The multi-pronged approach (MPA) provides a framework for the IMF and the World Bank to help LIEs address debt vulnerabilities and close these gaps.

Countries with significant debt burdens face a difficult trade-off between scaling up public investment to meet ambitious development objectives and containing debt vulnerabilities. Higher inflows of ODA (official development assistance), coupled with efforts to boost domestic revenue mobilization, attract more foreign direct investment and improve spending efficiency can ease this trade-off, but the fundamental tension will likely remain in many, if not most, LIEs.

Amid diminishing fiscal space and increasing debt vulnerabilities, countries need to create room to implement countercyclical fiscal policy in the face of shocks. Policy priorities for LIEs include mobilizing additional domestic revenues, improving spending efficiency and public investment management, and strengthening debt management and governance. For official creditors, adherence to sustainable financing practices that pay appropriate attention to maintaining

debt sustainability in borrower countries, including by providing financing on more concessional terms, can help borrowers meet development objectives while maintaining debt sustainability.

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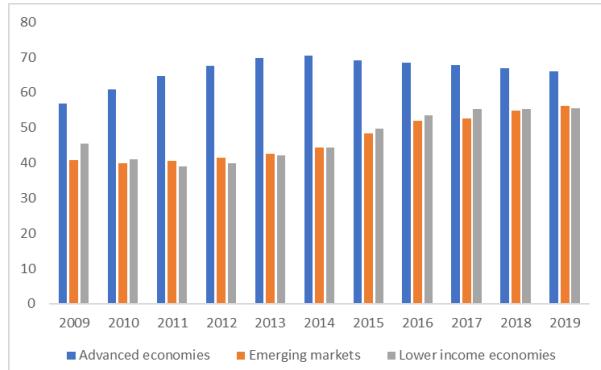
I. MOTIVATION AND OBJECTIVES

1. Median public debt levels hover at multi-year highs across the globe (Figure 1).¹ While public debt of advanced economies has stabilized in recent years after sharply increasing in response to the 2008 Global Financial Crisis (GFC), debt levels have continuously risen in lower-income and emerging market economies since 2012. The importance of public debt in lower-income economies (LIEs) can be very different than in advanced and emerging market economies.² Developing countries disproportionately use public borrowing to finance infrastructure projects versus developed economies which have more access to private borrowing. Moreover, some analysts (Kim and Zhang, 2019; Calderon and Zeufack, 2019) have shown that increases in public debt ratios can have important negative implications for developing countries growth prospects.

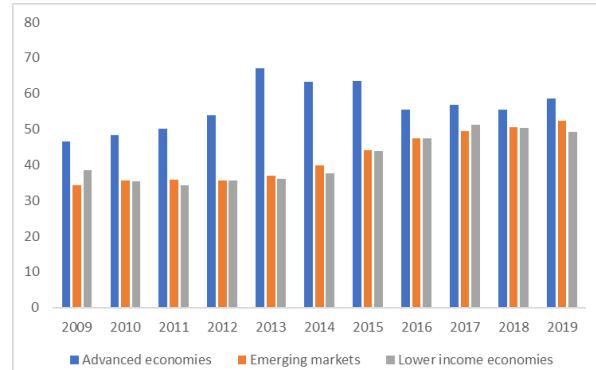
2. This paper focuses on public debt trends in LIEs, which itself is a diverse group. Within this broad grouping, the analysis examines the experience of: (i) low income developing countries (LIDCs),³ allowing direct comparison with the analysis in IMF (2018a) and IMF-World Bank (2018c); (ii) small states; and (iii) selected frontier economies. The paper also distinguishes countries by fragility, resource dependence (commodity exporters—fuel and non-fuel—and others), and their Heavily Indebted Poor Countries (HIPC) status.

Figure 1. Public Debt-to-GDP Across Income Groups

Simple Average



Median



Source: WEO.

¹ In the LIC DSF, public debt is defined as public and publicly guaranteed (PPG) debt. In the WEO public debt is defined as public debt of the general government (which for many LIEs is the same as the central government). In the International Debt Statistics, PPG debt refers to external debt only.

² LIEs are eligible for concessional financing from the World Bank (IDA-eligible countries) through the IDA18 period (FY18–20) in line with the IMF and World Bank (2015) (Annex 1). Bolivia, Sri Lanka and Vietnam graduated from IDA at end FY2017, but are receiving transitional support on an exceptional basis through the IDA18 (FY18–20) period and are, therefore, also included in the sample. This includes all Poverty Reduction and Growth Trust (PRGT)-eligible countries as well as six recent PRGT graduates (Bolivia, Mongolia, Nigeria, Pakistan, Sri Lanka, and Vietnam).

³ LIDCs includes all 59 IDA-only, PRGT eligible countries. Compared to LIEs, LIDCs exclude 13 high-income small states, and 4 countries that have graduated from PRGT-eligibility since 2010.

3. The macroeconomic environment for LIEs has become somewhat more supportive of late to addressing debt vulnerabilities while simultaneously pursuing development objectives including the 2030 Sustainable Development Goals (SDGs). Economic growth is projected to firm in LIEs in 2019 despite weakening global growth. Continued accommodative monetary policies in advanced economies has been facilitating a continued flow of financing to LIEs. The availability of external financing, including from new creditors, is allowing public investment to accelerate in many countries. These positive developments are important to help LIEs work toward achieving the SDGs, provided public debt vulnerabilities can be contained.

4. In line with the Executive Board's request to enhance monitoring and reporting of the debt situation of LIEs, this paper updates and extends the analysis of debt developments in IMF-World Bank (2015, 2018c), IMF (2018a) and World Bank (2018). The paper's focus is on emerging debt issues and developments since 2017. The paper is divided into four parts. Against the backdrop of global developments, the first part examines the evolution of public debt levels and debt vulnerabilities. The second part examines the evolution of the creditor base and the type of credit on offer. The third part of the paper analyzes the debt outlook, risks, and prospects for the supply of credit to LIEs. The fourth part of the paper examines developments in public debt management and transparency in LIEs; and reviews the lessons learned from recent debt restructuring cases.

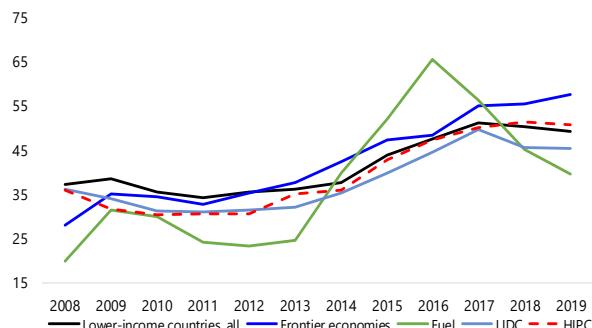
II. EVOLUTION OF DEBT AND DEBT VULNERABILITIES IN LOWER-INCOME ECONOMIES

5. Median public debt in LIEs appears to have stabilized since 2017 after increasing persistently from 2011:

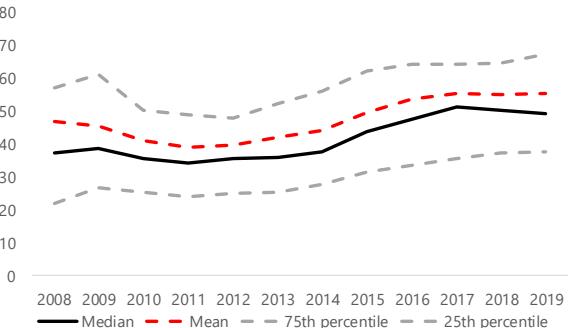
- The median public debt-to-GDP ratio for LIEs as a group is projected at 49 percent of GDP in 2019 down by 2 percentage points from 2017. The narrower group of LIDCs are expected to see a similar improvement. Movements of the median level of debt do not fully capture developments over this period; the public debt-to-GDP ratio is expected to have risen in 49 of 76 LIEs and in 41 of 59 LIDCs.
- The public debt-to-GDP ratio for fuel exporters declined thanks to firming international oil prices, recovering real exchange rates, gradual fiscal consolidation, and debt restructuring (Chad and Republic of Congo). Other sub-groups (HIPC and frontier economies) continued to experience an increase in public debt, though at a slower rate (see Figure 2).
- Thirteen countries are estimated to achieve debt reductions of more than 5 percentage points of GDP between 2017 and 2019 thanks to growth-friendly fiscal consolidation efforts, several supported by IMF programs. By contrast, public debt ratios are estimated to have increased by more than 5 percentage points in 20 countries.

Figure 2. Public Debt-to-GDP in Lower-Income Economies, 2008–19

By Subgroup



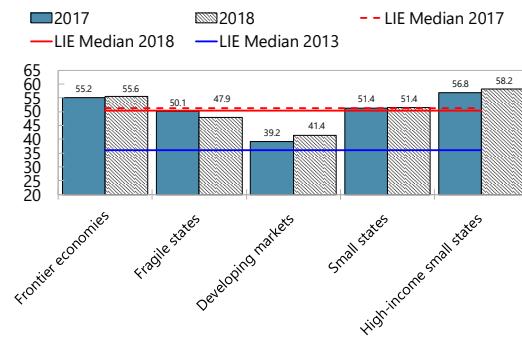
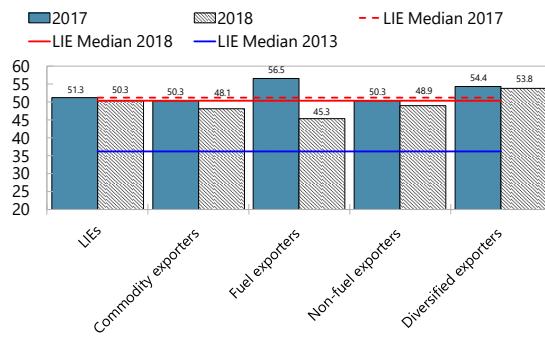
By Percentile



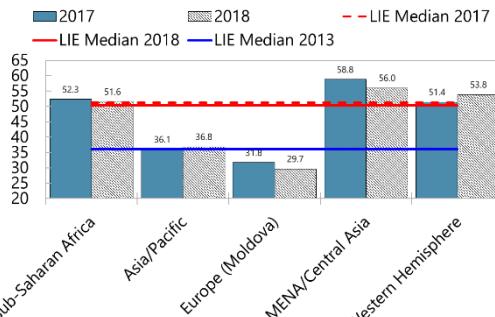
Source: WEO.

Figure 3. Median Public Debt Accumulation in Different Groups

By Country Group



By Region



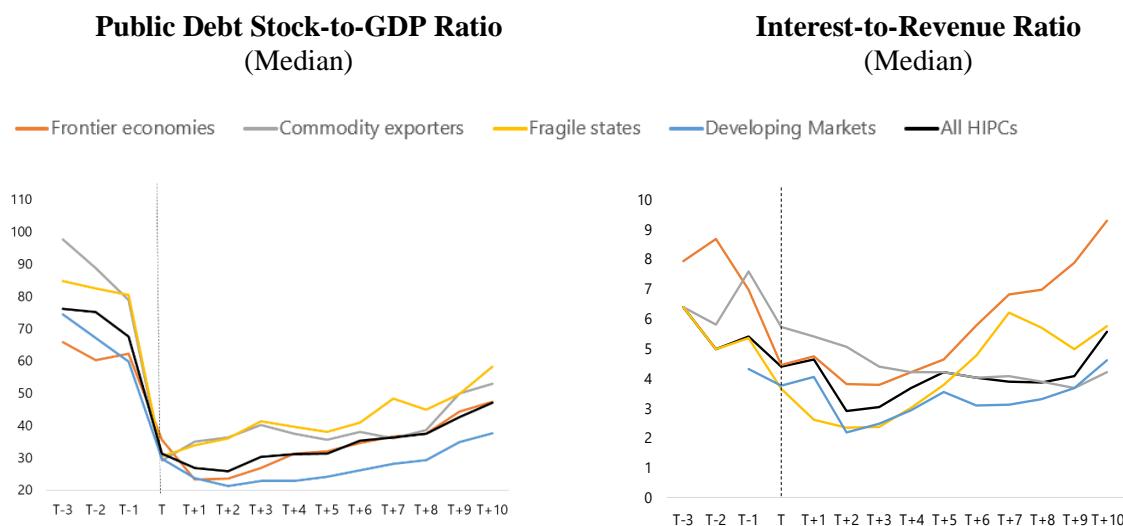
Sources: WEO and country DSAs.

6. The interest burden has continued to rise (Figure 4). The average interest to revenue ratio is expected to rise to 8.7 percent in 2019 up by 0.9 percentage points in 2017, extending the rise from 6.3 percent in 2013. In a few country cases the interest burden exceeds pre-HIPC levels (Box 1). Frontier economies saw a much larger increase in interest burdens between 2017 and 2019 (1.9 percentage points), which can be attributed to increased reliance on market financing, both from international and domestic debt markets. The sustained increase of borrowing costs is confirmed by a steady increase in effective interest rates. Gross fiscal financing needs show broadly the same pattern. On average, debt service burdens are the highest in sub-Saharan African countries. By contrast, debt service burdens have eased somewhat for countries in the Middle East and North Africa (MENA)/Central Asia following an earlier runup through 2016.⁴

⁴ Djibouti is an exception because of large non-concessional debt financing contracted to finance investments in railways and water management.

Box 1. Debt Developments after HIPC/MDRI Debt Relief

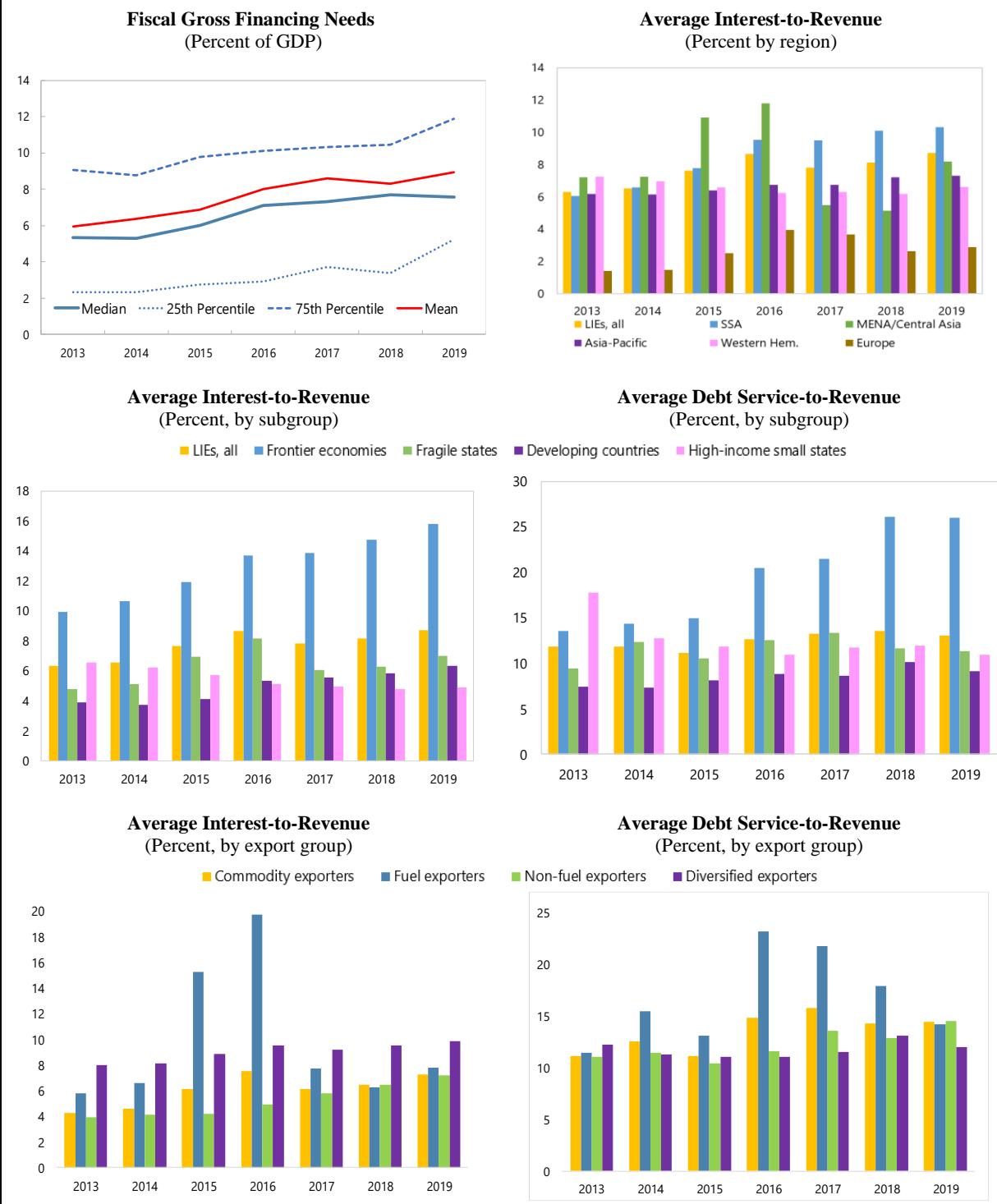
HIPC/MDRI recipients' interest-to-revenue ratios have steadily increased, in some cases to above pre-HIPC levels, adversely affecting fiscal flexibility. The interest-to-revenue ratio on external debt has risen in half of the countries that benefited from HIPC debt relief above the pre-HIPC Completion Point level. Higher interest rates along with increased debt stocks have contributed to increased debt service costs. For example, in Ghana and Zambia, the interest-to-revenue ratios for 2018 are up by around 15 and 10 percentage points respectively, from those observed three years before the respective countries' HIPC/MDRI completion point. HIPC/MDRI recipients—especially frontier economies—gradually filled borrowing space created by HIPC/MDRI debt relief with less concessional external loans and domestic borrowing. Now 20 percent of HIPC/MDRI recipients have public debt-to-GDP ratios larger than those observed one year before the HIPC completion/MDRI point. The GDP per capita (measured in constant U.S. dollars) in HIPC/MDRI countries increased by a median of 30 percent between 2018 and the year before the completion point. Over the same period, absolute poverty rate dropped from a median of 53 percent one year before the completion point to a median of 41 percent in 2018.



Sources: WEO and country DSAs.

Note: T is set at the year when a country reached HIPC Completion Point or MDRI, whichever came later (HIPC/MDRI completion point). The number of countries in the sample shrinks over time as actual data are available only through 2018. "Completion Point" rather than "Decision Point" is used to determine "T" given a comprehensive stock-based debt relief was provided at the completion point. As a result, the effect of debt relief may be underestimated since some debt relief may have already occurred prior to completion point.

Figure 4. Interest and Debt Service to Revenue Ratio



Source: WEO.

7. Debt drivers vary across country groups (Figure 5). Fiscal deficits have been a key source of debt accumulation in all country groups, except small states. For frontier economies, while the debt-reducing impact of economic growth is larger than for LIEs, the contribution of interest is comparatively large due to access to more diversified financing sources and to a steady increase in debt. Though the impact of the 2013-14 commodity price shock on fuel exporters' deficit was striking, backed by a gradual improvement in oil prices, fuel exporters have experienced appreciation and fiscal adjustments stabilizing public debt. Their negative residuals suggest some countries' use of reserves or other external assets to meet financing gaps created by lower oil prices. For developing countries, positive residuals associated with government guarantees for investments and debt associated with PPP projects not captured in the fiscal accounts have been among the key drivers of debt accumulation.⁵ Small states used grants from development partners to build up trust funds or other forms of funds (e.g. revenue stabilization or natural disaster funds) contributing to positive residuals.

8. Overall, LIEs' underlying debt dynamics have worsened over the last decade. While primary deficits have been volatile, they are projected to be broadly in line with the long-term average in 2019. However, the real interest-growth differential, another key debt driver, has been on a rising trend, by contrast with advanced economies, where interest-growth differentials have been steadily declining thanks to accommodative monetary policy (Figure 6). LIEs' negative differentials are usually explained by a combination of debt borrowed at concessional terms, financial repression and higher growth potential. The narrowing of the differential in recent years is partly due to softer growth rates, underscoring the need to further improve the efficiency of debt-financed public spending. At the same time, interest costs have risen reflecting rising interest rates from market borrowing especially for frontier economies.

9. Information on external debt held by SOEs is limited. There are indications that reporting on SOE debt in the World Bank's *International Debt Statistics* database is likely to be incomplete.⁶ The reported data for LIEs shows low SOE debt, mainly concentrated in the energy, financial, transport and telecommunications sectors (median total external debt to GDP of 0.3 percent of GDP). Figures for SOE debt reported in DSAs have been larger in some countries, for instance reaching 4.5 and 1.3 percent of GDP in Zambia and Ghana, respectively. And a recent academic study by Horn, Reinhart and Trebesch (2019) on lending by China has found that an important amount of this lending may have been channeled through SOEs (see paragraph 30 and Box 2). Incomplete reporting on SOE debt raises significant concerns of hidden direct and contingent liabilities.

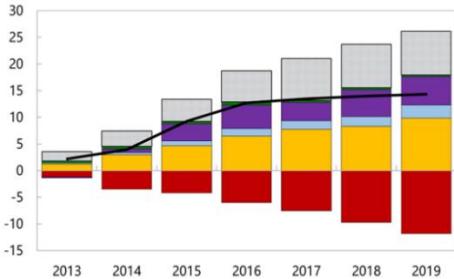
⁵ These would include implicit contingent liabilities that are recognized by a government.

⁶ Lack of reporting of SOEs liabilities does not necessarily constitute hidden debt, but rather the lack of capacity of the countries to collect such information, as well as limitations in their legal frameworks to capture such reporting.

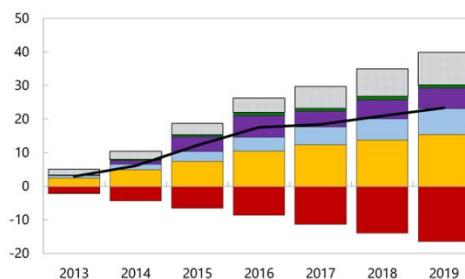
Figure 5. Debt Decomposition 1/
 (Cumulative change in percentage points of GDP)

Primary deficit Growth Real Interest Rate
 Real Exchange rate Other flows Residual

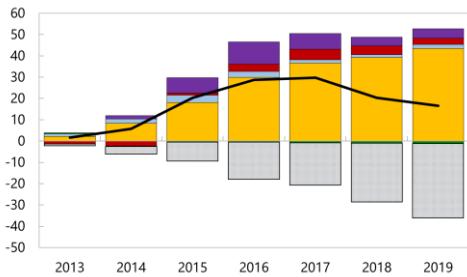
Lower-Income Economies



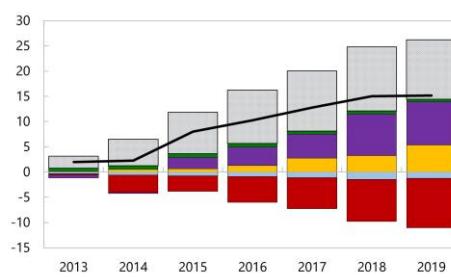
Frontier Markets



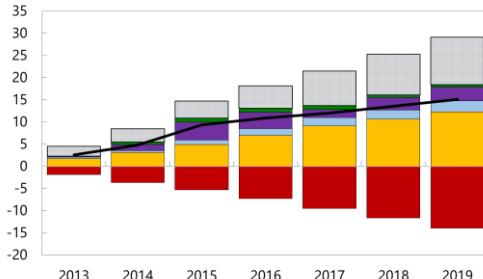
Fuel Exporters



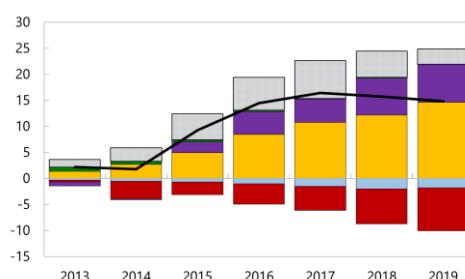
Non-Fuel Commodity Exporters



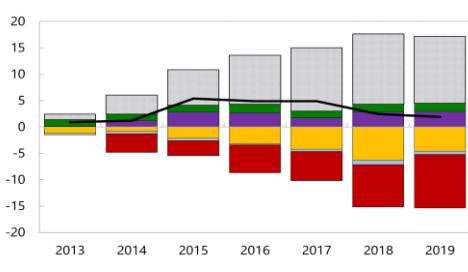
Developing Markets



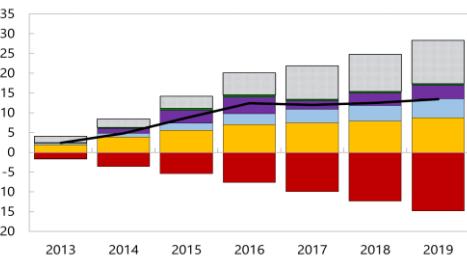
Fragile States



Small States



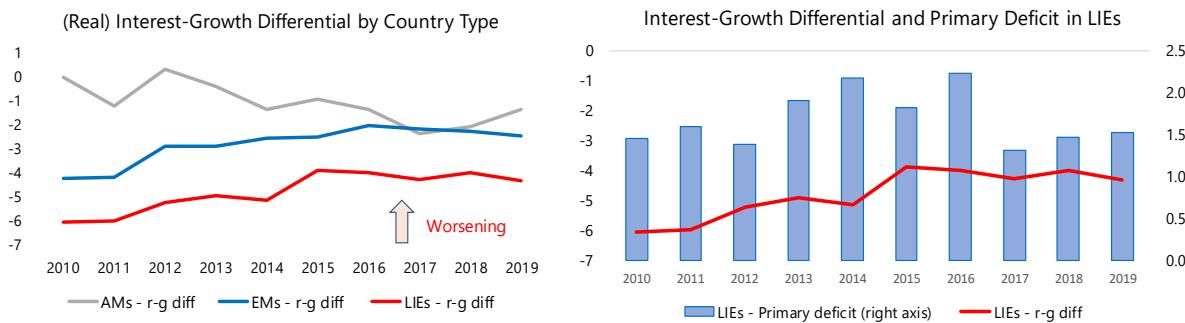
Diversified Exporters



Sources: WEO, LIC DSA Database, IMF staff calculations. Simple averages for each country group.

1/ Positive residuals tend to be associated with issuances of government guarantees or on-lending to the broader public sector, emergence of contingent liabilities, and governments' assets accumulation. Negative residuals tend to be associated with liquidation of assets to finance financing needs and debt relief.

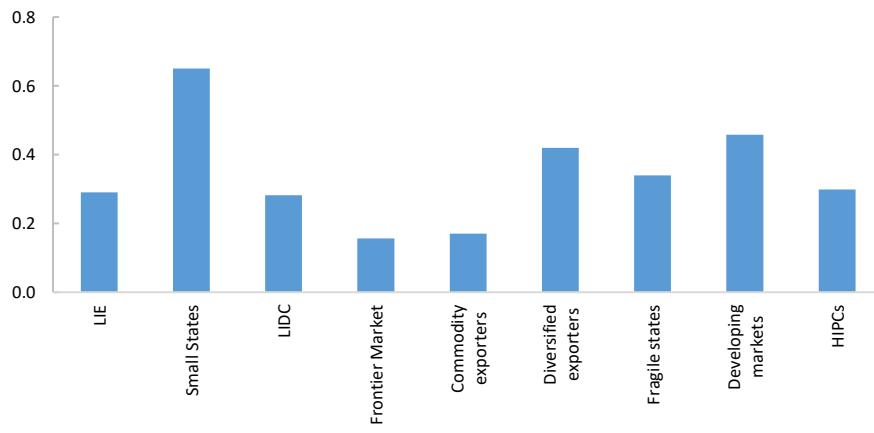
Figure 6. Interest-Growth Differential and Primary Balance



Source: WEO.

Figure 7. External Debt of Non-Financial SOEs

(in percent of GDP, median)

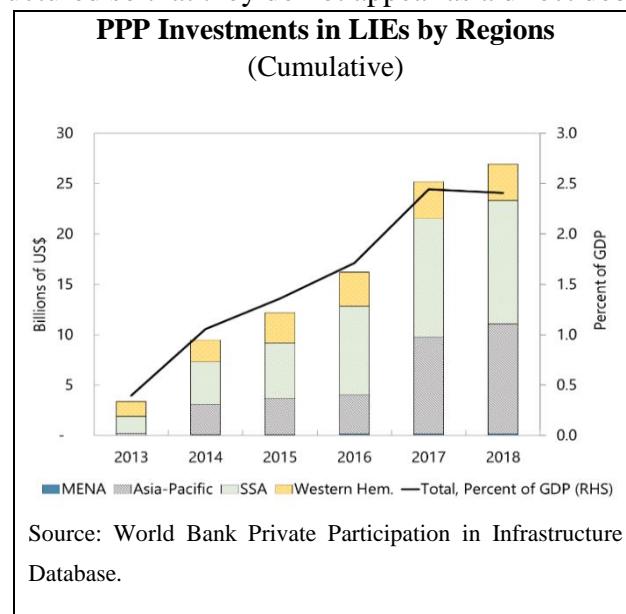


Sources: IDS and World Bank's staff calculations.

Note: SOEs are defined as (i) public corporations, incorporated or unincorporated entities wholly owned by the governmental sector. Both non-financial and financial corporations are included, except for official development banks; and (ii) mixed enterprises, incorporated or unincorporated entities, financial and nonfinancial (excluding development banks), in which the public sector has more than 50 percent (but less than 100 percent) of voting power.

10. Other contingent liabilities, including from public-private partnerships (PPPs) have continued to rise. PPP transactions are often structured so that they do not appear as a direct debt of the government.⁷ Even if they do not create contractual debt liabilities, PPP projects can represent significant contingent liabilities for the government. PPP investments have been substantial in a handful of LIEs, including Ghana, Lao PDR, and Honduras. These three countries together account for almost half of the total cumulative PPP investments in LIEs over 2013-2018. In terms of regional distribution, sub-Saharan Africa and Asia and the Pacific account for the lion's share of total PPP investments.

11. Overall, debt related risks remain high, but the pace of downgrades has recently moderated (Figure 8). Half of LIEs for which Bank-Fund staff use the LIC DSF are currently assessed at high risk of external debt distress or already in debt distress (Figure 8). For the LIDC group (which excludes the high-income disaster-vulnerable small states and some recent PRGT graduates), 44 percent of countries are at high risk or in debt distress. Since 2017, there have been nine downgrades and four upgrades in risk ratings (Table 1).⁸ Overall, ten countries, of which all but two are fragile states, are assessed to be “in debt distress” as of end-2019 (Eritrea, the Gambia, Grenada, Mozambique, the Republic of Congo, Somalia, Sao Tome and Principe, Sudan, South Sudan, and Zimbabwe).



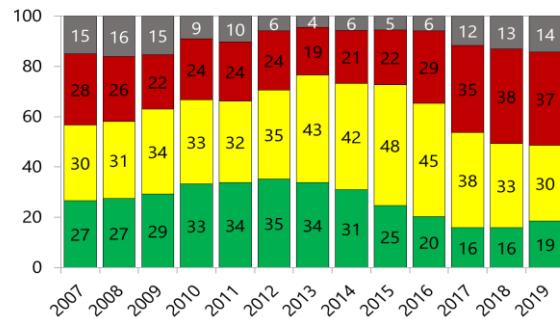
⁷ The statistical treatment as to whether PPP contracts create debt liability depends on the economic ownership (not legal ownership) of the assets involved.

⁸The introduction of the revised LIC DSF adopted in 2017 and operationalized in July 2018 revised upwards the debt carrying capacity of 17 countries rated at low and moderate risk of external debt distress. Under the previous DSF, 4 of these countries would have been at risk of being downgraded.

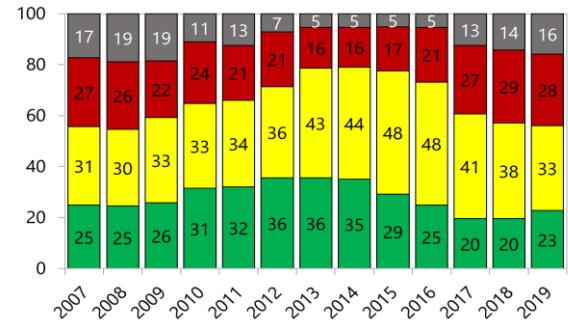
Figure 8. Evolution of Risk of External Debt Distress
 (Share of countries with LIC DSAs)

■ Low ■ Moderate ■ High ■ In debt distress

LIEs Applying LIC-DSA



Low-Income Developing Countries (LIDCs)



Source: LIC DSA Database as of End-October 2019.

Note: 69 out of 76 LIEs applies the LIC DSA, LIDCs constitute 59 countries (57 LICs).

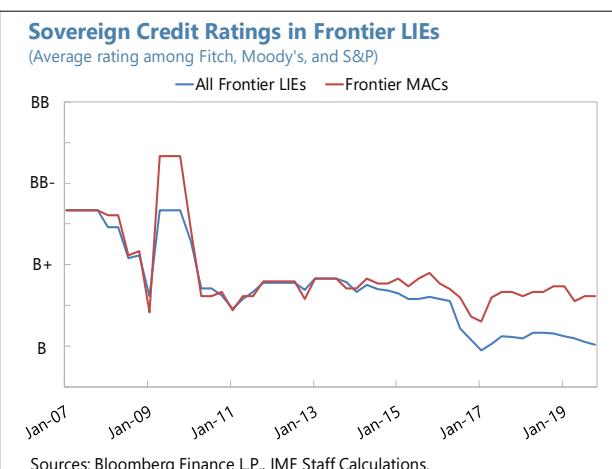
Table 1. Recent Changes in Risk Ratings under the LIC DSA, 2017–19

| | 2017 | 2018 | 2019 | Main reason for a change in risk of external debt distress |
|-----------------------|------|------|------|---|
| Downgrades | | | | |
| São Tomé and Príncipe | H | D | D | Prolonged rescheduling negotiations on external arrears. |
| Gambia, The | H | D | D | Entered into restructuring negotiations. |
| Mozambique | | D | D | SoE's hidden debt, delayed fiscal response to lower commodity prices, and large FX depreciation. |
| Congo, Republic | | D | D | Large fiscal deficits to finance ambitious investment projects and raise public sector wages, and a collapse in oil prices. |
| Tonga | H | | | Large financing needs created by a large-scale natural disaster (cyclone). |
| Sierra Leone | M | H | | Weaker fiscal performance. |
| Ethiopia | H | H | | Ambitious investment plans mainly financed by non-concessional loans. |
| Kenya | | M | | Ambitious investment plans mainly financed by non-concessional loans. |
| Lesotho | | L | M | Weak fiscal and economic performance, and larger debt coverage and contingent liabilities. |
| Upgrades | | | | |
| Chad | D | H | H | Debt restructuring agreement with a large private sector creditor. |
| Honduras | M | M | L | Good fiscal and economic performance along with an improvement in debt carrying capacity. |
| Timor-Leste | M | | L | More realistic investment plans and the use of judgement reflecting the settings of the petroleum fund. |
| Madagascar | M | M | L | Good fiscal and economic performance. |

Source: 2017-19 LIC DSAs (as of end-November 2019).

Note: D: in debt distress, H: high, M: moderate, L: low. Color of cells with no ratings indicate rating in the last available DSA.

12. Debt levels have also steadily increased in frontier economies who use the Market Access Country (MAC) DSA, but their sovereign credit ratings have remained broadly unchanged. These users' median debt has steadily increased to 65 percent of GDP in 2019 from 60 percent of GDP in 2015. Both public debt and fiscal gross financing needs (GFN)-to-GDP ratios for Bolivia, Nigeria, and Vietnam have stayed below the debt burden benchmarks for MAC DSA under the baseline as well as stress tests, whereas those for Mongolia, Pakistan, and Sri Lanka



signal high risk by already breaching the benchmarks under the baseline.

III. DEBT STRUCTURE

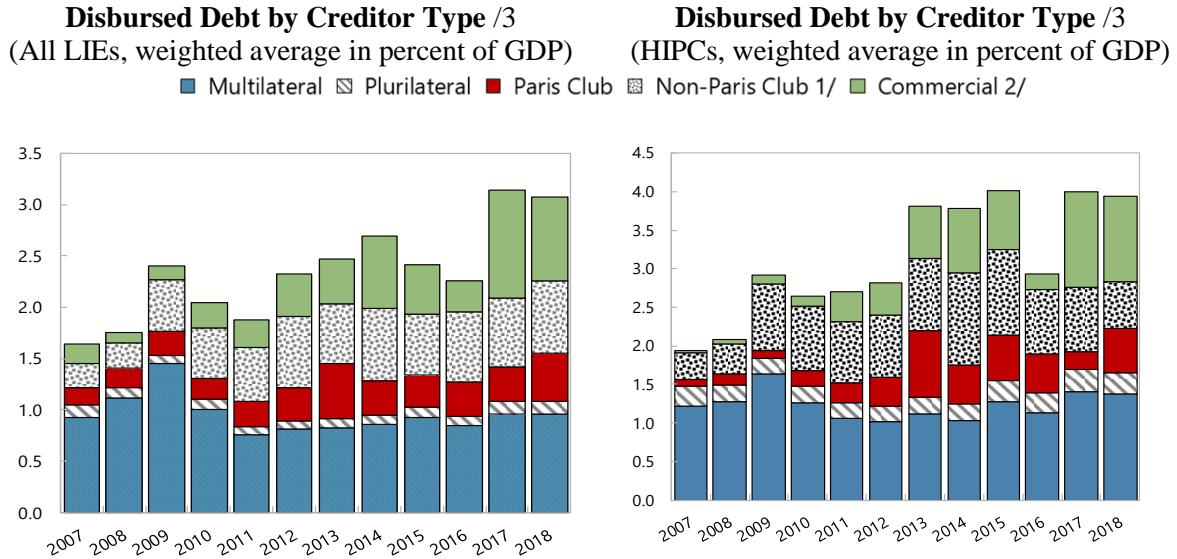
A. Creditor Composition

13. The creditor structure has continued to evolve over the past two years, with commercial lending, particularly foreign currency bonds, outpacing other financing sources as overall credit continued to grow (Figure 9):

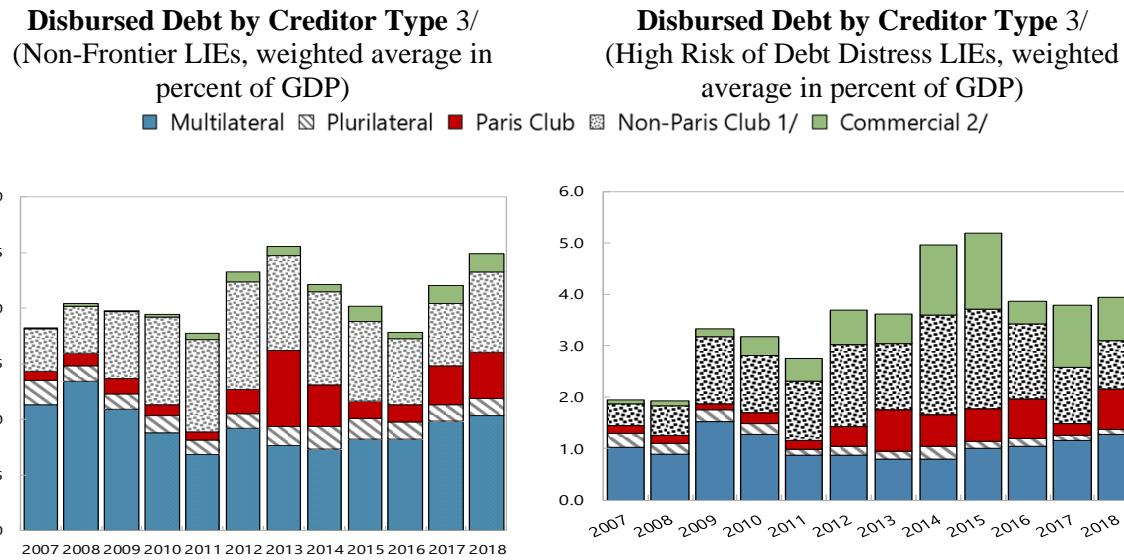
- **Multilateral lending.** Outstanding multilateral debt has grown by a percentage point of GDP between 2016 and 2018, arresting the decline in LIEs' debt owed to these lenders observed during 2010-2016.
- **Official bilateral lending.** Debt owed to Paris Club creditors has continued to decline since 2016. Debt owed to non-Paris Club creditors remained broadly flat following a rise during 2010-2016. The scale of China's lending has increased but the precise magnitude remains unsettled (see Box 2).
- **Commercial creditors are playing an increasingly important role as a source of bond debt.** Bond issuance has continued to grow since 2016, with the share of bond debt in LIEs economies rising by an average of two percentage points of GDP per annum on new entrants and larger issuances. Since 2010, foreign-currency denominated bonds have been the fastest growing source of financing for frontier LIEs, mainly in sub-Saharan Africa. Eurobond issuances have almost tripled from an average of \$6 billion per annum during 2012-16 to about US\$16 billion per annum in 2017-2018 and several countries have become new issuers. Participation is still concentrated, however, with only 22 issuers among LIEs, of whom the top ten account for almost 90 percent of borrowing since 2004. For some of these economies, relative to their size, issuance levels are similar to those of emerging market economies. Annex 2 discusses some key aspects of frontier bond markets.

Figure 9. Lending by Source

With supply from traditional sources flat as a share of GDP, new external financing is being provided, mainly by commercial creditors, and to a lesser extent by non-Paris Club official lenders.



With more limited access to bond markets and other commercial creditors, non-frontier LIEs continued to be dependent on official creditors, particularly multilaterals and non-Paris Club members. Commercial lending was also available to borrowers at high risk of debt distress.

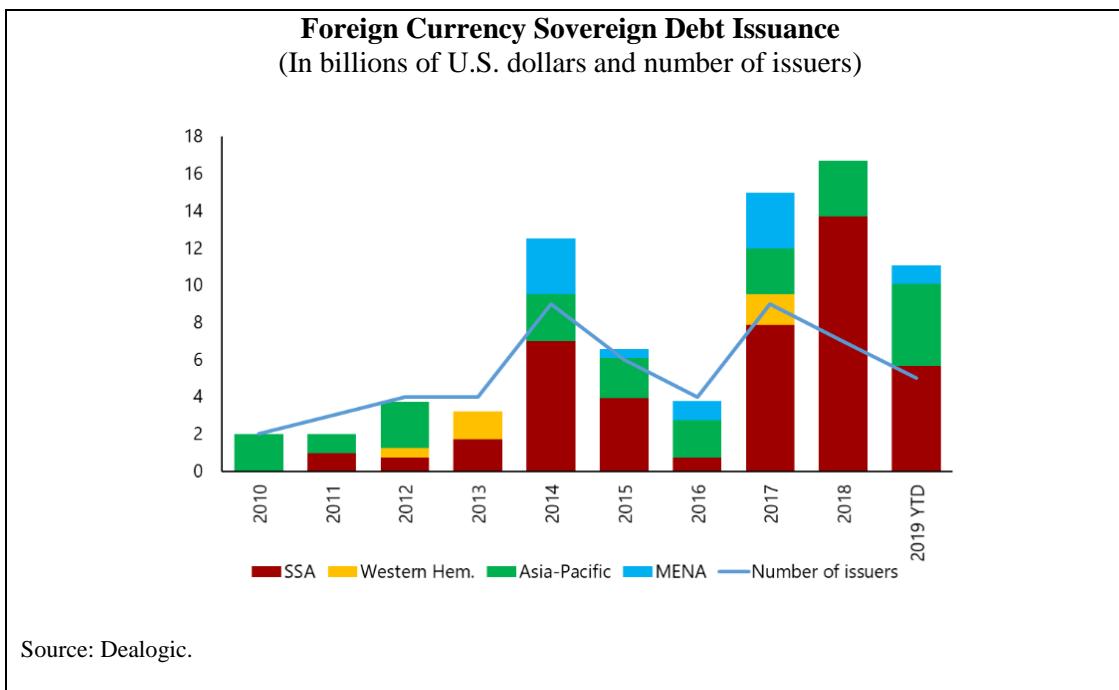
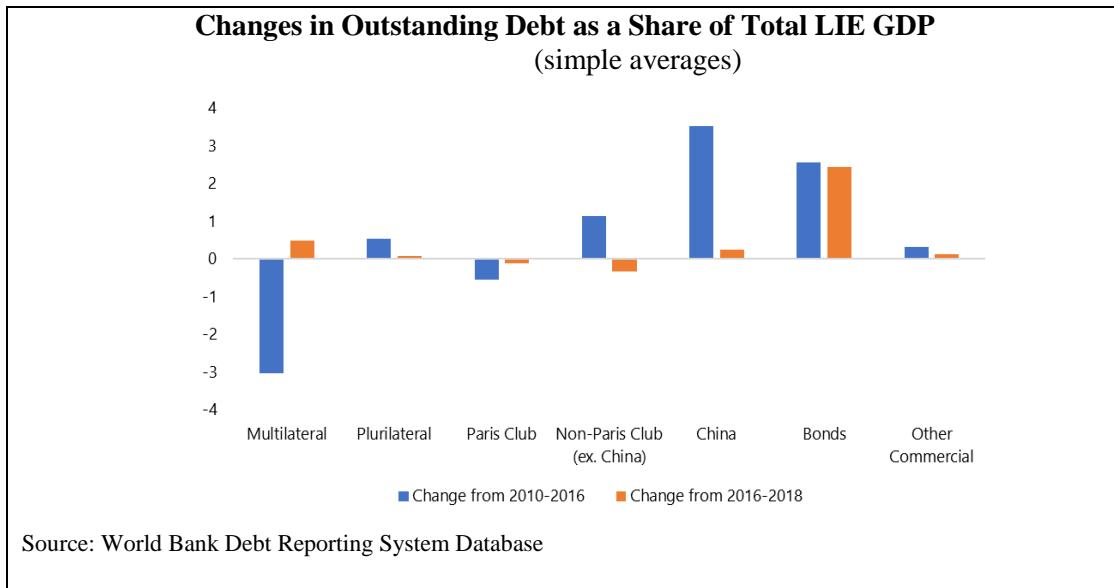


Source: DRS Database

1/ Includes disbursements from China.

2/ Includes disbursements from bonds and other instruments.

3/ This is calculated as the sum of disbursements divided by the sum of GDP. This highlights the change in the supply of credit to LIEs.



Box 2. A Perspective on the Findings of Horn, Reinhart and Trebesch (2019)

Horn, Reinhart and Trebesch (HRT, 2019) asserts that lending by China is much higher than what is indicated by official data reported to the IMF, the BIS or the World Bank's Debtor Reporting System (DRS). They label the excess as “hidden debt” and note that this distorts sovereign debt risk assessments.¹ The World Bank’s International Debt Statistics indicate that loans provided by China to LIEs have grown from an average of 4 percent of LIEs’ total public external debt in 2008 to 17 percent in 2018, considerably exceeding the Paris Club’s share. HRT argue that “hidden debt” amounts to 50 percent of total Chinese overseas lending and averages 40 percent of total external debt of the 50 top-recipient countries (Figure 7 of HRT). “Hidden debt” in percentage of GDP is suggested to exceed 10 percent of GDP in 12 countries and 5 percent of GDP in another 13 countries (Figure 13 of HRT). The authors also contend that the identified “hidden debt” represent a lower-bound estimate.

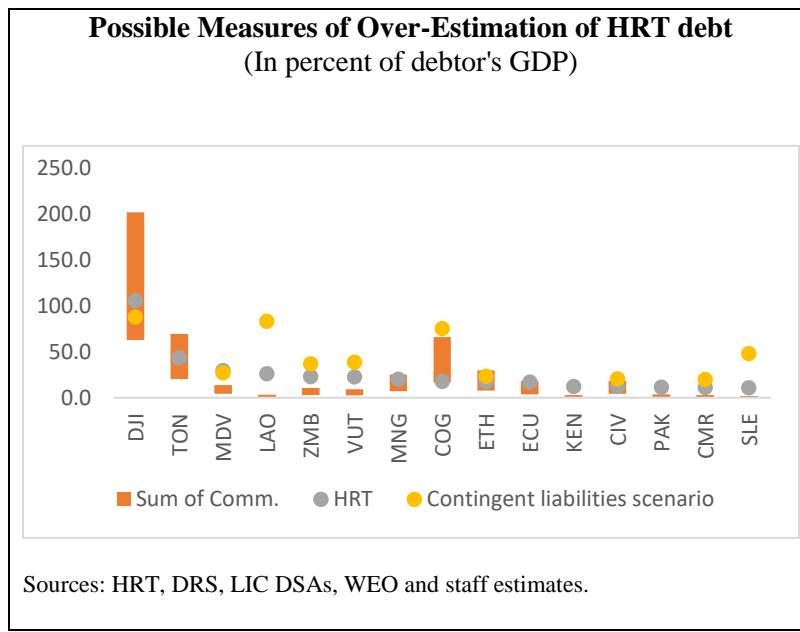
There are two key methodological issues with the HRT approach which suggest that the magnitude of this “hidden debt” may be smaller:

- “Hidden debt” from China is estimated using adjusted loan commitments rather than information on debt outstanding and disbursed. This could lead to significant overestimation and thus the HRT dataset is unlikely to be a lower-bound, as claimed.
- The classification of debt as PPG debt may not be correct. Debt to Chinese entities could be in the form of investment financing that is not guaranteed by the government.

Indeed, an analysis of 14 LIEs that are top borrowers from Chinese entities, suggests that any hidden debt is lower. To benchmark HRT debt, a lower and upper-bound measure of debt from China is constructed using DRS data. The lower bound corresponds to PPG external debt owed to China at end-2017 (the last year of HRT data). The upper-bound is the entirety of PPG external commitments from China during the period 2000-2017 relative to the stock of PPG debt at end-1999. This measure corresponds to the debt stock assuming all commitments have been fully disbursed, and no repayment was made over the period. In 10 of these countries, all with an IMF program which require the authorities to disclose all liabilities of the government and involve a higher level of scrutiny to identify external liabilities of the government, the HRT debt estimates are larger than the upper bound. These results may indicate that HRT estimates could have overestimated, possibly including unverified commitments. Alternatively, HRT debt may include non- PPG debt investment finance.

Box 2. A Perspective on the Findings of Horn, Reinhart, and Trebesch (2019) (concluded)

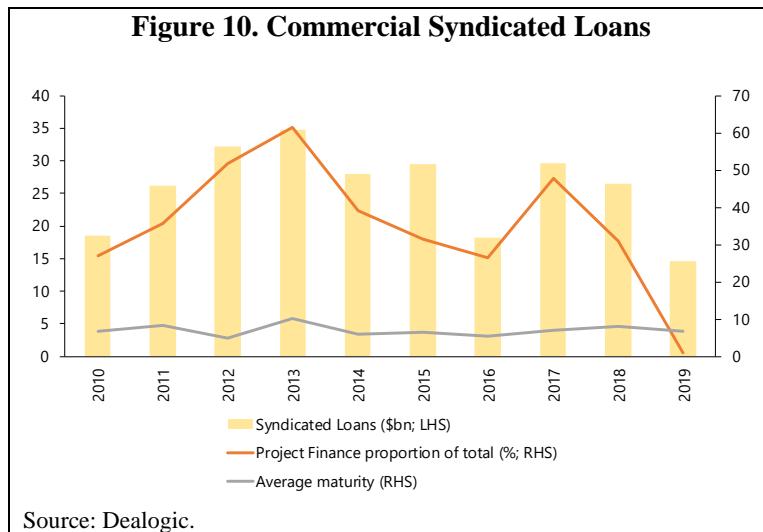
As regards the comparison to Bank-Fund debt estimates, it is important to look at DSAs, which include more comprehensive debt information. DSAs take into consideration that, even in a program context, the debt perimeter may not include SOEs and PPPs (see paragraph 30). Debt estimates underlying LIC DSAs contingent liabilities scenario are larger than HRT estimates, with the exception of Djibouti.²



¹The DRS was established in 1951 as a system to capture detailed information at loan level for external borrowing of reporting countries. Data submitted by countries are entered into the DRS database, from which the aggregates and country tables are produced and published annually in the *International Debt Statistics* publication.

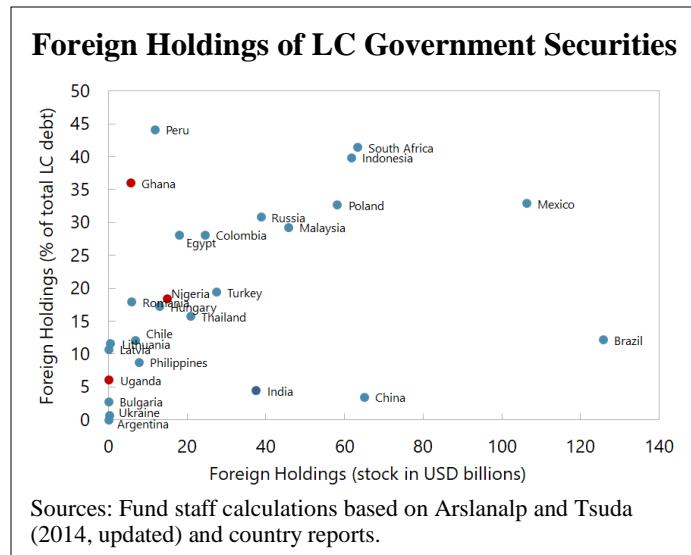
²In the LIC DSF, the contingent liabilities shock involves a one-off increase in the debt-to-GDP ratio equal to (i) a minimum starting value of 5 percent of GDP (representing the average cost to the government of a financial crisis in a LIC); and (ii) a tailored value, reflecting additional potential shocks for portions of the public sector that are not included in the definition of public debt used in the DSA, including the present value of direct and potential future fiscal costs from PPP distress and/or cancellations. The debt indicators reported in Figure B.3 sum the end-2017 public and publicly-guaranteed debt external debt reported in LIC DSAs to the CL shock excluding the 5 percent starting value.

- **Syndicated loans continue to play an important, if declining, role in the financing mix.** Traditionally these loans have been evenly split between financing investment projects and short-term trade loans. Despite the decline in the proportion of loans specifically tied to investment projects, the average maturity of syndicated loans disbursed has been relatively stable at about 7 years since 2010. Syndicated loan flows do not exhibit the kind of volatility associated with portfolio borrowing. Syndicated loans tend to be less transparent and their cost for the borrower may well exceed the interest cost. (The “all-in” cost of a syndicated loan would also include additional fees charged by the leading bank and financial advisors. If backed by a guarantee, the cost would also include the indemnity fee.)



14. Local currency debt financing continues to increase, especially in frontier economies, as the creditor base for resident local-currency funding has diversified:

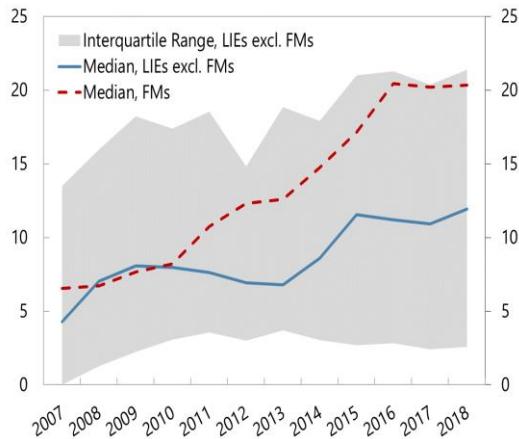
- Local currency debt for the median LIE (excluding frontier economies) reached around 12 percent of GDP in 2018-19, up from 4 percent of GDP in 2007. In frontier economies, a similar increase sent debt to even higher levels going from around 7 to 20 percent of GDP over the same time period (Figure 11). Overall for LIEs, the local currency debt to GDP ratio has been increasing at broadly the same pace as the foreign currency debt to GDP ratio, with the share of local currency debt to total public debt at around 30 percent over the last decade.
- Maturities have lengthened in several economies. Hooley and others (forthcoming) document an increase in the weighted average time to maturity of sub-Saharan Africa local currency debt market from 1.75 years to 2.5 years between 2012 and 2017. Ghana, Kenya and Tanzania have issued local currency (LC) bonds at maturities greater than 15 years and Nigeria issued a debut 30-year naira bond in April 2019.
- Non-resident holdings of local currency debt have been gaining importance in a handful of frontier LIEs, helping to deepen domestic debt markets but also raising vulnerability to capital outflows (Annex 2 reviews the literature on the determinants of foreign holdings of LC debt). In Senegal



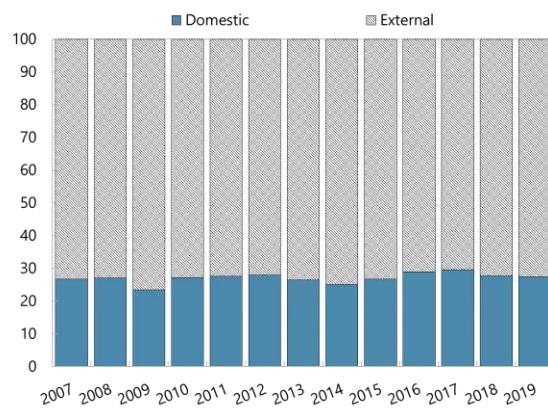
and Ghana, for example, foreign holdings average about one-third of domestic debt while in other countries, their share has been increasing albeit from a lower base. In Nigeria, as of end-2018, foreign investors held around 20 percent of all outstanding domestic debt instruments. Non-resident participation in these countries is approaching levels observed in several emerging market economies.

Figure 11. Public Debt

Local currency public sector debt in LIEs and FMs
(In percent of GDP)



Domestic and external currency debt in LIEs
(In percent of total public debt)



Sources: Staff calculations based on the LIC DSF database. Domestic and external debt is defined on currency basis.

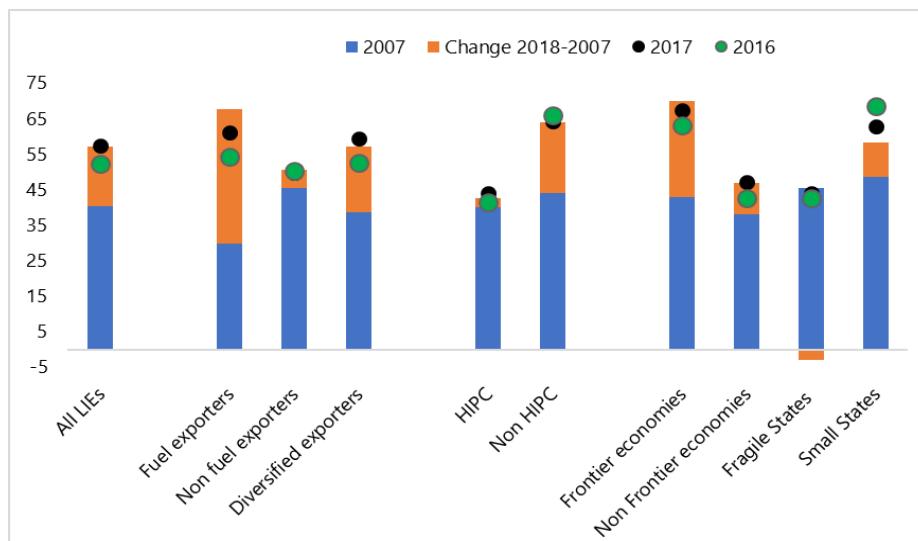
B. Structure of Debt Portfolio

15. The shifts in the composition of LIEs' debt have further affected interest rate, exchange rate, and rollover risks:

- The share of non-concessional loans in external public debt has remained broadly unchanged from 2017, at about 57.5 percent (Figure 12).** This relative stability follows an across-the-board increase starting from 2007, especially among fuel exporters and frontier LIEs. Average interest rates on external debt have been on the rise, firming by 78 bps to 3.3 percent between 2017 and 2018 as the full effect of the runup of Eurobond issuances in 2017 was felt in 2018 (Figure 13). The largest increases were observed among fuel exporters and frontier LIEs (158 bps and 97 bps, respectively).

Figure 12. Share of Public and Publicly-Guaranteed Non-Concessional External Debt by Economic Groups between 2007 and 2018

(Medians, in percent)



Source: World Bank International Debt Statistics.

Note: A concessional loan is defined as a loan with an original grant element of 35 percent or more.

- **However, the continued decline in the average maturity on new external commitments has increased rollover risk.** Between 2016 and 2018 average maturity on external debt decreased from 23 to 20.6 years, extending the declining trend since 2010. The increased rollover risk pertains particularly to frontier economies that have recently tapped Eurobond markets. Their Eurobond refinancing needs will rise over the next 5 years to an annual average of almost US\$5 billion, up from less than US\$2 billion in 2017-2018. Of particular concern are countries where debt redemptions represent a high proportion of foreign exchange reserves (Figure 14). The high proportion of commercial external debt could also amplify the impact of external shocks.⁹
- **Access to international markets has often coincided with worsening debt dynamics and greater vulnerabilities.** An examination of the evolution of debt, interest costs and growth for a sample of 20 countries that accessed international bond markets for the first time after 2005, shows that these countries' debt service to revenue ratios rose consistently (Figure 15). This is to be expected, but growth rates in the five years afterwards have typically not picked up, contributing to weaker internal debt dynamics.

16. Information about collateralization remains incomplete (see Box 3 for a discussion):

⁹ A recent study of emerging market economies in Eastern Europe before and after the GFC shows that a 10 percent increase in private non-guaranteed external debt in 2007 was associated with a 4 percent decline in detrended annualized growth (Nguyen, 2018b).

- Based on available data, excluding project finance, collateralized borrowing represented on average 20 percent of LIEs commercial borrowing undertaken over the last five years, but this share has declined from an average of 32 percent in the previous five years as several LIEs have gained bond market access. The averages conceal some large differences across countries. Commodity producers can be large users of collateral (as commodity assets and revenue flows are relatively easier to collateralize) (Figure 16).
- Comprehensive data on collateralization of official bilateral loans is not readily available, but their prevalence and implications have come to the fore in several countries. Some argue that many official bilateral infrastructure loans to Sub-Saharan Africa are collateralized (Brautigam and Hwang 2016). Mihalyi, Adam and Hwang (forthcoming) identify 50 commodity-backed loans to sub-Saharan Africa (28 loans) and Latin America (22 loans).

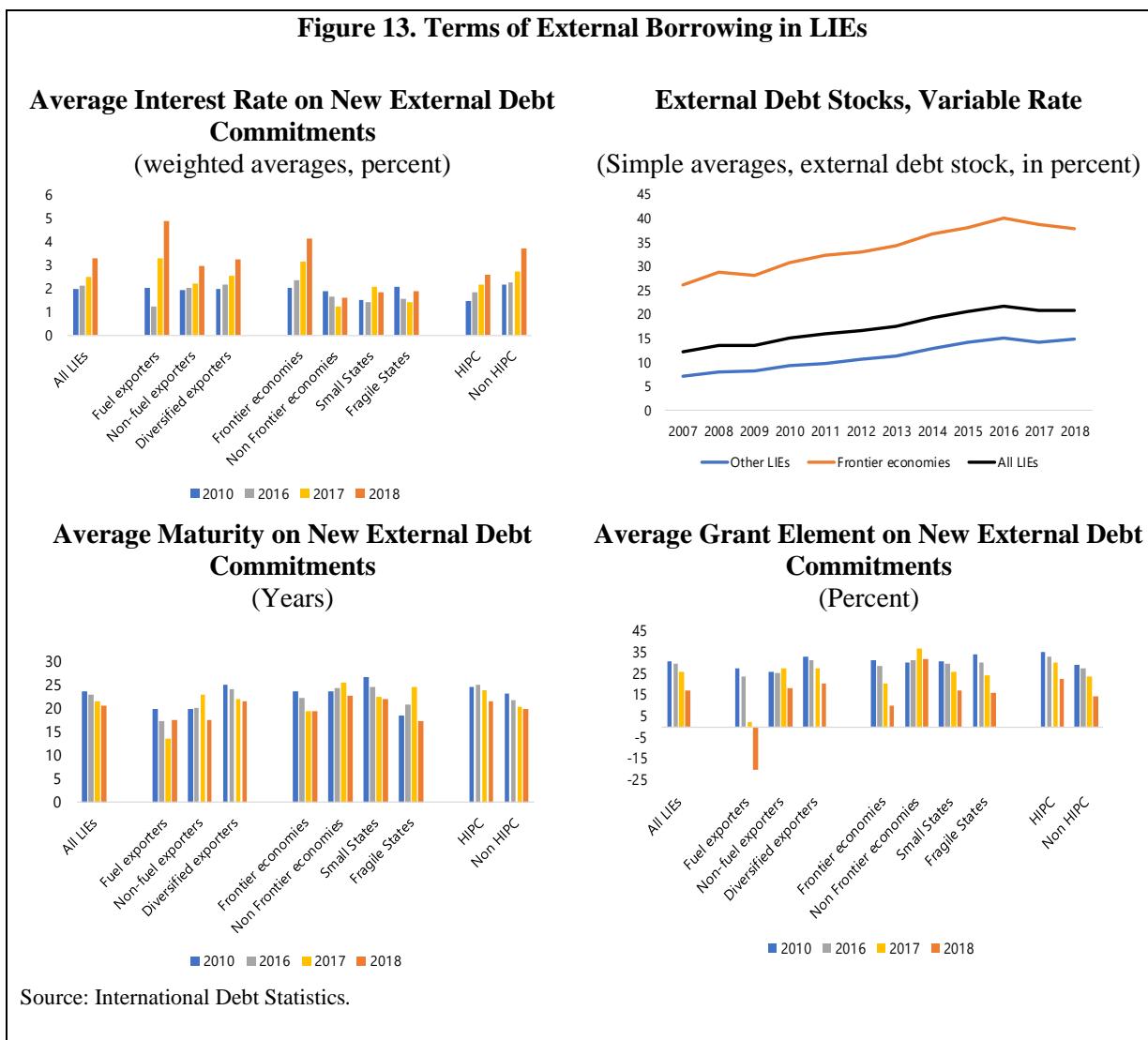


Figure 14. LIEs: Foreign Currency Debt Redemptions in Billions of US dollars, and as a Percent of GDP and Reserves

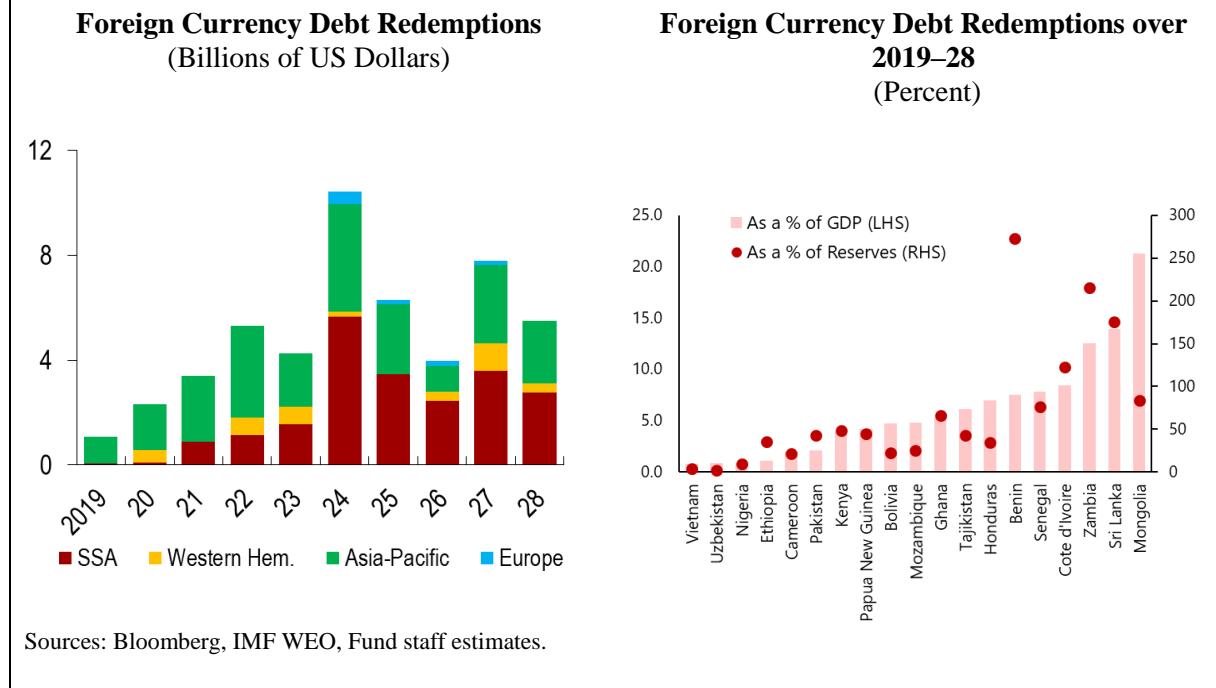
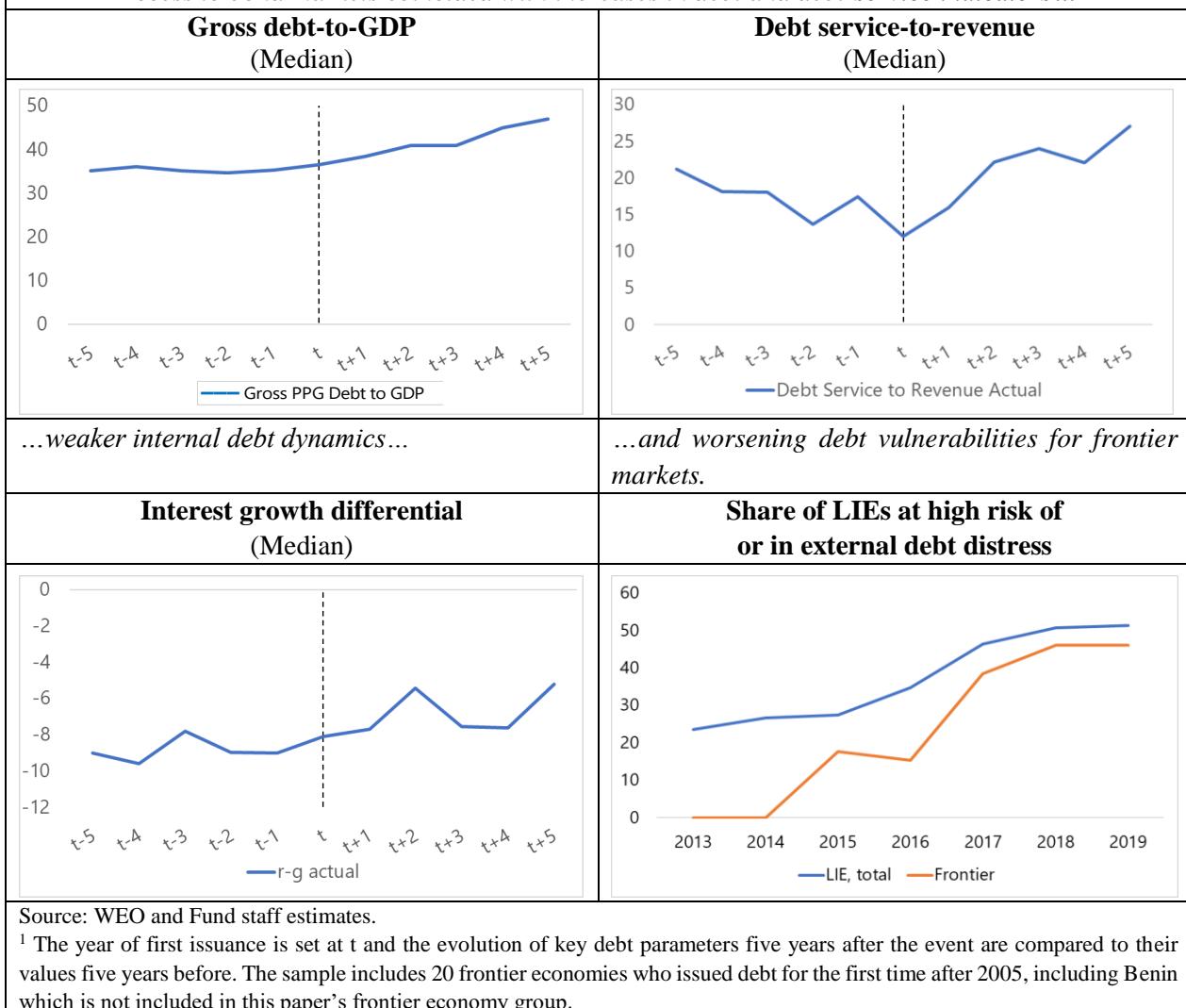


Figure 15: Debt Issuance, Debt Dynamics and Vulnerabilities--An Event Study¹

Access to bond markets coincided with increases in debt and debt-service indicators...



Source: WEO and Fund staff estimates.

¹ The year of first issuance is set at t and the evolution of key debt parameters five years after the event are compared to their values five years before. The sample includes 20 frontier economies who issued debt for the first time after 2005, including Benin which is not included in this paper's frontier economy group.

Box 3. Collateralized Debt

A debt instrument is collateralized when the creditor has rights over an asset or revenue stream that allow it, if the borrower defaults on its payment obligations, to rely on the asset or revenue stream to repay the debt. Collateralization is standard practice for many types of financing, especially in the private sector, such as trade and project financing. It is typically sought by creditors to help mitigate perceived risks posed by the borrower or by the nature of the transaction. For commodity exporters, the most readily available collateral is the commodity itself, already produced, or expected to be produced at some future date. Governments also make use of collateral for certain types of project financing, e.g. oil exploration and production, as well as in lieu of a sovereign guarantee.

Collateralization has taken different forms and has appeared in bilateral official lending and in commercial lending.¹ For instance, there has been: (i) use of escrow accounts (where the borrower is required to set aside a fraction of revenue receipts that can be used for debt service) which facilitate access to collateral from lenders, to stockpile debt service (e.g., Equatorial Guinea, Ghana, and Republic of Congo); (ii) pre-purchase agreements related to natural resources (Box Table); (iii) commodity barter transactions, where a loan is collateralized by a resource asset and repaid with raw or refined commodities (e.g., Ghana and Republic of Congo); (iv) and collateralized repo transactions which involve the sale of government securities to the lender, which the government agrees to repurchase once the loan is repaid.

Collateral can both help and hinder development outcomes. It can help viable projects proceed where finance might not otherwise be available. However, if used on a large scale or on onerous terms, collateral can reduce budget flexibility, impair access to non-secured financing, raise the risk of debt distress, and ultimately complicate a debt restructuring (if this proves necessary). Creditors and borrowers are advised to implement a multi-stage vetting process when considering collateralization (see IMF and World Bank, forthcoming).

Examples of Resource-Backed Loans
(End-2018)

| | GDP | Share of External Debt |
|------------------------------------|------|---------------------------|
| Oil revenue-backed loans | | |
| Chad | 11 | 45 |
| Republic of Congo 1/ | 16.4 | 26.7 |
| Mining revenue-backed loans | | |
| Democratic Republic of Congo | 5.4 | 40 |
| Guinea 2/ | 4.9 | 25.9 |

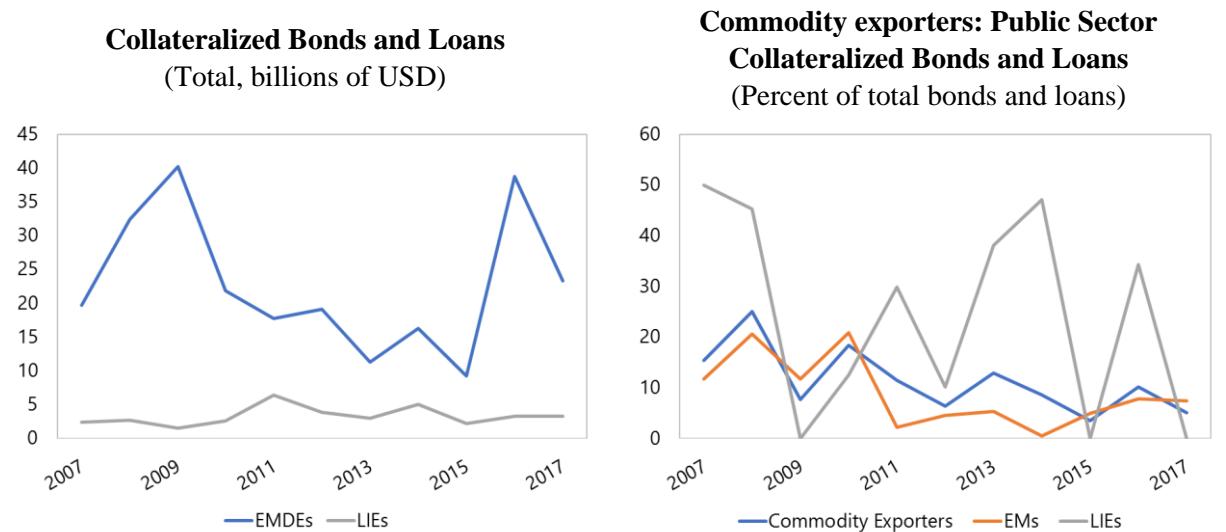
Sources: IMF Country Reports.

1/ The loans represent oil-prepurchased debt contracted by the oil company.

2/ Contracted but not yet disbursed.

1/Some “collateral-like” arrangements do not constitute granting of a security interest but have an equivalent effect. None of the international debt databases collects information on the collateralization features of loans. The information in this box is mainly based on information in IMF country reports.

Figure 16. Collateralized Debt in EMDEs and LIEs



Source: Dealogic.

Note: This analysis is limited to bonds and syndicated loans in the international market. This may not reflect the whole picture of collateral borrowing but sheds some light on capital market borrowing trends.

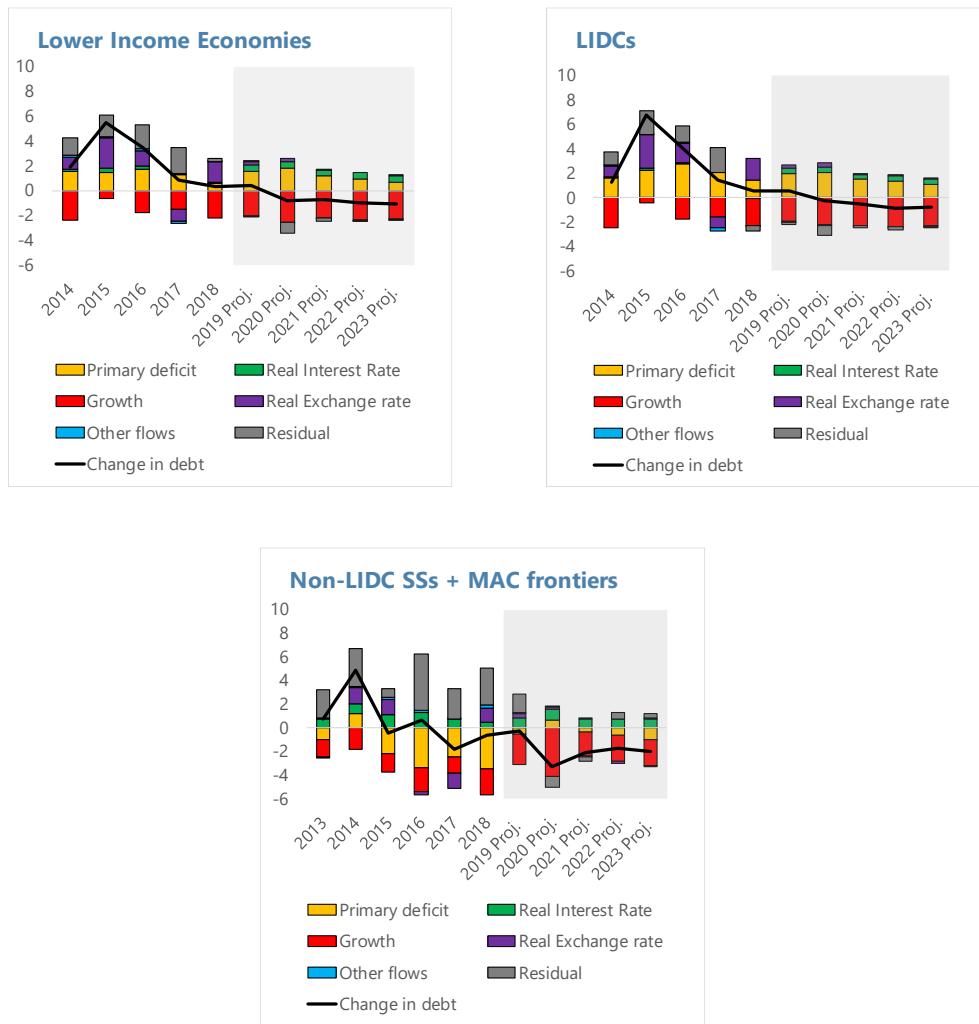
IV. OUTLOOK AND RISKS

A. Debt Projections and Risks

17. Based on assumptions of sustained fiscal consolidation and strong growth, the staffs' baseline projections envisage that LIEs' public debt will decline slightly over the next five years but remain at high levels. The average debt level for LIEs is projected to fall by 3 percent of GDP over 2019–2023, and by 2 and 9 percent of GDP respectively for LIDCs and non-LIDCs (Figure 17).¹⁰ The projected debt reduction is concentrated in three country groups: frontier economies, commodity exporters, and small states. The median debt level of other country groups in the analysis (HIPC, diversified exporters) is projected to broadly stabilize at its 2018 level. For the group of countries at high risk of debt distress—which have higher debt levels on average—a downward debt trajectory is projected similar to that of frontier economies and commodity exporters.

¹⁰The projected debt reduction for non-LIDCs would be 7 percent of GDP excluding Guyana, which projects a significant decline in the debt ratio due to the coming on stream of newly discovered natural resources.

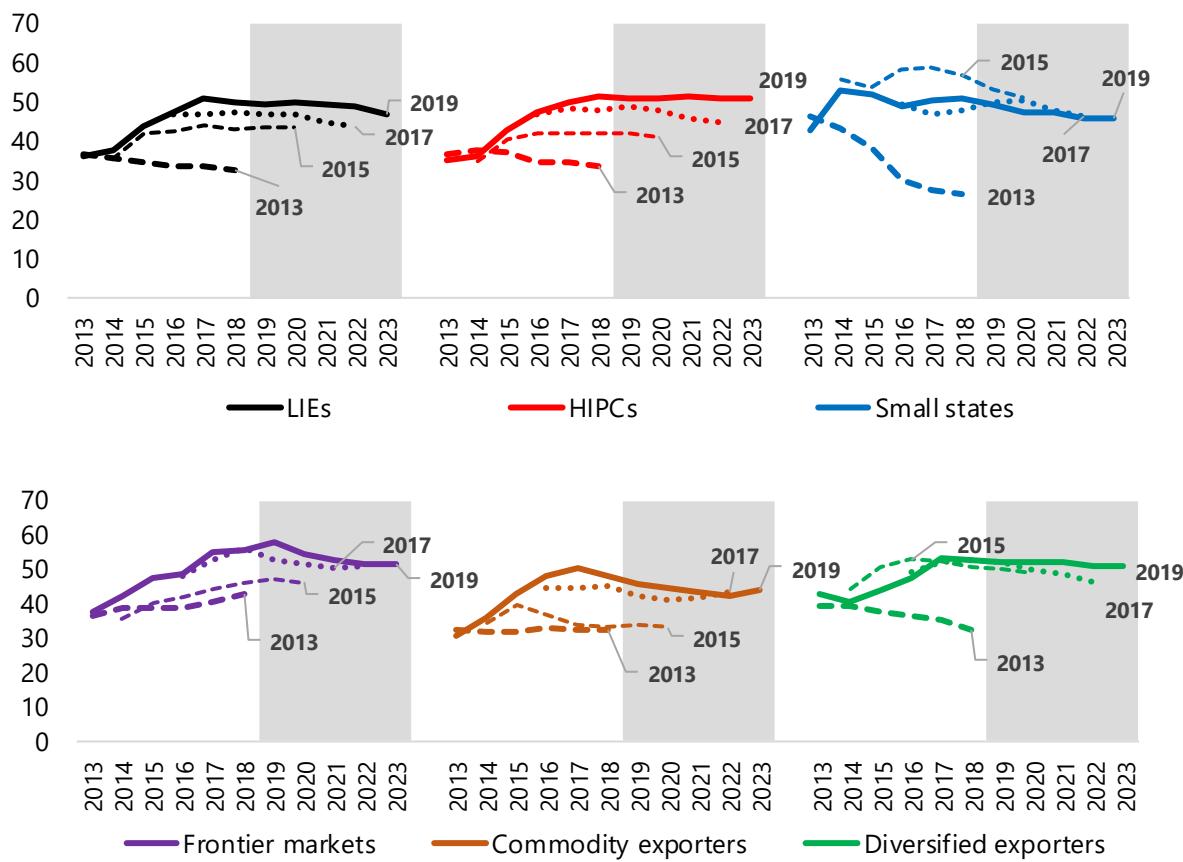
Figure 17. Lower-Income Economies: Debt Projections
(in percent of GDP)



Source: WEO

18. Revisions to debt forecasts have been less pronounced of late (Figure 18). The exception is post-HIPCs, in a majority of which debt is now expected to stabilize at a higher level than previously anticipated. Across LIEs, very few countries are now expected to recover to their 2013 debt levels—before LIE debt vulnerabilities started to increase (Figure 7). A comprehensive analysis of projection biases is included in the 2017 review of the LIC DSF, which introduced tools to check the realism of macroeconomic projections (IMF and World Bank, 2017).

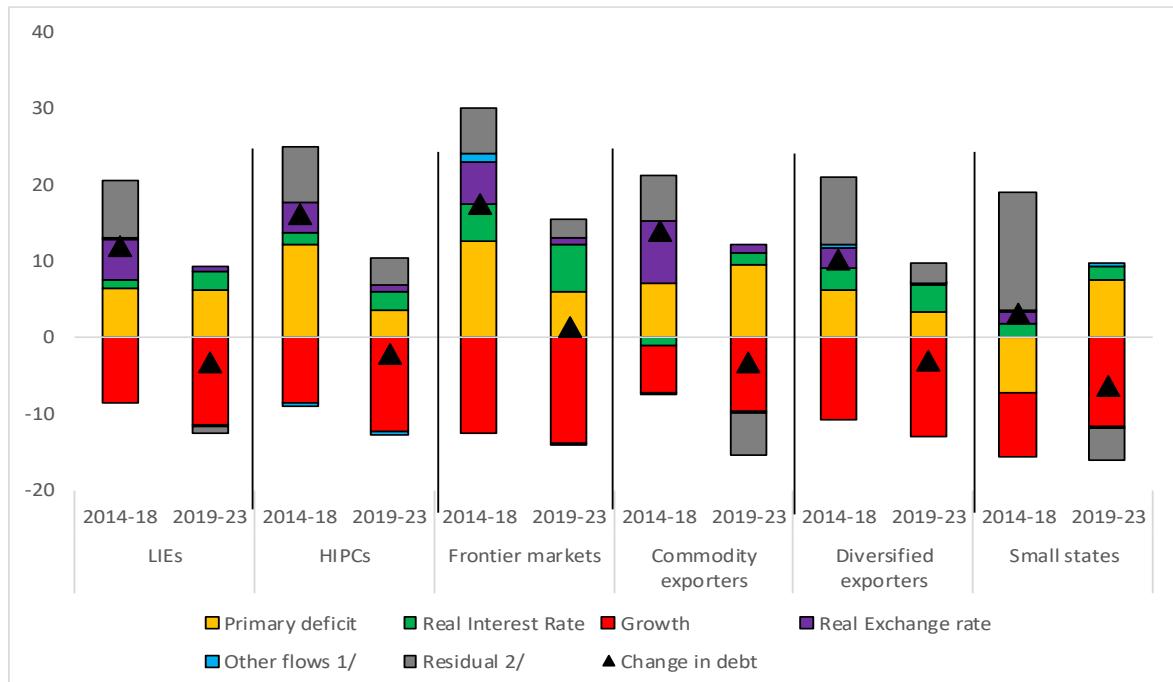
Figure 18. Public Debt
(Median, percent of GDP)



Note: Dotted lines show projected debt paths in WEO vintages of (October) 2013, 2015, 2017.

19. A closer look at debt drivers suggest some concerns, in so far as they differ sharply with recent LIE experience (Figure 19). For the majority of LIEs, the projections assume a larger contribution from the negative interest-growth differential over the next five years as compared to the recent past (in contrast to the trend deterioration). Growth is expected to contribute more to reducing the debt burden than in recent years, offsetting an anticipated larger contribution from the real interest rate reflecting an expected normalization of financing conditions over the medium-term. In addition, the assumption of stable exchange rates contrasts with the large currency depreciations experienced by many LIEs over the past five years, and the decomposition of debt dynamics also assumes a more benign impact of contingent liabilities than observed in the recent past.

Figure 19. Debt Dynamics
 (cumulative, actual 2014-18 vs. projected 2019-23)



1/ Other identified debt creating/reducing flows, such as privatization receipts, recognition of contingent liabilities, and debt relief.

2/ Unexplained (by fiscal flows) debt changes, such as an increase in guaranteed or SOE debt (where it is included in the debt coverage), and accumulation of arrears (where the fiscal accounts are recorded on a cash basis).

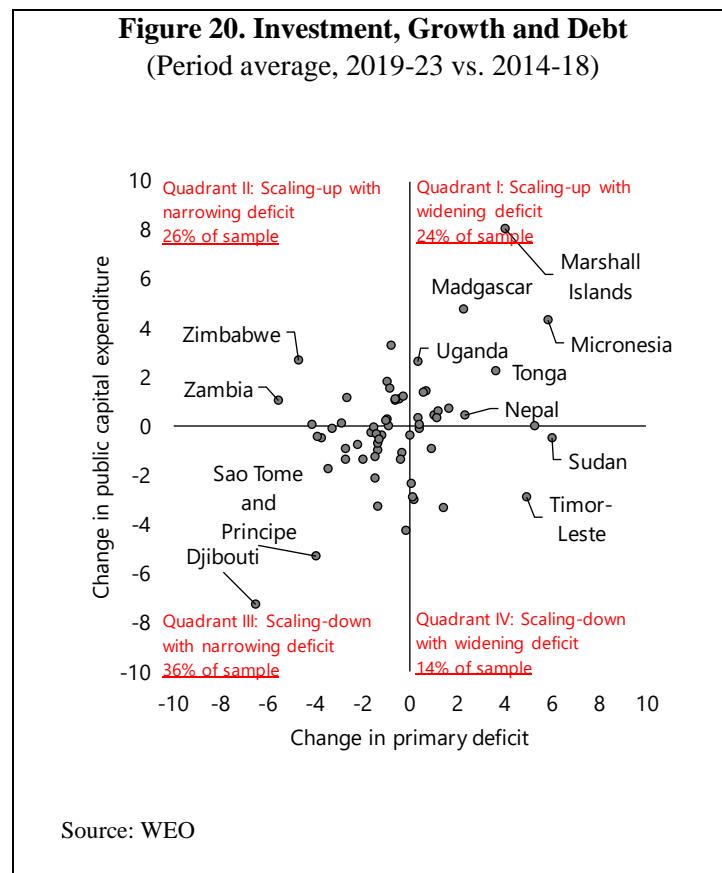
Source: WEO

20. Looking deeper at the debt drivers, the fiscal-growth nexus remains the principal source of concern.

- On the plus side, fiscal-growth dynamics anticipate similar or smaller returns on public capital compared to what was achieved historically.¹¹ No systematic over-optimism is found among LIEs, although there are a few outliers for which either a much bigger (e.g. Djibouti, Mozambique) or a much smaller (e.g. Nigeria, Guinea Bissau) “bang for the buck” is anticipated.
- Still, ongoing public investment scaling up typically does not explain rising borrowing and debt levels. Historical experience confirms the expected positive association between public investment and growth in the long-run, but the impact of investment on growth

¹¹The analysis is based on the same assumptions as used in the LIC DSF realism tools, i.e. depreciation rate of 5 percent and investment efficiency of 100 percent (See Annex IV of “Review of the Debt Sustainability Framework in Low-Income Countries: Proposed Reforms”). A faster depreciation (e.g. due to poor maintenance) or a lower investment efficiency could adversely affect the growth impact of public investment.

varies greatly.¹² Widening fiscal deficits in LIEs are not always associated with higher public investment. In fact, in just over a third of the countries undertaking a fiscal expansion the expected increase in borrowing is fully or more than fully matched by the increase in public investment (Figure 20). This proportion conforms with the trend observed among LIDCs in IMF (2018a).



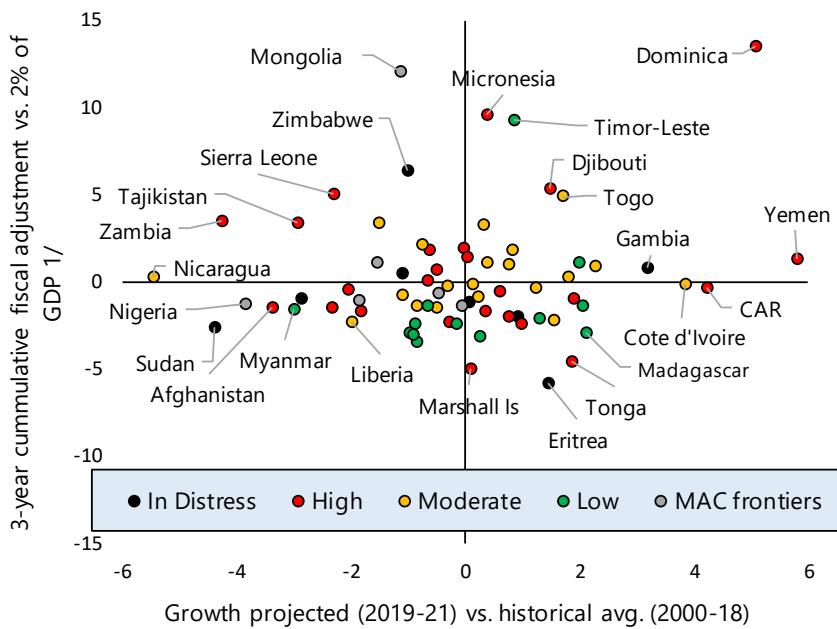
- However, the projected growth impact of fiscal adjustment may have an optimistic bias. Combined, 17 countries are projected to attain higher than historical growth in the context of a fiscal adjustment that is large by international standards (upper right quadrant in Figure 21). Among countries currently at high risk of debt distress, the projected adjustment often marks a sharp reversal of a previous deteriorating trend in the fiscal balance (Figure 21).¹³

¹² Output elasticities to aggregate measures of infrastructure investment range from 0.06 to 0.18 (Calderón, Moral-Benito and Servén, 2011) in developing countries. Efficiency of investment spending may vary across countries. For example, the impact of the observed monetary measures of public investment tend to be overstated in many low-income countries with poor institutions (Keefer and Knack 2007) due to weakness in public investment management.

¹³Some large projected fiscal consolidations in frontier economies can be related to tight financing conditions (e.g. Zambia) or planned fiscal adjustment in the context of an IMF-supported program (e.g. Pakistan) or after one (e.g. Ghana).

Figure 21. Fiscal Adjustment vs. Projected Growth

(by debt risk group; in percent)



1/ Cumulative fiscal adjustment exceeding 2 percentage points of GDP over a three-year period, which approximately corresponds to the top quartile of the historical distribution used for the LIC-DSF realism tool.

Source: WEO.

21. Risks to the baseline debt projections also arise from global risks, and these appear to disproportionately affect countries already at high risk of debt distress. Weaker-than-expected global growth and increased uncertainty from rising protectionism could reduce global demand for LIEs' exports and reduce commodity prices when a large number of LIEs exposed to these risks are already at high risk of debt distress.¹⁴ At the same time, a tightening of global financing conditions, due to either higher global interest rates or sharp increase in risk premia, could induce capital outflows and drive up debt service and refinancing risks in frontier LIEs that increasingly rely on market financing. Increased energy supply from renewable sources and other factors could reduce LIE fossil fuel exports and worsen outlook for fuel exporters. DSA scenario analysis suggests these risks are relevant in a large number of LIEs and could lead to breaches of debt burden indicators in three-quarters of the countries currently assessed at moderate risk of debt distress (Table 2).

¹⁴ See for example *Global Economic Prospects*, June 2019 (available at <https://openknowledge.worldbank.org/bitstream/handle/10986/31655/9781464813986.pdf>)

Table 2. Risk Assessment Matrix and LIC-DSA Stress Tests

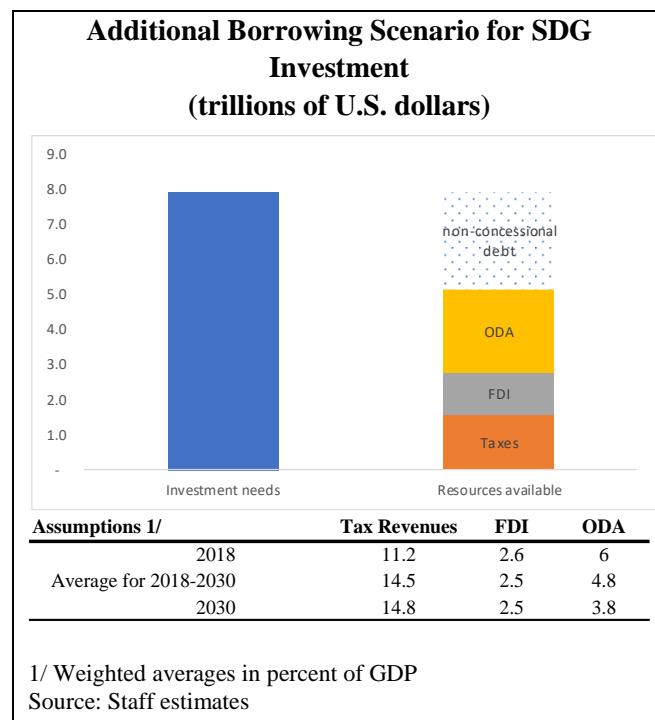
| Source of Risk | Relative Likelihood | DSF shock | No. of LIEs for which the risk is relevant | No. of LIEs with a debt distress rating of: | | | | Most Extreme Shock 1/ High or in Debt Distress | | | | Stress test breaches the threshold 2/ Moderate |
|---|---------------------|------------------------|--|---|----------|--------------------------|-------|---|----------|--------------------------|---|---|
| | | | | Low | Moderate | High or in Debt Distress | Total | Low | Moderate | High or in Debt Distress | | |
| | | | | | | | | | | | | |
| Weaker-than-expected global growth 3/ | Medium/ High | Exports | 37 | 11 | 10 | 16 | 17 | 0 | 6 | 11 | 8 | |
| Sharp rise in risk premia 4/ | High | Market Financing | 12 | 5 | 4 | 3 | 1 | 0 | 1 | 0 | 0 | |
| Rising protectionism and retreat from multilateralism that lowers commodity prices 5/ | High | Exports | 32 | 2 | 11 | 19 | 20 | 0 | 9 | 11 | 8 | |
| Contingent Liabilities/ off-balance sheet | Varies by Country | Contingent Liabilities | 69 | 13 | 21 | 35 | 2 | 0 | 0 | 2 | 0 | |

1/ Captures the number of countries where the relevant DSF shock is the extreme shock in the LIC-DSA.
 2/ Captures the number of countries at moderate risk of debt distress where if the relevant DSF shock is realized as the baseline scenario, the country would be downgraded to a high risk of debt distress in the LIC-DSA.
 3/ Risk assumed to apply to diversified exporters.
 4/ Risk assumed to apply to frontier economies.
 5/ Risk assumed to apply to commodity exporters.

B. Outlook for the Structure of Debt

22. The structure of debt is expected to continue to shift, leading to further increases in interest costs. Based on current trends, the share of concessional debt to total public external debt is expected to fall from the current 39 percent to 30 percent by 2030. This would be the result of a constant share of ODA (in percent of donor countries' GDP), and the current DSA assumption of average annual growth of external debt of 8 percent.

23. With the SDGs not within reach in the baseline, countries must trade-off the benefits and risks of using commercial borrowing to close the gap. Improvements in revenue mobilization, spending efficiency and FDI implied by the WEO baseline projections suggest that these will not suffice to meet the SDGs.¹⁵ The implied increase in commercial borrowing that would be needed to finance the SDGs would be very large. For example, Gaspar and others (2019) estimates that delivering on the SDG agenda will require additional spending of 15.4 percent of their GDP. Applied to LIEs this would entail cumulative borrowing of around US\$2 trillion to be raised on commercial terms (starting from an outstanding stock of US\$93 billion).¹⁶ The scale of borrowing could not be even approached without sharp increases in interest burdens and overall vulnerabilities (barring a very large improvement in investment efficiency).



¹⁵ IMF (2018) highlights that the median sub-Saharan African country has achieved an increase in tax revenues by 4 percent of GDP since the mid-1990s. The report indicates that sub-Saharan African countries have the potential to further raise tax revenues by 3-5 percentage points of GDP over the medium term. Recent studies such as IMF (2011) discuss common constraints in mobilizing revenue across low-income countries. According to IDA (2016), tax revenues of the general government in IDA countries increased from an average of 14 percent of GDP in 2000 to about 16½ percent of GDP in 2015. However, 35 IDA countries, including 70 percent of FCV countries, collect less than 15 percent of GDP in taxes,

¹⁶ Assuming flat ODA as a share of donor countries GDP as above, flat FDI per WEO forecast and tax revenues as a share of GDP at 3 percentage points higher than WEO forecasts following IMF (2018b).

V. MANAGEMENT OF DEBT VULNERABILITIES

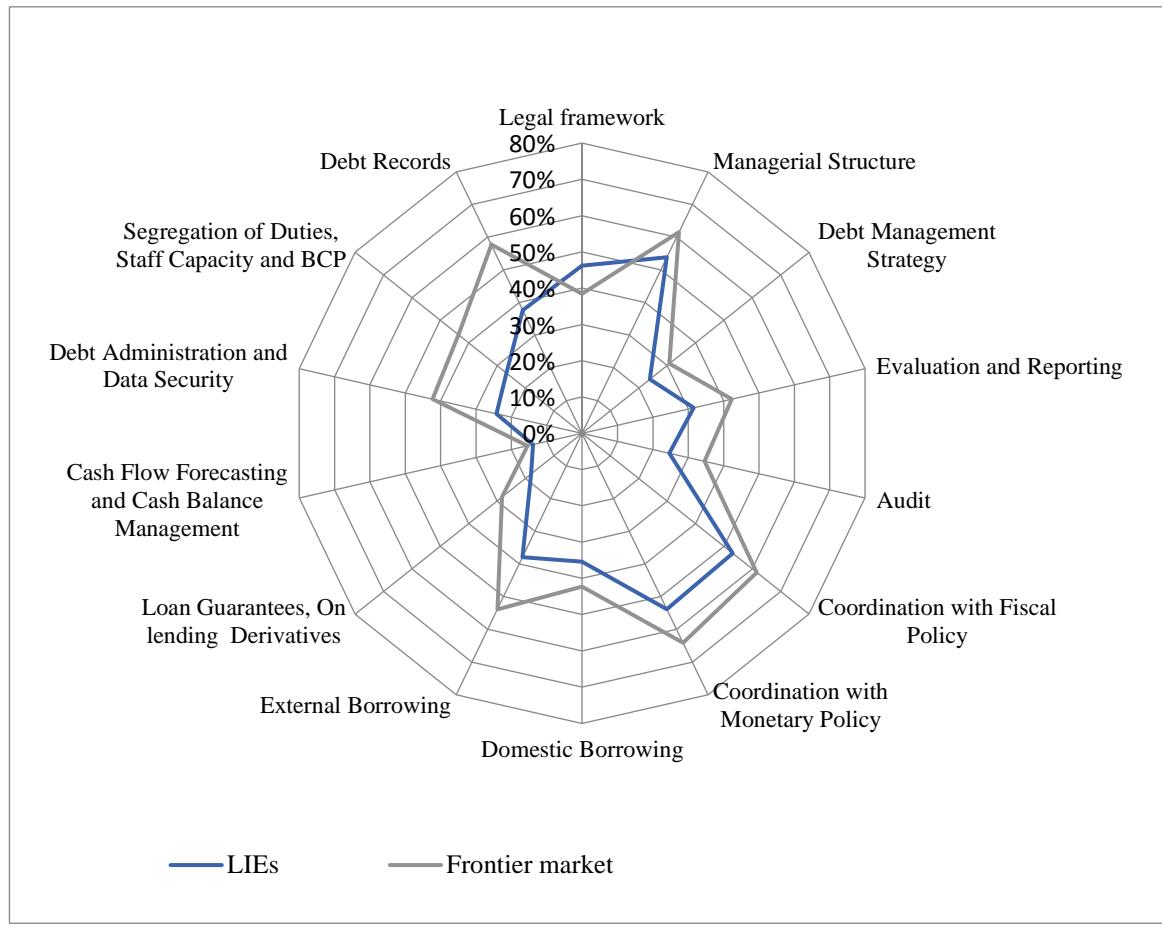
24. With debt vulnerabilities rising, many countries have been undertaking various initiatives to better manage risks. These include strengthening debt management frameworks, improving debt transparency and taking steps to better manage currency and rollover risks. However, in a few LIEs risks have exceeded their capacity to manage them, requiring comprehensive debt restructuring and exposing gaps in the existing architecture for debt resolution.

A. Debt Management Capacity

25. Overall, LIEs face gaps in key debt management functions. Out of 65 LIEs that had at least one Debt Management Performance Assessment (DeMPA) by end-2018, at most half implement satisfactorily any of the 14 debt management performance dimensions assessed.¹⁷ Areas of particular concern include: weak debt management governance (e.g. suboptimal borrowing frameworks, insufficient audits, lack of operational risk management); partial debt recording coverage and limited reports; poor cash flow forecasting and management; and insufficient staff capacity in debt management offices, to adequately assess fiscal and debt risks and undertake debt sustainability analysis. Frontier economies generally have better debt management practices on average than other LIEs (Figure 22). Still, between 30 and 40 percent of frontier market economies are assessed as not meeting all minimum requirements across the 14 performance indicators.

¹⁷The DeMPA is a methodology for assessing performance covering the full range of government debt management operations. It is focused on central government debt and loan guarantees. See www.worldbank.org/debt for a description of the DeMPA.

Figure 22. DeMPA Results in Countries Accessing Market-Based Financing
 (In percent of countries that meet minimum score)¹



Source: World Bank's DeMPA results as of end-December 2018. The sample include 65 DMF-eligible countries.

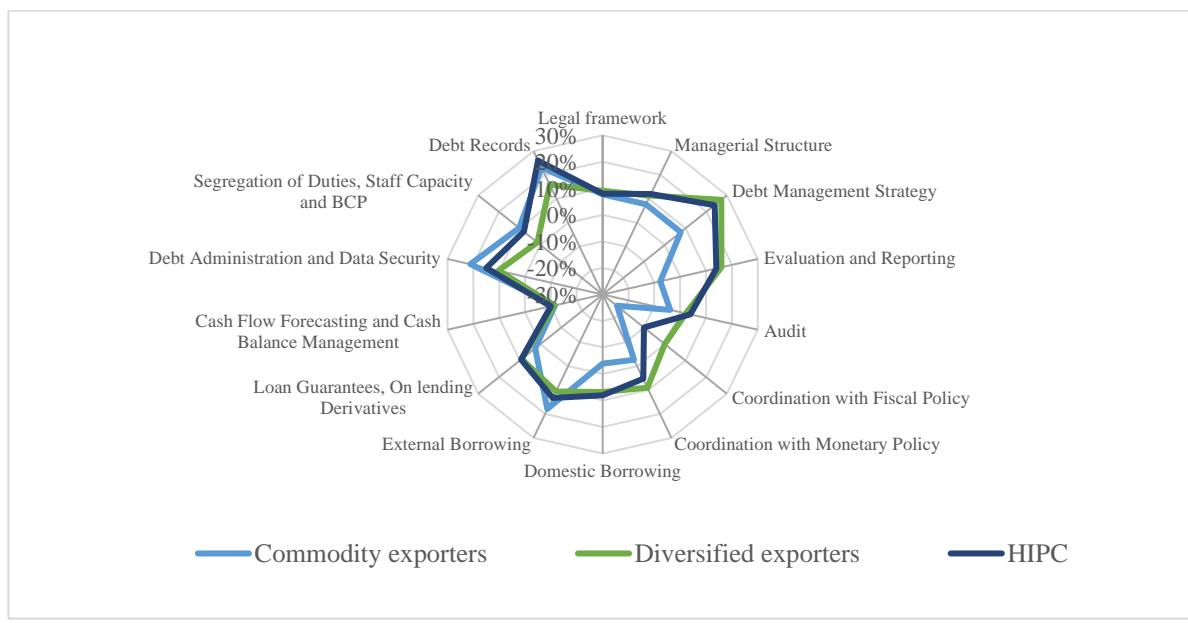
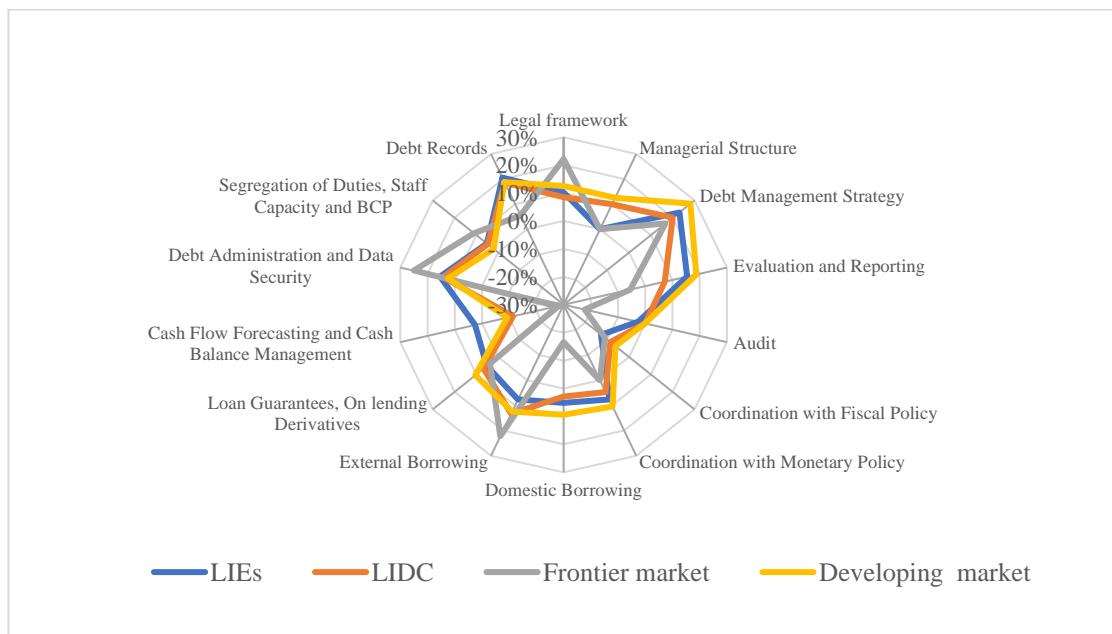
¹DeMPA assesses 14 debt management dimensions against established benchmarks. Meeting the benchmark is rated C, while not meeting the benchmark is rated D. Score A indicates best practices.

26. LIEs have in most cases been making progress with strengthening debt management over time (Figure 23). This is critical to help manage risks related to the evolving structure of debt. The results from 39 countries that have more than one DeMPA evaluation over the period 2008-2018 reveal improvements for 11 out of 14 dimensions, with more significant improvements in the capacity to prepare debt management strategies, regularly publish debt bulletins, data management and security and the accuracy and timeliness of debt records. Some improvement was also achieved in the legal framework. Frontier economies—where capacity is most advanced, but risks are most pointed—have seen mixed progress. While over time they have substantially strengthened external borrowing practices, back-office practices (including debt records keeping and data security), and improved capacity of staff and task segregation, they have failed to make

progress in key debt management dimensions, including audits, cash flow forecasting and the implementation of debt management strategies.

Figure 23. Change in DeMPA Results

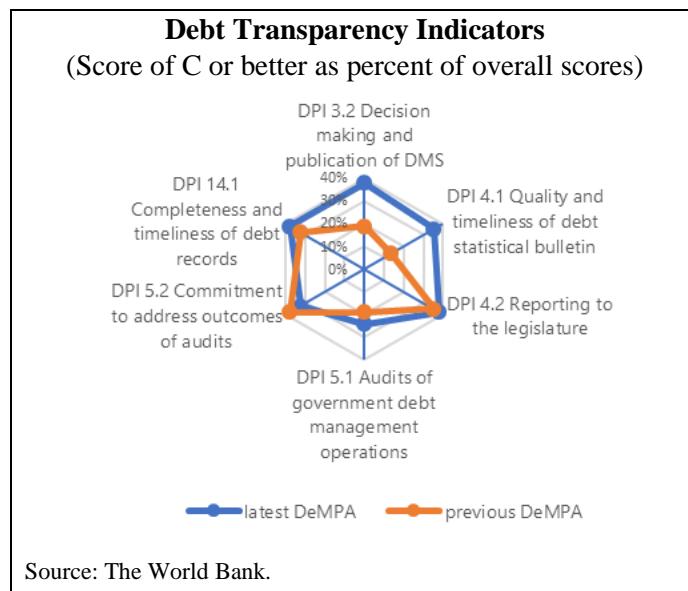
(Percentage change of the number of countries meeting minimum requirements)



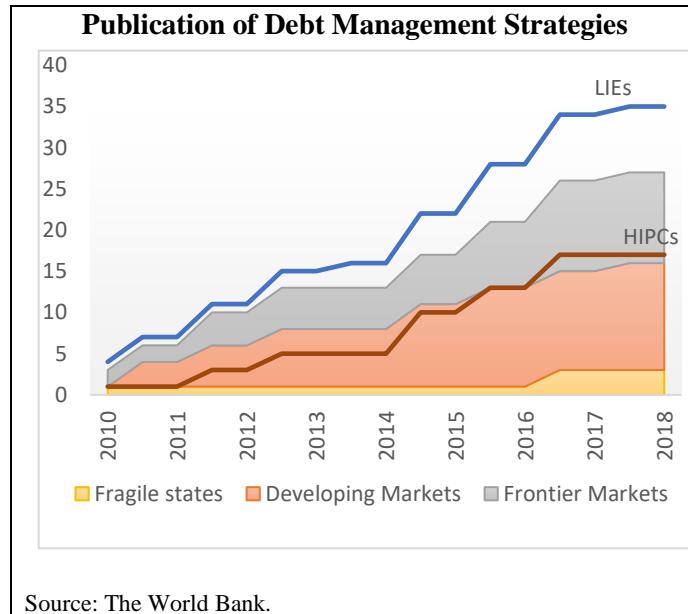
Sources: World Bank's DeMPA results as of end-December 2018. The sample include 39 DMF-eligible countries.

B. Improvement in Debt Transparency

27. Indicators of debt transparency have improved over time. For the 36 LIEs with more than one DeMPA during 2008-2018, all but one indicator improved between the last two DeMPAs when comparing indicators that touch upon debt transparency. The largest improvement was seen in the category ‘quality and timeliness of the debt statistical bulletin’ with an increase of 22 percentage points, followed by ‘decision making and publication of DMS’. The only (small) decrease was recorded for ‘commitment to address outcomes of audits’.



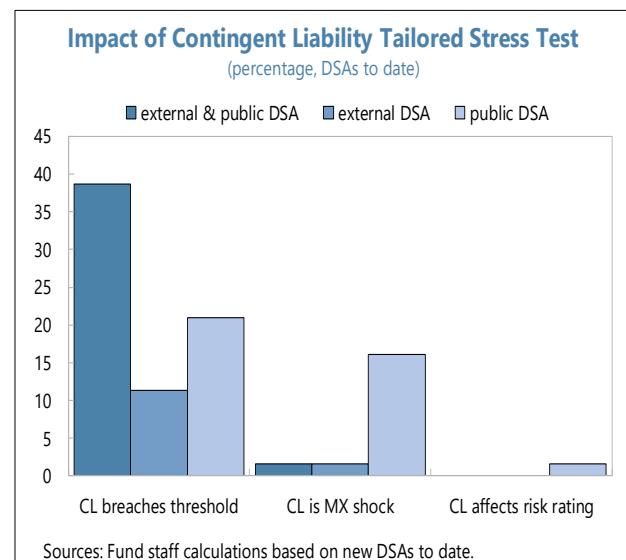
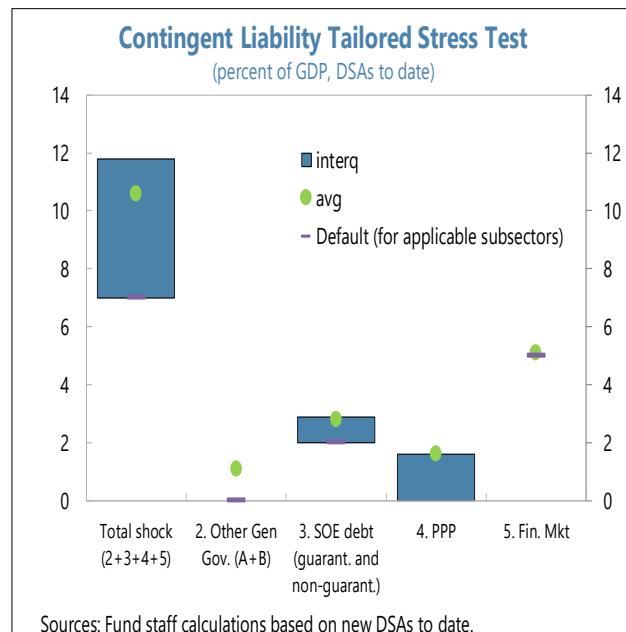
28. Moreover, since 2010, considerable progress has been achieved in supporting LIEs to develop, approve and publish their own debt management strategies. In 2010, only 4 countries had a debt management strategy. Supported by technical assistance from the World Bank and IMF by 2018, 35 LIEs were preparing and publishing debt management strategies on a regular basis, typically covering a period of three years. One third of LIEs also regularly publish statistical debt bulletins, including two-third of frontier markets. But, the number of publications remain low in fragile states and countries with high risk of debt distress.



29. Efforts are underway in several countries to contain fiscal risks from SOEs through increased transparency. Several countries have published findings of official reports on SOE performance (Cabo Verde, Cameroon, Ghana), strengthened and improved SOE governance and oversight (Ghana), strengthened auditing of SOE governance and operations (The Gambia, Niger), updated the legal framework for SOEs (Cameroon, Guinea, Mozambique), and outsourced SOE management (Guinea-Bissau). Many francophone West-African countries’ debt management offices have increasingly been involved in the management of loan guarantees, lending and SOE-guaranteed debt as well as the monitoring of such debts.

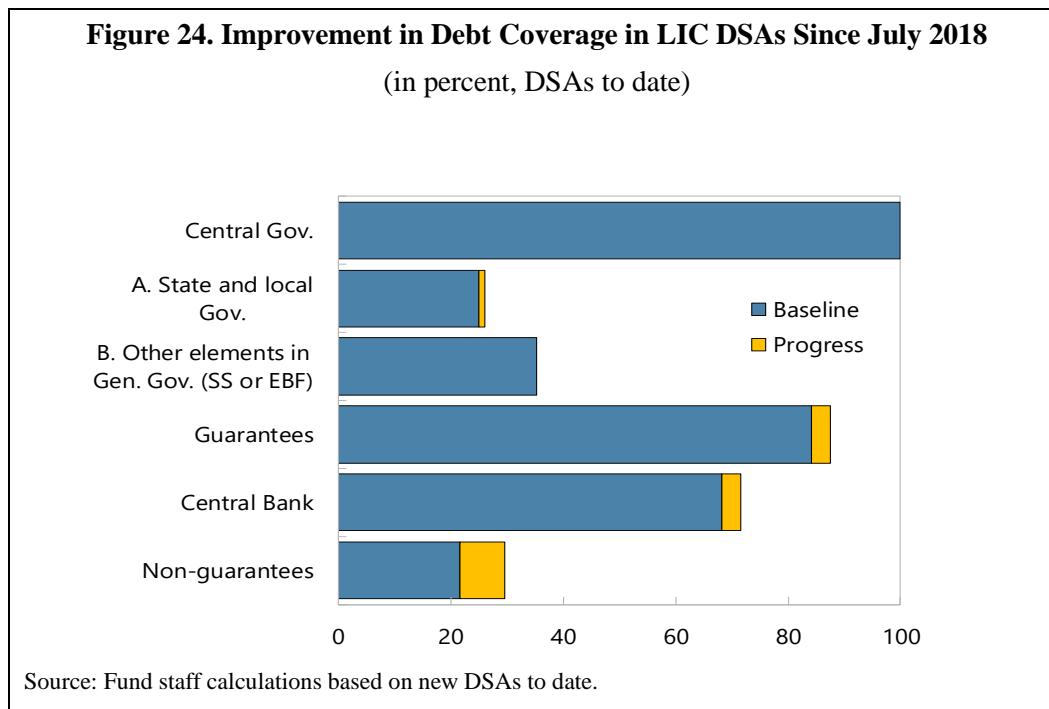
30. LIC DSAs have seen some improvements in the coverage of public debt, but recent country cases suggest that contingent liability risks may still be significantly underassessed, underscoring the importance of further efforts to strengthen reporting.

- In 11 of the 55 countries for which the LIC-DSF has been applied (as of mid-October 2019), debt coverage has been expanded to previously excluded sub-sectors (Figure 24). In several cases, this led to a significant increase in reported total public debt (e.g. in Senegal and Sao Tome and Principe, recorded public and publicly guaranteed debt increased by 10.8 and 18.9 percent of GDP during 2017, respectively). For the countries with a broader coverage of debt, efforts have also been focused on accounting for revenue coming from SOEs or public entities generating their own revenues. This is crucial to give a fair picture of the debt service capacity of the country.
- Still, three-quarters of countries that have used the new LIC-DSF have debt coverage of at most PPG central government debt (including central bank debt) and debt guaranteed by the central government only. On average, country teams have applied a contingent liability shock of 11 percent of GDP in the new LIC-DSA stress test. In some cases, the contingent liability shock has accounted for SOE debt not already included in public debt stock (e.g., 8 percent of GDP in the 2018 Third ECF Review Cameroon DSA), in others it captures PPP-related contingent liabilities (e.g., estimated at 29.4 percent of GDP in the 2019 Lao PDR DSA), as well as other potential liabilities (e.g., shortfalls of pension fund assets estimated between 10.3 and 20.7 percent of GDP in the 2019 Lesotho DSA which contributed to the country's debt risk rating downgrade to moderate). The contingent liability stress test has often breached the relevant LIC-DSF thresholds, emphasizing that better coverage would be meaningful. This will



require more progress on debt management and governance, since non-central government debt (direct and contingent) is rarely collected by the debt office.

- For some countries at high risk of debt distress, an immediate priority is to improve the monitoring of debt disbursements from the stock of already contracted external project loans (e.g., Cameroon and Zambia, where the total amount of contracted but undisbursed debt was estimated at around 18.9 percent of GDP at end-2018 and 40 percent of 2018 GDP as of April 2019, respectively).



C. Operational Strategies to Manage Debt Risks

31. With debt vulnerabilities rising, many countries have been taking steps to better manage currency and rollover risks:

- In response to increased foreign exchange and refinancing risks, a number of countries have used debt buybacks to ease near-term refinancing risks and reprofile external debt (Benin, Ghana, Senegal). For example, Ghana bought back some of its 2022 Eurobond with proceeds from the 2019 Eurobond. To reduce bunching of external loan repayments, most countries have turned to multi-tranche Eurobond issuances (e.g. Cote d'Ivoire and Ghana), and to bonds with near-maturity amortizing features that spread loan repayments over a number of years.¹⁸
- Some countries that have seen an increase in nonresident participation in their local currency bond markets have also been implementing macroprudential and capital flow

¹⁸ See also van der Wansem, Jessen and Rivetti (2019) on sound practices for bond issuances.

management (CFM) measures. Examples described in IMF (2014) and recent staff reports include restrictions on holding period (Tanzania), on amounts or shares (Sri Lanka, Tanzania and Zimbabwe), on maturities (Ghana), or by type of security (Nigeria and Kenya). Other countries introduced restrictions on bank swaps with non-residents (Tanzania and Kenya).

32. Debt instruments with state-contingent risk-sharing features could help borrowers better manage risks, however their uptake remains limited. Costs of issuance are high, compared to other debt instruments, and policymakers need to gain familiarity with the benefits of these instruments and overcome first mover problems on debtor and creditor sides.

- *Climate-resilient debt instruments or bonds with extendible maturities (e.g., natural disaster clauses).* These defer capital and/or interest payments. Barbados has been the only recent case with new bonds issued in the context of its debt restructuring incorporating a “hurricane clause”. At the request of the Eastern Caribbean Central Bank (ECCB), the IMF and World Bank jointly examined possible structures for such instruments which were translated into draft term sheets by the ICMA. In the official sector, a variant of these term sheets has been endorsed for use on a voluntary basis by Paris Club creditors.¹⁹
- *Official loans with extendible features.* The only significant lending in this space continues to be by Agence Française de Développement, which provided counter-cyclical loans for project financing to Mali, Mozambique, Senegal and Tanzania between 2008 and 2016 for a total amount of 299 million euros for a total disbursement of 215 million euros at end-2018. These contracts offer the possibility for sovereigns to defer debt service payments in the event of an exogenous shocks (AFD-UNDB, 2016).
- *Local currency swaps and forward contracts.* These have been offered by TCX, a currency exchange fund that was established in 2007 by development finance institutions (TCX, 2017). Volumes to date have been small but with good global coverage (TCX’s net local-currency exposure was US\$1.4 billion at end 2017 covering 101 local currencies across the globe, including around 90 percent of LIEs). And the focus has mainly been corporate financing including SMEs. Multilaterals have also played a role in providing derivative products to hedge LIE sovereigns’ foreign exchange risks on their Eurobonds. One example of this is the Cameroonian US\$ Eurobond maturing in 2025 which is combined with a currency swap facilitated by the AfDB to become a “synthetic” 2025-euro Eurobond thereby eliminating currency risk for the Cameroon (the CFA franc is fixed to the euro).

¹⁹Alternatively, there are also insurance-based solutions (e.g. the Caribbean Catastrophe Risk Insurance Facility (CCRIF SPC) that can help countries deal with climate shocks. Parametric insurance pays a fixed amount when triggered by a qualifying event (e.g. weather data recording a pre-agreed level). Over the period 2007-2018, the CCRIF has provided 38 payouts to 13 out of 20 participating government amounting to US\$138.8 million in response to qualifying events including excess rainfall (20 events), tropical cyclones (14 events) and earthquakes (4 events).

D. Debt Resolution: Developments

33. For countries where debt vulnerabilities have reached distress levels, new challenges for LIE debt resolution and restructuring have emerged. Since 2015, the Paris Club has not had a leading role in LIE debt restructurings, reflecting low exposures in relevant cases.²⁰ Instead, non-Paris Club bilateral creditors, regional development banks, Eurobond holders, commercial lenders, and commodity traders have been key players. Three trends are of interest:

- First, the take up of Collective Action Clauses (CACs) in international bond issuance that are aimed at facilitating an orderly debt restructuring has been good in LIEs. About 87 percent of LIEs' new international sovereign bond issues during October 2014-18 included enhanced CACs, broadly in line with the rate observed in more advanced economies (IMF, 2019). However, with no LIEs having debt structures dominated by bond debt, these can only contribute at the margin to effective debt resolution.
- Second, the comprehensive restructurings that have taken place have been protracted, incomplete and non-transparent. An inadequate first restructuring agreement that raised the NPV of the loan through the imposition of fees required Chad to restructure twice (2015, 2017) in circumstances involving a commercial collateralized lender. For the Republic of Congo, the restructuring that began in early 2018 remains incomplete.²¹ The Gambia's restructuring took two years to reach agreement in principle, complicated by the large role of some non-Paris Club creditors and plurilaterals. Finally, Mozambique only recently reached an agreement with its bondholders, three years after first announcing the proposal, but other loans remain under negotiation/litigation.²²
- Third, there have been an increasing number of restructurings outside of IMF program frameworks (and thus divorced from efforts to correct the underlying macro imbalances that gave rise to the debt problem). China's willingness to engage with its borrowers in an increasing number of NPV-lite re-profiles has been a welcome and important development (Kratz, Feng, and Wright, 2019). However, as these have only covered a part of the country's total debt and in many cases domestic policy adjustment has not occurred, there are questions about their sufficiency. Recent examples include Djibouti (2019), Ethiopia (2018-19), and Tonga (2018). Other countries have engaged with China to seek similar relief (Cameroon, Zambia), but results remain to be seen.²³

²⁰The last debt restructuring agreements concluded by the Paris Club are the Grenada classic term treatment and the Chad's HIPC completion point treatment, both concluded in 2015.

²¹ A year-long negotiation with a non-Paris Club creditor recently reached conclusion, but the authorities continue to be in discussion with external commercial commodity traders to restructure debt.

²² Cruces and Trebesch 2013 show that the average duration of restructuring with commercial creditors (banks and bondholders) over 1998-2015 was about a year and half.

²³ In the case of Sri Lanka, bilateral Chinese loans that financed the Hambantota Port development were restructured in 2017 and a 99-year concession agreement was reached with China Merchant Port Holdings (CMPH). For further information please see Box 1 in [IMF Country Report No. 19/135](#).

VI. CONCLUSIONS AND POLICY RECOMMENDATIONS

34. The pace of public debt accumulation in LIEs has slowed since 2017 but vulnerabilities remain high. The slowdown was largely confined to oil-exporters who benefitted from a recovery in international oil prices and achieved some fiscal consolidation. Public debt in non-oil exporting LIEs has continued to rise because of large fiscal deficits and deteriorating interest-growth differentials. Half of LIEs are currently assessed to be at high risk of debt distress or in debt distress. While this is double the fraction in 2013, the risk of a near-term widespread debt crisis is somewhat mitigated by the current stability of commodity prices and continued accommodative international financing conditions which have been acting as key pressure release valves.

35. Countries continue to tap new, more expensive financing sources. Traditional development partners (multilateral, plurilateral and traditional bilateral creditors) continue to provide a large share of LIE financing in the form of loans and grants. This has been increasingly supplemented by commercial financing (e.g., Eurobonds) and borrowing from non-Paris Club creditors, most notably China. But LIEs' access to international capital markets has remained concentrated, with 10 of the 76 countries accounting for about 85 percent of Eurobond issuances during 2017-19.

36. The evolving structure of debt has driven up interest burdens and exposed countries to greater liquidity risks. The rising interest burden reduces fiscal space and limits the scope for countercyclical fiscal policy. The interest-to-revenue ratio in half of the countries that benefited from HIPC debt relief has risen above the pre-HIPC Completion point level. The rising debt service burden is also associated with increased vulnerability to domestic and external shocks, particularly for countries that have tapped Eurobond markets and other non-concessional financing sources.

37. Over the past two years, the projected debt trajectory has remained broadly unchanged but DSA realism tools are flagging risks ahead. The projected decline in public debt is predicated on ambitious fiscal consolidation and growth outcomes above historical averages over the next five years. Key additional risks to the public debt outlook stem from weaker-than-expected global growth, increased uncertainty and rising protectionism and trade tensions that lower commodity prices and exports.

38. Countries with significant debt burdens face a difficult trade-off between scaling up public investment to meet ambitious development objectives and containing debt vulnerabilities. Higher inflows of ODA, coupled with efforts to boost domestic revenue mobilization and attract more foreign direct investment, can ease this trade-off, but the fundamental tension will likely remain in many, if not most, LIEs.

39. More progress in improving debt management and transparency is needed, particularly to keep up with the increasing complexity of public debt and the prevalence of large contingent liabilities. Improvements have been made on most dimensions of debt management, including in terms of developing and publishing debt management strategies and

debt reports. Nevertheless, most countries do not meet minimum debt management standards and considerably more needs to be done to match the increasing complexity and volatility of debt flows, particularly in frontier economies that have tapped international debt markets. Also, while coverage in Bank-Fund DSFs has been expanding, more needs to be done to expand debt coverage and limit risks from contingent liabilities, especially from government guarantees, SOEs' debt and PPPs. The World Bank–IMF MPA provides a critical and comprehensive framework to help countries address debt vulnerabilities.

40. Debt resolution frameworks show worrying signs that they are not effective enough. The increased importance of non-traditional lenders and instruments has complicated debt resolutions. As a result, recent restructurings have been drawn out and not fully effective in reducing public debt levels. A review of the architecture for sovereign debt resolution is needed.

41. Against this backdrop, it remains critical for borrowers and lenders to engage in sustainable financing practices.

- Borrowing countries need to continue to focus on raising domestic revenue, increasing spending efficiency, including through better prioritization and selection of projects, and strengthening debt management and transparency. For countries at high risk of debt distress and attendant limited scope for countercyclical fiscal policy, these policies are particularly important. For countries at moderate risk of debt distress, policies should be geared towards increasing fiscal space and capacity to absorb shocks. For countries that are low risk, these same policies will be needed to help countries' pursuit of the SDGs.
- For creditors, the sustainable financing practices identified in the *G20 Operational Guidelines for Sustainable Financing—Diagnostic Tool* (IMF and World Bank 2019) can help guide improvements in lending practices. To help borrowers avoid debt traps, official creditors should pay appropriate attention to maintaining debt sustainability in borrower countries, including by providing financing on more concessional terms.

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Annex I. Country Coverage, Data Sources, and Debt Coverage

1. This annex specifies the 76 countries that are treated as “lower-income economies” for the purpose of this paper (Annex Table). The analysis covers all countries that are eligible for concessional financing from the World Bank (IDA-eligible countries) through the IDA18 period (FY18–20) in line with IMF and World Bank (2015). This includes all countries eligible for IMF concessional financing (PRGT-eligible countries) as well as six recent PRGT graduates (Bolivia, Mongolia, Nigeria, Pakistan, Sri Lanka, and Vietnam). Kosovo (with the exception of the DeMPA related issues) and Syria are excluded from the sample because of lack of data availability.

2. To understand debt developments in different types of economies, the analysis in the report classifies the countries into groups along several dimensions. “Fuel exporters” are those where fuel consists of more than half of their export earnings. “Non-fuel commodity (NFC) exporters” are those where primary products consist of more than half of their export earnings. The rest of the countries are named “diversified” exporters. “Frontier markets” are defined as those that resemble emerging markets with regards to international market access. These are defined as countries that are included in the JP Morgan Emerging Bond Index Global (EMBI Global) index. “Fragile states” are those with a CPIA rating less than 3.20 or where there is a peacekeeping operation in the preceding three years. Developing markets are those countries that are neither fragile nor frontier nor high-income small states. “Small states” are defined as countries with populations of under 1.5 million and represent both high-income and low-income small states. The “HIPC” group comprises the countries that are or have been considered by the IMF and the World Bank for participation in their debt initiative known as the HIPC Initiative, which aims to reduce the external debt burdens of all the eligible HIPCs to a “sustainable” level in a reasonably short period of time. Many of these countries have already benefited from debt relief and have graduated from the initiative.

Data Sources and Debt Coverage

3. Analyses in this report mainly draw on data from the following sources: the LIC DSF and MAC DSA databases and the October 2019 World Economic Outlook. Other sources include: DeMPA, Dealogic, Bloomberg, Debtor Reporting System (Box 1), and the International Debt Statistics.

4. The LIC DSF and MAC DSA databases have the most comprehensive coverage on historical and projected debt. The analysis presented are based on the latest available DSAs collected as of end-August 2019. The years for which data are projections, rather than outturn data, will vary depending on each country and when the DSA was conducted. 36 countries have 2019 as the first year of projections, while 24 countries have 2018 as the first year of projections. 16 countries have first year of projections in 2015, 2016, or 2017. For the seven MACs, three countries have first year of projections in 2018 and 2017 each and one country’s projections start in 2016.

Annex Table 1. List of Countries by Group 1/

| Total (76) | Fragile States (32) | Developing Markets (15) | Frontier Markets (19) 2/ | High-income small states (13) |
|-----------------------------------|--|---|---|---|
| Fuel Exporters (6) | Chad Congo, Rep. South Sudan Timor-Leste 4/ Yemen, Rep. (5) | | Nigeria (1) | |
| Commodity Exporters (34) | Afghanistan Burundi Central African Rep. Congo, DR Cote d'Ivoire 3/ Eritrea Guinea Guinea-Bissau Kiribati 4/ Liberia Malawi Mali Papua New Guinea 3/ Sierra Leone Solomon Islands 4/ Somalia Sudan Tajikistan 3/ Zimbabwe | Burkina Faso Lao P.D.R. Mauritania | Bolivia Cote d'Ivoire 3/ Papua New Guinea 3/ Tajikistan 3/ Uzbekistan Zambia | Guyana Marshall Islands Tuvalu |
| Non-Fuel Exporters (28) | (19) | (3) | (6) | (3) |
| Diversified Exporters (42) | Comoros 4/ Djibouti 4/ Gambia, The Haiti Madagascar Myanmar Sao Tome & Principe 4/ Togo | Bangladesh Benin Bhutan 4/ Cambodia Kyrgyz Republic Lesotho Moldova Nepal Nicaragua Niger Rwanda Uganda | Cameroon Ethiopia Ghana Honduras Kenya Mongolia Mozambique Pakistan Senegal Sri Lanka Tanzania Vietnam | Cape Verde Dominica Grenada Maldives Micronesia Samoa St. Lucia St. Vincent & the Grenadines Tonga Vanuatu |
| | (8) | (12) | (12) | (10) |

Note: The number of countries is shown in the parentheses.

1/ As of End-June 2019.

2/ Countries included in JP Morgan's EMBI Global Index.

3/ Cote d'Ivoire, Papa New Guinea, and Tajikistan are included in both the "frontier market" and "fragile state" groups.

4/ These countries are also classified as low-income small states.

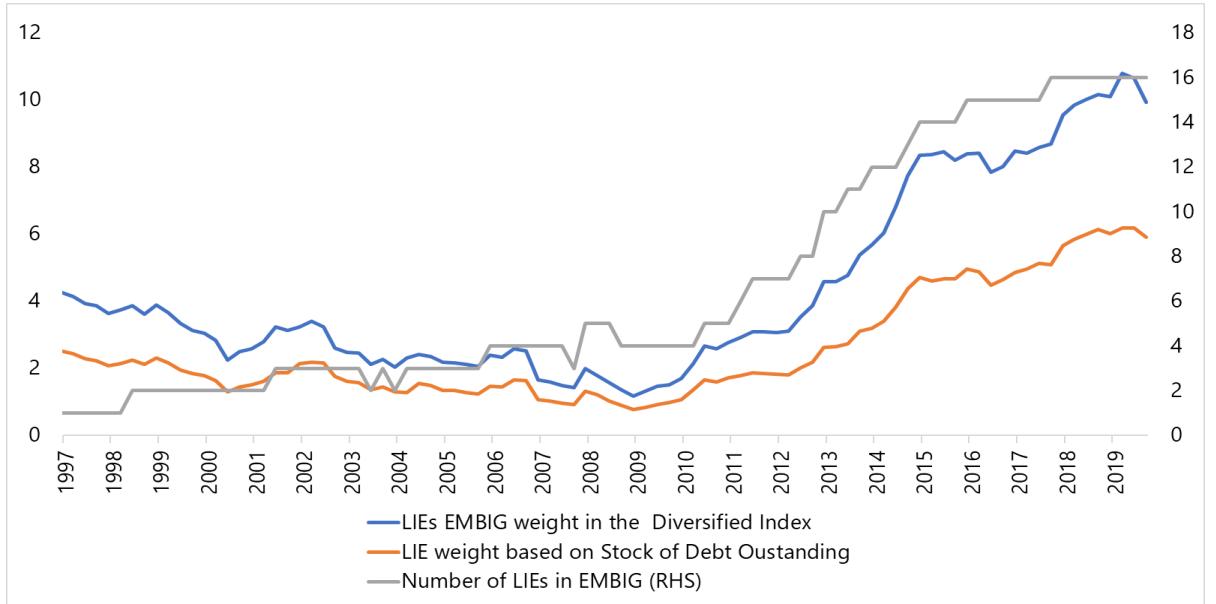
Annex II. LIEs’ Evolving Access to Eurobond and Local Currency Bond Markets

Eurobond Markets

- 1. Eurobond financing flows are more volatile than other forms of credit, often driven by “push” factors unrelated to the borrowing country’s fundamentals.** Sovereign bond flows declined sharply during the 2008 crisis and following the 2014 oil price shock and in response to the economic slowdown and monetary tightening in 2016. They accelerated as advanced economies implemented unconventional monetary policy expansions. LIEs sovereign bond market is shallow and represents a small share of the global sovereign bond market. As a result, it can be subject to sharp swings and discontinuities due to changes in market sentiment. Sharp changes can price countries out of the market altogether. The increasing share of portfolio flows which are index/benchmark based could lead to even sharper swings as funds move in reaction to events in other countries included in the benchmark index.²⁴ These factors could increase rollover risks.
- 2. Many countries are trading beyond their rating-implied spreads, especially lower-rated issuers, indicating risks of a correction and reduced market access.** The spreads on LIE sovereign debt are highly correlated with the global risk appetite (Box Figure panels 1 and 2). Initially LIE bonds, particularly in sub-Saharan Africa were trading at a discount compared to similarly rated emerging market economies prompting some analysts to speak of an “African premium” (Olabisi and Stein 2015). Continued global search for yield in the context of accommodative monetary policy in advanced economies has pushed evaluations up particularly for lower rated issuers (Box Figure Panel 3). This suggests that bond pricing for some issuers is disassociating from underlying fundamentals with the heightened risk of repricing in response to a stress episode.
- 3. The inclusion of frontier LIEs in benchmark indices, sometimes at a higher weighting, attracts additional flows but also exposes them to greater volatility.** Frontier LIEs included in the main EM benchmark, JP Morgan’s Emerging Market Bond Index Global (EMBIG), has increased rapidly to 17 in 2019. Smaller issuers like LIEs may have greater exposure to benchmark-driven investors. For example, the most followed version of EMBIGs uses a weighting scheme that caps the weights of very large issuers and boosts the weights of smaller issuers. As a consequence, LIEs weight based on debt outstanding was 6 percent of the index in 2019 but adjusted for the weighting scheme it is closer to 11 percent, which increases their exposure to changes in risk sentiment and limits it to country-specific factors.

²⁴Index funds are a type of mutual funds with a portfolio constructed to match or track the components of a financial market index, such as the Standard & Poor's 500 Index or JP Morgan's EMBIG.

Augmented LIC weighting in EMBIG vs. actual market share



Sources: Bloomberg; and JP Morgan.

Frontier Economies: Bond Market Pricing and Sensitivity to External Factors

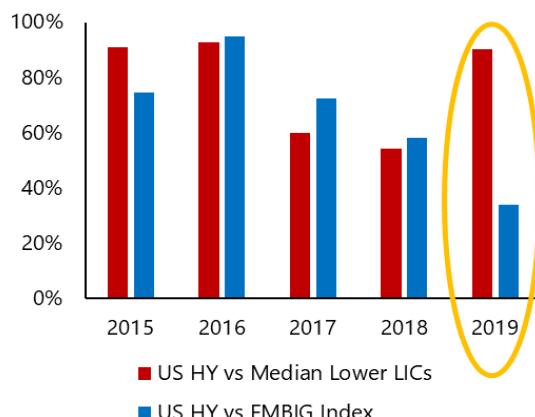
Bond spreads for frontier issuers are highly correlated with external risk appetite (proxied by spreads for US High Yield bonds)

The correlation with US HY spreads broke down for EM spreads in 2019. It remains high (and rising) for lower-income economies.

Dollar Bond Spreads for Frontier Borrowers, and US High Yields (Basis points)



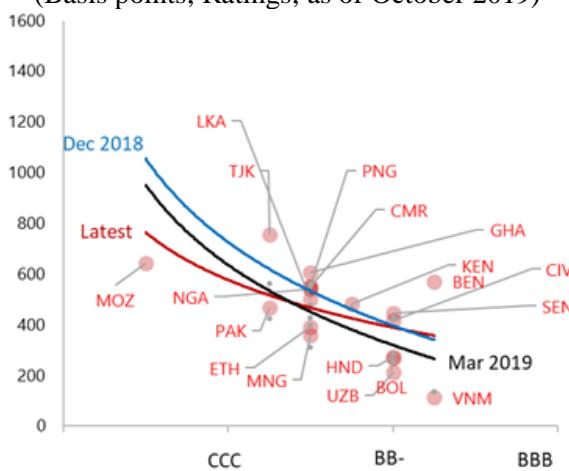
Correlation between US HY Spreads and EM / Low-income countries (Percent)



Sources: Bloomberg, IMF WEO, IMF Staff Estimates.

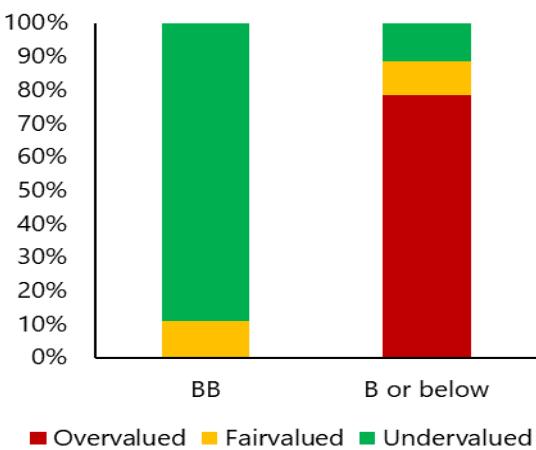
Individual countries are trading at big variations from their rating implied-spreads

Dollar Bond Spreads vs Ratings (Basis points; Ratings; as of October 2019)



Within this sample of countries, lower-rated issuers seem to be more overvalued

Distribution of Countries per overvaluation (Percent; As per GDP, Q3 2019)



Sources: Bloomberg, IMF WEO, IMF Staff Estimates.

Local Currency Bond Markets

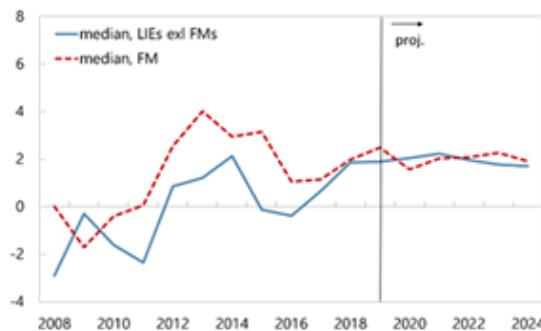
4. The literature on foreign holdings of local currency debt instruments is limited, focusing on emerging market economies and mostly on their impact on yields rather than their determinants. The literature mostly studies overall capital flows without necessarily separating portfolio debt from other flows such as direct investments (see Hannan 2018 for a survey). Most studies focus on the impact of foreign holdings on yields and yield volatility in emerging market economies (Ebeke and Kyobe 2015; Peiris 2010). Konopczak (2015) in a panel of 18 emerging market economies finds that a 1-percent increase in non-resident inflows induces a decline in bond yields by slightly more than 3 basis points.

5. Foreign investors' interest in local currency debt in emerging market economies seems to be driven largely by global factors. Out of the studies on the drivers of foreign holdings, most focus on the role of global factors. For example, Gosh and others (2016) study the role of US interest rates, global risk aversion and commodity prices in a sample of 53 emerging market economies. Arslanalp and Tsuda (2015) and JP Morgan (2015) show that benchmark-driven investors, who are typically more sensitive to global (or push) factors than country-specific (or pull) factors, held more than one third of total foreign holdings in emerging market local currency government bond markets at end-2014. Raddatz and others. (2017) and Sienraert (2012) also highlight the importance of this “benchmark effect”. Empirical analysis for LIEs, however, is almost non-existent, partly because non-resident interest in these countries is relatively new and/or because of data constraints.

6. If external factors can encourage non-resident inflows, strong domestic policies in “good times” can discourage outflows. Gosh and others. (2016) using data from 53 emerging market economies argue that policies in good times (when capital is flowing in) can shape the outcome in bad times (when capital reverses). Even if inflows are mostly driven by external factors, they find that countries that allow the buildup of macroeconomic imbalances are more likely to experience a banking or currency crisis after a surge of inflows. Empirical analysis for Nigeria also highlights the importance of global factors such as oil prices and global financial conditions—factors that have a big weight in benchmark-index funds (Hosny forthcoming). That said, strong domestic fundamentals are also important, such as fiscal transparency (Kemoe and Zhan 2018) and institutional quality (Bae 2012) in supporting foreign holdings of local currency debt.

7. Countries' increased reliance on local currency issuances and nonresident participation in LC debt markets have benefits but also risks. LC issuances are generally

**Real Interest Rate Differential in LC-FX, in LIEs vs FMs
(in percentage points)**



Sources: Fund staff calculations based on the LIC-DSF database.

associated with financial deepening (IMF and World Bank 2015), which in turn is associated with higher growth (IMF 2015). Furthermore, it can reduce exchange rate risk and currency and maturity mismatches, improve capacity to respond to shocks and diversify the domestic investor base (IMF and WB 2018; IMF, WB, EBRD, OECD 2013). But LC financing can initially increase costs—as LC financing can be more expensive than FX borrowing (the figure illustrates the historical interest rate differential and how it is expected to continue in the future)—and refinancing risks due to the general dependence on T-bills and short-term securities (the figure shows the redemption profile of Kenya). Similarly, higher non-resident participation creates greater demand for local debt securities, boosts market liquidity, improves price discovery (Bae 2012; and Arslanalp and Tsuda 2014), and reduces long-term government bond yields (Peiris 2010; and Lu and Yakovlev 2017). However, it can also increase the transmission of global shocks (Essers and others 2016; Ebeke and Kyobe 2015), raise external funding risks (Arslanalp and Tsuda 2014), and raise exchange rate and yield volatility (Ebeke and Lu 2015).

