

# Are We Heading for Another Debt Crisis in Low-Income Countries?

## Debt Vulnerabilities: Today vs the pre-HIPC Era

Chuku Chuku, Prateek Samal, Joyce Saito, Dalia Hakura,  
Marcos Chamon, Martin Cerisola, Guillaume Chabert, and  
Jeromin Zettelmeyer

WP/23/79

*IMF Working Papers* describe research in progress by the author(s) and are published to elicit comments and to encourage debate.

The views expressed in IMF Working Papers are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

**2023  
APR**





**IMF Working Paper**  
Strategy, Policy, and Review Department

**Are We Heading for Another Debt Crisis in Low-Income Countries? Debt Vulnerabilities: Today vs the pre-HIPC Era**

Prepared by Chuku Chuku, Prateek Samal, Joyce Saito, Dalia Hakura, Marcos Chamon, Martin Cerisola, Guillaume Chabert, and Jeromin Zettelmeyer

Authorized for distribution by Ceyla Pazarbasioglu  
April 2023

**IMF Working Papers describe research in progress by the author(s) and are published to elicit comments and to encourage debate.** The views expressed in IMF Working Papers are those of the author(s) and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

**ABSTRACT:** There are growing concerns that 25 years after the launch of the HIPC debt relief initiative, many low-income countries are again facing high debt vulnerabilities. This paper compares debt vulnerabilities in LICs today versus those on the eve of the HIPC Initiative and examines challenges to a similarly designed debt-relief framework. While solvency and liquidity indicators in most LICs have steadily worsened in recent years, they remain substantially better on average than they were on the eve of HIPC in the mid-1990s. This said, if current trends persist, debt vulnerabilities in LICs could (but would not necessarily) reach levels comparable to the pre-HIPC era over the medium- to long-term. Today's more complex creditor landscape makes coordination challenging. It is therefore essential for countries to reduce today's debt burdens promptly through economic reform, lowering the cost of financing, and debt restructuring on a case-by-case basis. The international community should also step up efforts to improve debt restructuring processes, including the G20 Common Framework, to ensure that debt relief is delivered in a timely and efficient manner where it is needed.

**RECOMMENDED CITATION:** Chuku Chuku, Prateek Samal, Joyce Saito, Dalia Hakura, Marcos Chamon, Martin Cerisola, Guillaume Chabert, and Jeromin Zettelmeyer. 2023. "Are We Heading for Another Debt Crisis in Low-Income Countries? Debt Vulnerabilities: Today vs the pre-HIPC Era. IMF Working Paper 2023/079, International Monetary Fund, Washington, DC.

JEL Classification Numbers:	O19, H63, F34, F35
Keywords:	Debt Vulnerabilities; Creditor Coordination; Debt Relief; Low-Income Countries; Debt Sustainability Analysis; HIPC; Debt Overhang
Author's E-Mail Address:	<a href="mailto:cchuku@imf.org">cchuku@imf.org</a> , <a href="mailto:dhakura@imf.org">dhakura@imf.org</a> , <a href="mailto:jsaito2@imf.org">jsaito2@imf.org</a> , <a href="mailto:psamal@imf.org">psamal@imf.org</a> , <a href="mailto:mchamon@imf.org">mchamon@imf.org</a> , <a href="mailto:mcerisola@imf.org">mcerisola@imf.org</a> , <a href="mailto:gchabert@imf.org">gchabert@imf.org</a>

## WORKING PAPERS

# **Are We Heading for Another Debt Crisis in Low-Income Countries? Debt Vulnerabilities: Today vs. the pre-HIPC Era**

Prepared by Chuku Chuku, Prateek Samal, Joyce Saito, Dalia Hakura, Marcos Chamon, Martin Cerisola, Guillaume Chabert, and Jeromin Zettelmeyer<sup>1</sup>

---

<sup>1</sup>The authors would like to thank Ceyla Pazarbasioglu for guidance and helpful comments. The paper benefited from the strategic intellectual leadership of Jeromin Zettelmeyer, Guillaume Chabert, and Martin Cerisola, with Dalia Hakura and Marcos Chamon providing direct supervision to the team led by Chuku Chuku. We are grateful for the feedback and comments provided by Andy Berg, Craig Beaumont, Christian Mumssen, Antonio Spilimbergo, Chris Papageorgiou, Filiz Unsal, Anna Ilyina, Vitaliy Kramarenko and participants at the Seminars of the Interdepartmental Consultative Group on Debt. Claudia Isern and Eiman Afshar provided stellar administrative support.

# Contents

<b>EXECUTIVE SUMMARY</b>	<b>4</b>
<b>INTRODUCTION</b>	<b>6</b>
<b>I. THE CURRENT STATE OF DEBT VULNERABILITIES IN LOW-INCOME COUNTRIES</b>	<b>7</b>
<b>II. PRE-HIPC ERA VS. THE PRESENT ERA</b>	<b>9</b>
A. Debt Burden Indicators—Then and Now	10
B. Drivers of Debt Accumulation—Then and Now	17
C. Uncertainty and Asymmetry in the Debt Outlook	18
<b>III. ADDRESSING TODAY’S DEBT CHALLENGES</b>	<b>19</b>
A. The Transformed Financing Landscape for LICs	20
B. Donor Fatigue amidst Private Sector Lending Vigor	23
C. Financing A Possible IFI Participation	23
<b>IV. CONCLUSION</b>	<b>26</b>
<b>ANNEX I. COUNTRY GROUP CLASSIFICATION</b>	<b>28</b>
<b>ANNEX II. FACTORS THAT LED TO THE ESTABLISHMENT OF THE HIPC INITIATIVE</b>	<b>29</b>
<b>REFERENCES</b>	<b>36</b>

## BOX

1. IFI Funding for HIPC/MDRI Debt Relief	26
------------------------------------------	----

## FIGURES

1 Recent Development in LICs Debt	7
2. LICs Financing Needs and Financing Conditions	8
3. Debt Repayment Schedule for LICs	9
4 Historical Debt Stocks and Arrears Accumulation	10
5. Distribution of Debt Sustainability Ratings	12
6. Debt Burden Indicators	13
7. Distances from Thresholds for Solvency and Liquidity Indicators	14
8. PPG External Debt Service and Social Spending in LICs & HIPCs	17
9. Decomposition of Debt Drivers	18
10. Debt Fancharts for a Synthetic LIC	19

11. LICs' Financing Landscape .....	21
12. Concentration of Creditor Holdings. ....	22
13. Developments in Domestic and Alternative Sources of Financing .....	24
14. Donor Fatigue and Private Sector Lending Vigor .....	25

## TABLES

1. HIPC Debt Burden Indicators and Thresholds .....	11
2. LIC-DSF Debt Burden Indicators and Thresholds .....	11
3. Comparison of Median Debt Burden Indicators, 2021 versus 1994 .....	15

## ANNEXES

I. Country Group Classification .....	28
II. Factors that Led to the Establishment of the HIPC Initiative .....	29

## Executive Summary

**Over 25 years after the launch of the Heavily Indebted Poor Countries (HIPC) debt relief initiative, many low-income countries (LICs) are again facing high debt vulnerabilities.**<sup>1</sup> These vulnerabilities have been building up for about a decade and have been accentuated by the COVID-19 shock and Russia's war in Ukraine. There are concerns that low-income countries may be heading for a systemic debt crisis that would require a second-generation HIPC-type solution.<sup>2</sup> How close are we to such a crisis? And what could be the potential challenges to establishing a similarly designed framework-based debt relief mechanism in today's global financing landscape?

**This paper compares debt vulnerabilities in low-income countries today with the situation in the mid-1990s that led to the creation of the HIPC Initiative.**<sup>3</sup> The basis for this comparison are the main indicators entering the debt sustainability framework for low-income countries (LIC-DSF) that the IMF and World Bank have been using since 2018. While it is impossible to retroactively apply the full LIC-DSF analysis to the pre-HIPC setting, these indicators can be extended back in time to assess the evolution of solvency and liquidity indicators of low-income countries since the 1990s. In addition, the paper examines changes in debt structure and creditor composition since the mid-1990s.

**The main conclusion is that, high risks notwithstanding, debt vulnerabilities in low-income countries today remain substantially less alarming on average than they were in the mid-1990s.** Although about 60 percent of low-income countries are facing high debt vulnerabilities—12 are in external debt distress and 28 are at high risk of external debt distress as of end-2022—solvency and liquidity indicators remain stronger on average than they were on the eve of the HIPC Initiative. This said, debt vulnerabilities in LICs could reach levels comparable to those of the mid-1990s over the medium- to long-term if current trends persist and in the absence of policies and reforms to address such vulnerabilities. To illustrate, if external debt service-to-revenue ratios continue to increase at the average rate of one percentage point per annum, as observed over the past decade for the median LIC (or 2 percentage points for LICs that are now in distress or at high risk of distress), liquidity pressures could reach similar levels to the mid-1990s within 7 to 10 years for the median LIC (or less for those in distress or at high risk of distress). The current tightening of financial conditions could exacerbate this trend to the extent that LICs borrow on international markets and/or on variable interest rates.

**The financing landscape for LICs has changed significantly since the mid-1990s, with important implications for debt resolution mechanisms and creditor coordination.** LICs face a more diverse creditor landscape, including new official bilateral and private creditors, new types of instruments, and greater reliance on domestic debt. Non-concessional debt has built up, reflecting the constrained availability of concessional finance and huge development and climate-related needs. The share of non-Paris Club credit to LICs has almost tripled from 8 to 20 percent, private sector debt has more than doubled from 8 to 19 percent, and domestic debt as a percent of GDP has tripled from 8 to 24 percent. Consequently, creditor coordination is generally more

---

<sup>1</sup>Low-income countries in this paper are defined as the analytical group of 69 countries eligible for IMF PRGT facilities.

<sup>2</sup>See, for example, [Take Action, Cancel the Debt for Climate Justice \(Debt Justice\)](#); [G20 must step up efforts to avert looming global debt crisis: Oxfam](#); [Are we ready for the coming spate of debt crises? \(World Bank\)](#).

<sup>3</sup>HIPCs are an analytical group of 39 low-income, heavily indebted poor countries jointly identified by the World Bank and IMF in the 1990s for debt relief under the HIPC Initiative and the Multilateral Debt Relief Initiative (MDRI)

challenging today than in the past. This explains both the creation of new coordination mechanisms—such as the G20 Common Framework—and several of the difficulties in getting a new mechanism to work.

**Lowering debt burdens before debt risks become systemic should be a key priority.** The evidence presented in this paper suggests that a systemic crisis is still some way off, and that it is possible to avert it. To do so will require promptly addressing debt vulnerabilities. Economic policies and external financial support should focus on generating vigorous, sustainable, and inclusive growth, as well as improving debt sustainability. Countries currently in debt distress or whose debt becomes unsustainable should not delay a restructuring that is needed to restore debt sustainability. This requires that timely, efficient, and predictable restructuring processes are available. The international community should therefore step-up efforts to improve debt restructuring processes, including the G20 Common Framework, to ensure that debt relief is delivered in a timely and efficient manner where it is needed.

**Broader debt relief initiatives would prove more challenging than in the past and affect the capacity to scale up concessional finance.** Coordination among stakeholders has become increasingly complex, including in the light of more fragmented international relations today than in the 1990s. HIPC and MDRI took several years to be agreed upon and it is questionable that similar initiatives could reach an agreement rapidly in the current international context. In addition, broad-based debt relief initiatives, such as HIPC and MDRI, would require significant donor contribution, including compensating the cost for participation of the international financial institutions (IFIs), which would affect the capacity of the international community to scale up concessional finance. Scaling up IFI concessional financing to LICs would be a more efficient way to channel donor resources and support LICs to durably “grow” out of high debt burden.



# Introduction

1. **Debt vulnerabilities in low-income countries (LICs) have risen sharply over the last decade, exacerbated by the impact of the COVID-19 shock and Russia's war in Ukraine.**<sup>4</sup> The current debt situation bears both important parallels and differences with the situation of the mid-1990s that triggered the Heavily Indebted Poor Countries (HIPC) Initiative. LICs in the late 1980s and early 1990s were characterized by high debt burdens, poor economic performance, and weak institutional capacity. As a result, they were experiencing difficulties servicing their external debt, accessing financial markets, and mobilizing resources for poverty-reducing investments (IMF, 1996). Similarly, following the global financial crisis, many LICs followed a macro-developmental strategy that relied heavily on external financing and debt accumulation, which led to the buildup of significant debt levels, gross financing needs and, consequently, debt vulnerabilities. The COVID-19 pandemic and Russia's war in Ukraine have aggravated these debt vulnerabilities and economic pressures in LICs (see IMF, 2022a), reminiscent of the situation prevailing in LICs on the eve of the HIPC Initiative.

2. **The current response of the creditor community to the debt crisis in LICs appears to be more agile than the approach that was used in the late 1980s/90s.** The approach in the 1990s first offered cash-flow relief through repeated rescheduling and, once it became obvious that it was insufficient, provided deeper and more durable treatment through the HIPC Initiative. However, this process was protracted over a decade. Similarly, to address today's debt vulnerabilities, the creditor community first offered the debt service suspension initiative (DSSI) to provide immediate cash-flow relief to eligible countries through extended rescheduling and reprofiling of debt and, at the second stage, the G20 Common Framework (CF) to provide deeper relief for qualifying countries that request treatment on a case-by-case basis. Unlike the pre-HIPC era, however, creditors moved faster this time to consider deeper debt treatment through the CF, though effective implementation of the CF has not been as fast as desired. Whether further, broader treatment beyond the currently available mechanisms would be required, such as a HIPC-type framework that includes multilateral debt exposure in the perimeter, depends on the extent to which debt vulnerabilities in LICs become systemic and comparable to those prevalent in the mid-1990s.<sup>5</sup>

3. **This paper compares the current debt landscape in LICs to those prevailing during the late-1980s and 1990s.** The paper aims to answer two key questions: (i) How does the current debt situation compare with the pre-HIPC era? and (ii) What are the challenges and tensions to establishing a similarly designed framework-based approach to debt restructuring today? The main conclusion is that the debt burdens of LICs today are lower and relatively less stressed than they were on the eve of the HIPC Initiative. The average debt-to-GDP ratio for LICs at end-1995 was 102 percent compared to 65 percent by end-2021. Moreover, external arrears accumulation, which was widespread among LICs in the 1990s, appears to have remained subdued following the HIPC/MDRI treatment. At the same time, however, the creditor and instrument composition of LIC debt has changed in ways that make debt restructurings much more difficult than they were in the late 1990s, and potential agreement on a HIPC-type framework even harder.

4. **The paper is organized as follows.** Section I examines the current state of debt vulnerabilities in low-income countries. Section II provides a comparative assessment of the current situation in relation to the pre-

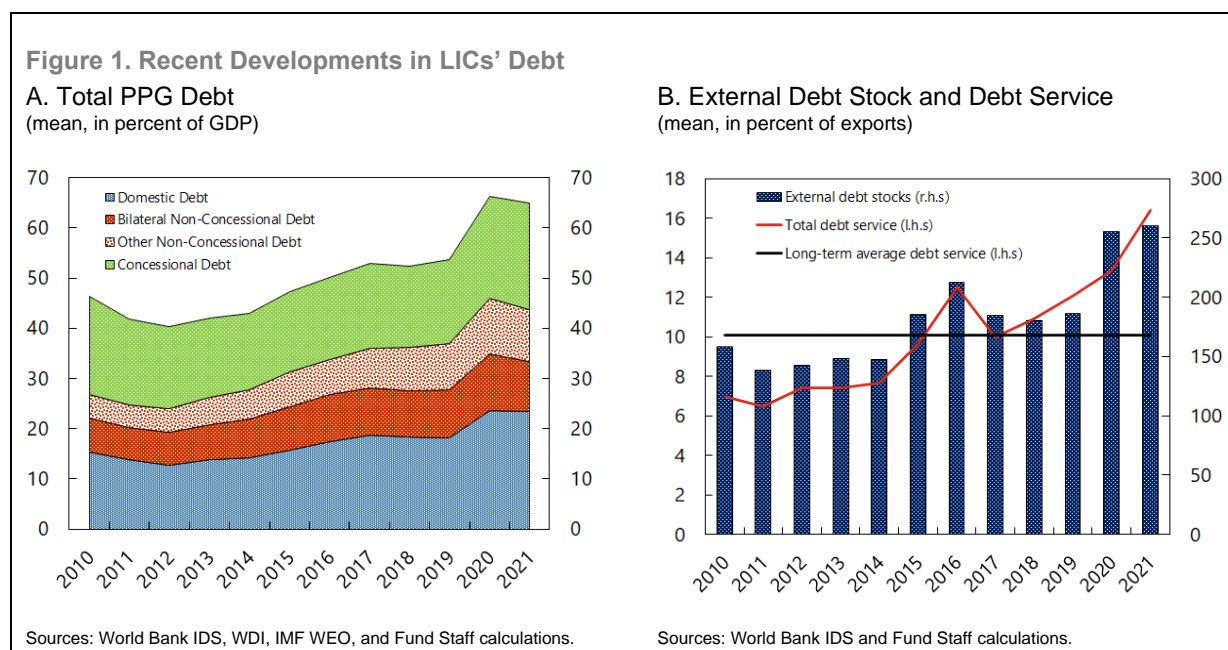
<sup>4</sup>Low-income countries in this paper are defined as the analytical group of 69 countries eligible for IMF PRGT facilities.

<sup>5</sup>A "systemic" debt crisis can be defined in two ways: in the sense of threatening the solvency of large and possibly interconnected private creditors, and hence the global financial system, and in the sense of affecting many debtor countries in one or several regions at the same time, requiring a common, politically agreed process for debt relief that encompasses private, bilateral official and possibly multilateral creditors. The Latin American debt crisis of the 1980s met both criteria. The LIC debt crisis of the 1990s met only the second. Being concerned with debt burdens in LICs, this paper uses "systemic" in the sense of the second criterion.

HIPC era, with a focus on debt burden indicators and the drivers of debt accumulation. Section III assesses the challenges to a similarly designed HIPC-type debt restructuring framework today, while Section IV concludes with some considerations for the way forward.

## I. The Current State of Debt Vulnerabilities in Low-Income Countries

5. **The impact of the COVID-19 shock and Russia's war in Ukraine combined to exacerbate already growing debt vulnerabilities in low-income countries.** Both solvency and liquidity indicators of debt burden have risen rapidly for LICs over the last decade. Total public and publicly guaranteed debt-to-GDP ratio increased by an average of one percentage point per annum between 2010 and 2019 and jumped by 13 percentage points in 2020 due to COVID-19-related impacts. A closer look at the structure of debt shows that the rapid growth over the last decade was mostly driven by two components: (i) domestic debt and (ii) external non-concessional debt.<sup>6</sup> Mean debt service ratios (the sum of interest and principal coming due as a share of exports, which provides a broad measure of liquidity pressures), more than doubled within the same period, growing from 7 percent of exports in 2010 to 16 percent of exports in 2021 (Figure 1B).



6. **Financing needs for LICs increased sharply, especially in the aftermath of the pandemic and the related cost-of-living shock triggered by higher food and energy prices.** The median public gross financing need (GFN)—the broadest measure of pressure on government finance, reflecting not only debt service but also the non-interest fiscal deficit—was 5.5 percent of GDP for LICs in 2019. By the end of 2022, it had reached 9.3 percent, with a sizable number of countries having GFNs above 15 percent of GDP. Governments have generally required more financing to support COVID-19-related spending amidst lower revenues and, more recently, to

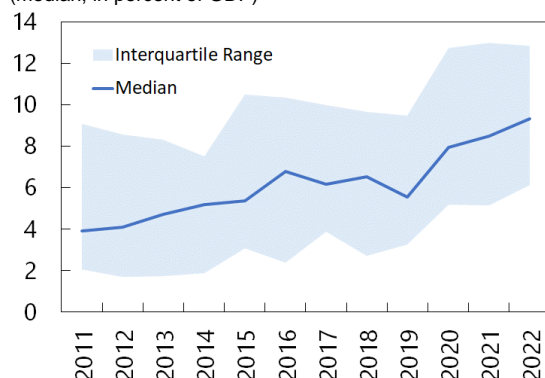
<sup>6</sup>Consistent with the definition used in IMF (2021), “domestic debt” in this paper is defined as debt issued in domestic debt markets, typically under domestic law and in domestic currency. Most domestic debt in LICs is held by resident investors such as banks.

finance costlier import bills for basic commodities such as food, fertilizer, and fuels given significantly increased prices as a result of Russia's war in Ukraine (Figure 2A).

**7. Higher financing needs, along with a deterioration of the risk perception of the frontier LICs' asset class have recently contributed to harsher financing terms, coupled with the increasing use of riskier financing instruments by LICs.** Eurobonds and syndicated loans from private banks have soared since 2016 (Figure 2D). At the same time, grace periods on new debt have been declining (Figure 2B), while the level and volatility of spreads have increased (Figure 2C). As global monetary conditions tighten in response to rising inflation, LICs are facing investor 'flight to quality' and have begun to either offer more expensive terms for new debt or roll over existing debt. Besides slowing down the pace of recoveries by weakening investments in LICs, this trend could also aggravate debt vulnerabilities in these countries.

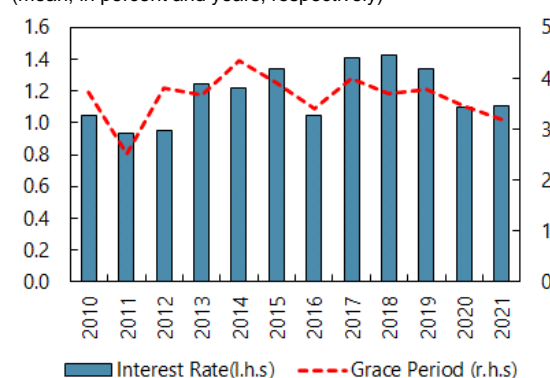
**Figure 2. LICs' Financing Needs and Financing Conditions**

**A. Public Gross Financing Needs**  
(median, in percent of GDP)



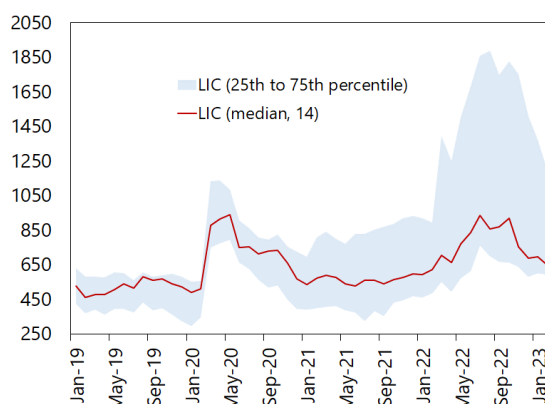
Sources: IMF WEO, LIC DSAs, and Fund Staff calculations

**B. Interest and Grace Period on New Debt**  
(mean, in percent and years, respectively)



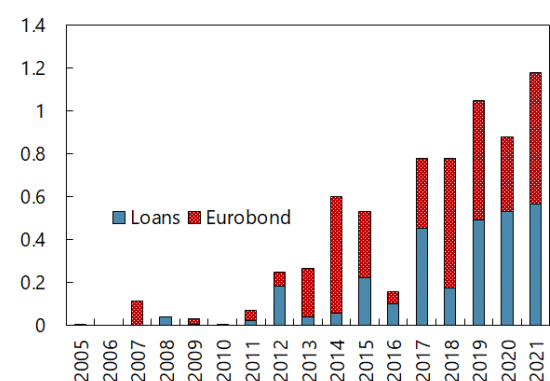
Sources: World Bank IDS and Fund Staff calculations.

**C. Sovereign Spreads**  
(median, in bps)



Sources: Bloomberg and Fund Staff calculations.

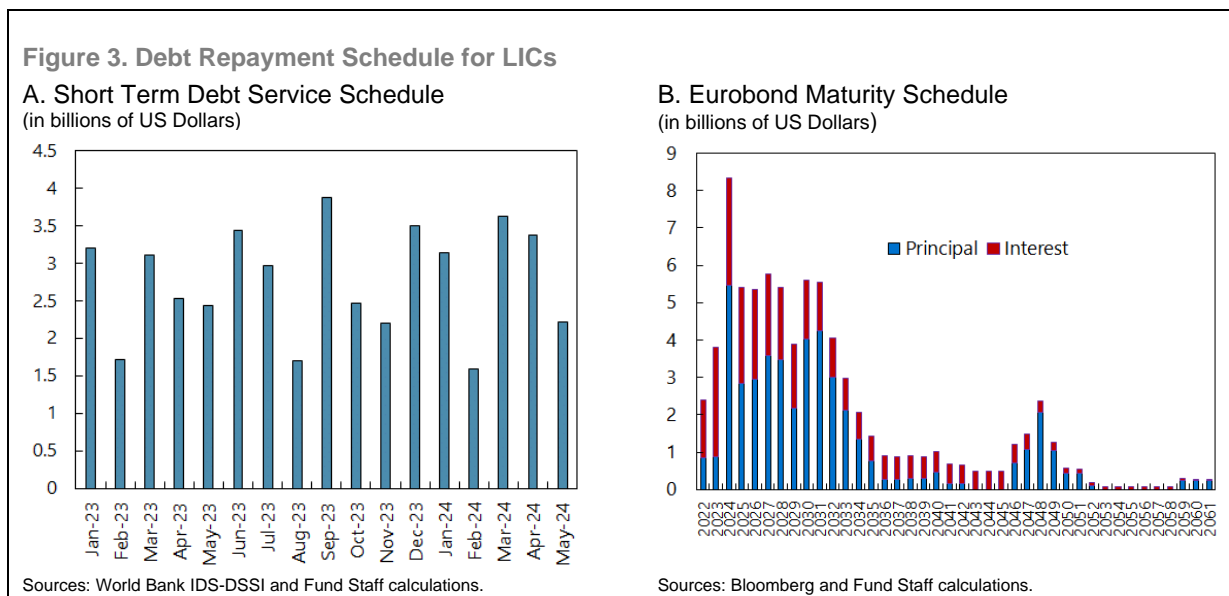
**D. Syndicated Loans and Eurobond Issuances**  
(in percent of GDP)



Sources: Dealogic, Bond Radar, IMF WEO

**8. In many LICs, large debt repayments are coming due in the near term.** The medium-term external debt service profile for LICs is elevated, with lumpy repayments due within the next 2 to 5 years, especially in countries whose spreads are at levels normally associated with distressed debt situations. In particular, high private debt amortizations are due from 2024 onwards, reflecting a surge in LICs' Eurobond issuances during

the more relaxed global financing conditions that prevailed in the aftermath of the global financial crisis (2013-16) (Figure 3).



## II. Pre-HIPC Era vs. the Present Era

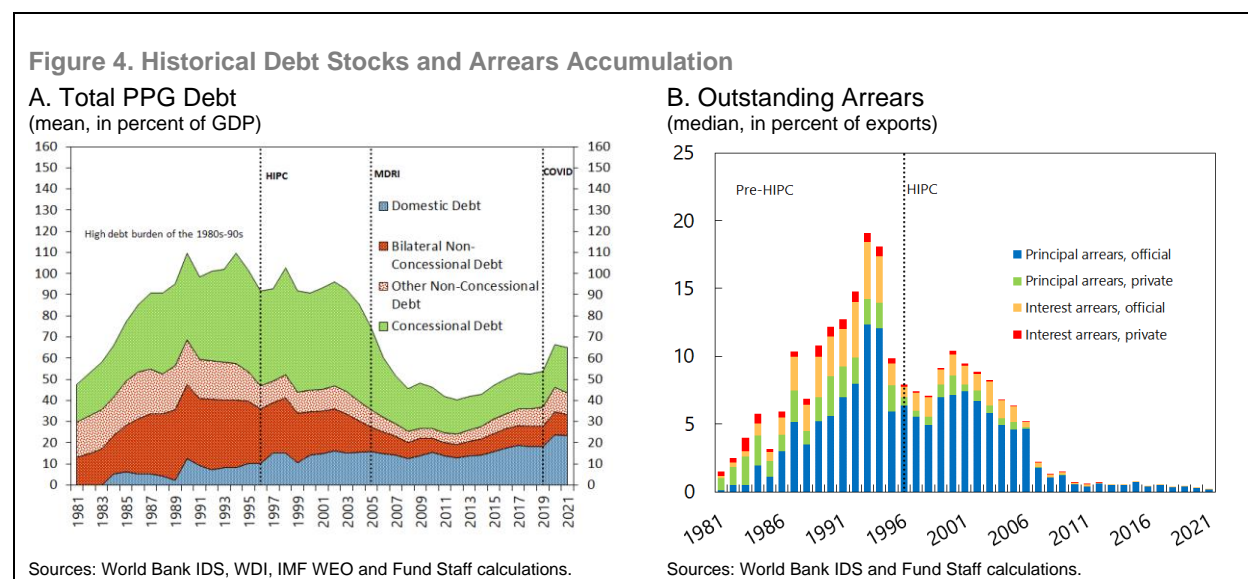
9. **The eve of the HIPC Initiative was characterized by heightened debt vulnerabilities, large exogenous shocks, poor growth, and limited policy and structural reforms in low-income countries** (see Annex II). The average total public and publicly guaranteed (PPG) debt-to-GDP ratio in LICs was 104 percent in 1990-95,<sup>7</sup> the average external debt stock was six times the size of exports (600 percent), and median accumulated arrears (principal and interest) reached 19 percent of exports (Figure 4),<sup>8</sup> with lackluster growth of 1 percent from limited policy and structural reforms over 1990-95 (IMF, 1997). The situation today is similar in some aspects. Public debt vulnerabilities have been rising fast since the last decade. LICs are facing exogenous shocks from multiple global and domestic crises (e.g., the COVID-19 shock and the commodities price shock due to Russia's war in Ukraine), and growth has slowed down in these countries.

<sup>7</sup>To put these numbers in historical perspective, the comparable debt-to-export ratios during the debt crisis of middle-income countries in the 1980s was about four times the size of exports—Mexico (400 percent), Brazil (450 percent) (See IMF 1996).

<sup>8</sup>The sudden, and then gradual reduction in arrears after the HIPC Initiative in Figure 4B (after the vertical line) can be explained by the debt cancellation that the HIPC Initiative and its subsequent enhancements provided—in some cases, up to 80 percent of debt was cancelled at the completion point of HIPC—while the gradual reduction up till the late 2000s reflect the staggered completion points of LICs that participated in the HIPC/MDRI Initiative.

## A. Debt Burden Indicators—Then and Now

10. **The framework for assessing debt burden indicators and the associated thresholds has evolved markedly since the launch of the HIPC Initiative.** Prior to the HIPC Initiative, debt burden was assessed primarily using the present value of debt-to-exports and debt service-to-exports ratios.<sup>9</sup> However, with the HIPC Initiative, the key indicators and thresholds for assessing debt sustainability were broadened to also include the PV of debt-to-revenues (Table 1).<sup>10</sup> These three debt burden indicators and their associated thresholds were used to determine a country's eligibility for debt relief, and the amount of debt relief to be granted under the HIPC Initiative.<sup>11</sup> In 2005, the low-income countries' debt sustainability framework (LIC-DSF) was introduced as a more comprehensive tool for assessing debt sustainability. The indicative thresholds were linked to the quality of a country's policies and institutions and, more generally (after the 2017 LIC-DSF review), to the domestic and global economic environment—growth, remittances, and reserves—which are used to determine a country's debt carrying capacity (Table 2).



11. **The distribution of debt sustainability rating assessments for LICs today is broadly similar to the distribution prevailing on the eve of the HIPC Initiative based on the methodology used at that time.** Using the LIC-DSF methodology, about 60 percent of LICs are currently assessed as having a high risk of debt distress or “in debt distress”—12 countries (17 percent) are in debt distress and 28 countries (41 percent) are at high risk of debt distress as of December 2022 (Figure 5A). Using debt sustainability assessments available on the eve of the HIPC initiative, 53 percent of low-income countries with DSA assessments were rated as “unsustainable” or

<sup>9</sup>The debt indicators used for the original HIPC Initiative applied a “rule-of-thumb” for assessing debt sustainability based on the evolution of two indicators in relation to their threshold ranges: (i) for the PV of debt-to-export ratio, the threshold was 200 to 250 percent, and (ii) for the debt service-to-export ratio, 20 to 25 percent. Countries with indicators falling below the threshold were considered sustainable, those with indicators that fell within the range were considered “possibly stressed” and those with indicators above the threshold were considered to be “unsustainable” (see Debt Sustainability Analysis for Heavily Indebted Poor Countries, SM/96/22, January 31, 1996).

<sup>10</sup>See IMF 2003.

<sup>11</sup>A country is considered eligible for the initial HIPC debt relief if after the 67 percent stock-of-debt reduction under the Naples terms, its debt indicators still exceed the thresholds in Table 1.

“possibly stressed” (Figure 5B).<sup>12</sup> However, the methodology used in the mid-1990s is not comparable to the 2017 LIC DSF methodology, which is more rigorous and uses more information—in particular by classifying countries into different debt-carrying capacity levels based on the quality of institutions and other domestic and global fundamentals (see Table 2).

**Table 1. HIPC Debt Burden Indicators and Thresholds<sup>1/</sup>**

Indicator	Threshold (%)
PV of debt-to-exports	150
PV of debt-to-revenue	250 <sup>2/</sup>
Debt service-to-exports	15 to 20 by completion point

1/The table shows the HIPC debt burden indicators (IMF, 2003).

2/The fiscal revenue threshold only applies if the economy is classified as an open economy and additionally, the export-to-GDP ratio is at least 30 percent and the revenue-to-GDP ratio is at least 15 percent

**Table 2. LIC-DSF Debt Burden Thresholds<sup>1/</sup>**

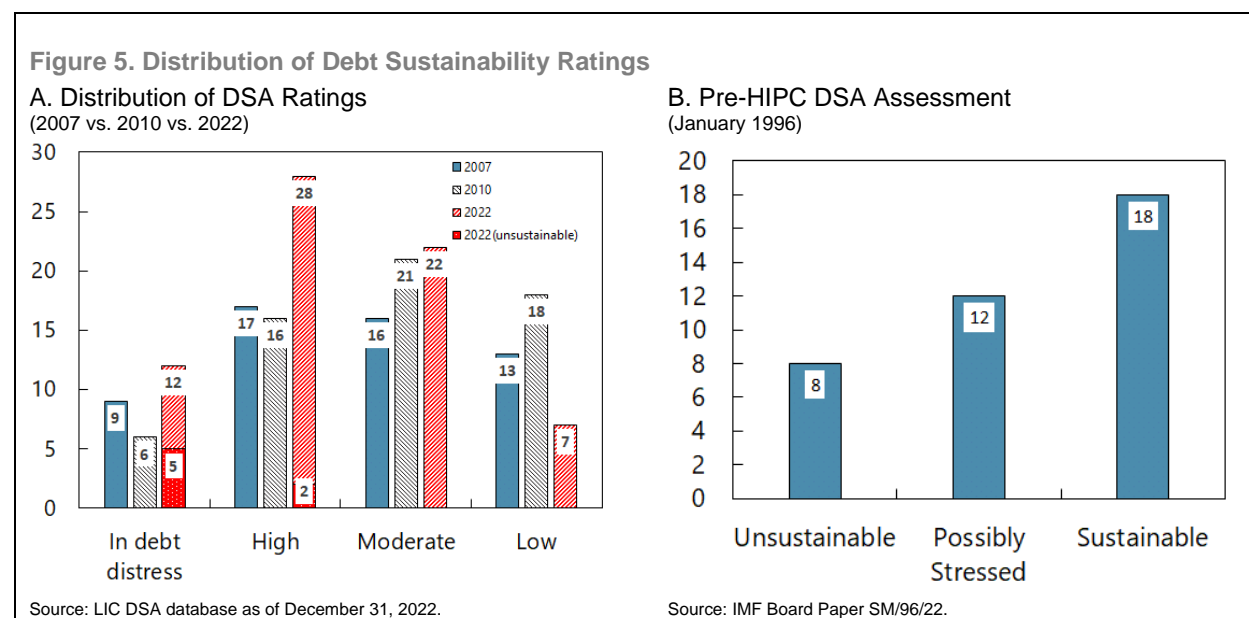
Debt-carrying capacity	PV of external debt as % of:		External debt service as % of:		PV of total debt as % of
	GDP	Exports	Exports	Revenue	
Weak	30	140	10	14	35
Medium	40	180	15	18	55
Strong	55	240	21	23	70

1/The table shows the thresholds used to assess debt risks under the 2017 IMF-World Bank debt sustainability framework for low-income countries for each of the main operational debt burden indicators used in the framework (present value of external debt as a percent of GDP or exports, external debt service as a percent of exports or revenue, and present value of total debt as a percent of GDP). The thresholds depend on the country's debt-carrying capacity, which is assessed as “weak”, “medium” or “high” based on the level of a composite indicator computed for each country as a linear combination of the World Bank's Country Policy and Institutional Assessment (CPIA) score, the country's real GDP growth, remittances, international reserves, and world growth. See IMF (2017).

12. **While it is impossible to use today's LIC-DSF to retroactively assess the debt sustainability of LICs on the eve of HIPC, it is possible to use the *indicators* underlying the LIC DSF.** Unfortunately, it is impossible to tell how the distribution of debt risks would have been assessed in the mid-1990s if the full 2017 LIC DSF had been applied at the time, as the World Bank's Country Policy and Institutional Assessments (CPIA), which are needed for the LIC-DSF's classification of debt-carrying capacity, are available only since 2004. Hence, it is impossible to say which of today's LIC-DSF burden thresholds would have applied for each country. However, it is possible to approximate the solvency and liquidity risk indicators used in the 2017 LIC-DSF from 1980 onward and track their development over time. The main limitation of this analysis is the absence of a loan-by-loan register for the computation of present values. As a result, the comparisons involving external and total debt stocks presented below are based on the nominal (face value) of debt, which does not account for changes in the degree of concessionality between the two periods. The direction of the latter depends on the country-level creditor structure (IMF, 2019a): while official debt has become more concessional, many LICs borrow more from

<sup>12</sup>On the eve of the HIPC Initiative, 41 low-income countries either had a detailed or preliminary assessment of debt sustainability compared to the sample of 69 countries today that use the LIC-DSF. Although the debt sustainability rating scale used in the pre- and early HIPC period is different from the current scale used for LIC-DSF, they have an indicative mapping correspondence: the “unsustainable” and “possibly stressed” rating have a correspondence with the “in distress” and “high risk” of debt distress rating, respectively, while the “sustainable” rating is comparable to the “moderate” and “low” risk of debt distress rating in the LIC DSF.

external and domestic private sources, both of which involve higher interest rates (see Section III for details). This limitation is addressed through a robustness check (see below).

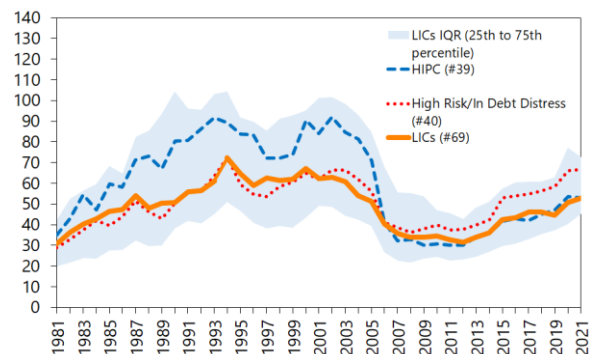


13. **Total debt as a share of GDP remains substantially lower on average for most LICs today than on the eve of the HIPC Initiative** (Figure 6A). At end-1994, the median public debt-to-GDP ratio of a typical (median) LIC was 72 percent, well above the highest tolerable threshold of 55 percent for LICs with strong debt-carrying capacity in today's LIC-DSF framework. In contrast, at end-2021, the median debt-to-GDP ratio for a typical LIC stood at 53 percent, just below the upper threshold, while it stood at 66 percent for LICs at high risk of, or already in debt distress. A comparison of nominal and present value debt ratios between the pre-HIPC era and the present era based on IMF (1997) shows that this conclusion would be robust to the use of present values (Figure 6F).

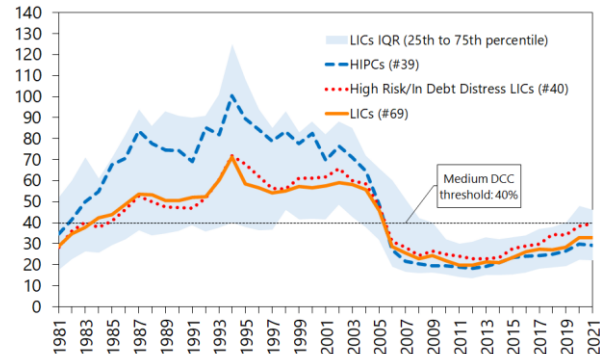
14. **External debt ratios today are less than half the median level on the eve of the HIPC initiative.** The median PPG external debt-to-GDP ratio is currently (as of end-2021) 33 percent of GDP, compared to 71 percent on the eve of the HIPC initiative in 1994, while the PPG external debt-to-export ratio is currently about 137 percent, compared to 318 percent on the eve of HIPC (Figure 6C). By end-1994, 38 out of 69 LICs (more than half) had breached the 150 percent threshold for external debt-to-export ratio. In contrast, as of end-2021, only 25 LICs (about one third) had external debt-to-export ratio above 150 percent. When accounting for a country's respective debt-carrying capacity based on the LIC-DSF framework, three-quarters of LICs are still below their respective debt-carrying capacity thresholds. But countries with weak debt-carrying capacity,<sup>13</sup> based on the currently operational LIC-DSF framework, are the most vulnerable, with the external debt-to-GDP ratio exceeding the threshold in around 10 cases of the 29 in this category (Figure 7A). A similar pattern emerges for the external debt service ratios (Figure 7B).

<sup>13</sup> Five of which are currently (or recently) having debt restructuring discussions with creditors. Not all high-risk countries are headed towards debt restructuring. Although risks are high (especially if the tight financial conditions continue to prevail for longer), countries that continue to implement good policies will likely be able to pre-finance, conduct exchange offers, and/or roll-over maturing debt, thus avoiding a debt distress event.

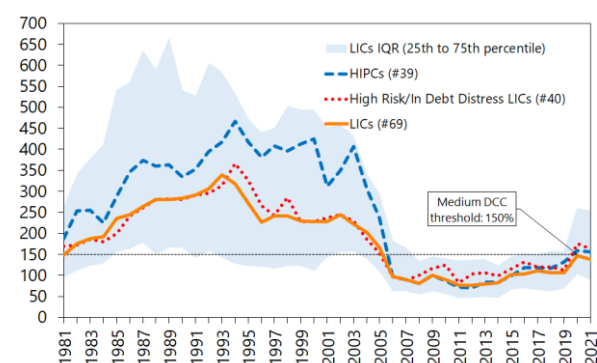


**Figure 6. Debt Burden Indicators****A. Public Debt-to-GDP Ratio**  
(Median, percent of GDP)

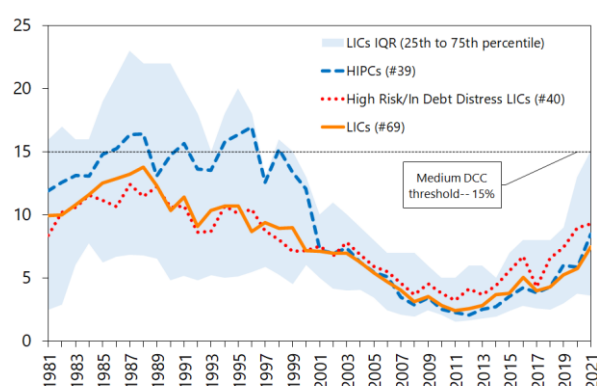
Sources: IMF Global Debt Database 2022, IMF WEO, and Fund Staff calculations

**B. PPG External Debt-to- GDP**  
(Median, percent of GDP)

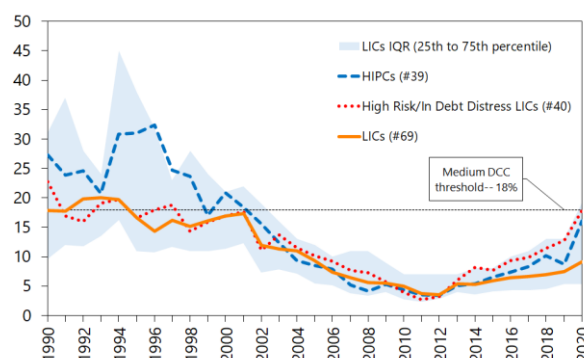
Sources: World Bank IDS, WDI, and Fund Staff calculations

**C. PPG External Debt-to-Exports**  
(Median, percent of exports)

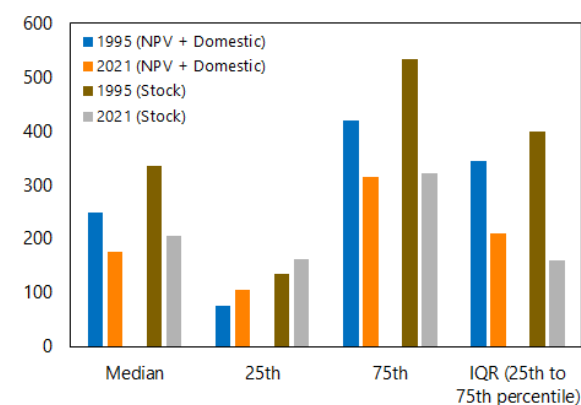
Sources: World Bank IDS and Fund Staff calculations.

**E. PPG External Debt Service-to-Exports**  
(Median, percent in exports)

Sources: World Bank IDS, WDI, and Fund Staff calculations.

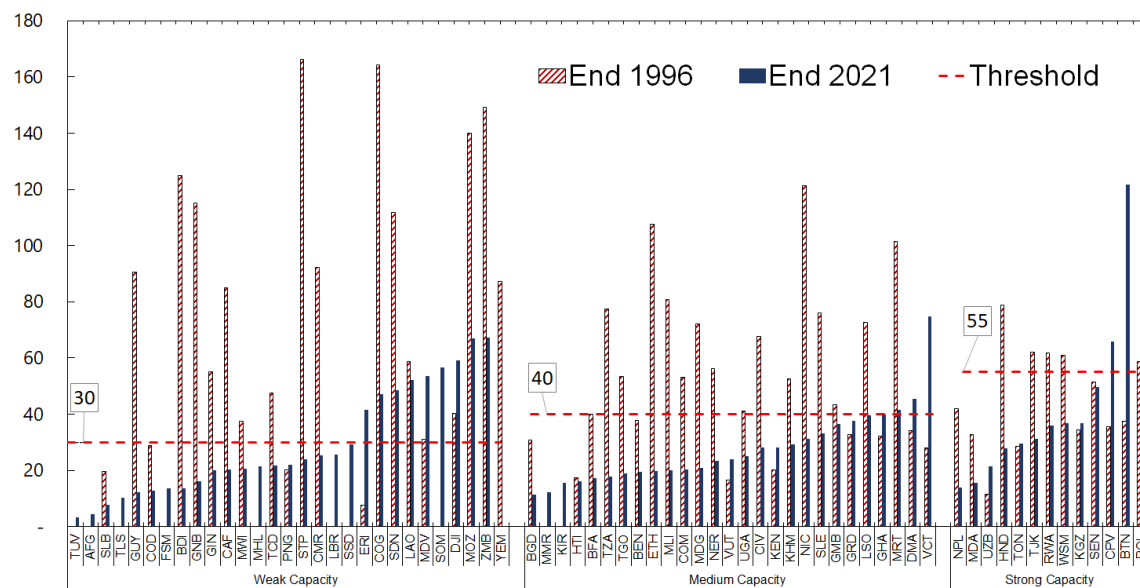
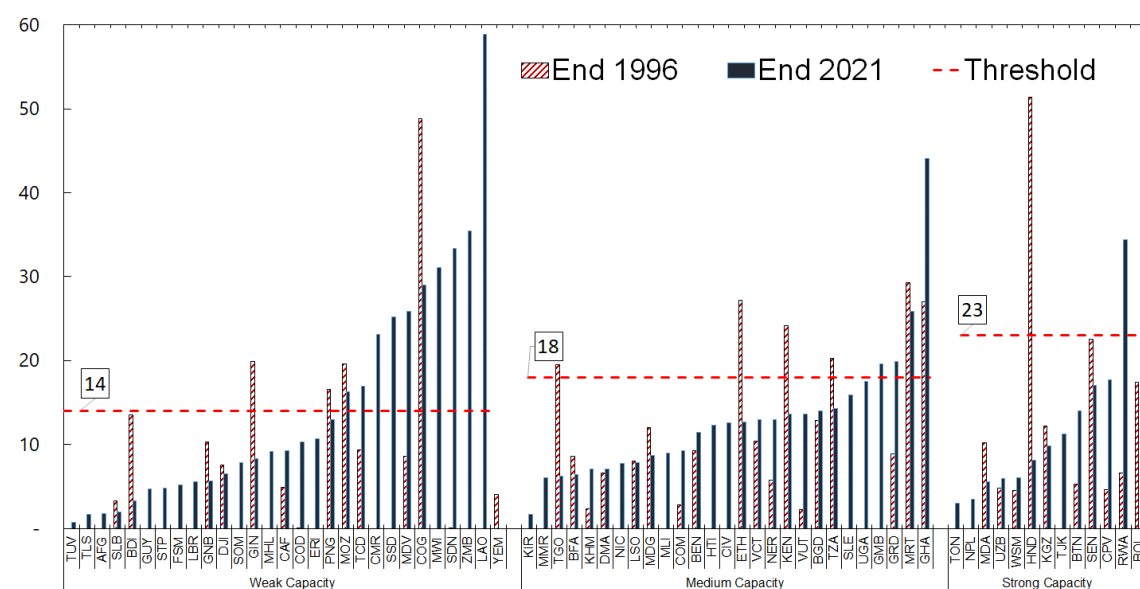
**D. PPG External Debt Service-to-Revenue**  
(Median, percent in revenue)

Sources: World Bank IDS and Fund Staff calculations.

**F. Public debt-to-export ratios NPV vs Nominal value**

Sources: World Bank, WDI, IMF WEO, and Fund Staff calculations.



**Figure 7. Distances from Thresholds for Solvency and Liquidity Indicators****A. External Debt-to-GDP Ratio and Distance to 2021 Threshold****B. External Debt Service-to-Revenue and Distance to 2021 Threshold**

15. **Liquidity risks, as measured by the external debt service ratios, are also comparatively subdued today in relation to the pre-HIPC era.** The median LIC had to use about 18 percent of its revenues and 10 percent of its export earnings to service external debt on the eve of the HIPC Initiative in 1994 (Figures 6D and 6E). In contrast, today's median LIC spends about 10 percent of revenues and 8 percent of export earnings on external debt service, below the most restrictive threshold of 14 and 10 percent, respectively, for countries with a weak debt-carrying capacity in the LIC-DSF framework. For LICs currently assessed to be at high risk of, or already in debt distress, external debt service is much higher—18 percent of revenue and 9 percent of export earnings—but still below the corresponding values for the average LIC in 1994. This said, if external debt service-to-revenue ratios continue to increase at the average rate of one percentage point per annum, as observed over the past decade for the median LIC (or 2 percentage points for LICs that are now at in distress or at a high risk of debt distress), external liquidity burdens could reach similar levels as the pre-HIPC era within the medium- to long term (7 to 10 years) for the median LIC (and less for those already in distress).

16. **To conclude, both solvency and liquidity indicators used in today's LIC-DSF suggest lower debt risks in low-income countries today compared to the debt crisis of the 1990s that preceded the HIPC Initiative.** This conclusion holds across all five debt burden indicators used in the LIC DSF and both within and across specific subgroups of LICs. The latter include: (1) LICs classified as heavily indebted poor countries (HIPCs) in the 1990s; (2) LICs assessed to be in debt distress or, at high risk of debt distress today; (3) LICs assessed to be in debt distress or, at high risk of debt distress today compared to LICs assessed to be HIPCs in the 1990s (Table 3). Specifically, median debt burden indicators among LICs assessed to be in or at high risk of debt distress today are uniformly lower than the corresponding median debt burden indicators among HIPCs in the mid-1990s.

**Table 3. Comparison of Median Debt Burden Indicators, 2021 versus 1994\***

Group	Year	Total debt as % of GDP	External debt as % of:		External debt service as % of: *	
			GDP	Exports	Exports	Revenue
All LICs	1994	72	71	318	10	18
	2021	53	33	137	8	10
HIPCs	1994	89	101	466	16	31
	2021	53	29	155	8	16
Today's high-risk countries	1994	72	72	366	11	20
	2021	66	39	163	9	18

Sources: World Bank IDS, IMF WEO, and Fund Staff calculations

\* Debt service ratios for 2020-21 are affected both by the DSSI (on the numerator) and the contractionary impact of the COVID-19 shock (on the denominators). Thus, the comparison between the mid-1990s and today's debt service figures for the median LIC should be interpreted with caution due to these counteracting effects. Latest External debt service as percent of revenue data is for end-2020.

\* The accurate comparison to be made from the table is between the debt ratios of HIPCs in 1994 and those of Today's high-risk countries in 2021.

17. **These conclusions are subject to important caveats, which relate to the quality of debt data and changes in the creditor structure of public debt in LICs.** First, weaknesses in the coverage of current debt data from the use of more complex and diverse debt instruments associated with the changing financing landscape may mask bigger challenges than implied by current debt statistics, including, for example, from lack of reliable information on government guarantees, debt of state-owned enterprises, guarantees extended to public-private partnerships, or collateralized financing. Second, for LICs with significant access to international capital markets, the LIC-DSF debt service indicators hide the relatively higher exposure to rollover risks from tightening global financing conditions when compared to the eve of HIPC. Third, domestic debt in LICs has been rising as a share of total debt (Figure 1A). This has implications for the comparison of solvency and liquidity indicators:

- Most obviously, it makes total debt to GDP a better solvency indicator than external public debt to GDP. However, the rise in domestic debt could also complicate the interpretation of changes in total debt. In countries without financial repression, domestic debt is generally both more expensive and of shorter maturity than foreign debt; hence, an increasing share of domestic debt might lead to a higher debt burden even if total public debt is unchanged (or even declining). While Figure 6F suggests that this does not change the conclusion that today's public debt burdens are lower for most LICs than in the mid-1990s, country-level analysis of sustainability should focus on present values and/or debt and debt service projections.
- Liquidity risks associated with domestic debt service, which unfortunately cannot be included in the analysis for lack of systematic cross-country data, are not captured by the external debt service indicators used in the LIC-DSF. As a result, these indicators both understate total liquidity risk and—given the rising share of domestic debt—overstate the extent to which liquidity risk has come down compared to the mid-1990s. Given the two-to-one margin between median external debt service in 2021 and in the mid-1990s (Table 1), the inclusion of domestic debt service would be unlikely to change the conclusion that median debt service has declined, but it could well change this conclusion for individual countries.

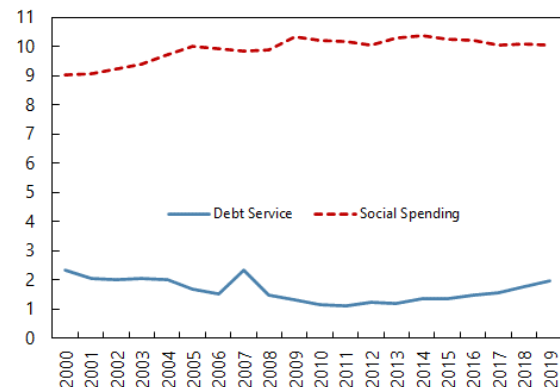
18. **While debt service payments are increasingly displacing social spending in LICs, the degree of debt overhang also appears to be more contained today than on the eve of the HIPC Initiative.**<sup>14</sup> Recent stylized facts suggest the re-emergence of the debt overhang syndrome in LICs, as the gap between the share of social spending and debt service as a share of GDP in LICs has been declining, suggesting that the growing size of debt service payments since 2012 is crowding out social spending (Figure 8). This provides a *prima facie* case for debt relief to help LICs free up resources from debt servicing that can then be channeled toward spending on education, health, and physical infrastructures. However, as Figure 8 also shows, the degree of displacement or debt overhang today is less severe than it was at the time of the debt crisis of the mid-1990s.<sup>15</sup>

<sup>14</sup>Debt overhang occurs when the associated debt service payments from high debt levels increases beyond a country's repayment capacity so that it causes a disincentive to invest in and grow the domestic economy because the returns from such investments are "taxed away" by existing foreign creditors, while investments by domestic and new foreign investors are discouraged. See Cohen and Sachs (1986), Deshpande (1995), Elbadawi, Ndulu, and Ndung'u (1997), and Krugman (1988) for theoretical and empirical evidence on the debt overhang in LICs and EMs.

<sup>15</sup>The evidence on debt overhang in LICs is not conclusive, partly because of the difficulty to disentangle the crowding out effect of higher debt from debt overhang (Cohen, 1993).

**Figure 8. PPG External Debt Service and Social Spending in LICs & HIPCs****A. LICs**

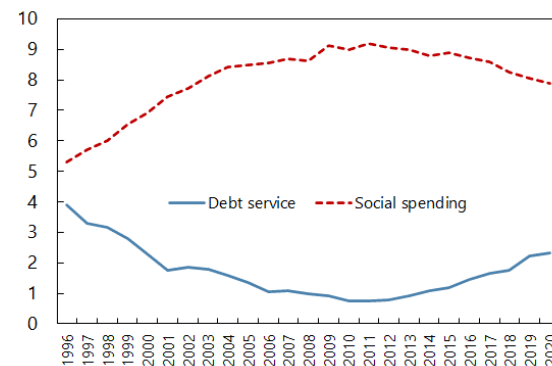
(mean, in percent of GDP)



Source: World Bank IDS, and Fund Staff calculations

**B. HIPCs**

(mean, in percent of GDP)



Source: World Bank IDS, and Fund Staff calculations

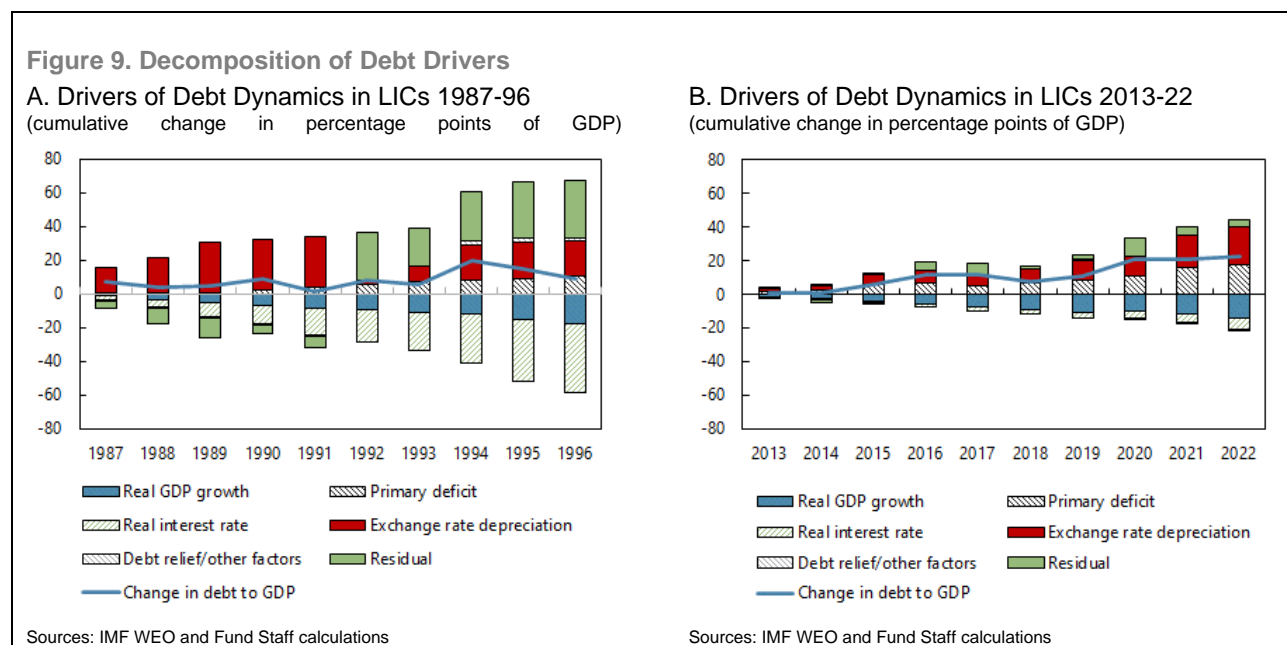
**B. Drivers of Debt Accumulation—Then and Now**

19. **The key drivers of debt accumulation in LICs in the mid-1990s are broadly similar to the key drivers today, though the main sources that helped to contain debt vary.** Primary deficits and valuation effects from exchange rate depreciations remain the two most dominant upward drivers of debt accumulation in LICs, both in the pre- and post-HIPC Initiative eras (Figure 9).<sup>16,17</sup> In contrast, the key sources of debt reduction vary between the two periods. Prior to HIPC, growth, and debt relief made limited contributions to debt reduction, while inflation, privatization flows, and transactions in financial assets were the dominant drivers. In the last decade, growth and debt relief were the key factors that helped to contain the rate of debt accumulation in LICs. Given the high level of debt risks and uncertainty in the global economic environment, the role of debt relief in reducing debt burden in LICs in the future will likely remain important.

20. **A favorable differential between growth and interest rates helped stabilize debt in LICs after the HIPC/MDRI Initiative.** Negative interest-growth differentials helped dampen the rate of debt accumulation among LICs since the 1980s, especially in the last decade (Badia, Arbelaez, and Xiang, 2021). Looking ahead, the recent uptick in inflation and the normalization of monetary policy rates around the globe implies weaker long-run growth, and therefore less favorable debt dynamics in LICs. This said, LICs can influence the growth-interest rate differential not only through growth-enhancing reform, but also by avoiding overborrowing from non-concessional sources. Hence, debt management could be aimed at ensuring that the real interest on the debt portfolio of LICs continues to stay below potential growth.

<sup>16</sup>The large negative residual prior to the HIPC period could be as a result of accounting elements such as cross-exchange rate valuation effects that are not properly accounted for, especially with debt denominated in multiple foreign currencies; and could also arise from differences between the transition and use of accrual and cash accounting systems. The growing size of SOE debt and implicit contingent liabilities that are not adequately captured because of weak Public Financial Management (PFM) and SOE oversight in LICs suggest potentially larger downside risks for the current period.

<sup>17</sup> Going forward, climate related shocks could become an important driver of debt.



## C. Uncertainty and Asymmetry in the Debt Outlook

21. **Fan charts are constructed to show the spectrum of the possible evolution of the debt outlook for LICs over the medium term.** The fan charts are based on the impact on the debt-to-GDP ratio of simulating a large number of shocks to relevant macrofiscal variables of a synthetic LIC. The fan chart for a synthetic LIC, constructed by taking the average values of the historical drivers of debt dynamics for all LICs, helps to approximate the typical frequency distribution of the evolution for typical LICs. The construction of the synthetic LIC makes it operationally straightforward to apply the fan chart module from the MAC DSA toolkit for the pre-HIPC versus today comparison and keeps the simulation exercise computationally manageable.<sup>18</sup>

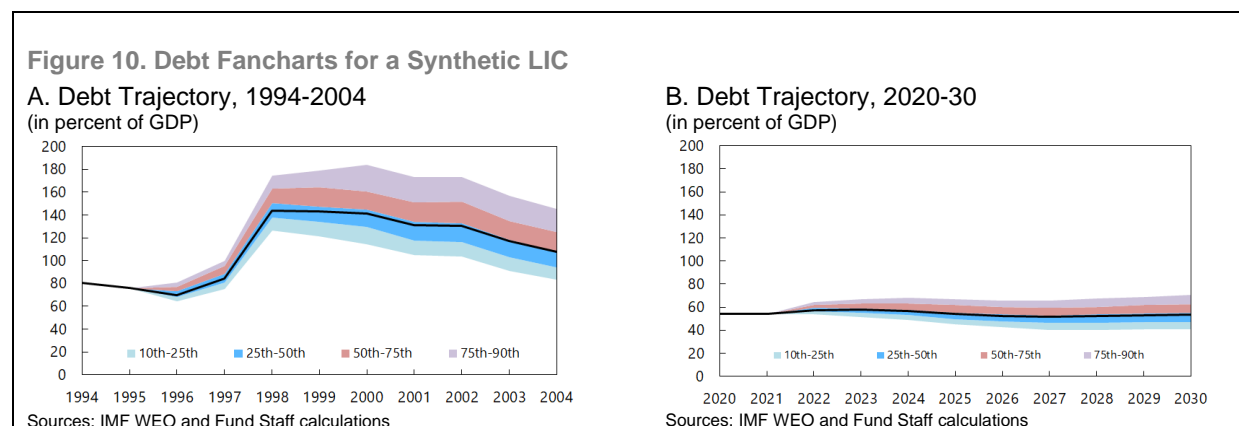
22. **The results indicate that the level and amplitude of the projected debt evolution for a synthetic LIC is lower and narrower today than in the mid-1990s.** The narrower width of debt fan charts reflects relatively less uncertainty in the debt outlook for LICs today than in the mid-1990s (Figure 10). Although the outlook today looks less risky and uncertain compared to the outlook in the mid-1990s, the fan chart simulation exercise suggests that the relationship is tenuous and could have been driven by the great moderation and dynamic growth experienced by LICs in the immediate post-global financial crisis era. The tails of the fan chart suggest that the upside risks (second moments) are increasing. Thus, if current prevailing adverse economic conditions (on growth, primary balance, interest rates, and exchange rates) continue well into the future,<sup>19</sup> the debt profile of LICs will eventually begin to trend consistently upwards and could eventually reach levels comparable to the situation in the mid-1990s that triggered the HIPC Initiative in the medium to long-term.

23. **The debt fan chart suggests that risks to the current outlook are tilted to the downside (with the debt ratio expected to rise).** Whereas in the mid-1990s, the risks were tilted to the upside (with debt expected

<sup>18</sup>The fan charts are constructed by using the average historical data for the synthetic LIC to simulate sample means and variance-covariance matrices that define the joint normal distribution of the macrofiscal drivers of debt evolution. Draws from the joint distribution for each of the variables are then used to generate shocks that are added to the baseline projections (based on Oct 2022 WEO vintage) for each of the variables and fed into the debt dynamics equation to calculate a distribution of the projected debt paths. The historical data used for the pre-HIPC and current periods are 1984 to 1993 and 2010 to 2019, respectively.

<sup>19</sup>Including the residual scarring effects of the COVID-19 shock.

to decline after 1998) due to the effects of prior interventions (especially the Naples terms) that had started to bend down the debt-to-GDP trajectory.<sup>20</sup> The asymmetric distribution of risks for the current LIC debt outlook suggests a higher likelihood for shocks that drive debt upwards (above the median value) to materialize than shocks that drive debt downwards, consistent with projections from the October 2022 World Economic Outlook.



### III. Addressing Today's Debt Challenges

24. **The response of the creditor community to today's debt vulnerabilities in LICs has been somewhat similar in process, different in structure, but quicker in response compared to the crises of the 1980s and 1990s.** The creditor community responded to the debt crises in LICs in the 1980s and 1990s by first rescheduling debt owed to Paris Club creditors. Despite the rescheduling, arrears continued to accumulate and, when it became obvious after about a decade that it was not sufficient to address the problem, there was a second-stage intervention that provided deep debt relief through the HIPC Initiative.<sup>21</sup> Today, the initial response of the creditor community has also been in two stages, similar to the ones of the 1980s/90s. First, they provided NPV-neutral debt relief through the DSSI and, when it became obvious after about a year and a half that LICs required far-reaching concessions to durably restore debt sustainability, they provided a formal restructuring mechanism through the G20 Common Framework. Although similar in some important aspects, the second phase of the response today (i.e., the G20 Common Framework) is different from the second phase of the response of the mid-1990s (i.e., the HIPC/MDRI) in some notable aspects: (i) the former involved a pre-negotiated treatment for all countries while the Common Framework involves debt relief tailored to the specific circumstances of a country; and (ii) the former also involved debt relief from participating multilateral institutions, with involvement of donors to compensate for the losses of these institutions, while the current approach puts the emphasis on the provision of grants and long term concessional finance by multilateral institutions. Importantly, though, both mechanisms include private sector participation on comparable terms.

<sup>20</sup>The Naples terms was the concessional Paris Club debt mechanism that replaced the Toronto and London terms for LICs in 1994. The terms provided eligible LICs with 67 percent NPV reduction in eligible nonofficial development assistance debt.

<sup>21</sup>The process of moving from the first phase to the second HIPC phase involved a protracted period of learning and preparation, whereas transition from the DSSI to the CF was relatively quicker (about a year and a half) because there was a recognition from the onset that the DSSI was a temporary emergency response to the pandemic and more debt relief would be needed.

## A. The Transformed Financing Landscape for LICs

25. **The composition of the creditor base of LICs' debt has shifted away from traditional Paris Club sources toward commercial and non-Paris Club creditors.** At end-1996, when the HIPC Initiative was established, Paris Club (PC) creditors accounted for 39 percent of LICs' external debt while non-Paris Club creditors (NPC) accounted for only 8 percent, with private creditors accounting for 8 percent of the total external PPG debt. However, by the end of 2021, the creditor composition had rebalanced in significant ways, with PC creditors accounting for only 11 percent while the share of NPC creditors more than doubled to 20 percent, and also private creditor holdings more than doubled to 19 percent of total external PPG debt to LICs (Figure 11).<sup>22</sup>

26. **One important shift in the financing landscape for LICs has been the growth in the share of commercial creditors (bondholders and commercial banks), which has more than doubled in size since the HIPC Initiative with implications for ease of debt restructuring.** With many LICs gaining access to international capital markets since the early 2000s and the easing of global financing conditions in the aftermath of the global financial crises, a considerable number of LICs issued their debut Eurobonds and followed up with subsequent issuances of other debt instruments to private creditors (Chuku and Yenice, 2022). This strong wave of commercial borrowing led to a more than doubling in the share of commercial debt in total LIC debt from 8 percent in 1996 to 19 percent by end of 2021. Both the HIPC Initiative and the current version of the G20 Common Framework (as well as all Paris Club debt treatments) require countries to seek debt relief from their private creditors on at least as favorable terms as from their official sector creditors.<sup>23</sup> However, although there is no clear methodology for assessing the comparability of treatment, mechanisms for incentivizing private sector participation depend to a large extent on the IMF's lending into arrears policy. Under the IMF's lending into arrears (LIA) policy, debtor countries, under appropriate safeguards, can access credit from the IMF while restructuring negotiations with their private creditors are still ongoing (IMF, 2022c). Private creditors will have an incentive to agree to the debt treatment because they understand that the debtor country is not able to offer better treatment to them than the one implied by the agreement with official bilateral creditors and that the IMF can continue to lend to the country despite arrears to private creditors (Beaumont and Hakura, 2021). Notwithstanding, there were instances of commercial creditors litigating against debtor countries under the HIPC Initiative and concerns that private sector creditors may become increasingly litigious could compound the process of debt restructuring for LICs today (Schumacher, Trebesch, and Enderlein, 2015; World Bank, 2022).

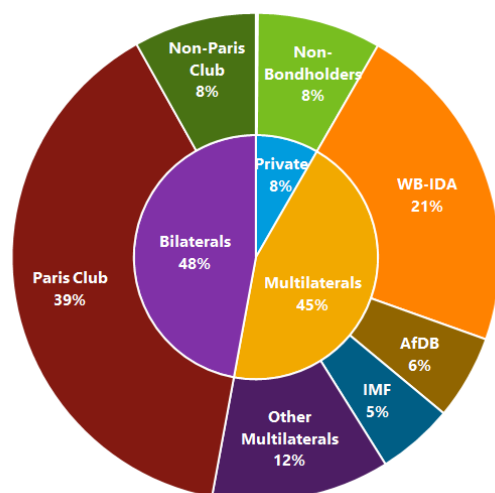
<sup>22</sup>The perimeter of Paris Club creditors is held constant with its 22 permanent members between the two comparison periods—1996 vs. 2020. Changing the perimeter to reflect the three new members that joined over the comparison period causes no material change to the ratios. This is because, the share of the three member countries that joined the Paris Club after 1996—Brazil, Israel, and South Korea—is small, only accounting for less than 0.5 percent (0.0047) of total PPG debt in LICs in 1996.

<sup>23</sup>The DSSI was an exception as it encouraged and did not require private sector participation. In this context, despite the toolkits provided by the Institute for International Finance (IIF, 2020) to facilitate voluntary private sector participation in the G20/Paris Club DSSI, only one private creditor participated (see WB, 2022).

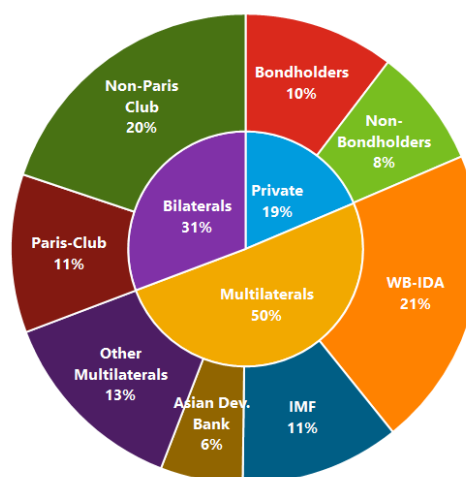


**Figure 11. LICs' Financing Landscape\***

A. End-1996: Distribution of LICs External Debt Creditors  
(in percent of total PPG external debt stock)



B. End-2021: Distribution of LICs External Debt Creditors  
(in percent of total PPG external debt stock)



Sources: World Bank IDS and Fund Staff calculations

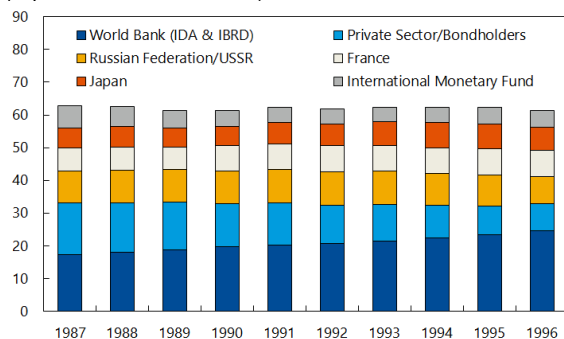
Sources: World Bank IDS and Fund Staff calculations

\*Pie chart segments are based on face value of debt. A more granular comparison could potentially use NPV equivalents of total creditor debt to LICs, where available such as for WB-IDA

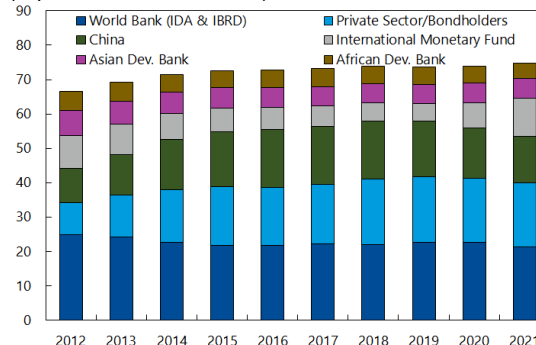
27. **Underlying the changes in the creditor landscape, there is a significant concentration of holdings by a few major creditors.** In the 1980s and mid-1990s, the top-5 creditors to LICs accounted for about 60 percent of total credit to LICs and consisted of multilateral and Paris Club creditors (the World Bank, IMF, France, Japan, and Russia/USSR). As of end-2021, the concentration of the top-5 creditors had further increased, accounting for about 75 percent of total credit to LICs with four multilateral institutions (ADB, AfDB, IMF, and WB) and China as the top creditors to LICs. (Figure 12.A, B). Narrowing down to only official bilateral creditors, prior to the HIPC initiative, the top-5 bilateral creditors to LICs were members of the Paris Club (France, Japan, the US, Germany, and Russia). However, by the end of 2021, China and India, both non-Paris Club members, had entered the group of top 5 creditors to LICs (Figure 12.C, D). China is now by far the largest official bilateral creditor for more than half of LICs (Chabert, Cerisola, and Hakura, 2022). This also adds to debt restructuring difficulties as non-Paris Club creditors have often provided debt treatment to debtor nations on a case-by-case basis, without a formal organizing framework like the Paris Club.

28. **The share of domestic debt in total debt for LICs (on a currency basis) has grown from around 19 percent in the mid-1990s to 35 percent by end-2021** (Figure 13A). This increasing share of domestic debt requires specialized treatments in debt restructuring mechanisms due to the systemic linkages between domestic debt and financial stability and highlights the limitations of an analysis focused only on external debt. Because domestic debt is mostly non-concessional compared to traditionally concessional external debt for LICs, this makes domestic debt a relatively riskier class of instruments. Increased domestic financing of the public sector (mainly through commercial banks, the accumulation of domestic arrears, and/or by central bank on-lending) could help mitigate debt vulnerabilities in LICs by reducing exposure to currency risks and capital flight. However, on the flip side, it could have significant adverse effects if not properly managed particularly with regard to its maturity structure and the concentration of holdings by the domestic banking sector, as higher domestic debt in LICs could crowd out financing for the private sector and, in the event of a sovereign debt crisis, increases the risk of a full-blown systemic crisis due to the exposure of domestic financial institutions to sovereign debt.

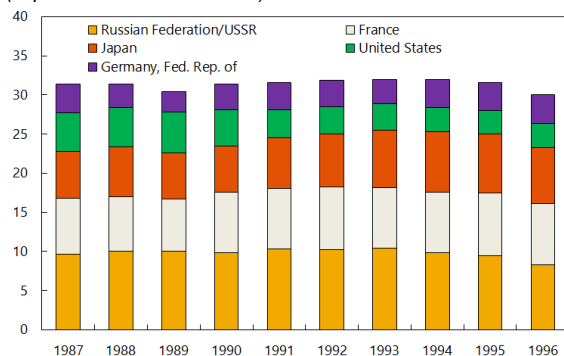


**Figure 12. Concentration of Creditor Holdings****A. Top-5 LIC Creditors: 1987-96**  
(in percent of total PPG debt)

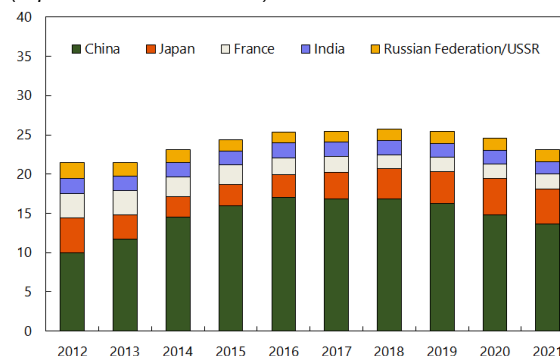
Sources: World Bank IDS and Fund Staff calculations.

**B. Top-5 LIC Creditors: 2012-21**  
(in percent of total PPG debt)

Sources: World Bank IDS and Fund Staff calculations.

**C. Top-5 LIC Bilateral Creditors: 1987-96**  
(in percent of total PPG debt)

Sources: World Bank IDS and Fund Staff calculations.

**D. Top-5 LIC Bilateral Creditors: 2012-21**  
(in percent of total PPG debt)

Sources: World Bank IDS and Fund Staff calculations.

29. **New debt instruments increasingly being used by LICs tend to be riskier and harder to restructure.** Guaranteed, securitized, and collateralized debt contracts linked to public-private partnerships (PPPs), state-owned enterprises (SOEs), and pension funds/social security funds, among others, have gained broader usage among LICs in recent times. Debt instruments with special enhancements that go beyond the standard “plain vanilla” terms could be more difficult to manage and assess risks and, when they are collateralized and guaranteed, they could easily be transferred to the sovereign’s balance sheet in the face of sudden economic shocks, thereby elevating debt vulnerabilities and complicating debt treatments. Total investments in PPPs in LICs rose about 17-fold from US\$0.34 billion in 1994 to US\$5.87 billion in 2021, while the number of PPP projects within the same period more than doubled from 11 to 26, most of which involve sovereign guarantees (Figure 13B). Although these vulnerabilities do not show up in the headline debt indicators, if the guarantees and collaterals are called up, they could suddenly worsen debt vulnerabilities in LICs today and complicate debt resolution processes.

30. **Increasing non-debt-creating private financial inflows such as foreign direct investments (FDI), portfolio investments, and remittances have helped create buffers to mitigate the rising debt vulnerabilities in LICs today.** During the debt crisis of the 1980s and mid-1990s, non-debt-creating financial inflow to LICs represented about 21 percent of GDP. By end-2020, they accounted for 24 percent of GDP. Diaspora remittances, which accounted for 32 percent of private financial inflows in LICs in 1996, now account

for about 44 percent of private financial inflows as of end-2020, making it the largest single source of non-debt financial capital inflows to LICs. These non-debt-creating flows have helped meet the demand for FX in LICs, boosted reserves, and stabilized currency fluctuations in many countries. However, with the rising uncertainty in the global economic outlook (see WEO, 2022), slower global growth could lead to a drop in remittances with far-reaching implications for debt and financing conditions in LICs that normally rely on remittances for FX inflows.

## B. Donor Fatigue amidst Private Sector Lending Vigor

31. **Official sector donor fatigue coming out of the HIPC Initiative, coupled with the presence of renewed private sector lending vigor to LICs, could hamper the chances of a HIPC-type debt restructuring framework today.** Net transfers from the creditor community to LICs in the form of grants and loans minus debt service paid have gradually declined since the 1980s and 1990s. The median net transfer to LICs from multilateral, bilateral, and other sources was 6 percent of GDP in the 1980s.<sup>24</sup> Official sector net financial transfers dropped from 8 percent of GDP in 1980 to less than 2 percent of GDP by end-2021 (Figure 14).<sup>25</sup> As a result, some LICs are now experiencing net transfers to creditors. One likely explanation for the growing donor fatigue is the expectation by the creditor community that after countries received the generous relief from HIPC/MDRI Initiative there would not be a need for additional relief, especially given the subsequent provision of concessional financing and the recent allocation of SDRs to LICs. Thus, the willingness of donors to help countries through another HIPC-like initiative is likely to be low.

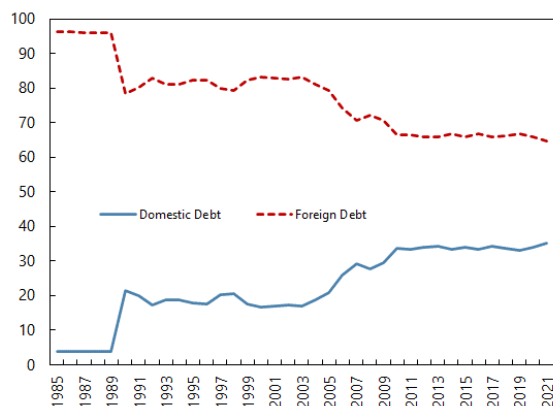
## C. Financing A Possible IFI Participation

32. **IFI participation in the HIPC/MDRI Initiative was financed through Trust accounts funded by contributions from participating IFIs, bilateral donors, and investment income earned on undisbursed resources, including gold reserves.**<sup>26</sup> Those Trust accounts today are depleted (Box 1). For example, as of end-2019, the Debt Relief Trust Fund administered by IDA to provide financial support to participating multilateral regional and sub-regional institutions for HIPC/MDRI had only US\$0.2 billion available, estimated to be sufficient to help finance the expected debt relief for the remaining HIPCs (IMF, 2019b). IFI's participation in today's debt relief mechanism would require concrete commitments of grants and subsidy contributions from donors to fully fund their participation to preserve IFI's business model of self-sustained financing.

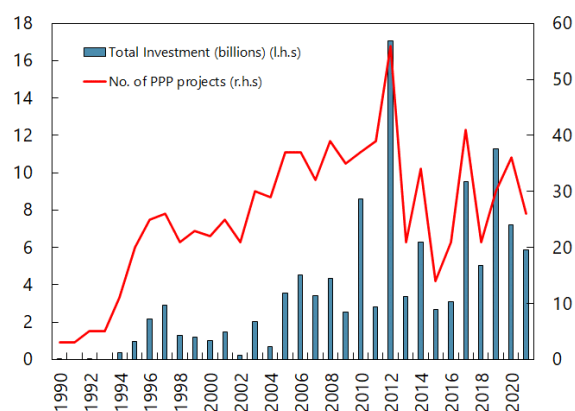
<sup>24</sup>The positive net transfers were delivered using various mechanisms in the pre-HIPC era: initially through rescheduled debt payments and then by substituting concessional loans and grants for non-concessional loans (see Annex E of World Bank OED Review of the HIPC Initiative, 2003).

<sup>25</sup>Recently, the fundraising experience for the clearance of Sudan's arrears to multilateral creditors highlight these challenges. Moreover, it may be easier for official sector creditors to forgive debt that is unlikely to ever be repaid than to provide fresh grants. In which case, this may further limit the appetite of donors that are no longer large creditors to contribute to debt relief.

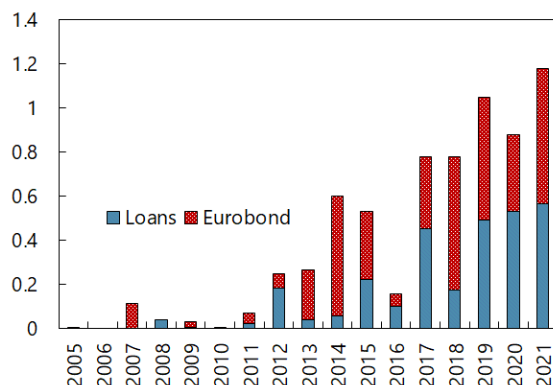
<sup>26</sup> IMF participation in HIPC/MDRI was financed through three main sources: (i) off-market sales of the Fund's gold reserves transferred to the MDRI-I Trust, (ii) donor contributions to the Subsidy Account of the PRGF Trust, and (ii) IMF own earmarked resources; while the World Bank and other participating multilateral institutions were financed through the Debt Initiative Trust Fund with contributions from bilateral donors (through, for example, dollar-for-dollar compensation for losses), investment income from undisbursed resources, and direct contributions from participating multilateral institutions.

**Figure 13. Developments in Domestic and Alternative Sources of Financing****A. Domestic vs. Foreign Currency Debt**  
(in percent of total)

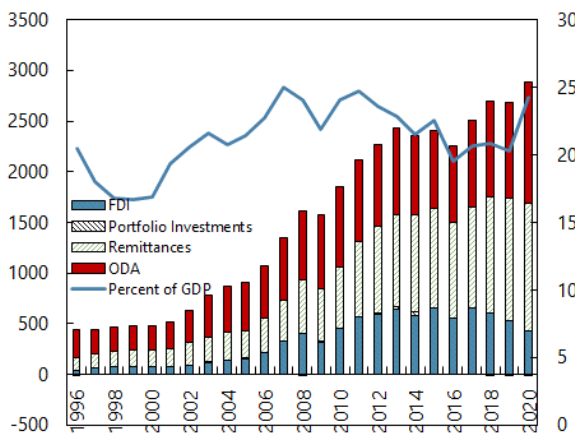
Sources: IMF WEO and Fund Staff calculations.

**B. PPP Investment vs. Number of PPP projects in LICs**

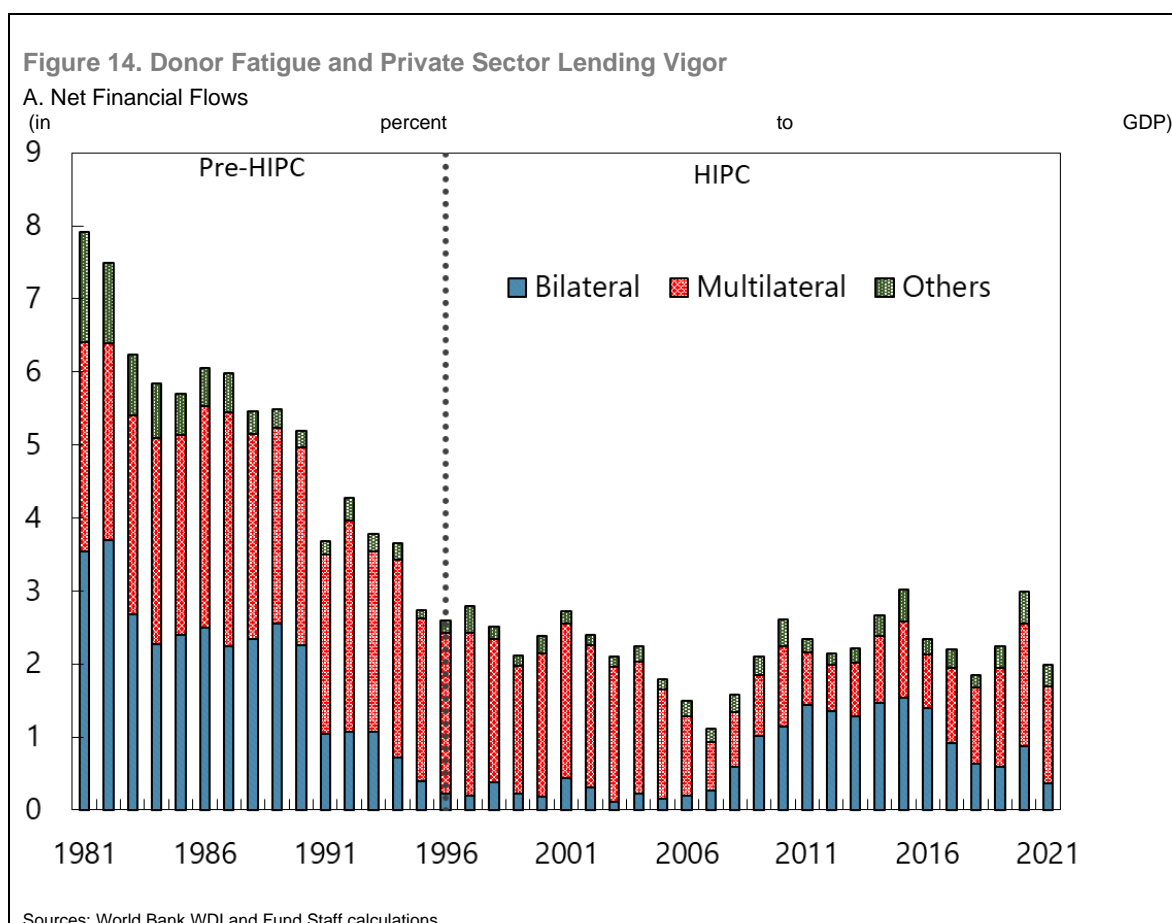
Sources: World Bank PPI Database and Fund Staff calculations.

**C. Syndicated Loans and Eurobonds**  
(in percent of GDP)

Source: Dealogic, Bond Radar, IMF WEO.

**D. Net Financial Flows**

Source: World Bank WDI, IDS and Fund Staff calculations.



33. **Competing demands to mobilize concessional resources for the huge climate and development needs in LICs make traditional approaches to finance IFI participation more challenging, and possibly self-defeating today.** Seeking bilateral subsidy injections, or using investment income from gold sales, or other operational income transfers to finance IFI participation in debt relief today is confronted with other contending global issues. Unlike in the mid-1990s, there is now more competition for donor resources to finance global aspirations such as the Sustainable Development Goals, the 2009 Copenhagen commitment to North/South climate finance, and the 2015 Paris Agreement on Climate, among others. Moreover, funding debt relief by IFIs would imply crowding-out resources that could otherwise be extended to them to scale up concessional lending to LICs, using their leverage capacity. Moreover, IFI debt relief would only contribute marginally to solving debt challenges in LICs since the NPV of IFI debt is low compared to other sources of debt. New injections to IFIs could rather be channeled toward increasing their capital base or funding subsidy accounts (for example, the IMF PRGT) to help scale up concessional financing provided by these same IFIs to LICs.

**Box 1. IFI Funding for HIPC/MDRI Debt Relief**

The total cost of implementing the HIPC/MDRI Initiative in end-2017 present value terms is estimated at \$120 billion as at end FY-2019. The cost of HIPC alone was \$76.2 billion shared between multilateral creditors (\$33.7 billion), Paris Club creditors (\$27.7 billion), other official creditors (\$9.9 billion) and commercial creditors (\$4.8 billion). The cost for MDRI was \$44 billion in end-2017 PV terms, exclusively covered by the four participating multilateral creditors (IMF, WB, AfDB, IADB). The IMF's share of the cost for MDRI was financed through bilateral donor contributions, off-market gold sales, and proceeds from investment income deposited in the Trust accounts. Because the original financing plan did not include the cost of debt relief to countries with [protracted arrears](#) to the IMF, resources in the Trust were insufficient to finance debt relief to Somalia and Sudan that recently reached HIPC decision point. However, in December 2019 and May 2021, the IMF Executive Board approved financing plans intended to help mobilize the resources needed for the IMF to cover its share of MDRI debt relief to Somalia and Sudan.

Resources in the Debt Relief Trust Fund administered by the International Development Association was also depleted as at FY-2019 audited accounts of the Trust, with only \$221 million left, just enough to cover the cost for the three remaining HIPC countries.

**Cost of HIPC/MDRI to participating IFIs**  
(in billions of U.S. dollars, PV Terms as of end-2017)

	<b>HIPC Total</b>	<b>MDRI Total</b>	<b>Total Cost</b>
IDA	14.7	29.9	44.6
IMF	6.5	3.7	10.2
AfDB	5.5	6.5	12
IADB	1.7	4	5.7
Others	5.3	0	5.3
<b>Total Cost to IFIs</b>	<b>33.7</b>	<b>44.1</b>	<b>77.8</b>

Source: IMF (2019b)

## IV. Conclusion

34. **This paper provides a comparative assessment of debt vulnerabilities in low-income countries today versus the situation in the mid-1990s that led to the creation of the HIPC Initiative.** More than 25 years on, the HIPC Initiative was successful in providing deep and broad-based debt relief to eligible low-income countries. Today, many low-income countries are facing high debt vulnerabilities (about a third of them benefit from HIPC) and some require debt treatment. The symptoms that characterized the debt situation in LICs in the mid-1990s are beginning to resurface, aggravated by the COVID-19 shock and Russia's war in Ukraine. There are concerns that the global economy may be heading for a systemic debt crisis that would require a second-generation HIPC-type solution. This paper endeavored to answer three key questions: Is the debt situation in LICs today as challenging as it was on the eve of the HIPC Initiative; do LICs require a second-generation HIPC-type Initiative; and what needs to be done to prevent a systemic debt crisis?

35. **The main conclusion is that, high risks notwithstanding, debt vulnerabilities in low-income countries today remain substantially less alarming than they were in the mid-1990s.** About sixty percent of low-income countries are stressed—12 are in external debt distress and 28 are at high risk of external debt distress—but the related weaknesses of solvency and liquidity indicators are less severe today than they were on the eve of the HIPC Initiative in the mid-1990s. Having said this, debt vulnerabilities could reach comparable levels in the medium- to long-term if current trends persist. At least seven LICs have recently undergone or are currently undergoing debt treatments all of which previously benefited from the HIPC Initiative—in addition to Chad (treatment now completed), Ethiopia, Ghana, and Zambia are undertaking debt treatment under the Common Framework; Somalia and Sudan are undertaking treatment under the HIPC Initiative and Malawi is undertaking treatment directly with its creditors.

36. **Given the significantly transformed financing landscape for LICs, efforts at implementing coordinated debt treatments face challenges that did not exist in the mid-1990s.** Coordination challenges arise from the emergence of new key players—including non-Paris club creditors, private creditors, domestic debt holders, and more complex debt instruments. Going forward, countries facing a high risk of debt distress should firmly implement policies aimed at maintaining or restoring debt sustainability amid the challenging global environment (as recommended in the context of IMF surveillance and IMF-supported programs, for example). For countries currently in debt distress or whose debt becomes unsustainable, early consideration of debt treatment to restore debt sustainability and early engagement with creditors are paramount. On the part of the international community, efforts should be stepped up to improve restructuring processes, including the G20 Common Framework, to ensure that debt relief is delivered in a timely and efficient manner where it is needed. The huge development and climate financing needs in LICs imply that mobilizing donor financing for IFIs to participate in today's debt relief mechanisms may prove complex and run counter to the current context of critical finance needs for LICs. Thus, scaling up concessional financing to LICs would be a more efficient way to channel donor resources and support LICs to durably “grow” out of high debt burdens.

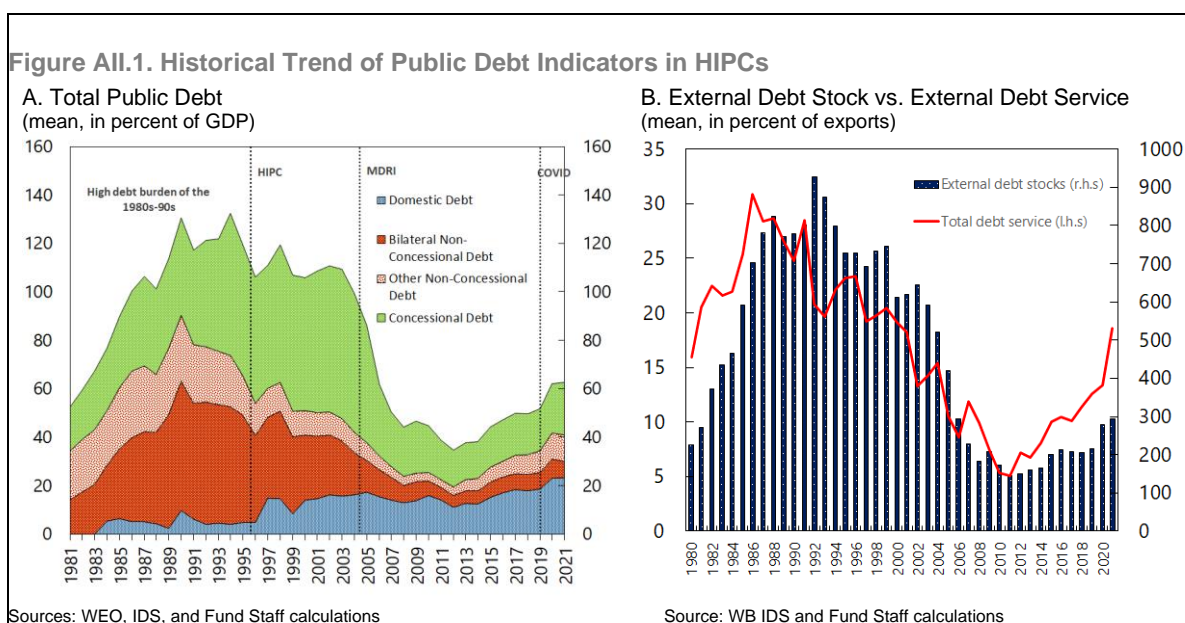
## Annex I. Country Group Classification

Low-Income Countries (69) *	HIPCs (39)
Afghanistan	Afghanistan
Bangladesh	Benin
Benin	Bolivia
Bhutan	Burkina Faso
Burkina Faso	Burundi
Burundi	Cameroon
Cambodia	Central African Republic
Cameroon	Chad
Cabo Verde	Comoros
Central African Republic	Democratic Republic of the Congo
Chad	Congo, Republic of
Comoros	Côte d'Ivoire
Democratic Republic of the Congo	Eritrea
Congo, Republic of	Ethiopia
Côte d'Ivoire	Gambia, The
Djibouti	Ghana
Dominica	Guinea
Eritrea	Guinea-Bissau
Ethiopia	Guyana
Gambia, The	Haiti
Ghana	Honduras
Grenada	Liberia
Guinea	Madagascar
Guinea-Bissau	Malawi
Haiti	Mali
Honduras	Mauritania
Kenya	Mozambique
Kiribati	Nicaragua
Kyrgyz Republic	Niger
Lao P.D.R.	Rwanda
Lesotho	São Tomé and Príncipe
Liberia	Senegal
Madagascar	Sierra Leone
Malawi	Somalia
Maldives	Sudan
Mali	Tanzania
Marshall Islands	Togo
Mauritania	Uganda
Micronesia, Fed. States of	Zambia
Moldova	
Mozambique	
Myanmar	
Nepal	
Nicaragua	
Niger	
Papua New Guinea	
Rwanda	
Samoa	
São Tomé and Príncipe	
Senegal	
Sierra Leone	
Solomon Islands	
Somalia	
South Sudan	
St. Lucia	
St. Vincent and the Grenadines	
Sudan	
Tajikistan	
Tanzania	
Timor-Leste, Dem. Rep. of	
Togo	
Tonga	
Tuvalu	
Uganda	
Uzbekistan	
Vanuatu	
Yemen	
Zambia	
Zimbabwe	

\* The latest published risk of debt distress ratings for LICs can be found here: <https://www.imf.org/external/pubs/ft/dsa/dsalist.pdf>

## Annex II. Factors that Led to the Establishment of the HIPC Initiative<sup>1</sup>

1. **The eve of the HIPC Initiative was characterized by heightened debt vulnerabilities, poor growth, and slow policy reform in HIPC countries.** The average total public and publicly guaranteed (PPG) debt-to-GDP ratio in HIPCs was 124 percent in 1990-95, average external debt stock was more than eight times the size of exports (817 percent), and accumulated arrears reached 424 percent of total external debt service, with an average of no growth over the period (Figure All.1, 2.A).<sup>2</sup> The initial response from the creditor community was the rescheduling of debt by Paris Club creditors on non-concessional terms. This intervention provided cash relief with relatively short grace periods (five years), short maturity (ten years), and market-related interest rates.<sup>3</sup> Although the rescheduling was comprehensive in coverage, many countries continued to face difficulties meeting their rescheduled payment obligation, which eventually led to the rapid accumulation of debt from 1986 to 1996. By the early 1990s, creditors recognized that cash-flow relief through repeated rescheduling on standard terms over a prolonged period was not sufficient to solve the debt problems in HIPCs. It became clear that far-reaching concessions were required to durably restore debt sustainability.



2. **As a result, further debt treatment was offered through the 1991 London terms and the 1994 Naples terms, providing debt relief of up to 50 and 67 percent, respectively, on eligible debt in net present value terms.** The stock-of-debt operation under the London and Naples terms included a “goodwill clause” that qualified countries to be offered the treatment after they had established a good track record of performance for

<sup>1</sup>The Annex draws freely from the key analytical papers presented to the IMF Board for the establishment of the HIPC Initiative including Boote and Thugge 1997; IMF 1996; IMF 1997.

<sup>2</sup>To put these numbers in historical perspective, the comparable debt-to-export ratios during the 1980s debt crisis of middle-income countries was about four times the size of exports—Mexico (400%), Brazil (450%). (See IMF 1996).

<sup>3</sup>Debt Relief for Low -Income Countries: The HIPC Initiative. IMF Pamphlet Series No. (51) 1997.



three years under an IMF-supported program and a good track record on debt-service repayments to Paris Club creditors.<sup>4</sup>

3. **In spite of the economic reform programs and the rescheduling, debt reduction, and continued provision of concessional financing, many HIPCs could not reach sustainable levels of debt within a reasonable period of time.** Thus, the IMF and World Bank jointly proposed and launched the HIPC Initiative in September 1996, with the objective of reducing debt burdens of all eligible HIPCs to sustainable levels, provided they adopt strong programs of adjustment and reform. The Initiative was designed in a way to involve broad and equitable participation of all creditors and, more importantly, to preserve the financial integrity and preferred creditor status of multilateral creditors.

4. **A mix of underlying economic and political factors meant that the traditional debt mechanisms were unable to restore debt sustainability among heavily indebted poor countries in the 1990s.** The following underlying conditions led to the establishment of the HIPC Initiative.<sup>5</sup>

- I. **Widespread accumulation of arrears:** Most HIPC countries had accumulated large arrears to external creditors. At end-1994, accumulated arrears (interest plus principal) to external creditors were over 3 times (332%) larger than the actual debt service paid by HIPC countries (Figure AII. 2A). The bulk of the accumulated arrears was towards official creditors, representing 71 percent of total arrears (especially on official bilateral loans and, for a few countries, on multilateral loans), while a relatively smaller share (29 percent) was owed to private creditors.
- II. **Exogenous Shocks:** HIPCs were buffeted by multiple external shocks from the global economy and extreme weather events prior to the launch of the Initiative. By the end of 1994, commodity price indices had dropped by about half from their 1980 levels and most countries were facing deteriorating terms of trade (TOT) positions (Figure AII. 2B). The average terms of trade index for HIPCs had deteriorated by more than 40 percentage points within a decade—from 150 percent in 1986 to 106 percent in 1996 (Figure AII. 2B). Extreme conflict-related events also took a toll on HIPCs in the pre-intervention periods, partly due to the relatively weak adaptation mechanisms (Figure AII. 2.D). Africa, home to 80 percent of HIPCs' population, suffered a significant increase in economic losses from weather-related events estimated at US\$6.5 billion per decade from 1970-2009. Estimates for the last decade have almost doubled at US\$12.5 billion.<sup>6</sup>
- III. **Over Optimism:** Optimism about the economic prospects and creditworthiness of HIPCs led to favorable risk perception and borrowing at commercial terms. Following the commodity price boom of the 1970s and early 80s, creditors and debtors presumed continued favorable growth outlook and export performance for HIPCs. This optimism allowed HIPCs to access credit from international capital markets, although on harsher terms—shorter grace and maturity periods, lower grant element, and higher interest rates (Figure AII. 3).<sup>7</sup>

<sup>4</sup>To ensure equitable burden sharing among creditors, both the London and Naples terms included a comparability of treatment clause that required the debtor country to commit itself to seeking at least comparable debt relief from commercial and Non-Paris Club creditors. But at the time there was little progress on debt relief outside the Paris Club (see IMF Boote and Thugge, 1997).

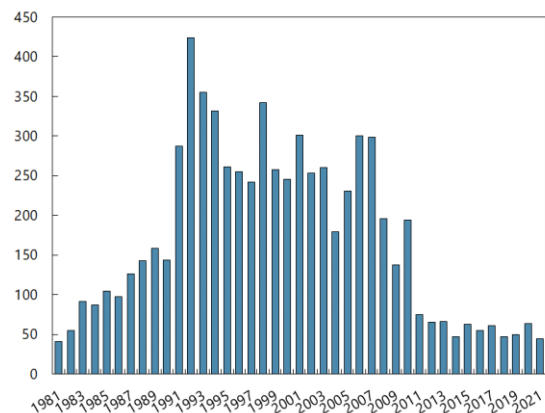
<sup>5</sup>One of the main motivations for the HIPC Initiative was to reduce the debt overhang—that is, the negative impact of external debt burden on domestic investments and economic growth.

<sup>6</sup>See The World Meteorological Organization's 2021 Atlas, which shows the mortality and economic losses from weather, climate and water extremes around the worlds.

<sup>7</sup>Financial market credit grew 10-fold between 1972 and 1979 and represented 32 percent of disbursed public debt, up from 15 percent for SSA (see Krumm, 1985).

**Figure All. 2. Developments in the External Environment****A. Accumulated Arrears**

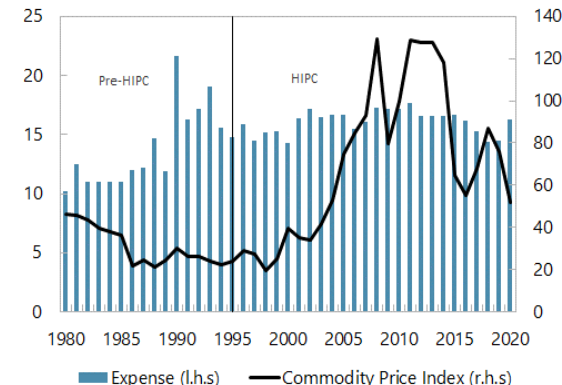
(median, in percent of total external debt service)



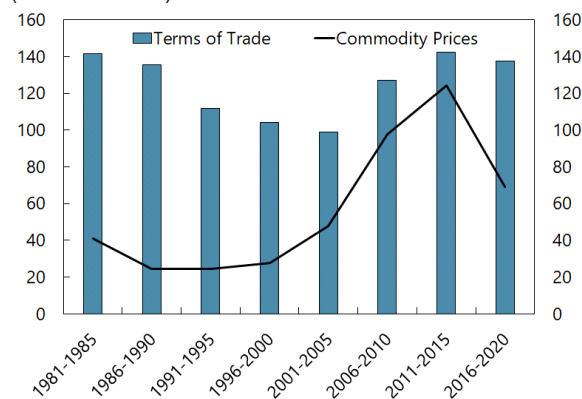
Sources: World Bank IDS and Fund Staff calculations.

**B. Commodity Price Trend and Total Expense**

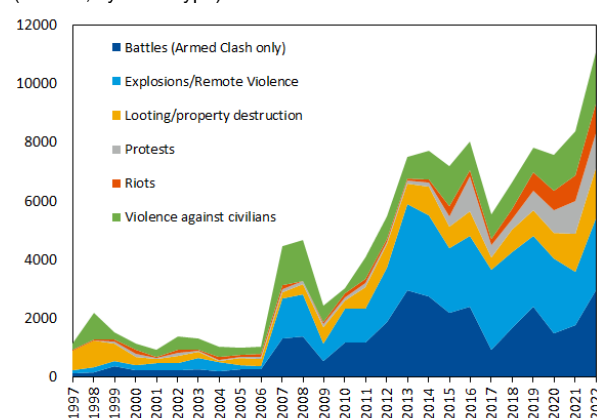
(expense in percent of GDP, commodity price index = 2000)



Sources: IMF WEO, World Bank Pink Tables, and Fund Staff calculations

**C. Terms of Trade vs. Commodity Price Index**  
(index: 2000=100)

Sources: World Bank Pink Tables, WB IDS, IMF WEO, and Fund Staff calculations

**D. Frequency of Conflict-Related Events in HIPCs**  
(median, by event type)Sources: ACLED and Fund Staff calculations  
Note: Chart excludes Afghanistan (outlier)

IV. **Currency Mismatch:** High and segmented foreign currency denomination of HIPCs' debt portfolio led to currency mismatches that triggered the consequences of the "original sin".<sup>8</sup> Almost 95 percent of HIPC's debt was denominated in foreign currency by the end of 1995, with a balance of 5 percent in domestic currency (Figure All. 1A and Figure All. 4A). Others had a mix of segmented currencies without direct ties to their export revenues. With falling commodity prices and appreciating U.S. dollars, the

<sup>8</sup>Barry Eichengreen, Ricardo Hausman and Ugo Panizza (2007) define original sin as the pain that an emerging market economy suffers due to its inability to borrow abroad in its own currency and the difficulty they face when attempting to borrow at home at long maturities. The consequences of the original sin are slow growth, volatility in capital flows, and exchange rate depreciations.

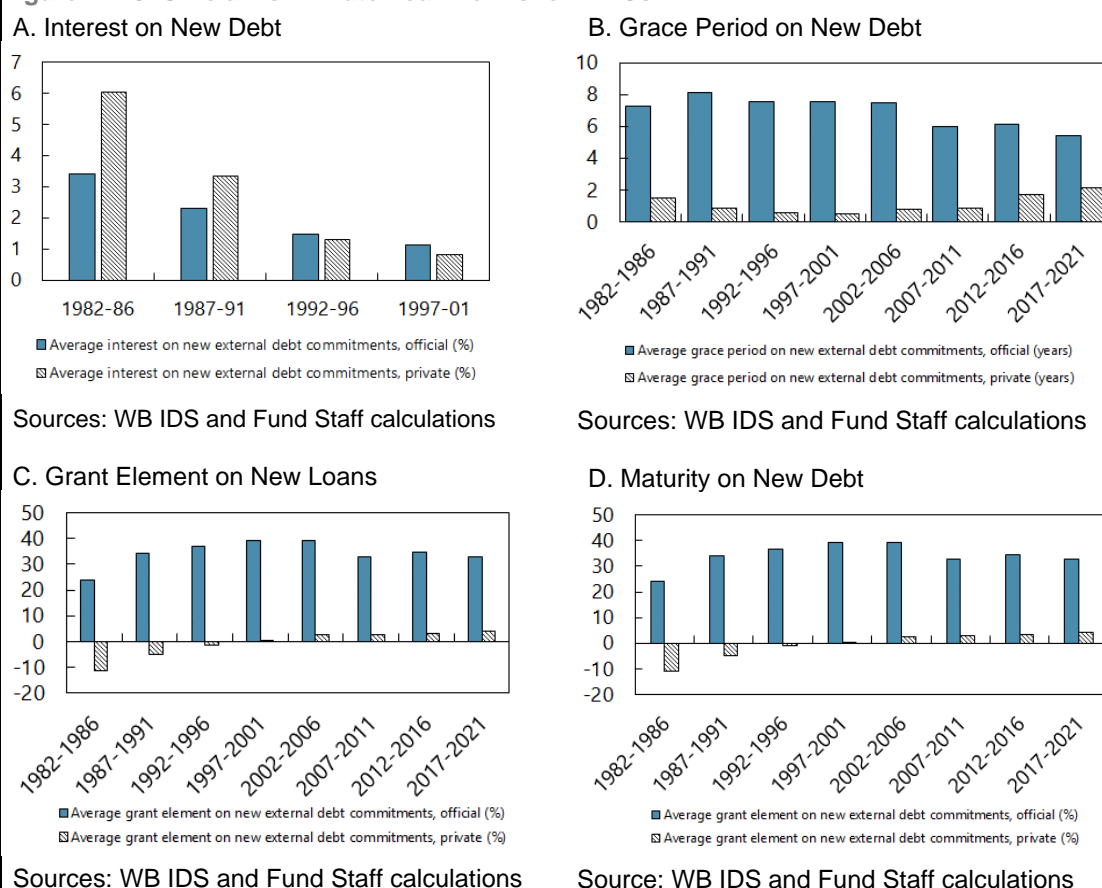
valuation effect kicked in, further amplifying the debt burden and causing slow growth, volatility in capital flows, and exchange rate depreciations—the consequences of the original sin.<sup>9</sup>

- V. **Fragility and conflict:** Fragility, conflict, and civil strife were major factors exacerbating the debt burden in some HIPC countries prior to the HIPC Initiative. The nascent political systems that followed the wave of political independence in the preceding decades, especially in sub-Saharan Africa HIPCs, were characterized by internal conflict, civil wars, and, in some cases, military participation in government (via coup d'etat). In addition to its direct effect on the destruction of physical and social capital, fragility and conflict eroded the export base of HIPCs (e.g., in Nicaragua, Uganda, DRC, Niger, and Ethiopia) and led to a large buildup of external debt to finance military-related expenditures (Brooks, et al., 1998).<sup>10</sup> Military expenditure was persistently above one-tenth (10%) of total government expenditure during the pre-HIPC era and only started to drop in the 2000s, after several HIPC countries had reached a decision point (Figure All. 4C).
- VI. **Weak Reforms:** Structural reforms and slow adjustments following the economic collapse of the 1980s were major causes of debt accumulation during the pre-HIPC period. Expansionary fiscal policies following the commodity price booms of the 1970s were not rolled back in the late 1980s/90s after the price collapse. Instead, government expenditure continued to rise despite falling export revenues (Figure All. 2B). Rather than adjusting government spending to meet debt obligations, many HIPCs pursued domestic policies that weakened their internal and external positions through monetary expansions that contributed to inflation as high as 20 percent on average per year during the early 1990s (Figure All. 4B). Moreover, because most of these countries did not permit free-floating currencies to offset inflationary pressures, overvaluation inhibited exports and encouraged the formation of parallel exchange markets (Green, 1992).

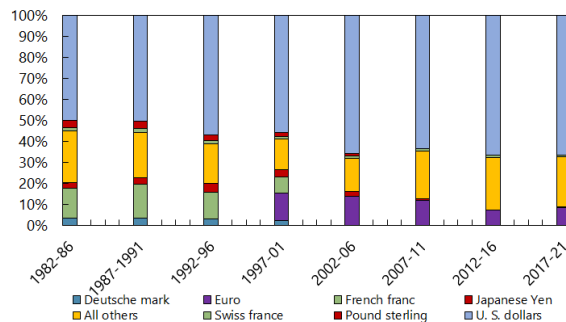
<sup>9</sup>An additional complication involved weak debt portfolio management capacity, as evidenced in the sizable borrowing on non-concessional terms with relatively short maturities. Also, there were mismatches in the currency composition of debt versus the currency in which export earnings were determined. Zambia, for example, had a relatively small proportion of debt denominated in US dollars, but had significant copper trading with the EU and other regions of the world.

<sup>10</sup>Some of the debt associated with fragile and conflict situations have been labeled as “odious debt”. That is, debt incurred by supposedly illegitimate rulers who borrow without the people's consent and used the funds either to repress the people or for personal gain (see Michael Kremer and Seeme Jayachandran (2002) *Odious Debt Finance and Development*, (39):2, International Monetary Fund).

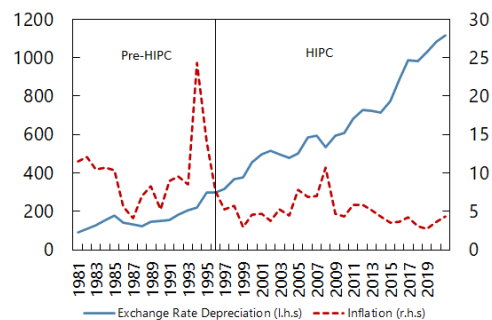
Figure AII. 3. Official vs. Private Loan Terms for HIPCs



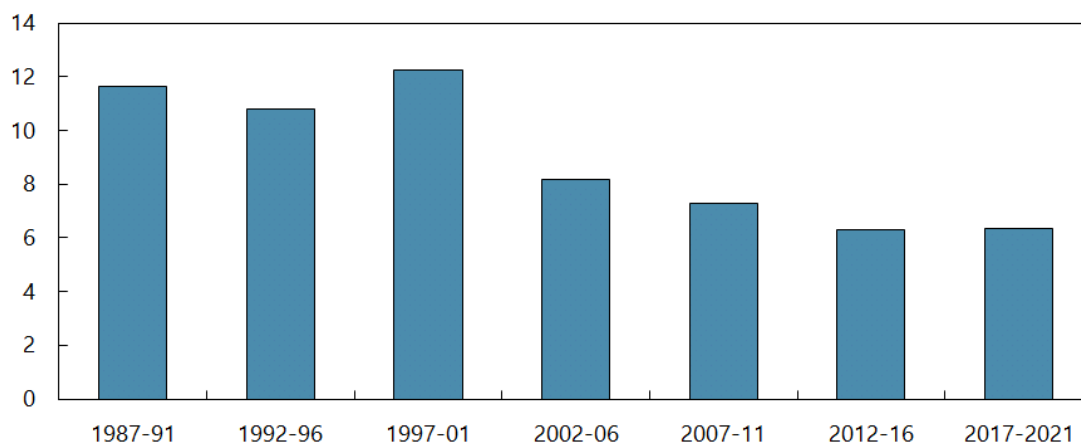
- VII. **Rising poverty, dwindling economic fundamentals:** Weak economic fundamentals and high poverty aggravated the debt burdens of the 1990s. HIPCs were not growing fast and about half of the total 423 million population of HIPCs were living below the poverty line (under \$2.15 a day at 2017 PPP). With slower growth, real GDP per capita was declining in the average HIPCs (Figure AII. 5.C). The high poverty and inequality rates combined with deteriorating macroeconomic performance—widening current account deficits, fiscal imbalances, and high inflation (Figure AII. 4.B, 5.A,B)—led to the establishment of the HIPC Initiative to complement the traditional debt treatments that were available.

**Figure AII. 4. Currency Composition and Military Expenditure****A. Currency Composition of PPG Debt**  
(in percent of total)

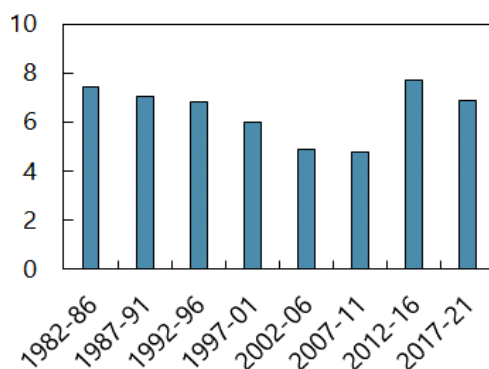
Sources: WB IDS and Fund Staff calculations

**B. Inflation and Exchange Rate Trends**  
(Median and Average)

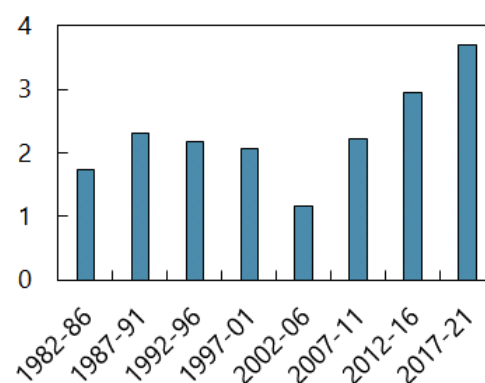
Sources: IMF WEO and Fund Staff Calculations

**C. Military Expenditure**  
(in percent of total expenditure)

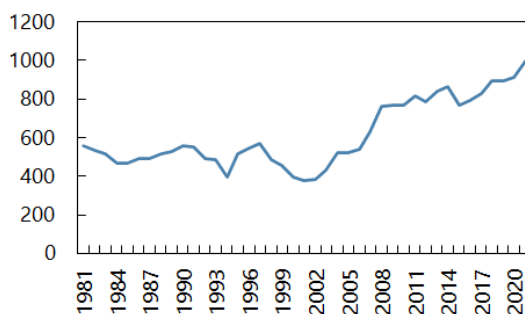
Sources: WB IDS and Fund Staff calculations

**Figure AII. 5. Developments in Macro and Socioeconomic Indicators****A. Trend in Current Account Balances**  
(deficit in percent of GDP)

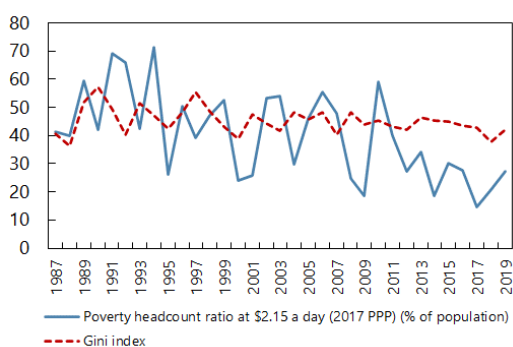
Sources: IMF WEO and Fund Staff Calculations

**B. Trend in Fiscal Balances**  
(deficit in percent of GDP)

Sources: IMF WEO and Fund Staff Calculations

**C. GDP per Capita**  
(median)

Sources: IMF WEO and Fund Staff Calculations

**D. Trend in Poverty and Inequality Rates**  
(median)

Sources: World Bank WDI and Fund Staff Calculations

## References

- Badia, M., J. G. Arbelaez, and Y. Xiang, 2021, "Debt Dynamics in Emerging and Developing Economies: Is R-G a red Herring?" IMF Working Paper No. WP/21/229 (Washington: International Monetary Fund).
- Boote, A. and Thugge, K., 1997, "Debt Relief for Low-Income Countries and the HIPC Initiative," IMF Working Paper No. WP/97/24 (Washington: International Monetary Fund).
- Brooks R., M. Cortes, F. Fornasari, B. Ketchekmen, Y. Metzgen, R. Powell, S. Rizavi, D. Ross, and K. Ross, 1998, "External Debt Histories of Ten Low-Income Developing Countries: Lessons from Their Experience," IMF Working Paper No. WP/98/72 (Washington: International Monetary Fund).
- Beaumont, C. and Hakura, D., 2021, [The Common Framework: Utilizing its Flexibility to Support Developing Countries' Recovery](#). Special Series on COVID-19 (SPR, June 24, 2021) (Washington: International Monetary Fund).
- Chabert, G., Cerisola, M., and Hakura, D., 2022, [Restructuring Debt of Poorer Nations Requires More efficient Coordination](#). IMF Blog, April 7, 2022 (Washington: International Monetary Fund).
- Chuku, C., and Yenice, Y. 2022, Eurobonds, Debt Sustainability and Macroeconomic Performance in Africa: Synthetic Control Experiments. *International Economics*, 172, 368-388
- Cohen, D., 1993, "Low Investment and Large LDC Debt in the 1980's." *American Economic Review* 83(3): 437-49.
- Cohen, D., and J. Sachs, 1986, "Growth and External Debt under Risk of Debt Repudiation." *European Economic Review* 30 (1986): 529-60.
- Deshpande, A., 1995, "The Debt Overhang and the Disincentive to Invest." *Journal of Development Economics* 52(1997): 169-87.
- Eichengreen, B., R. Hausmann, and U. Panizza, 2007, "Currency Mismatches, Debt Intolerance, and Original Sin." *Capital Controls and Capital Flows in Emerging Economies: Policies, Practices, and Consequences*, 121-80. *University of Chicago Press*.
- Elbadawi, I. A., B. J. Ndulu, and N. Ndung'u, 1997, "Debt Overhang and Economic Growth in Sub-Saharan Africa." IMF and World Bank conference on external financing for low-income countries, 49-76. (Washington: International Monetary Fund).
- Gautam, M., 2003, "Debt Relief for the Poorest: An OED Review of the HIPC Initiative." (Washington: The World Bank).
- Green, J., 1992, "External Debt Problem of Sub-Saharan Africa." *Analytical Issues in Debt*, eds Jacob Frenkel, Michael Dooley and Peter Wickham. (Washington: International Monetary Fund).
- International Monetary Fund, 1996, "Analytical Aspects of the Debt Problems of Heavily Indebted Poor Countries" IMF Policy Paper SM/96/23, (Washington).
- , 2003, "Debt Sustainability in Low-Income Countries—Towards a Forward-Looking Strategy, IMF Policy Paper, (Washington).
- , 1997, "Debt Relief for Low -Income Countries: The HIPC Initiative". IMF Pamphlet Series No. (51), 1997, (Washington).

- , 2017, “Review of the Debt Sustainability Framework in Low-Income Countries: Proposed Reforms.” IMF Policy Paper, (Washington).
- , 2019a, “2018-19 Review of Facilities for Low-Income Countries---Reform Proposals: Review of The Financing Of The Fund’s Concessional assistance And Debt Relief To Low-Income Member Countries.” IMF Policy Paper, (Washington).
- , 2019b, “Heavily Indebted Poor Countries (HIPC) Initiative and Multilateral Debt Relief Initiative (MDRI)—Statistical Update, IMF Policy Paper, (Washington).
- International Monetary Fund, 2020, “The Evolution of Public Debt Vulnerabilities in Lower Income Economies.” IMF Policy Paper, (Washington).
- , 2022a, “Macroeconomic Developments and Prospects in Low-Income Countries—2022” IMF Policy Paper, (Washington).
- , 2022b, “World Economic Outlook Update, July 2022: Gloomy and More Uncertain” (Washington).
- , 2022c, “Review of the Fund’s Sovereign Arrears Policies and Perimeter” IMF Policy Paper, (Washington).
- Kremer, M., and S. Jayachandran, 2002, “Odious Debt.” *IMF Finance & Development* Vol. 39, No. 2.
- Krugman, P., 1988, “Financing vs. Forgiving a Debt Overhang.” *Journal of Development Economics* 29 (1998) 253-68.
- Krumm, K. L., 1985, “The External Debt of Sub-Saharan Africa: Origins, Magnitude, and Implications for Action.” World Bank Staff Working Paper Vol. 741 (Washington: The World Bank).
- Schumacher, J., Trebesch, C., & Enderlein, H., 2015, “What Explains Sovereign Debt Litigation? *The Journal of Law and Economics*, 58(3), 585-623.
- World Bank, 2003, Debt Relief for the Poorest: an OED Review of the HIPC Initiative, The World Bank, Washington.
- World Bank, 2022, “Global Economic Prospects, January 2022—Chapter 2 Resolving High Debt After the Pandemic: Lessons from Past Episodes of debt Relief” (Washington: The World Bank).





**PUBLICATIONS**