

RECENT DEBT DEVELOPMENTS AND THE ASSESSMENT OF DEBT SUSTAINABILITY

**Applying the IMF/World Bank Debt Sustainability
Framework**

R Sean Craig

Macroeconomic Advisor



IMF Capacity Development Office in Thailand

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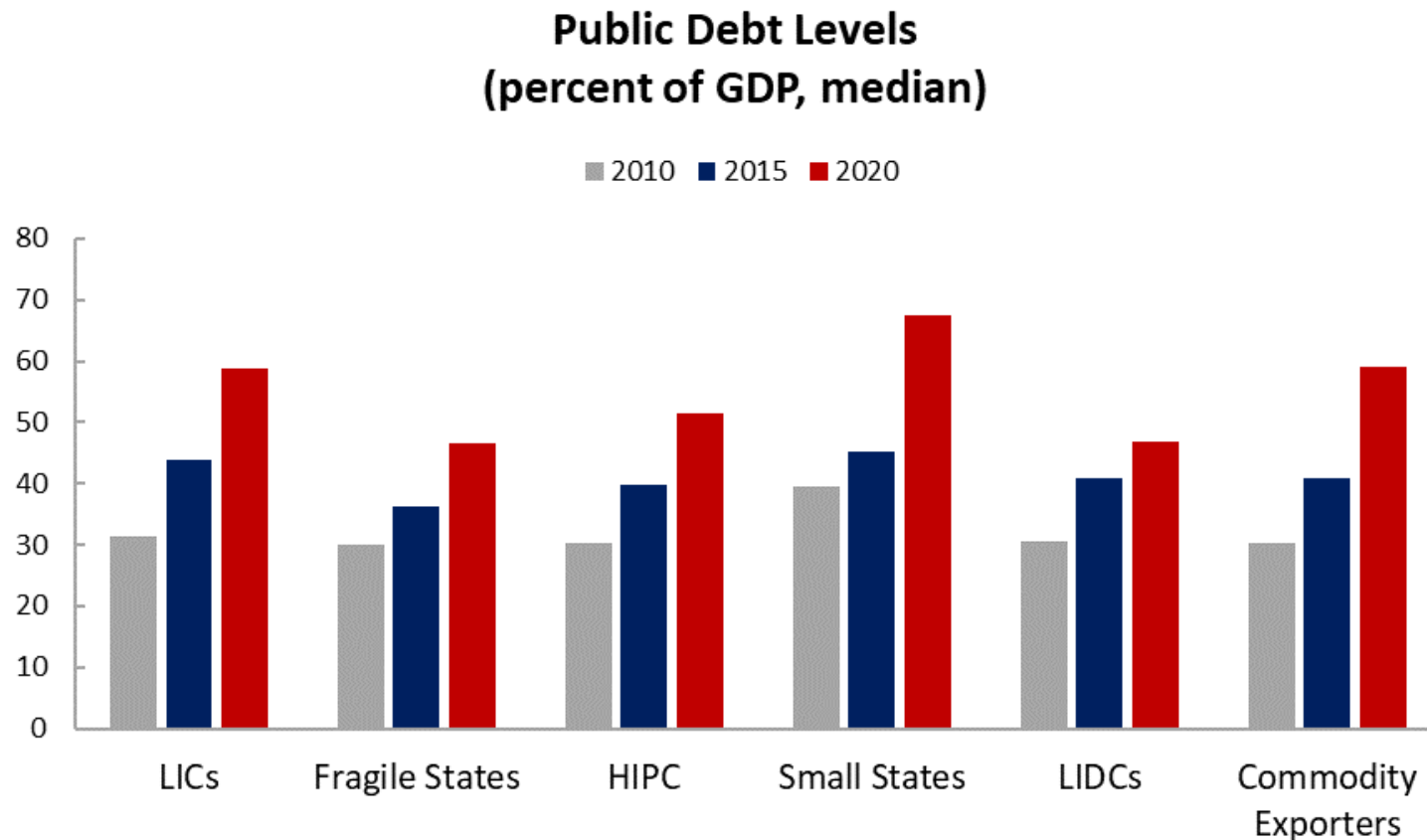
Overview of the presentation

- Recent debt developments
- The joint IMF/WB debt sustainability framework (DSF)
- Coverage of the DSF: external and public domestic debt
- How debt sustainability analysis works
- Debt burden indicators and thresholds
- Calculating the external debt sustainability risk rating

Debt developments in LICs: Debt is rising

...

Public debt levels increased substantially across the board over the past decade.

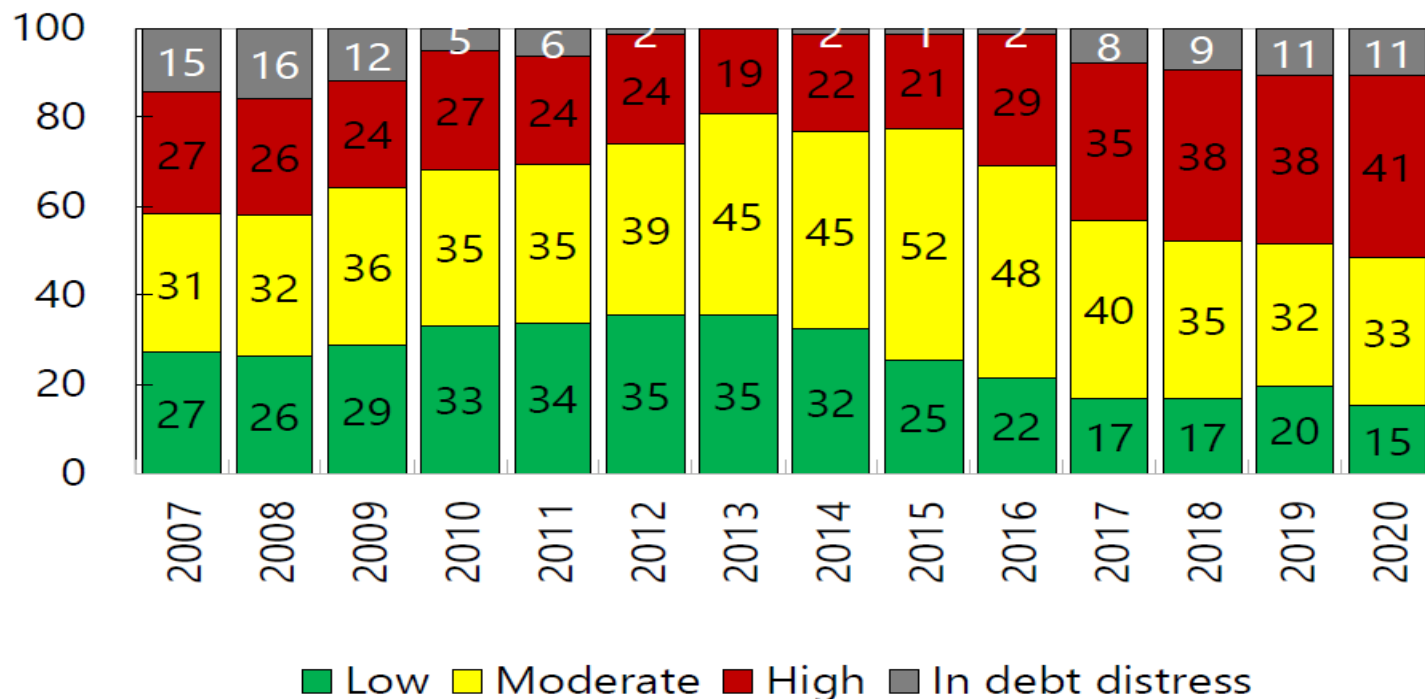


Source: World Economic Outlook Database.
Note: Excludes high income countries.

... and of debt sustainability have worsened – How do we do this assessment using the DSA?

The share of LIDCs at high risk of debt distress doubled since 2015 to two-fifths – how do we come to this assessment?

Evolution of Risk of Debt Distress
(in percent of DSSI-Eligible LIDCs with DSAs)



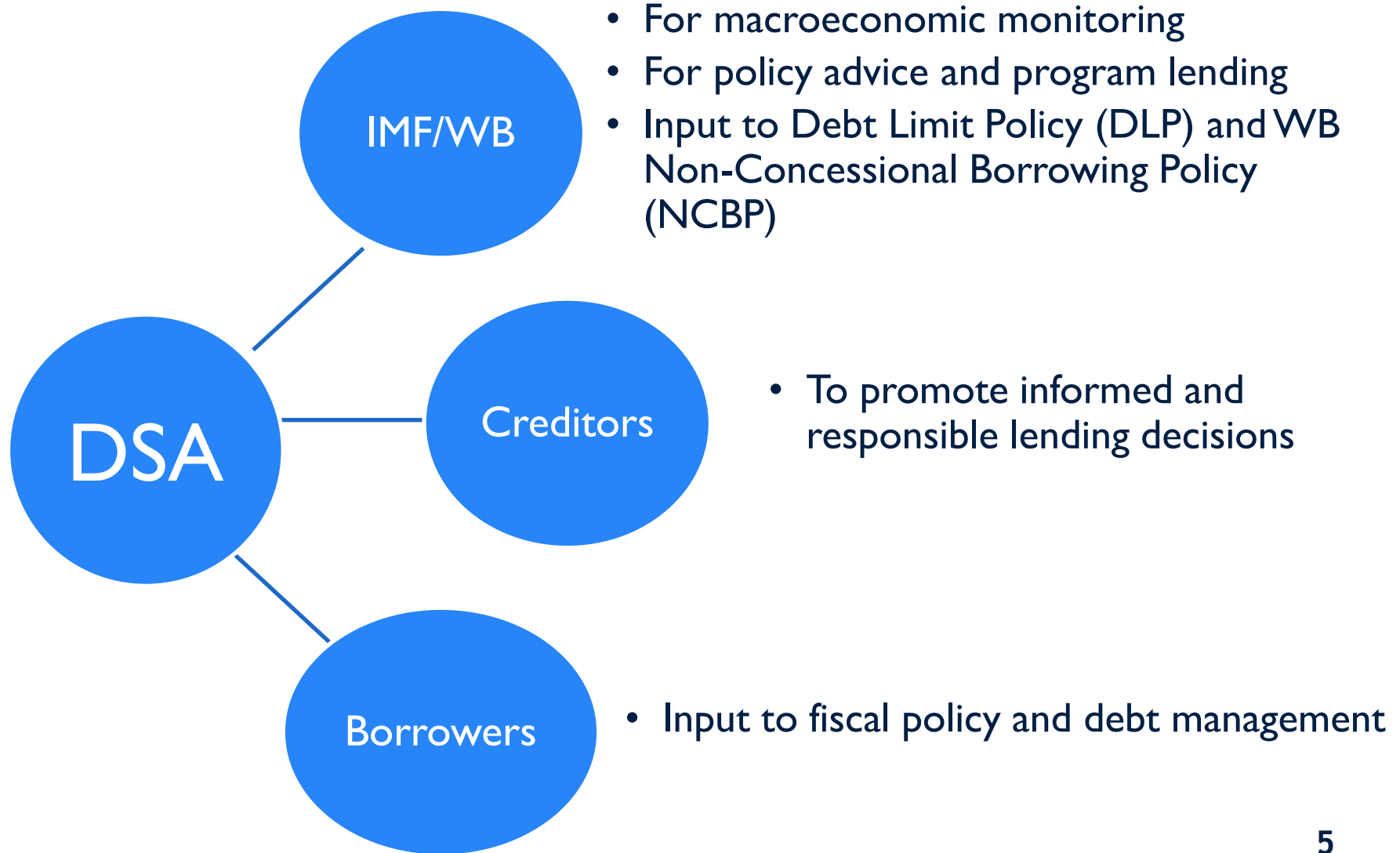
Source: LIC DSA database

Global efforts to strengthen debt resolution frameworks are urgent as debt crises costly to debtors, creditors and threaten the international monetary and financial system

Key Features of the LIC DSF

- Intended for countries relying largely on concessional financing
- Separate DSF for EMs with access to private capital markets
- The framework consists of external DSA and public DSA
- External risk rating based on the analysis for external debt
- Compares debt indicators to policy-dependent thresholds
- Analysis uses baseline and standard downside scenarios

DSA results used by different actor in international finance



Debt Components and Coverage

Public debt has driven most debt crises in developing countries

Total Debt

External Debt

Domestic Debt

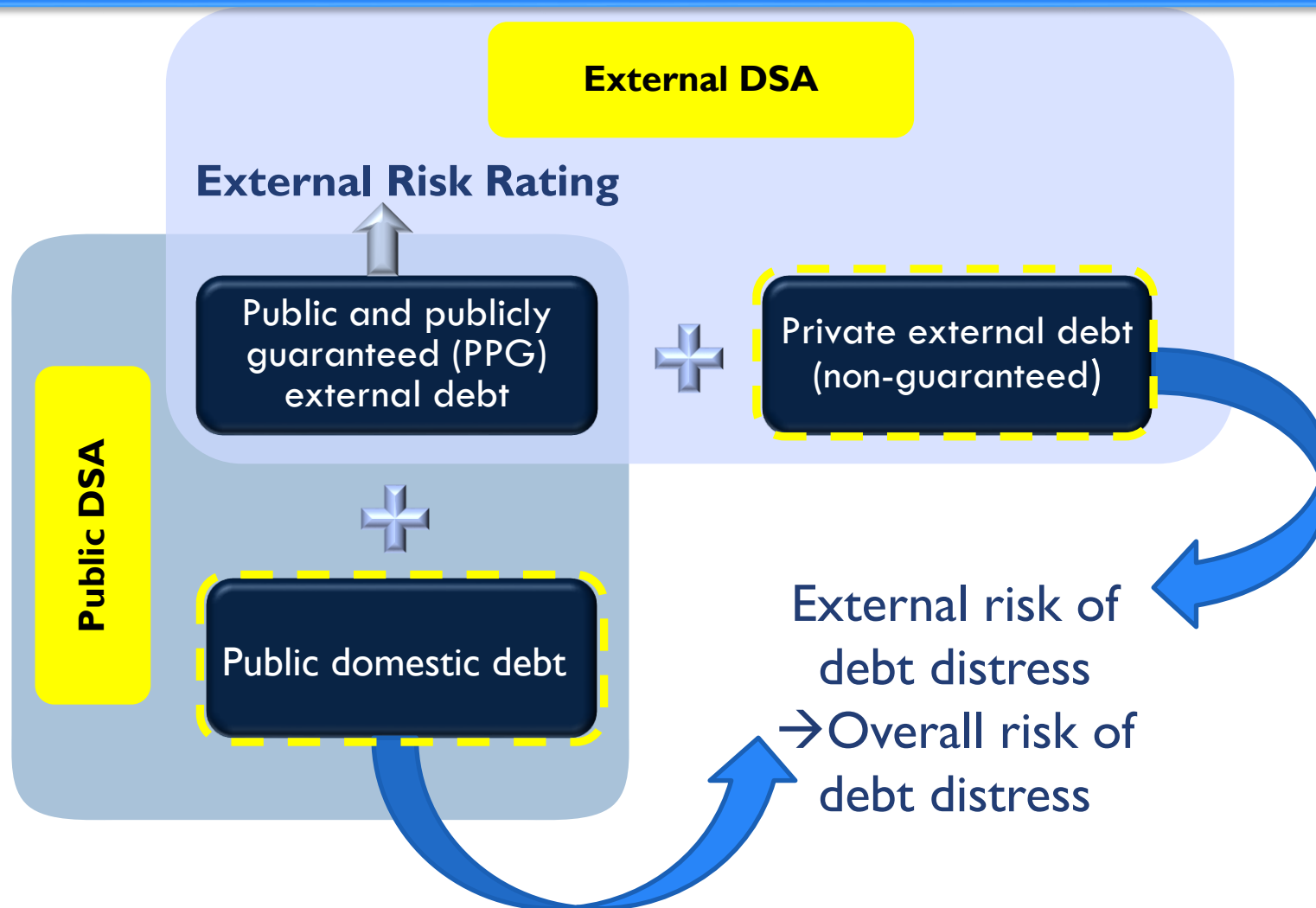
External
Public

External
Private

Domestic
Public

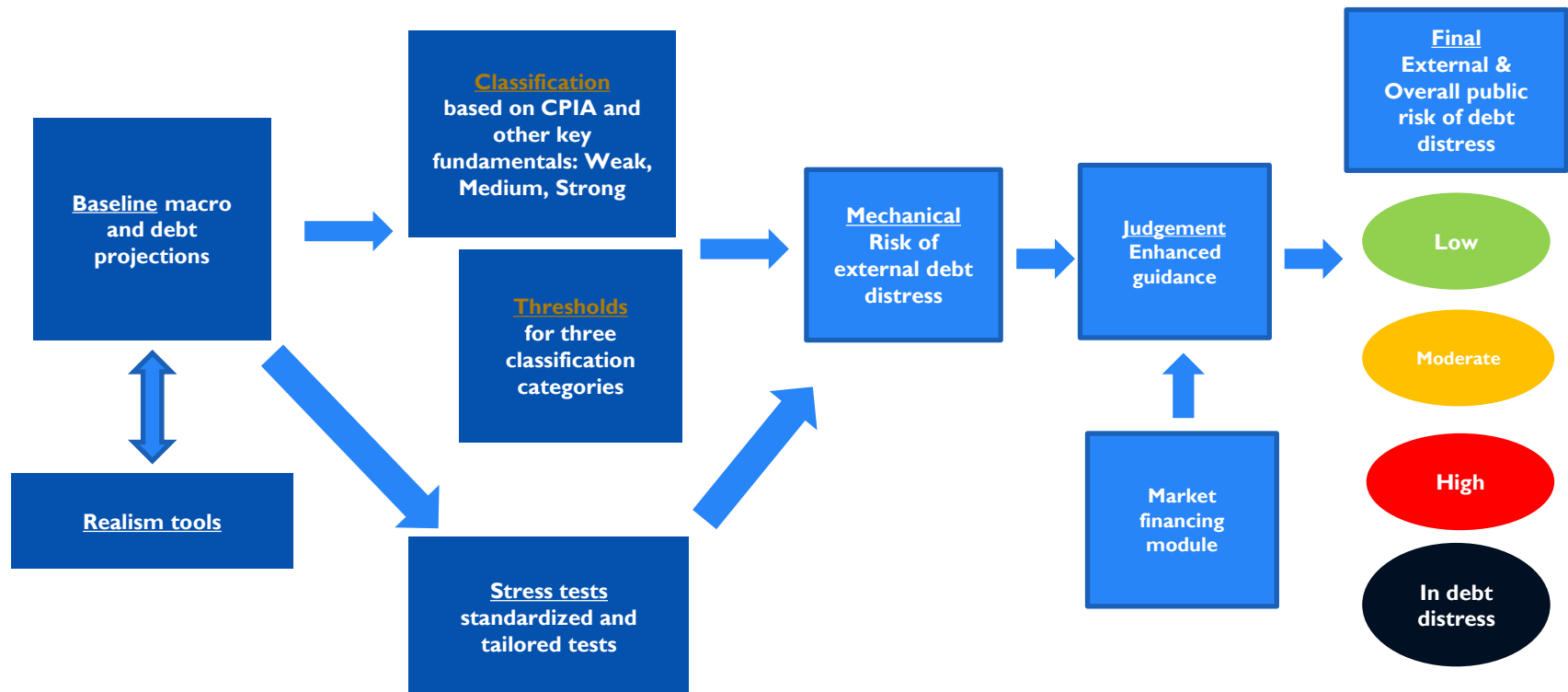
Domestic
Private

External assessment → overall risk of debt distress



LIC DSF Basic Structure

The LIC DSF Basic Structure



The DSA template – how does it work?

DSF

Includes **stress tests** to help gauge the sensitivity of projected debt burden indicators to changes in assumptions.

Types of stress tests

Standardized
(automatically applied)*

Tailored
(customizable)

Fully customized
scenarios (voluntary)

Impact

Most extreme stress test informs the calculation of the mechanical risk signal. Where the test leads to a breach of the DSA threshold, the signal shifts from “low” to “moderate”.

Macro
framework
(baseline +
alternative
scenarios)

Debt burden
indicators under
those scenarios
(baseline + stress
tests)

Relative to
country
thresholds
/benchmarks

Risk Rating

Debt burden indicators and thresholds

External Debt Burden Indicators

Solvency

* PV of PPG external debt to GDP

* PV of PPG external debt to exports

Liquidity

* PPG external debt service to exports

* PPG external debt service to revenues

Total Public Debt Burden Indicators

Solvency

* PV of total PPG debt to GDP

PV of total PPG debt to revenues

Liquidity

Total PPG debt service to revenues

* Indicators that feed into the mechanical risk rating.

Macro scenarios
(baseline + alternative scenarios)



Debt indicators under those scenarios
(baseline + stress tests)

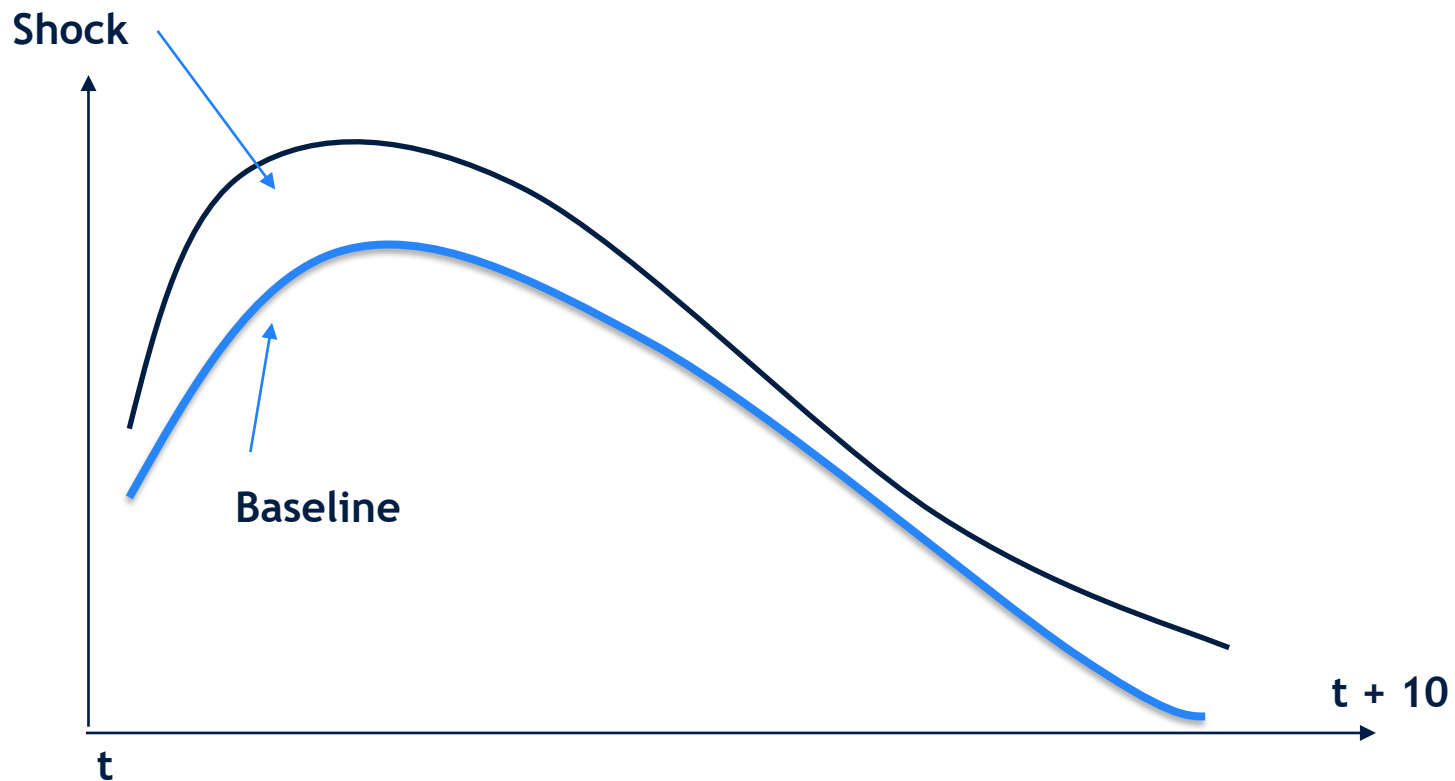


Relative to country thresholds
/benchmarks



Risk Rating

Sustainability assessment based on debt burden indicators



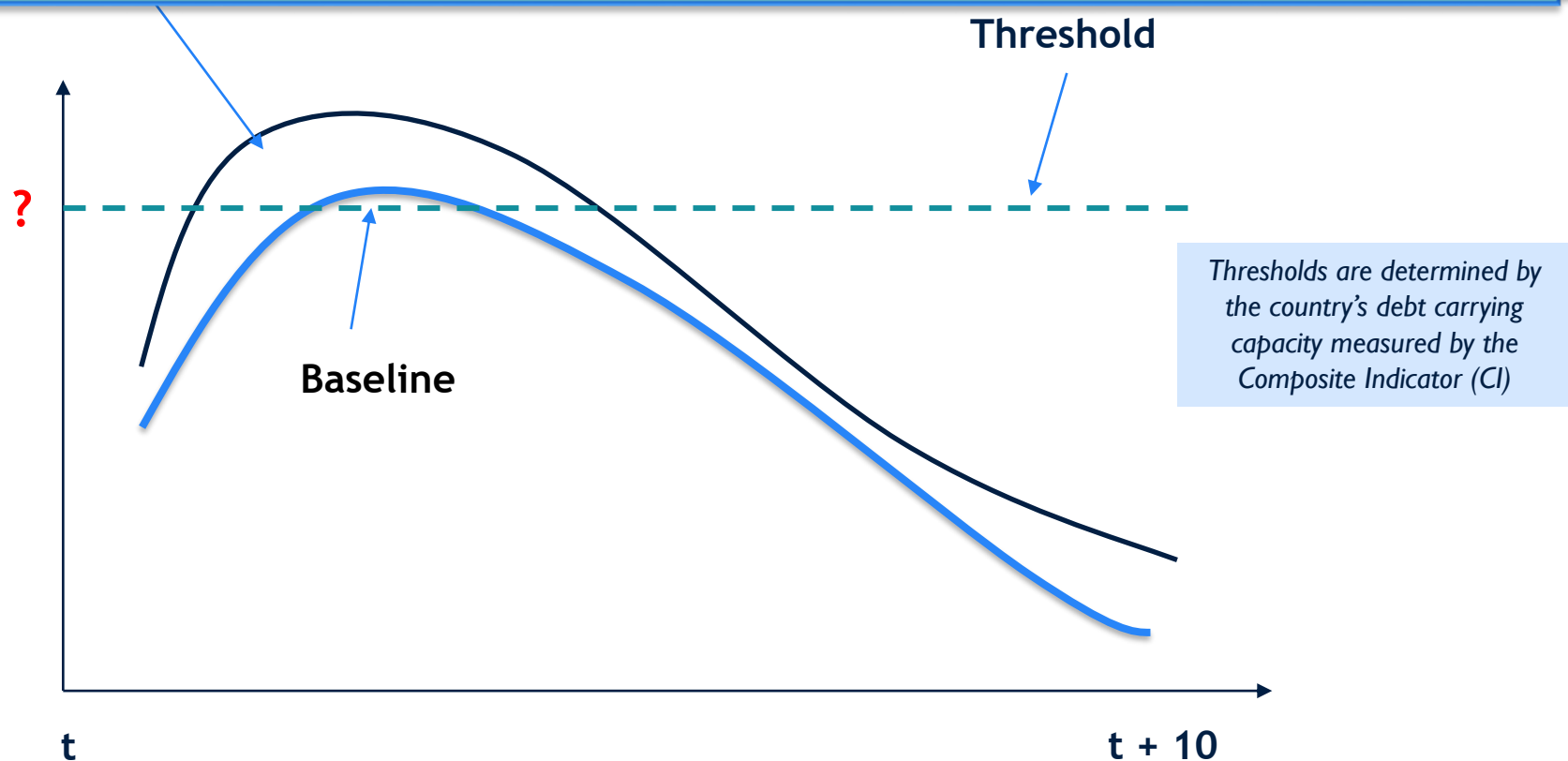
Macro
framework
(baseline +
alternative
scenarios)

Debt indicators
under those
scenarios
(baseline + stress
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Relative to
country
thresholds
/benchmarks

Risk Rating

Example: Comparing debt burden trajectories to thresholds



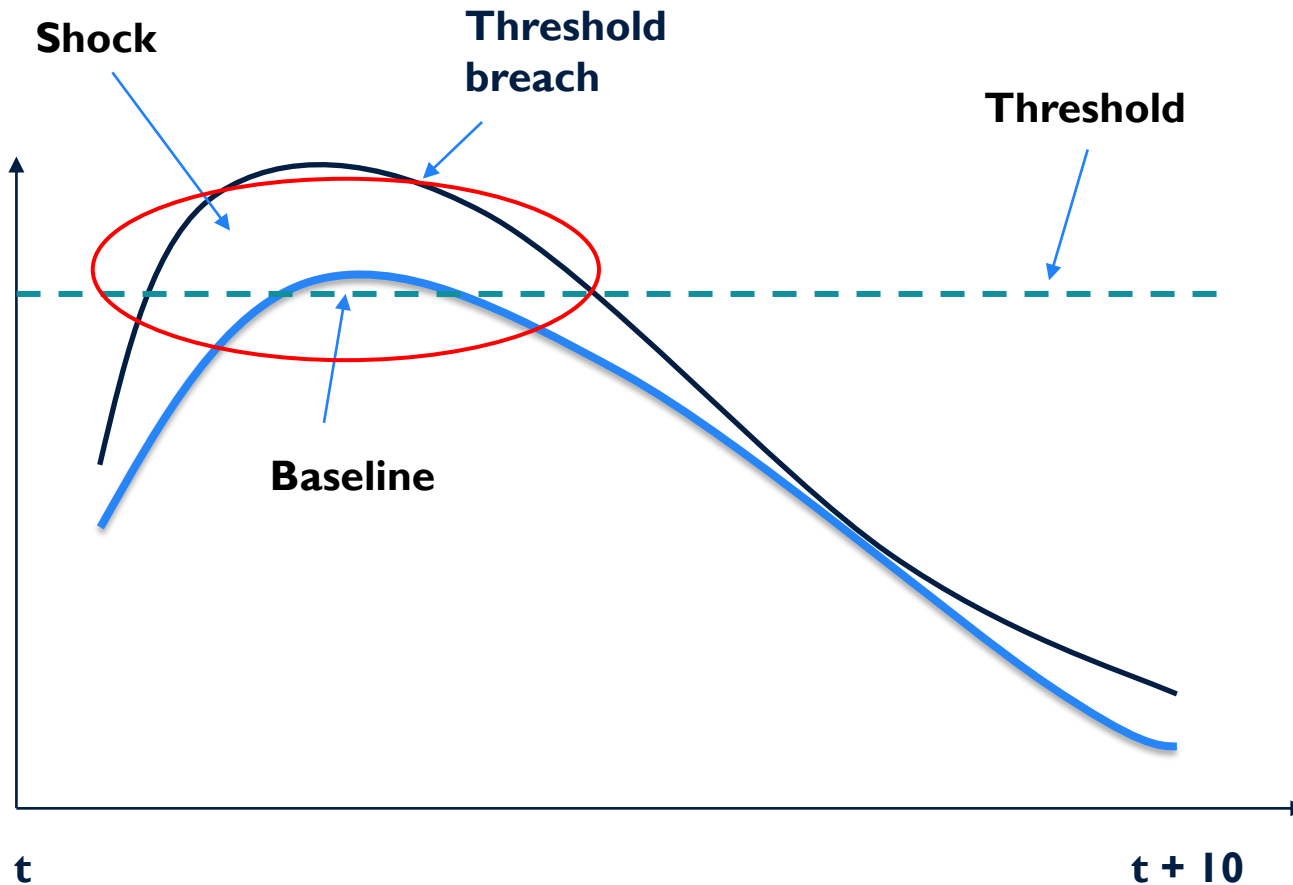
Macro scenarios
(baseline + possibly alternatives)

Debt indicators under those scenarios
(baseline + stress tests)

Relative to country thresholds /benchmarks

Risk Rating

Example: calculating the Mechanical External Risk Rating



Macro scenarios
(baseline + possibly alternatives)

Debt indicators under those scenarios
(baseline + stress tests)

Relative to country thresholds /benchmarks

Risk Rating

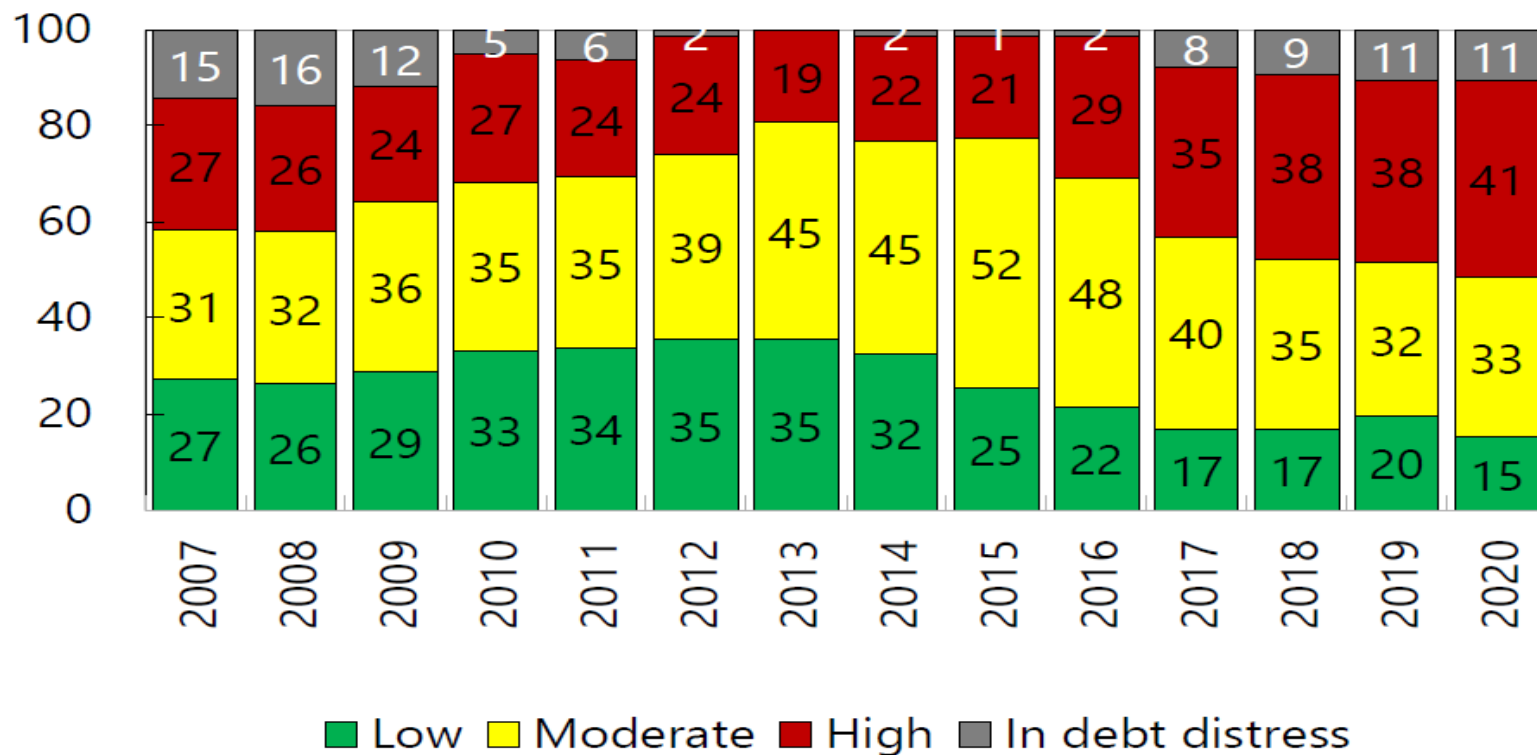
- Low
- Moderate
- High
- In debt distress

Results of the IMF/WB debt sustainability analysis

What forces drove this deterioration

The share of LIDCs at high risk of debt distress doubled since 2015 to two-fifths – how do we come to this assessment?

Evolution of Risk of Debt Distress
(in percent of DSSI-Eligible LIDCs with DSAs)



Source: LIC DSA database

Global efforts to strengthen debt resolution frameworks are urgent as debt crises costly to debtors, creditors and threaten the international monetary and financial system

Results of IMF/WB Debt Sustainability Analysis

The share of Asia-Pacific LICs at high risk of debt distress has risen to over 50 percent

Asian Countries' Risk of Debt Distress

	Risk of overall debt distress	Risk of external debt distress	Granularity in the risk rating	Debt Carrying Capacity	Year
High	Afghanistan	Afghanistan	Sustainable	Weak	2021
	Kiribati	Kiribati	Unsustainable	Medium	2019
	Laos	Laos	Sustainable	Weak	2019
	Maldives	Maldives	Sustainable	Weak	2020
	Marshall Islands	Marshall Islands	Sustainable	Weak	2021
	Micronesia	Micronesia	Sustainable	Weak	2021
	Papua New Guinea	Papua New Guinea	Sustainable	Weak	2022
	Samoa	Samoa	Sustainable	Strong	2021
	Tajikistan	Tajikistan	Sustainable	Strong	2022
	Tonga	Tonga	Sustainable	Strong	2022
	Tuvalu	Tuvalu	Sustainable	Weak	2021
Moderate	Bhutan	Bhutan	Limited Space to Absorb Shocks	Medium	2022
	Kyrgyzstan	Kyrgyzstan	Some space to absorb shocks	Strong	2021
	Solomon Islands	Solomon Islands	Sustainable	Weak	2022
	Timor-Leste	Timor-Leste	Limited Space to Absorb Shocks	Weak	2022
	Vanuatu	Vanuatu	Limited Space to Absorb Shocks	Medium	2021
Low	Bangladesh	Bangladesh	Not applicable	Medium	2022
	Cambodia	Cambodia	Not applicable	Medium	2021
	Myanmar	Myanmar	Not applicable	Medium	2021
	Nepal	Nepal	Not applicable	Strong	2022

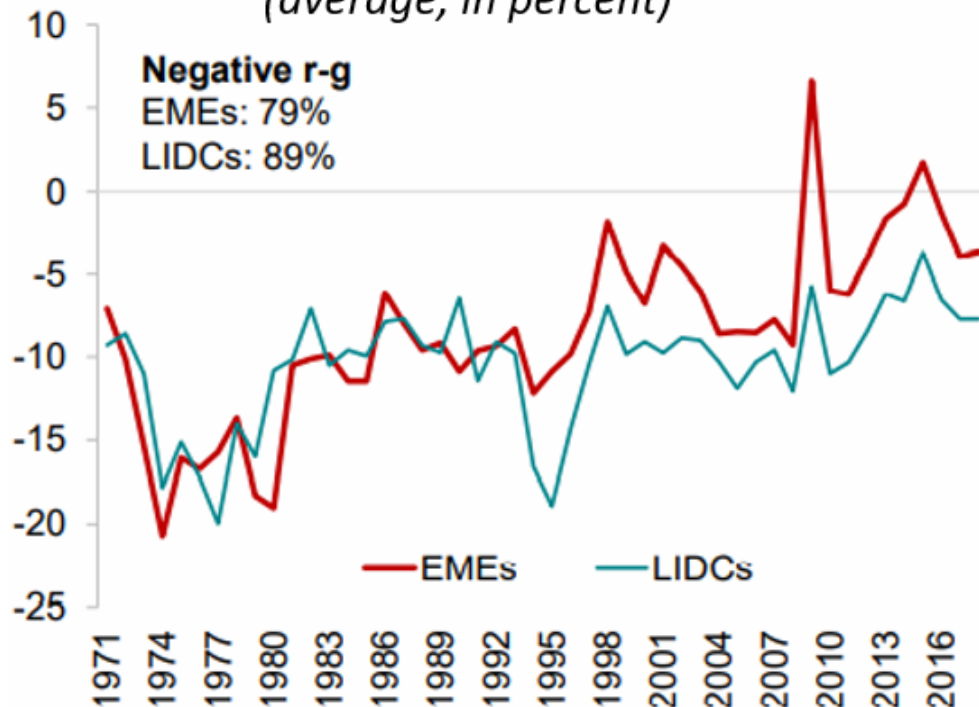
Source: October 2022, World Bank Debt Management Monitor.

What drove the rise in debt/GDP ratios?

Ex-post real interest rates were generally below EMDC growth rates.

- “r-g” has been negative in EMDCs in most years since 1970
- Low effective interest rates owing to concessional borrowing by LICs
- Paradox: with “r-g<0” why did EMDC rise steadily and by so much?
- To answer this question, we need to analyze the relative size of the drivers of debt dynamics

Real interest rate minus real growth rate (“r-g”) (average, in percent)



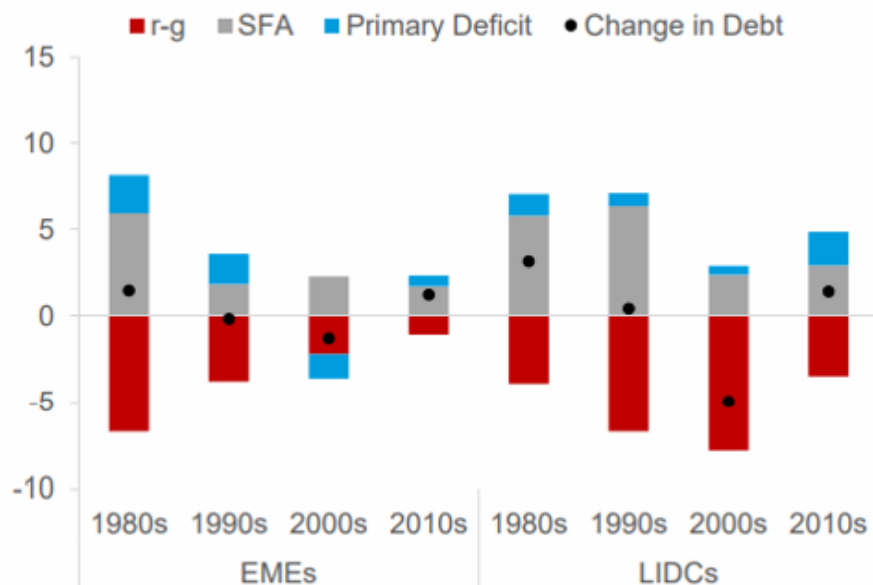
Sources: Moreno Badia et al (2020); and authors' calculations.

r-g calculated as $\frac{i_t + \gamma_t}{1 + \gamma_t}$ where i_t is the nominal effective interest rate and γ_t is the nominal GDP growth rate.

What drove the rise in debt/GDP ratios?

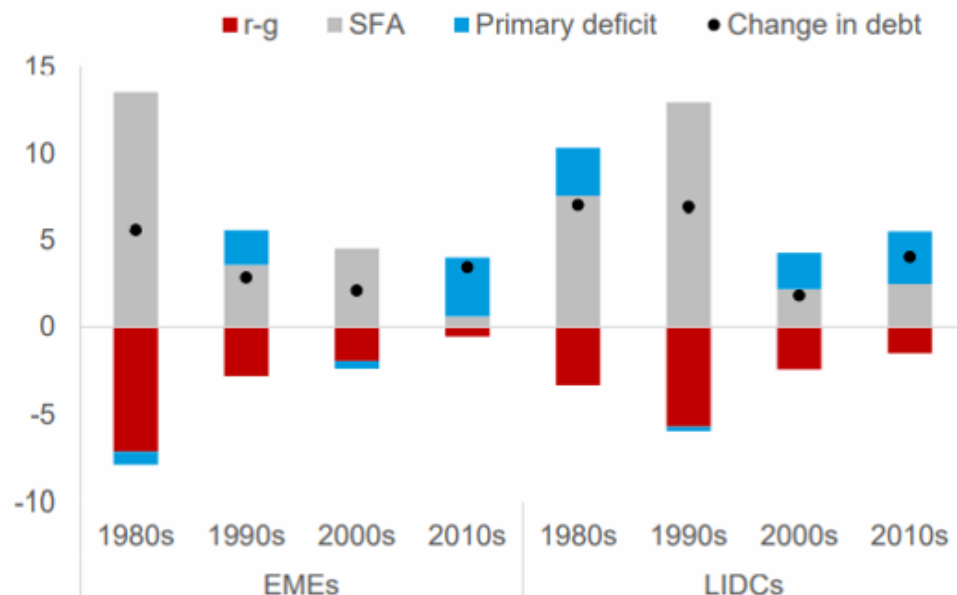
And exchange rate valuation effects – labeled Stock-Flow Adjustments (SFA) in the fundamental debt dynamics equation accounts for much of the rise in debt/GDP ratios

EMDEs: Debt Decomposition (Average)
(Percent of GDP)



Sources: Moreno Badia et al (2020); and authors' calculations.
Notes: Annual average per reference period, excluding outliers.

EMDEs: Debt Decomposition (75th percentile)
(Percent of GDP)

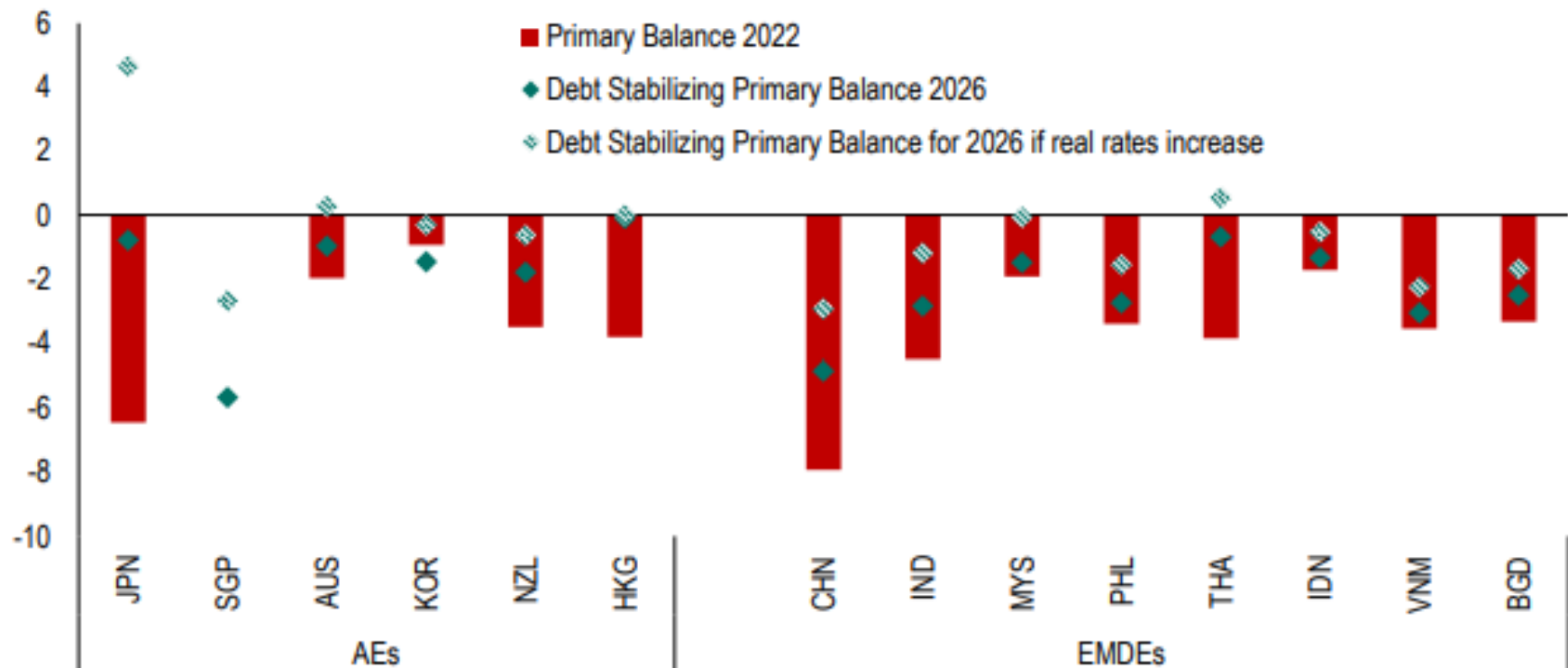


Sources: Moreno Badia et al (2020); and authors' calculations.

This highlights the importance of prudent macro policies to avoid large FX depreciations

Stabilizing Debt/GDP requires prudent macro policy

Good FX/monetary policies needed to avoid large currency depreciation impact (i.e., SFA) and fiscal consolidation to reduce primary deficits to levels that stabilize debt/GDP with RIR rise



Sources: World Economic Outlook and IMF Staff calculations.

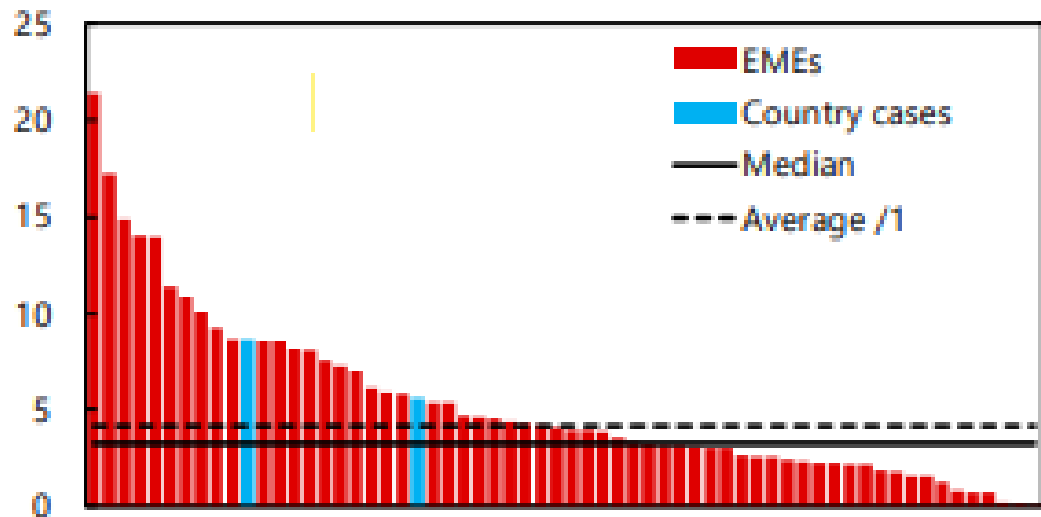
Note: Shows impact on long-term debt stabilizing primary balance assuming a level shift in the yield curve of 210 basis points (difference between US 10-year real rates during the pandemic and the long-term average between 1998 and 2019). Assumes the entire debt stock is refinanced at higher yields—to the extent that maturity structure differs across countries, the impact on debt stabilizing primary balance may occur over different time horizons.

Big challenge, but the fundamental equation of debt dynamics give us little alternative

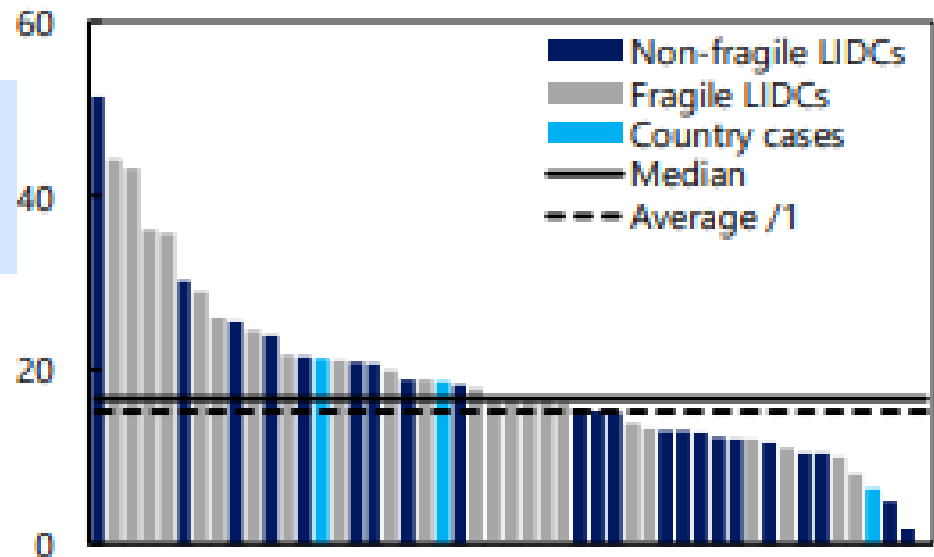
IMF estimate of 2030 spending to reach 5 SDGs

Annual spending in 2030 on SDGs for education, health, roads, electricity, water and sanitation
(in percent of GDP)

The median 2030 additional annual expenditures is 4½% of GDP in 72 EMEs—feasible for some but not all



Median additional annual expenditures in 2030 17% of GDP in 49 LICs: not feasible without ODA and financing support

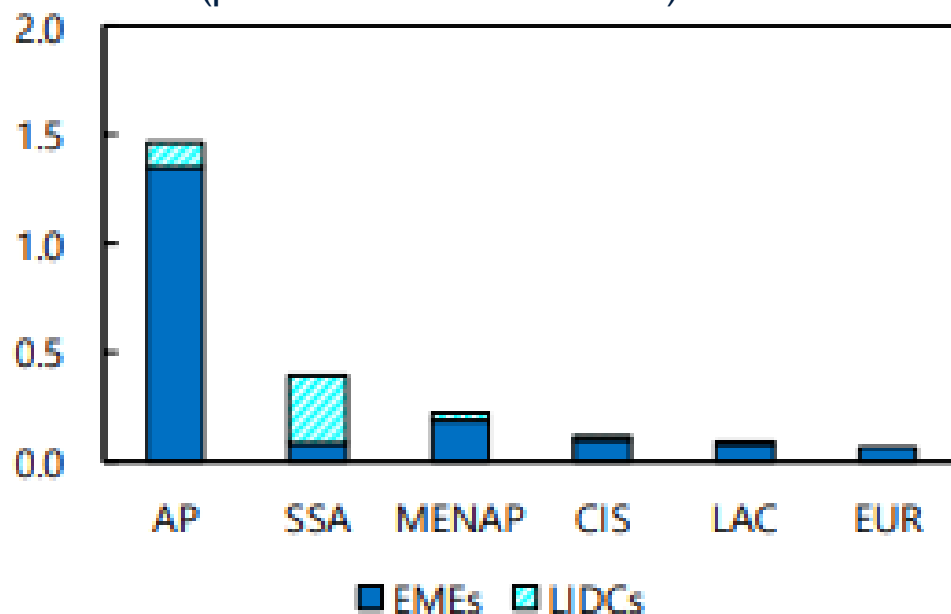


Source: IMF Staff Discussion Note, Fiscal Policy and Development: Human, Social, and Physical Investment for the SDGs, January 2019, by Vitor Gaspar et.al.

Spending needs are largest in Asia-Pacific and LICs

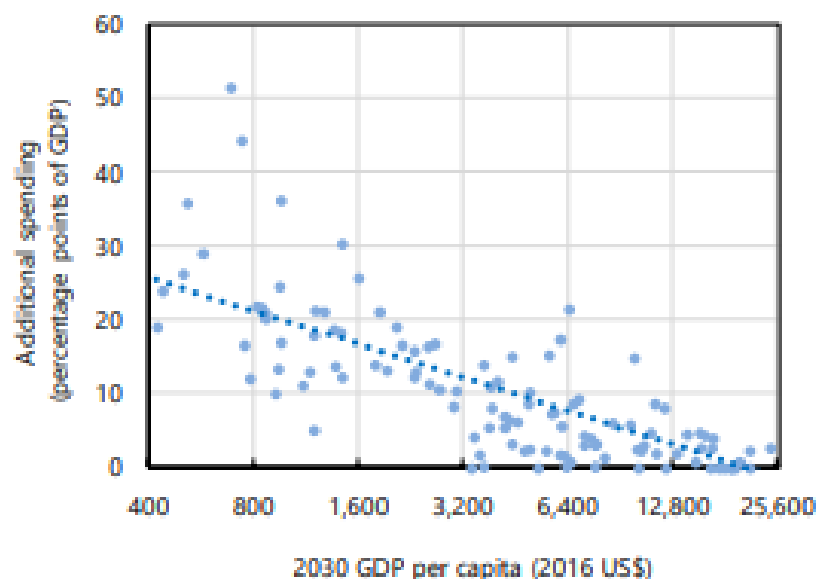
The large size of many Asian EMEs means that absolute SDG spending needs are greatest in Asia ... while annual spending needs in 2030 as a share of GDP per capita are highest in LICs

Annual spending by region and income group
(percent of 2030 world GDP)



Note: AP = Asia and Pacific; CIS = Commonwealth of Independent States; EUR = Europe; LAC=Latin America and the Caribbean; MENAP = Middle East, North Africa, Afghanistan, and Pakistan; SSA = sub-Saharan Africa;

Annual spending in 2030 and GDP per capita

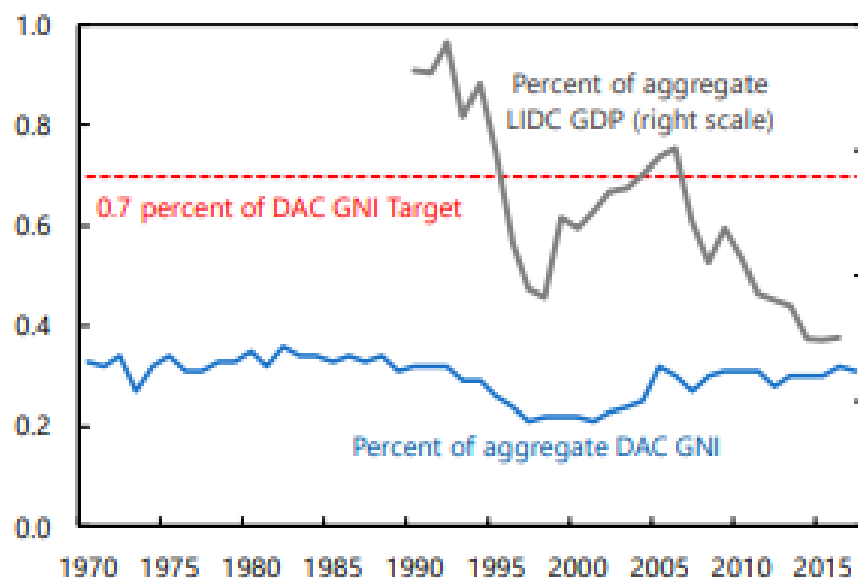


Source: IMF Staff Discussion Note, Fiscal Policy and Development: Human, Social, and Physical Investment for the SDGs, January 2019, by Vitor Gaspar et.al.

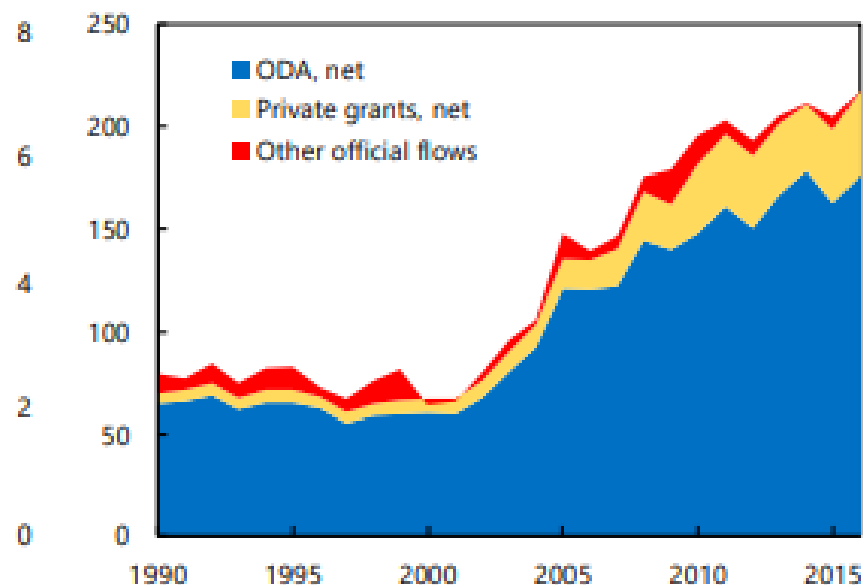
The challenge is mobilizing resources

For LICs to meet the SDG, concessional financing is key, but flows declined as a share of LIC GDP

Net Official Development Assistance, 1970–2016
(percent of GDP)



External Concessional Financing Flows
(billions of US dollars)



Source: IMF Staff Discussion Note, Fiscal Policy and Development: Human, Social, and Physical Investment for the SDGs, January 2019, by Vitor Gaspar et.al.

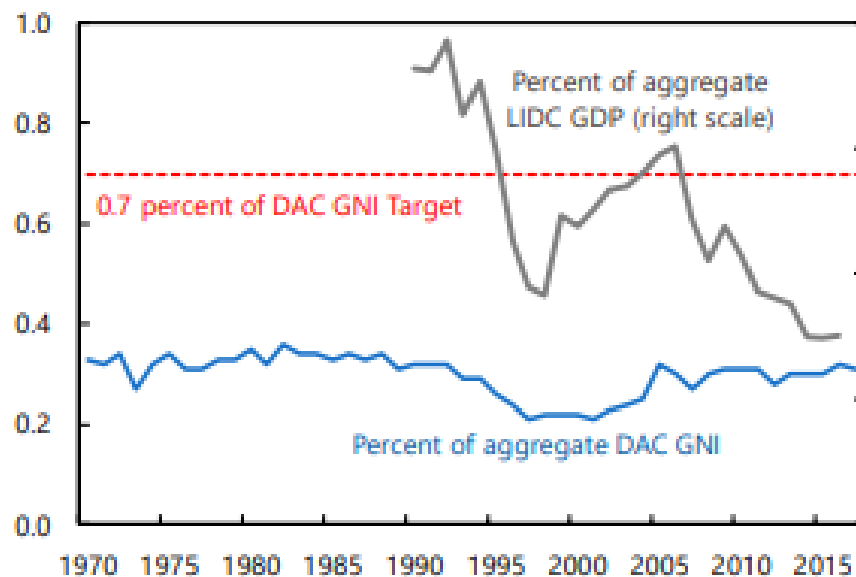
Note: DAC = Development Assistance Committee of the OECD; GNI = gross national income; LIDC = low-income developing country; ODA = official development assistance. Data are from OECD and UN Conference on Trade and Development

IFI are key conduits of this financing. The IMF lends for policy support and has just created a new financing facility – the Resilience and Sustainability Trust – with 20-year funding

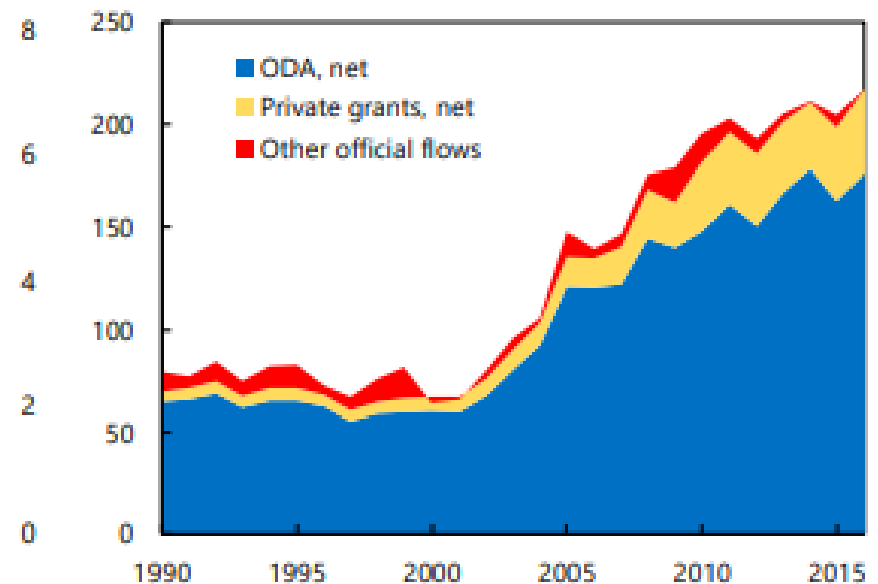
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Sources of additional information on the LIC DSF

Information on the LIC DSF is available through the IMF and World Bank pages:

IMF webpage:
<http://www.imf.org/external/pubs/ft/dsa/lic.aspx>

World Bank webpage:
<http://www.worldbank.org/en/topic/debt/brief/dsf>