Public Debt Management and Private Financial Development
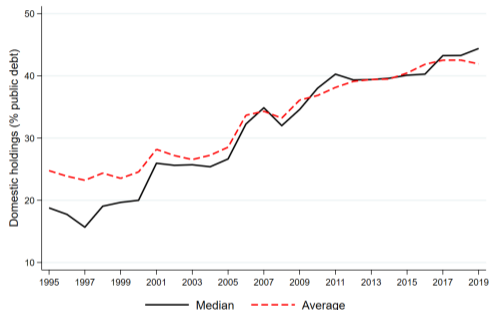
Andrea F. Presbitero[1] and Silvia Pedersoli[2]

Public Debt Management Conference 2022, Rome, 26 May 2022
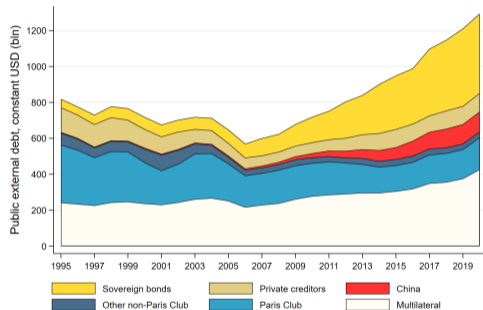
[1]International Monetary Fund & CEPR [2]Università di Bologna

The changing landscape of public debt in developing countries

(a) Domestic holdings of public debt

(b) External public debt, creditor composition

Public debt management is increasingly important to ensure debt sustainability and mitigate risks

Research question

Does better *public* debt management policies lead to more and more stable *private* capital inflows and stimulate financial deepening?

- Meeting development spending needs and financing large infrastructure gap require private capital flows, but . . .
- Private capital flows could be volatile, pro-cyclical and prone to episodes of bonanza, sudden stops and crises
- Since attracting private capital requires sound macroeconomic policies and institutional quality . . .
- A sound debt management strategy could contribute to developing countries' capacity to mobilize private finance

Mechanisms

Debt management and capital flows

- By helping fiscal sustainability and macroeconomic and financial stability, sound debt management can reduce borrowing costs and financial risks, affect investors' country risk perception, and promote financial development

- Lower fiscal vulnerability and exposure to macroeconomic shocks make foreign investors more willing lend and invest in private entities

Debt management and financial deepening

- Debt management strategies could be directed at increasing liquidity in the secondary market, which facilitates the pricing of risk by the private sector

- Sounder policies could also reduce the need to rely on financial repression to finance the budget deficit and expand the investor base, limiting large exposures of domestic banks to domestic sovereign debt

Data and sample

- The main dataset includes **65 low and lower middle income countries** (WB classification) and covers the period 2005–2018

- Data on public debt management are from the World Bank's Country Policy and Institutional Assessment (CPIA)

- Data on capital inflows (to the non-official sector) are from the IMF
  - capital flows are split into: i) FDI, ii) portfolio flows, and iii) other flows (e.g., banking flows)

- Data on domestic bank credit and other macroeconomic data are collected from standard sources (e.g., IMF, World Bank)

Measuring Public Debt Management

Measuring debt management policy
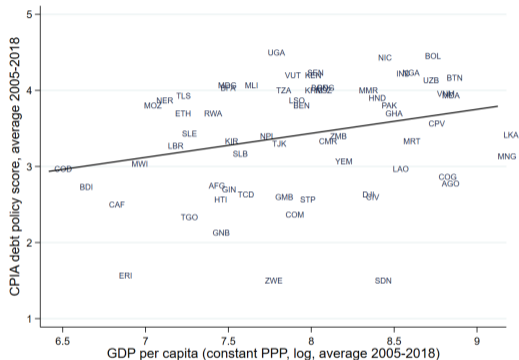
- The CPIA Debt Policy rating assesses whether the debt management strategy is conducive to minimizing budgetary risks and ensuring long-term debt sustainability:
  - ranges between 1 (low) and 6 (high)
  - criteria focus on policies and institutional arrangements—which are within a country's control—rather than on actual outcomes (World Bank 2021)

The debt policy rating is only weakly associated with GDP per capita, while it is correlated with the DeMPA scores and with measures of debt transparency (Rivetti 2022)
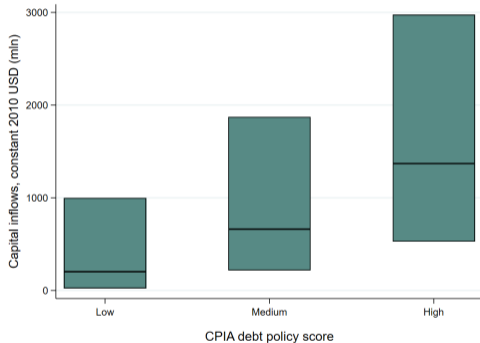
Debt management policy over time

- There has been only a **weak improvement in debt management** between 2005 and 2018

- Out of 65 countries, the CPIA score:
  - increased in 23 countries,
  - decreased in 25 countries, and
  - remained constant in 17 countries

- The trend is similar across low income and lower middle income countries

Debt Management & Capital Flows

Better debt management is associated with larger inflows and faster growth
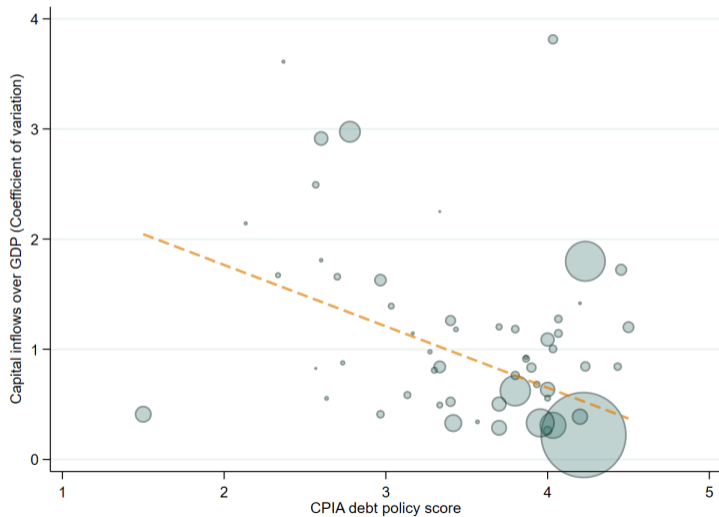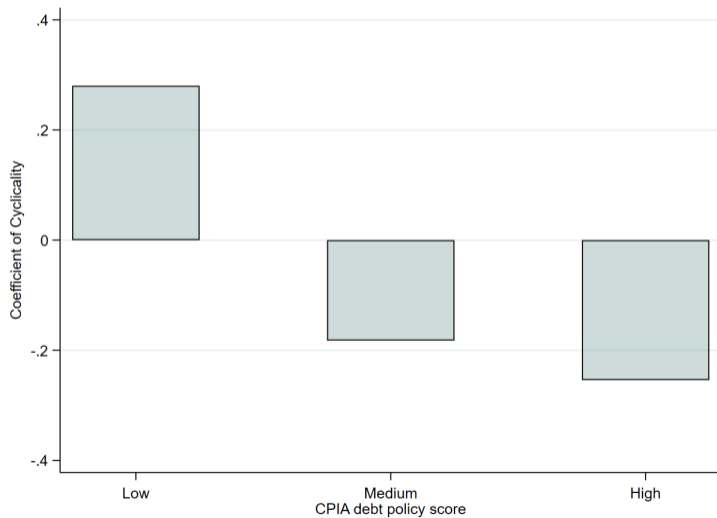

(c) Average over time
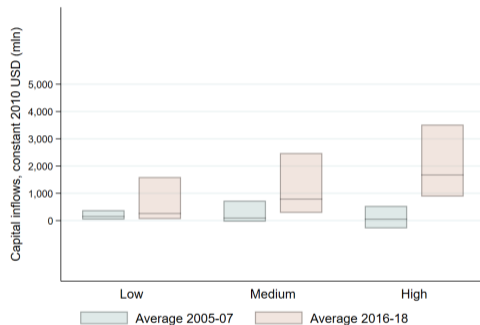
(d) 2005-07 vs 2016-18

Better debt management is associated with lower volatility of capital inflows

Better debt management is associated with lower pro cyclicality of capital inflows

Debt management and capital inflows: Main results

$$CF_{it} = \mu_i + \nu_t + \beta CPIA_{it-1} + \alpha' X_{it-1} + \varepsilon_{it}$$

| Dependent variable:	Total net flows				FDI	Portfolio flows	Other flows
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Debt policy score	2.230**	2.321**	2.504***	2.131*	-0.162	0.281	2.183**
	(0.956)	(0.937)	(0.923)	(1.152)	(0.363)	(0.187)	(1.018)
Growth		-0.162	-0.141	-0.163	-0.007	-0.012	-0.127
		(0.134)	(0.132)	(0.137)	(0.048)	(0.020)	(0.110)
GDP per capita		12.221***	11.740***	12.635***	3.342*	1.725**	8.320**
		(4.148)	(4.092)	(4.079)	(1.956)	(0.813)	(3.401)
Crisis			0.731	0.830	0.781	0.005	-0.267
			(1.206)	(1.201)	(0.555)	(0.240)	(0.936)
IMF agreement			-1.997**	-2.262***	0.071	-0.100	-2.059***
			(0.781)	(0.816)	(0.357)	(0.148)	(0.640)
Public debt				-0.055	0.024**	-0.005	-0.051
				(0.048)	(0.011)	(0.004)	(0.032)
Rule of law				-2.703	1.839*	-0.766	-3.980
				(2.877)	(1.073)	(0.471)	(2.477)
Observations	637	637	637	637	637	596	637
R^2	0.404	0.414	0.420	0.431	0.600	0.373	0.316
Country & Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Debt management and capital inflows: Additional results

| Dependent variable:	$CF < 0$	Capital flight	Total net flows		
Debt policy score	-0.077* (0.041)	-0.099*** (0.032)			
Debt policy score $\times$ SSA=0			4.151** (2.066)		
Debt policy score $\times$ SSA=1			2.136** (1.046)		
Debt policy score $\times$ LIC				-0.486 (1.889)	
Debt policy score $\times$ LMIC				3.642*** (0.999)	
Debt policy score $\times$ Low debt					3.634*** (1.066)
Debt policy score $\times$ High debt					1.043 (1.173)
Observations	637	637	637	637	637
R^2	0.302	0.193	0.421	0.425	0.428
Macro controls	Yes	Yes	Yes	Yes	Yes
Country & Year FE	Yes	Yes	Yes	Yes	Yes

Notes: $CF < 0$ and Capital flight are dummies equal to 1 if total net capital flows are below 0 and lower then the (country-specific) historical average minus 1 standard deviation. The low and high debt dummies are constructed around the third quartile of the public debt-to-GDP distribution.

Loan terms are better in countries with stronger debt management
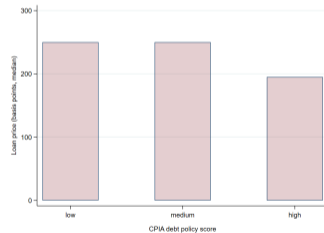
Loan-level data on syndicated bank lending (Dealogic) on 60 countries between 2005 and 2019 show a strong association between the CPIA debt policy score and loan terms
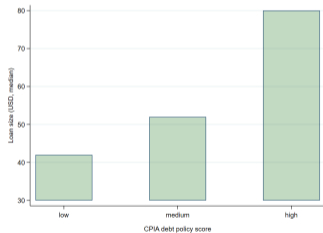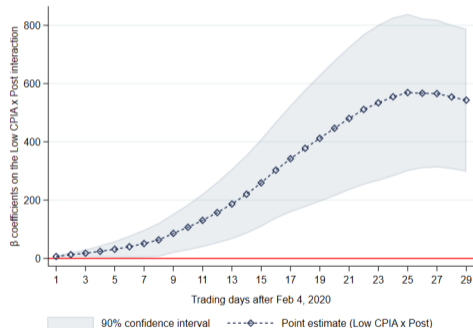

(e) Loan amount
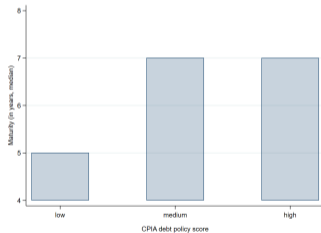
(f) Maturity

(g) All-in pricing

Debt management and sovereign borrowing costs after COVID-19

The increase in sovereign spreads after COVID-19 has been significantly higher for countries with weaker debt management policies

(h) Change in spreads from Feb 4 to May 4, 2020


(i) Impulse response function

Summary

1. The positive relationship between debt management and capital inflows holds also within-country and is driven by bank loans
   - a half point increase in the debt policy score is associated with a 1 pp increase in (net) other inflows in the following year
   - this results is driven by lower middle income and low-debt countries
   - stronger debt management policies reduce the probability of negative net inflows and of capital flights
   - results are robust to control for other components of the CPIA score and a large set of macroeconomic controls

⇒ **Which is the channel? Look at the deepening of local credit markets**

Debt Management & Bank Credit

Better debt management is associated with domestic financial deepening
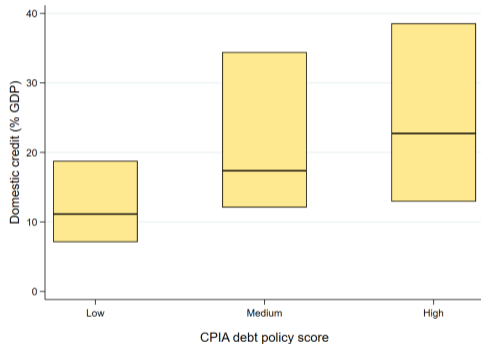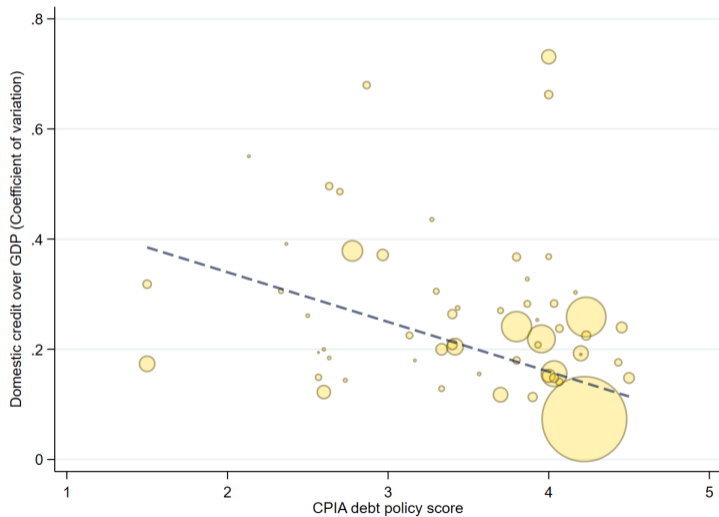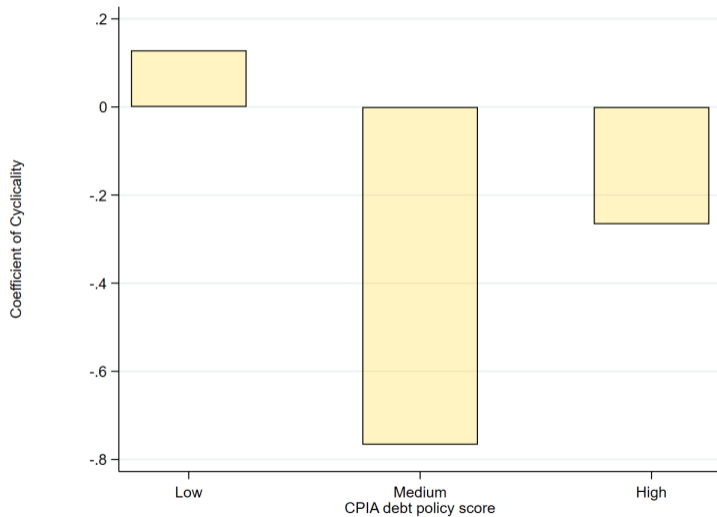

(j) Average over time

(k) 2005-07 vs 2016-18

Better debt management is associated with lower volatility of bank credit

Better debt management is not associated with bank credit pro cyclicality

Debt management and domestic credit: Main results

$$\Delta Credit_{it} = \mu_i + \nu_t + \beta CPIA_{it-1} + \gamma Credit_{it-1} + \alpha' X_{it-1} + \varepsilon_{it}$$

Dependent variable:	$\Delta Credit$		$\Delta Credit < 0$	Credit bust	$\Delta Credit$	
	(1)	(2)	(3)	(4)	(5)	(6)
Debt policy score	1.068***	1.168***	-0.156***	-0.091**		
	(0.329)	(0.402)	(0.054)	(0.043)		
Debt policy score $\times$ SSA=0					1.813*	
					(0.962)	
Debt policy score $\times$ SSA=1					0.845**	
					(0.342)	
Debt policy score $\times$ LIC						1.058**
						(0.494)
Debt policy score $\times$ LMIC						1.075**
						(0.426)
Observations	604	604	604	604	604	604
R^2	0.272	0.273	0.215	0.133	0.274	0.272
Macro controls	Yes	Yes	Yes	Yes	Yes	Yes
Country & year FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable is the change in credit is the ratio of bank domestic credit over GDP. $\Delta Credit < 0$ and Credit bust are dummies equal to 1 if $\Delta Credit$ is below 0 and lower then the (country-specific) historical average minus 1 standard deviation. Macro controls include the lagged value of credit over GDP, gross capital flows, real GDP growth and dummies for past crises and IMF arrangements.

# Policy Implications

Discussion

- Our results show that there are **spillover effects** from better public debt management to private capital inflows and domestic financial deepening

- In a framework of increasing financial integration in frontier economies and a shift toward non-concessional debt, countries should strengthen domestic institutions to better manage capital ebbs and flows and the associated credit booms and busts

Additional Slides

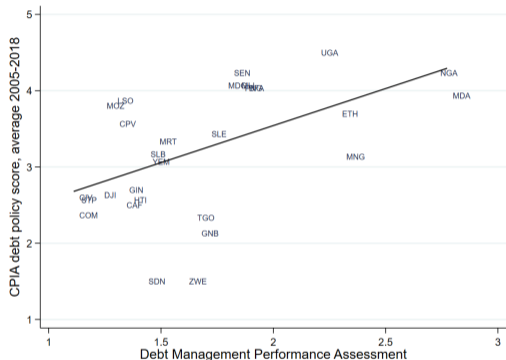# Debt management and public debt
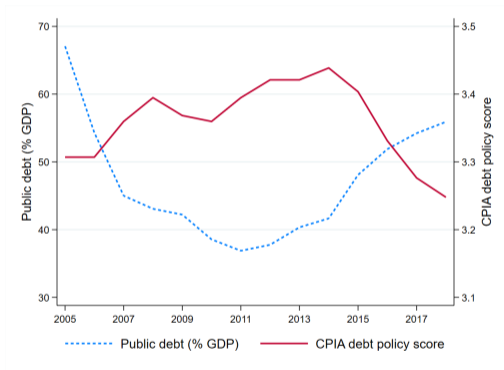
(l) Time series
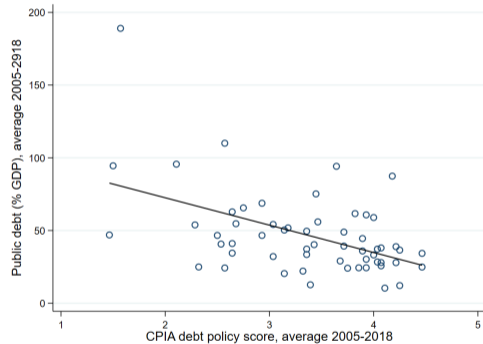
(m) Cross section

# Measuring debt management policy: CPIA and DeMPA

The DeMPA is a World Bank diagnostic tool to assess the quality of government debt management practices and institutions

- A set of 15 debt performance indicators: we considered the average grade for each country

- The scale originally ranges between D(Low) to A(high) which have been translated to ranges between 1 to 4

DeMPAs are treated as confidential. In the sample of countries with publicly available DeMPA, there is a positive association with the CPIA debt policy rating

Measuring debt management policy: CPIA and Debt transparency
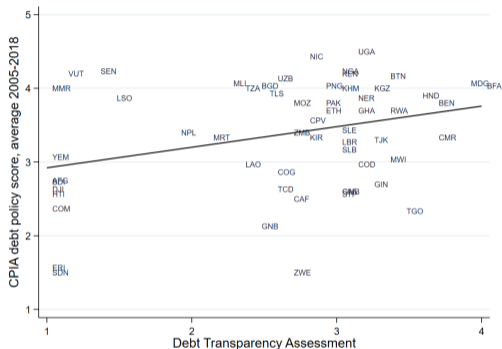
Debt transparency is evaluated across nine indicators and addresses three main areas:

- Public debt statistics dissemination practices

- Publication of key debt management documents; and

- Reporting on risks stemming from contingent liabilities

The transparency categorical score are converted in a numerical one (from 1 to 4). We then compute the average score across the 9 dimensions