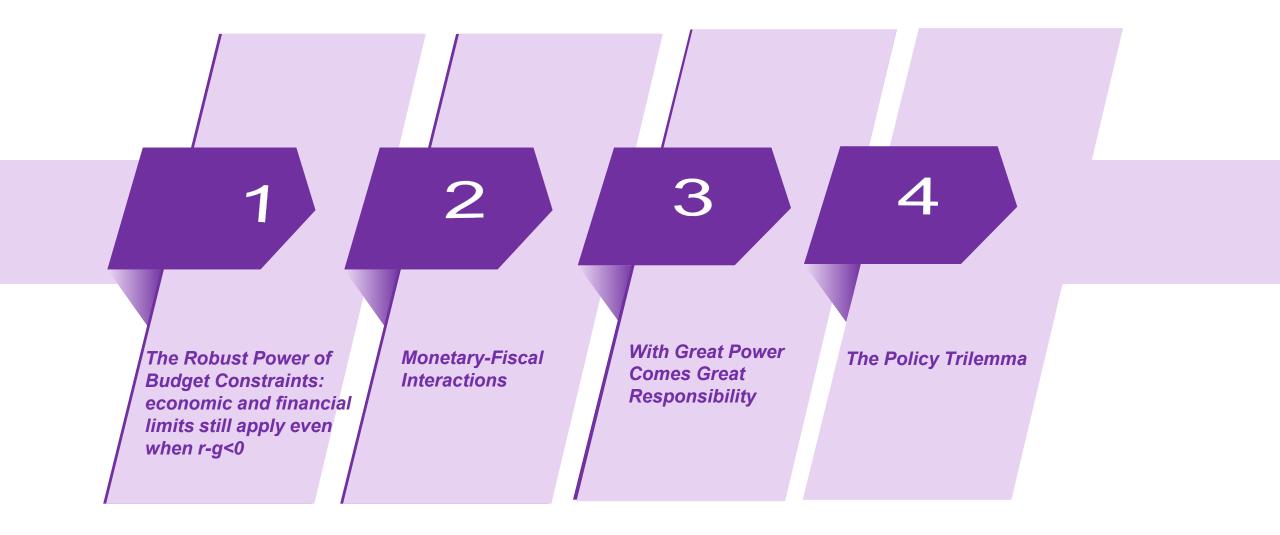


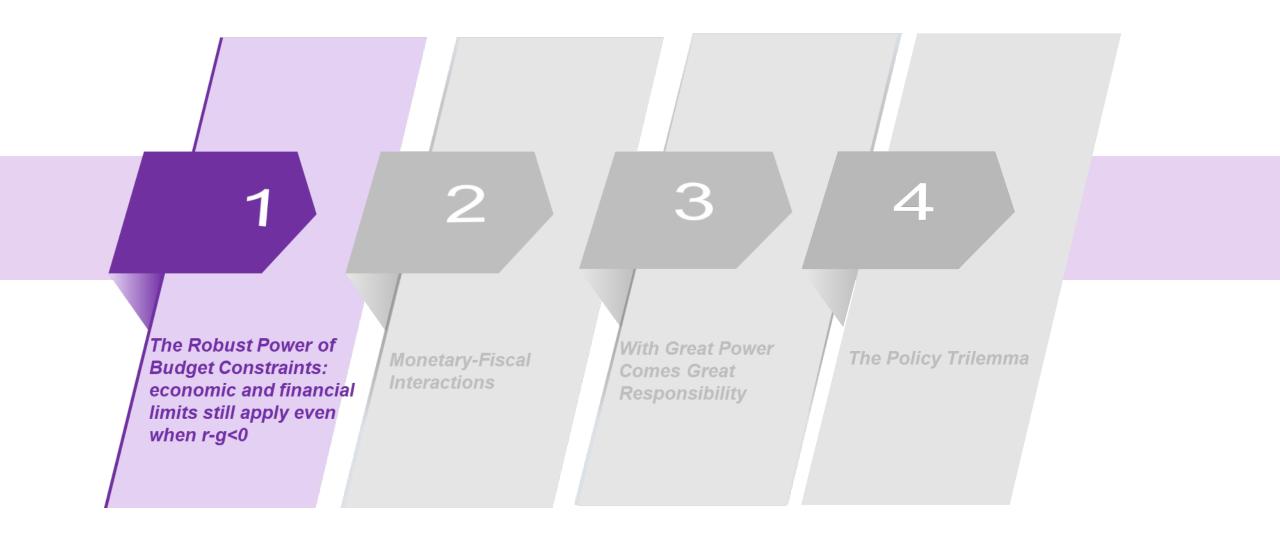


The Future of Fiscal Policy Fiscal and Debt Series

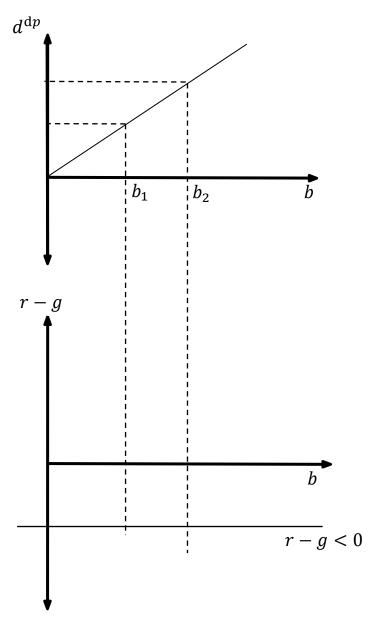
TUESDAY, NOVEMBER 7, 2023
ICBM CENTRE INTERNATIONAL D' ETUDES MONÉTAIRES ET BANCAIRES

Vitor Gaspar Director Fiscal Affairs Department



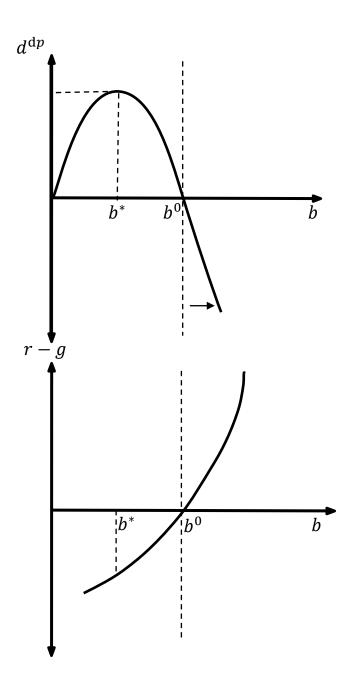


r-g <0 as a way to boundless possibilities

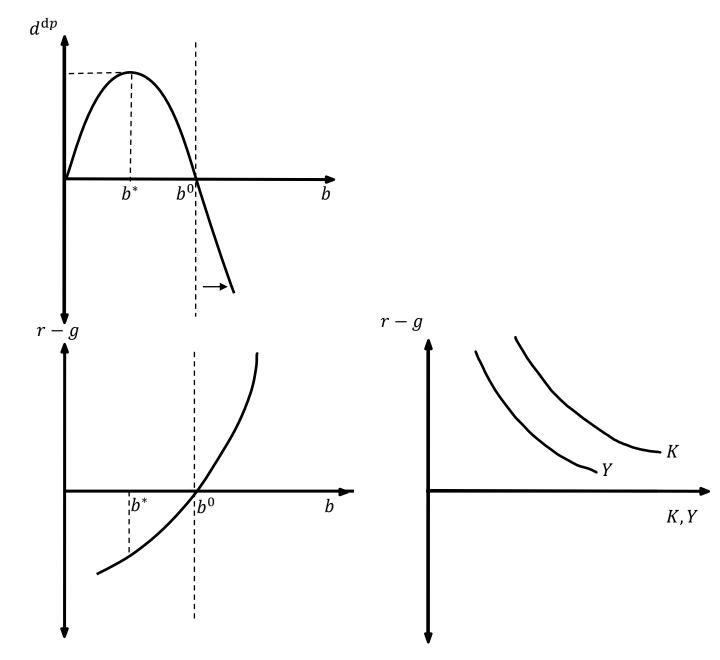


Note: Elaboration on models with r-g exogenous and fixed.

Budget Limits And The Endogeneity Of r-g

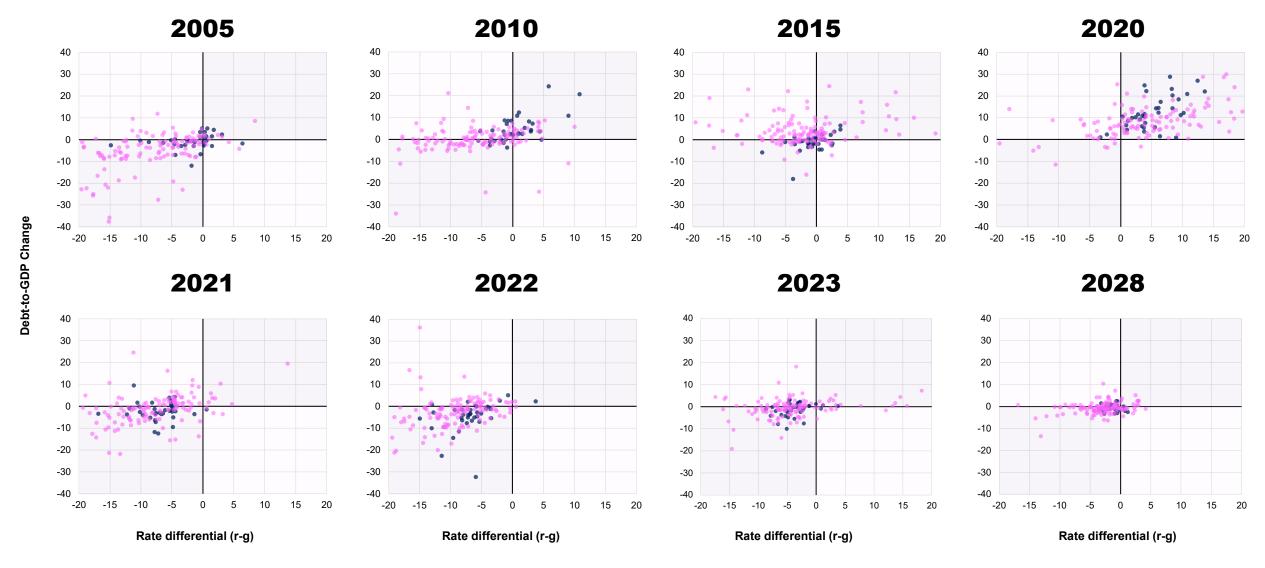


Budget Limits And The Endogeneity Of r-g



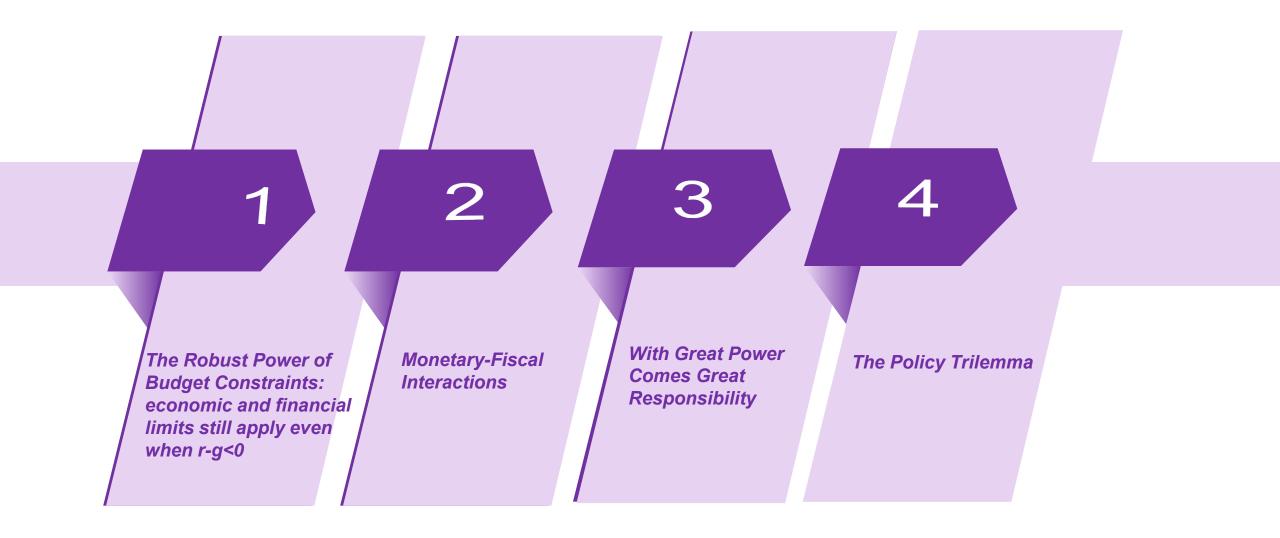
r-g & Debt Trends

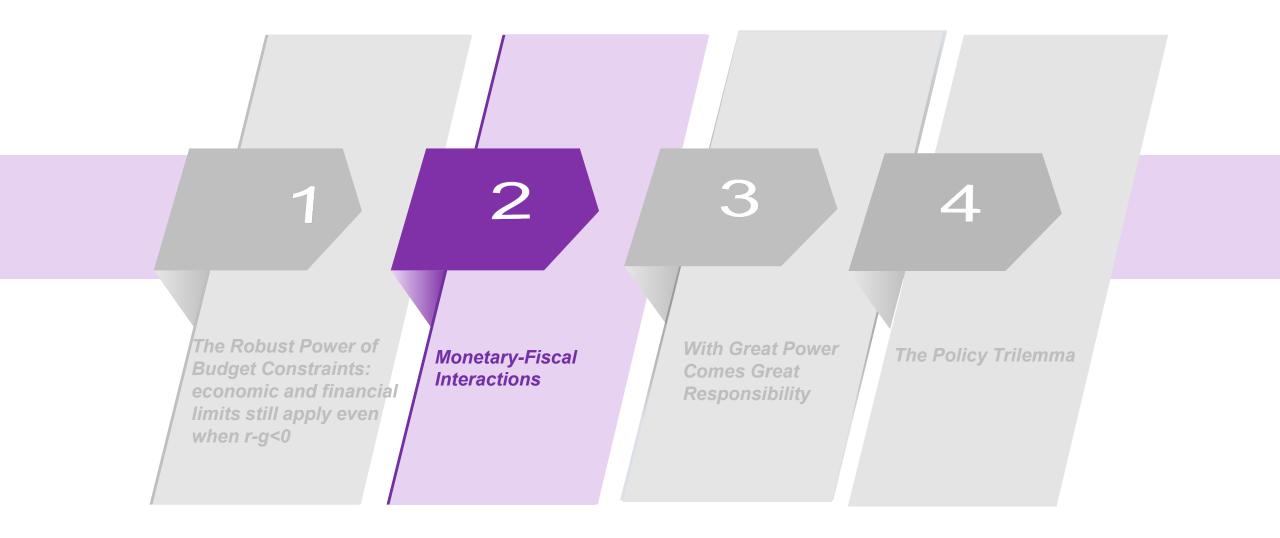




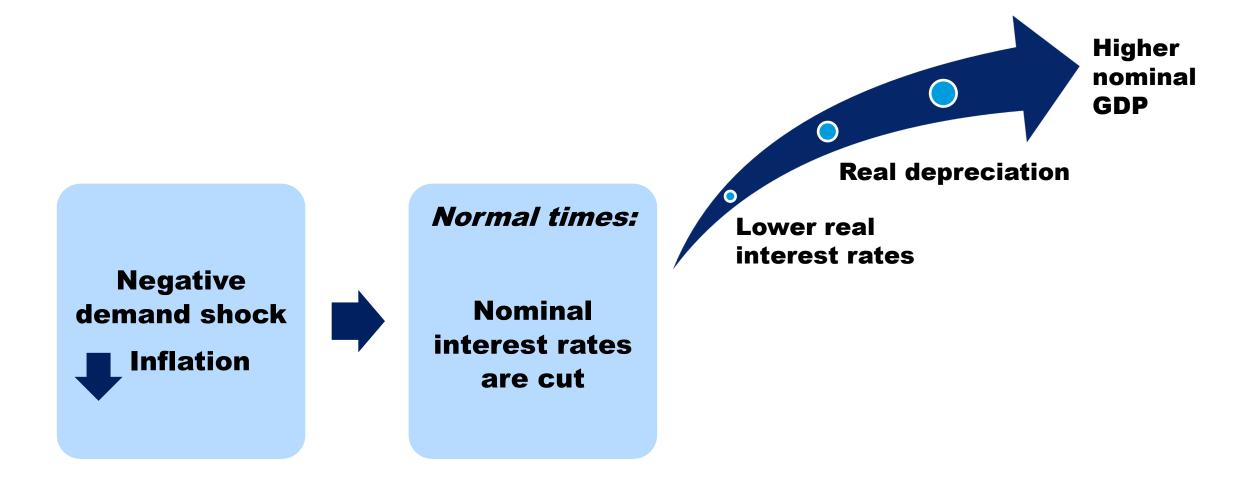
Source: IMF World Economic Outlook (October 2023) & IMF Staff Calculations.

Note: (1) Debt change in percentage points compared to previous year.





Interest Rates And Exchange Rates As Shock Absorbers



Interest Rates And Exchange Rates As Shock Amplifiers

Negative demand shock

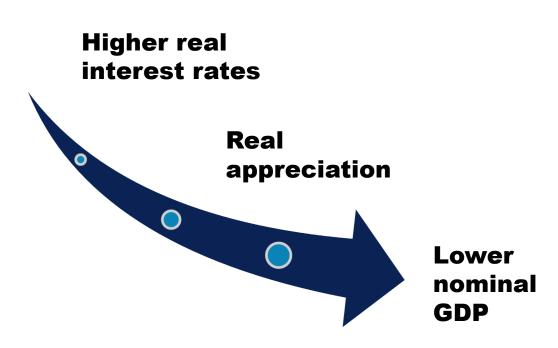


Inflation



Interest rates at effective lower bound:

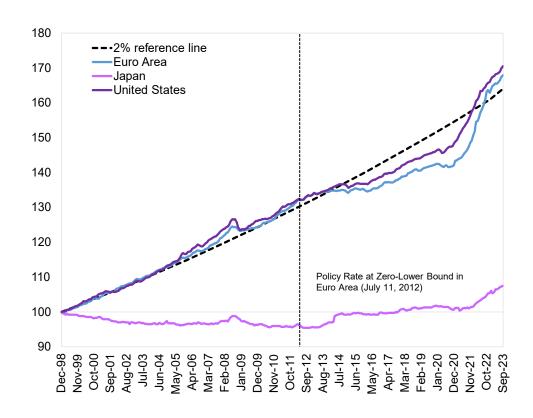
Nominal interest rates unchanged



Japan

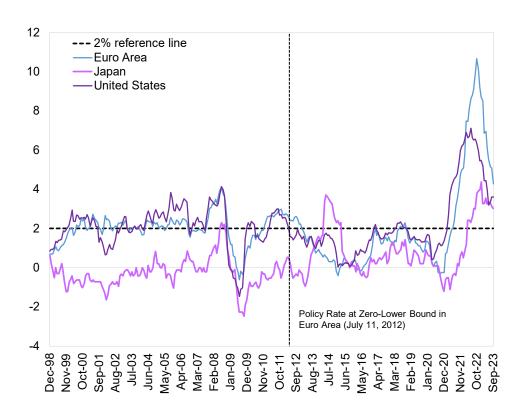
Price Level in Japan, US and EA

(Indexed Dec 1998 = 100, Dec 1998 - Sep 2023)



Inflation in Japan, US, and EA

(year-on-year, Dec 1998 - Sep 2023)

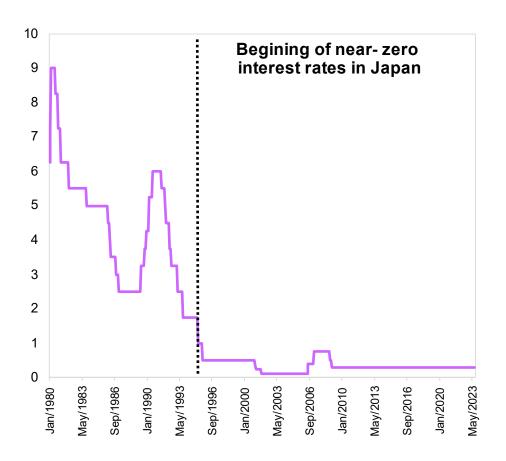


Source: Bureau of Economic Analysis (BEA); EuroStat; Bank of Japan; Haver Analytics & IMF Staff Calculations.

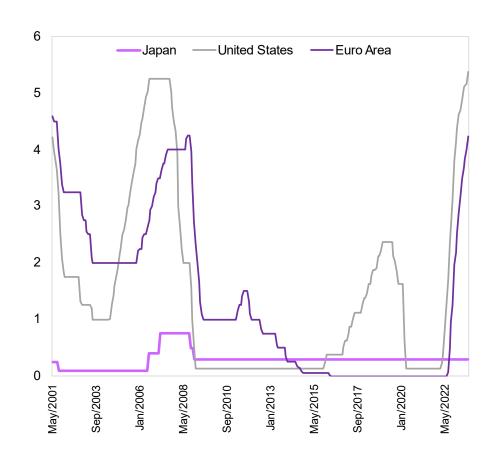
Note: The figures use Personal Consumption Expenditures (PCE) for the United States (US), Harmonized Index of Consumer Prices (HICP) for the Euro Area (EA) and Consumer Price Index (CPI) for Japan in monthly frequency. The last datapoint is the month of September 2023. The vertical dashed line indicates the date at which the policy rate in the Euro Area was at the Zero-Lower Bound – on July 11, 2012.

Interest Rates at the Lower Bound

Japan: Total Central bank Rates (Percent)



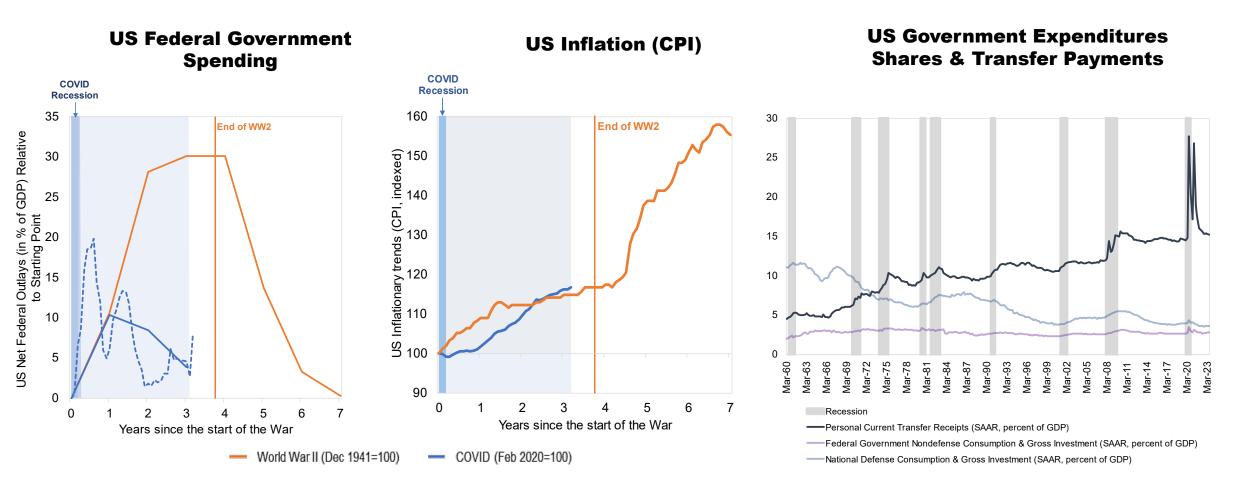
Monetary Policy Rates (Percent)



Source: FRED & Haver Analytics.

Note: Japan - Interest Rates: Immediate Rates (< 24 Hours): Central Bank Rates: Total for Japan.

COVID As War

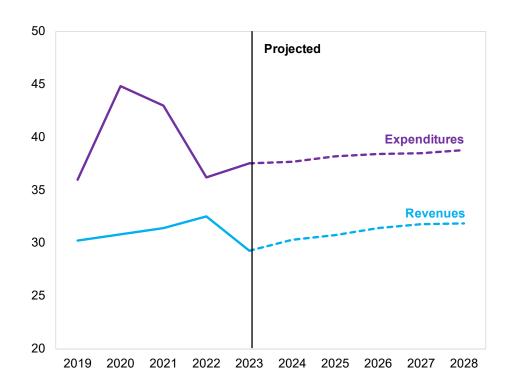


Source: Federal Reserve (FRED); Bureau of Labor Statistics (BLS); Global Financial Database (GFD); Office of Management & Budget (OMB)/Haver Analytics; NBER & IMF Staff Calculations based on the comparison in Hall, G. J., & Sargent, T. J. (2022). 'Three world wars: Fiscal-Monetary Consequences'; Right chart is based on Figure 6 from "The COVID-19 Pandemic and Inflation: Lessons from Major U.S. Wars", Kliesen and Wheelock (2022). Data comes from Bureau of Economic Analysis (BEA), Haver Analytics; Federal Reserve Economic Data (FRED) & IMF Staff Calculations.

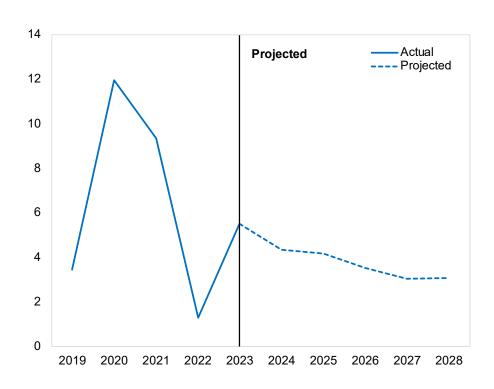
Note: Figures represent trends in the United States. In the right figure, data is in monthly frequency. In the left chart, data is in annual frequency, with the dashed line being federal government spending for COVID in monthly frequency. Federal Net Outlays (Spending) is shown as the difference relative to federal spending at the start (point 0, which is the 12-month rolling average of federal government spending). The COVID Recession, classified based on NBER's definition of recessions, is shaded in light blue, and includes the months of February, March and April 2020. The last date for federal spending is the month of August 2022, and for inflation is the month of September 2022.

United States

Expenditures and Revenues (Percent of GDP)



Primary Deficit (Percent of GDP)

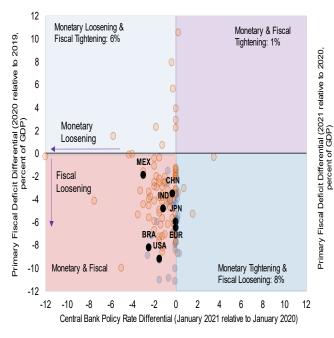


Source: IMF World Economic Outlook (October 2023) and IMF staff calculations.

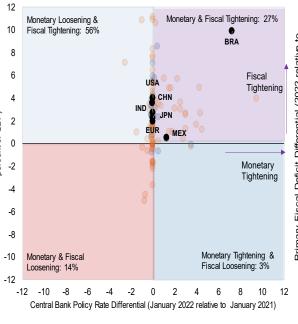
Note: Latest data point is 2028. Data are on fiscal year basis.

Policy Mix

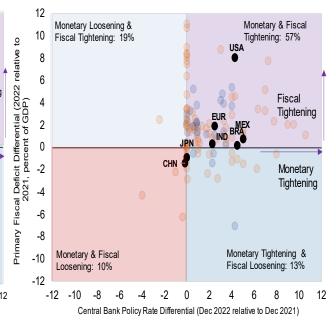




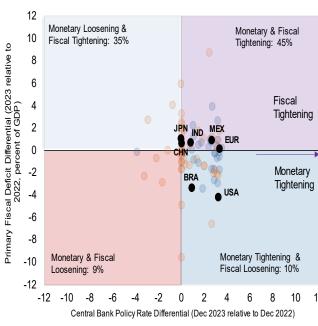
Fiscal-Monetary Interaction in 2021



Fiscal-Monetary Interaction in 2022



Fiscal-Monetary Interaction in 2023



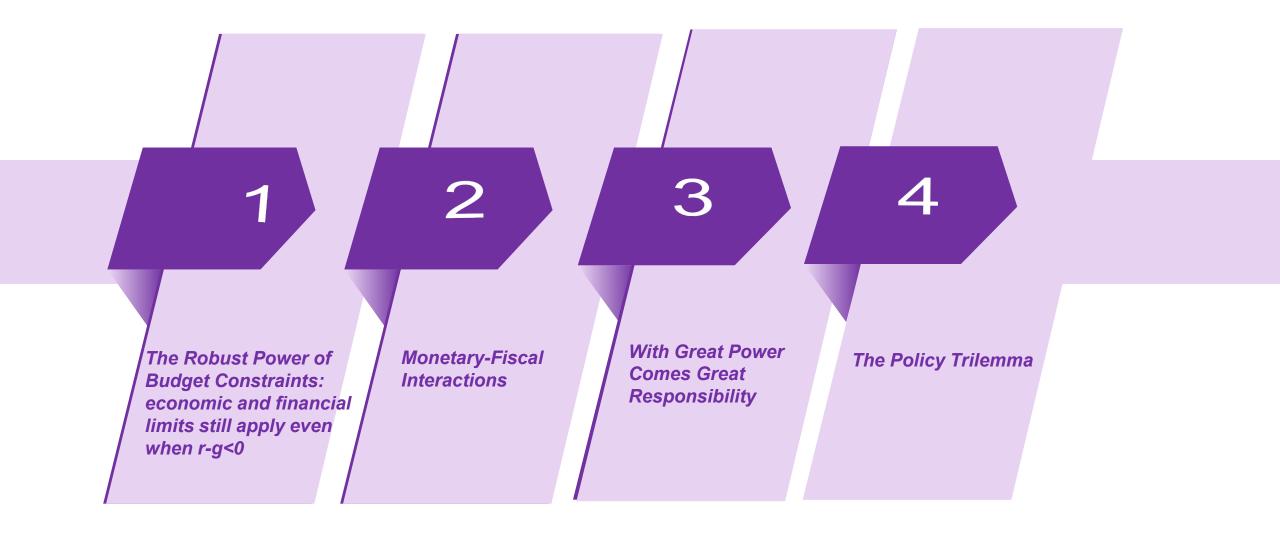


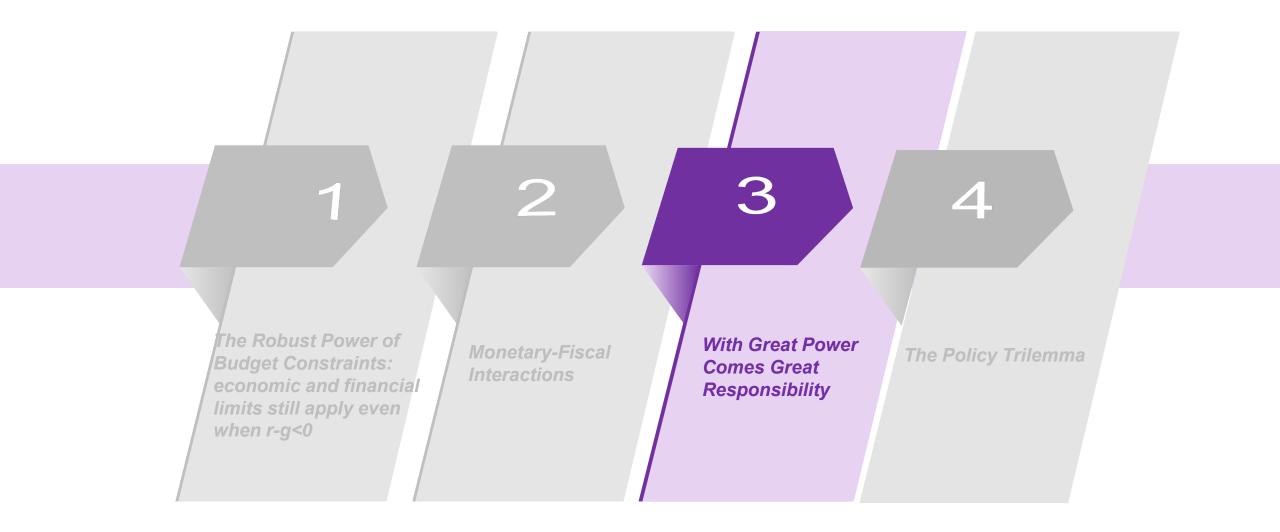
Fiscal Tightening Preceded Monetary Tightening in Most Economies



Source: IMF Fiscal Monitor & World Economic Outlook (October 2023); Consensus Economics National Sources/ Haver Analytics.

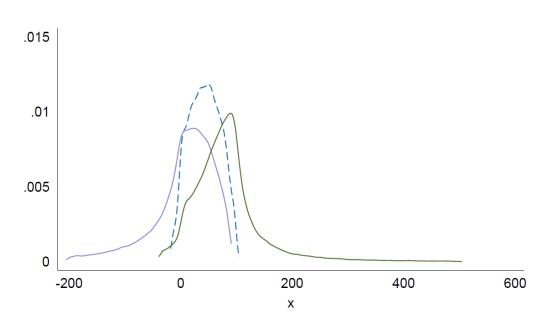
Note: Countries in blue represent Advanced Economies and orange represent Emerging Market & Developing Economies (EMDEs). The Euro Area is shown as a singular entity. Around 60% of the sample is tightening monetary and fiscal conditions. The rightmost chart uses World Economic Outlook and Consensus Economics forecasts/expectations of interest-rate increases over 2023. Sample points with no change in policy rate (0 differential) are considered not tightening (for labeling purposes to achieve a 100% sample distribution)





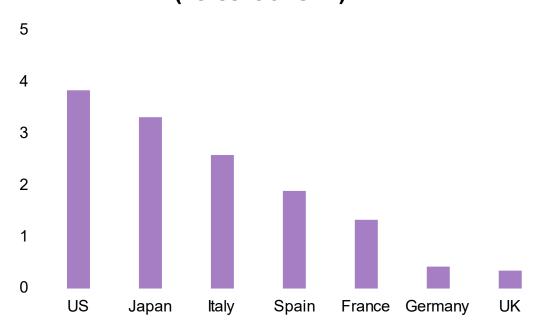
The Power of Fiscal Policy I: Helping Firms Bounce Back

Effect of the Pandemic and FSMs on "Surplus Liquidity" (Density Across Firms)



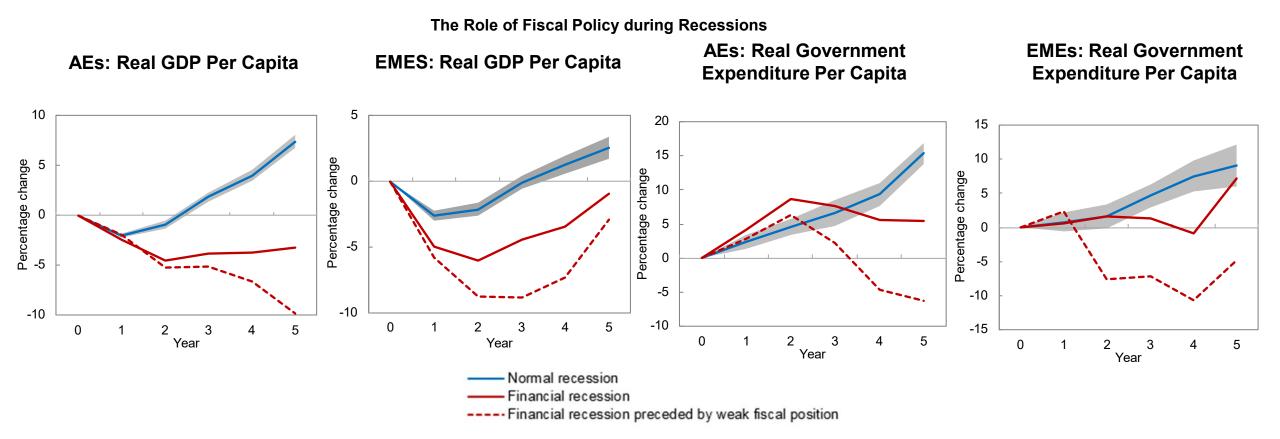
- -- Pre-COVID
- COVID w/o Measures
- COVID with combination of support measures

Subsidy Transfers (Percent of GDP)



Source: (LHS) Battersby et al. (2022), 'The State as Financier of Last Resort', IMF SDN No. 2022/003, IMF staff calculations; and ORBIS. Note: Sample of 280,000 firms in Portugal. Three scenarios are compared: Pre-COVID-19; COVID with no fiscal measures, and COVID with the measures introduced by the government in 2020. Kernel density of simulated "surplus liquidity." The negative (positive) value of x-axis implies a shortfall (surplus) of liquidity. The calculations assume that surplus liquidity is accumulated as cash rather than spent. (RHS) Hong, G. H., & Lucas, D. (2023). Evaluating the Costs of Government Credit Support Programs during COVID-19: International Evidence.

The Power of Fiscal Policy II: Recovery From Financial Crises

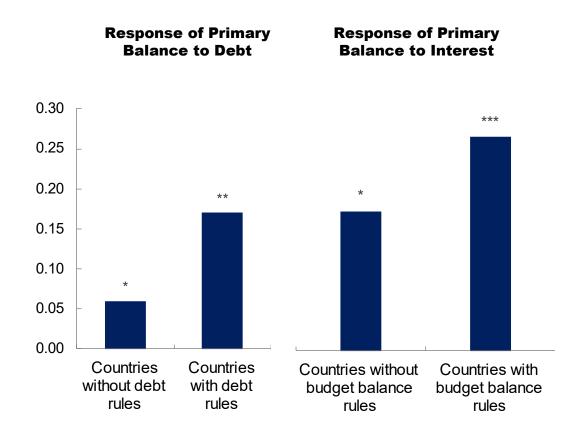


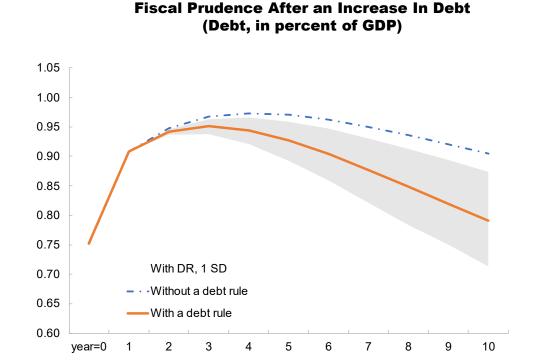
Source: IMF Fiscal Monitor: Debt: Use It Wisely (October 2016) & IMF staff calculations.

Note: The figure shows the dynamics of real GDP per capita (panels 1 and 2) and real total government expenditure per capita (panels 3 and 4) in advanced economies and emerging market economies, starting from the year preceding a recession (peak). The solid lines show the path in normal (blue) and financial (red) recessions. The shaded area around the blue line represents the 95 percent confidence interval. The dashed red lines show how the path deviates from its baseline if debt as a percentage of GDP at the peak is 25 percentage points greater than the cross-country average for advanced economies and if the change in debt as a percentage of GDP in the five years before a crisis is on average 5 percentage points higher than the mean for emerging market economies.

The Role Of Rules

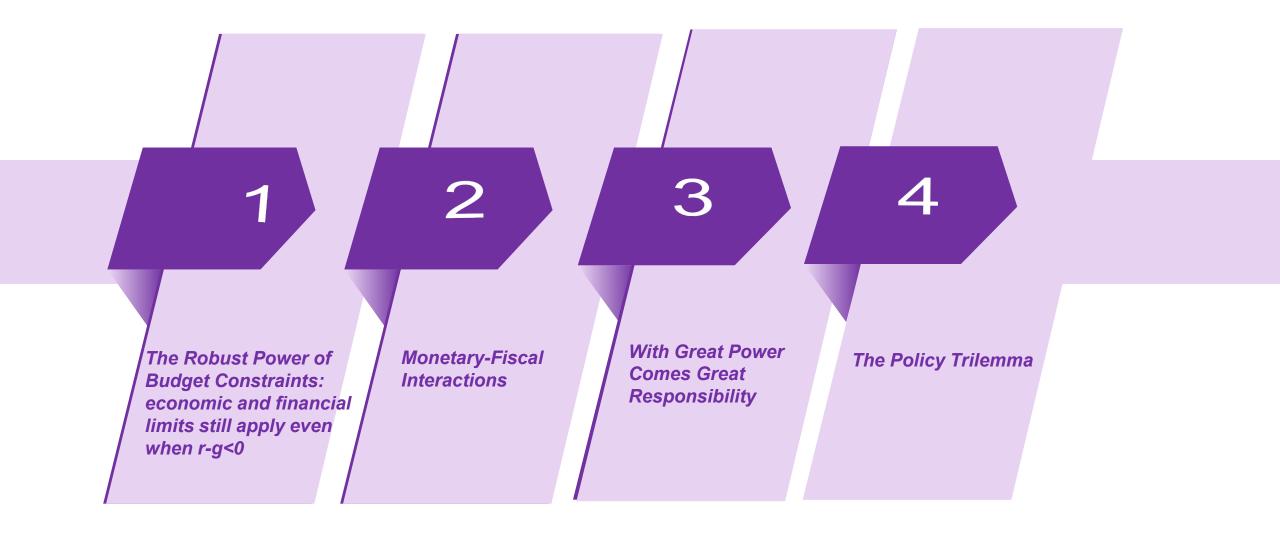
Governments tend to react to increases in debt and in the interest bill by tightening the primary balance

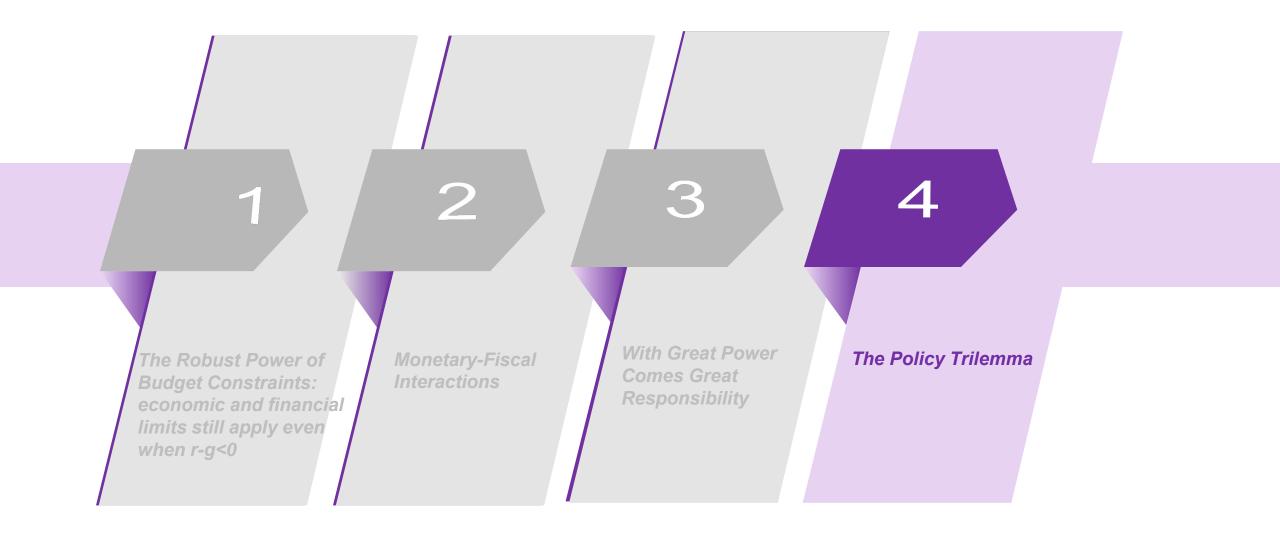




Source: Fiscal Monitor: Strengthening the credibility of Public Finances (October 2021) extract based on David, Goncalves, and Perrelli (forthcoming).

Note: (LHS) This figure is based on panel estimation of fiscal reaction function for 55 countries over 1970–2018. *p < 0.10; **p < 0.05; ***p < 0.01. (RHS): Based on panel estimation of fiscal reaction function linking primary balance to past debt, for 55 countries over 1970-2018. Illustrative simulation using estimated coefficients from the panel estimation and calibrated to average debt of advanced economies in 2019 and their average debt increase in 2020.





From Theory to Practice: Politics Matters

Brazil's new fiscal rules led to lower interest rates projections, new FX level -official

Germany

Brazil's new fiscal rules stricter than they look, finance ministry official says

New EU Fiscal Rules Set to Fall Shy of

What Germany Demands

Wall Street rises on hopes of Fed pausing hikes, debt ceiling deal cheer

Brussels makes overture to Berlin with new EU rules to cut down deficit

New Economic Governance Rules

South Korea's Tax Reform for 2023: Summary of Key
Changes

Senate passes US debt ceiling deal, averting a US default



Fiscal rules: Germany and the Netherlands push for minimum debt reduction targets for EU countries

Brazil's Real Gains as Lower House Approves Tougher Fiscal Rules

S. Korea seeks to introduce tighter rules to improve fiscal health

Japan will vow to end deflation with bold monetary, flexible fiscal policy

By Takaya Yamaguchi ✓ and Yoshifumi Takemoto ✓

UK financial crisis leaves government credibility in tatters

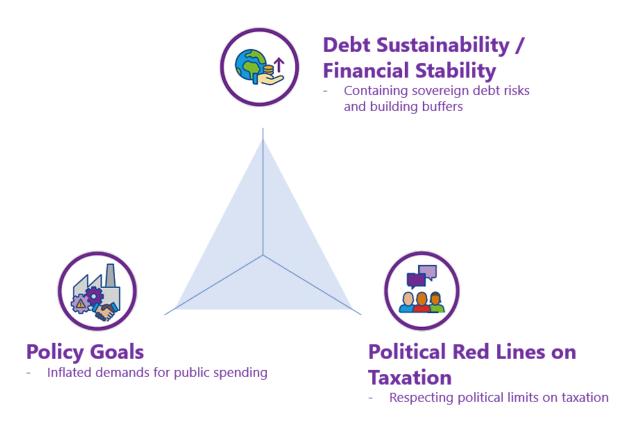
High debt EU countries should cut debt ratio by 1%/GDP a year minimum -

Japan to review fiscal policy reforms in 2024/25 - Asahi

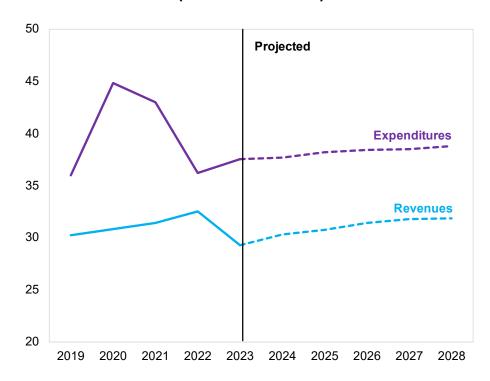
The industrial world's most heavily indebted nation currently aims to achieve a primary budget surplus by fiscal year 2025



The Policy Trilemma



US: Revenues and Expenditures (Percent of GDP)



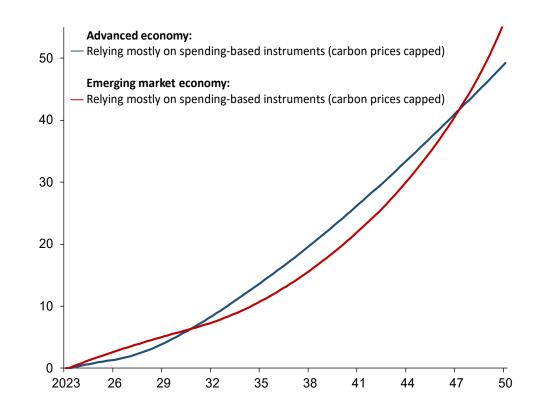
Source: IMF World Economic Outlook (October 2023) and IMF staff calculations.

Note: Latest data point is 2028. Data are on fiscal year basis.

The Policy Trilemma

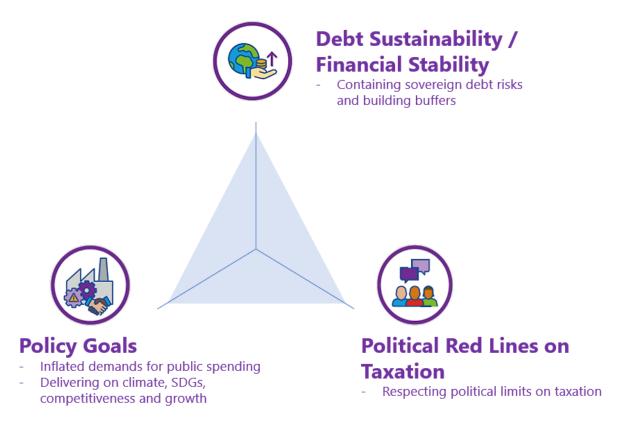


Debt Dynamics With Expanded Expenditure-Based Climate Policies (Percent of GDP)

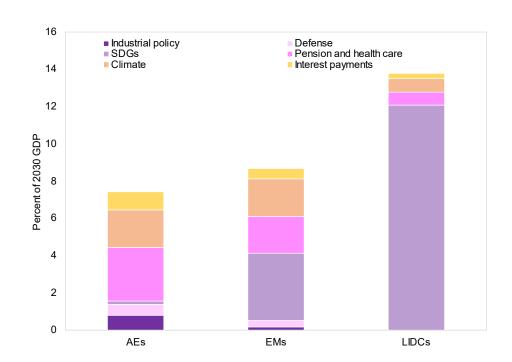


Source: IMF World Economic Outlook (October 2023) and IMF staff calculations. (RHS) - Fiscal Monitor, October 2023, IMF staff estimates using the IMF-World Bank Climate Policy Assessment Tool.

The Policy Trilemma



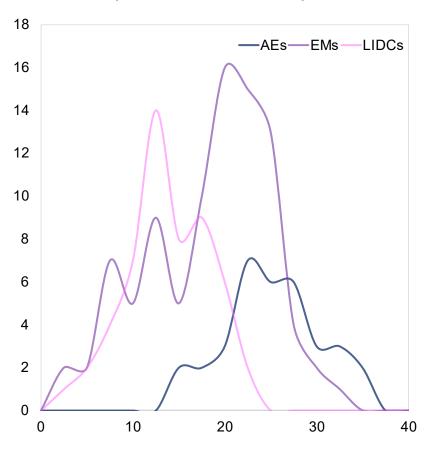
Pressures to Public Spending (Potential increases by 2030 relative 2023 spending levels)

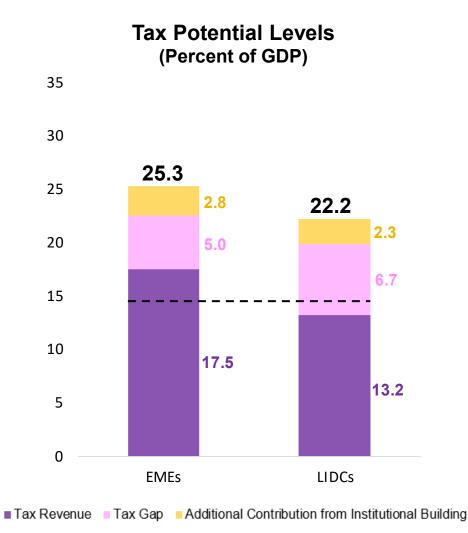


Source: IMF World Economic Outlook (October 2023) and IMF staff calculations.

Tax Capacity In The World

Tax Revenue Distribution (Number of countries)





Source: World Revenue Longitudinal Data (WoRLD), IMF Staff estimates based on Benitez and others (2023), *Building Tax Capacity in Developing Countries*, IMF Staff Discussion Note. Note: (RHS) - For EMEs, the Additional Contribution from Institutional Building is estimated using EMEs benchmark. For EMEs, the Additional Contribution from Institutional Building is estimated using EMEs benchmark. Data as of 2020. (LHS) - Tax Revenue is represented as a percent of GDP, excluding Denmark and Lesotho. Data as of 2020.

Conclusions

- 1 Spend better
- Revenues to keep up with spending
- 3 Stronger fiscal frameworks
- 4 Fiscal policy is structural policy