International Monetary Fund

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The Commodities Roller Coaster: A Fiscal Framework for Uncertain Times

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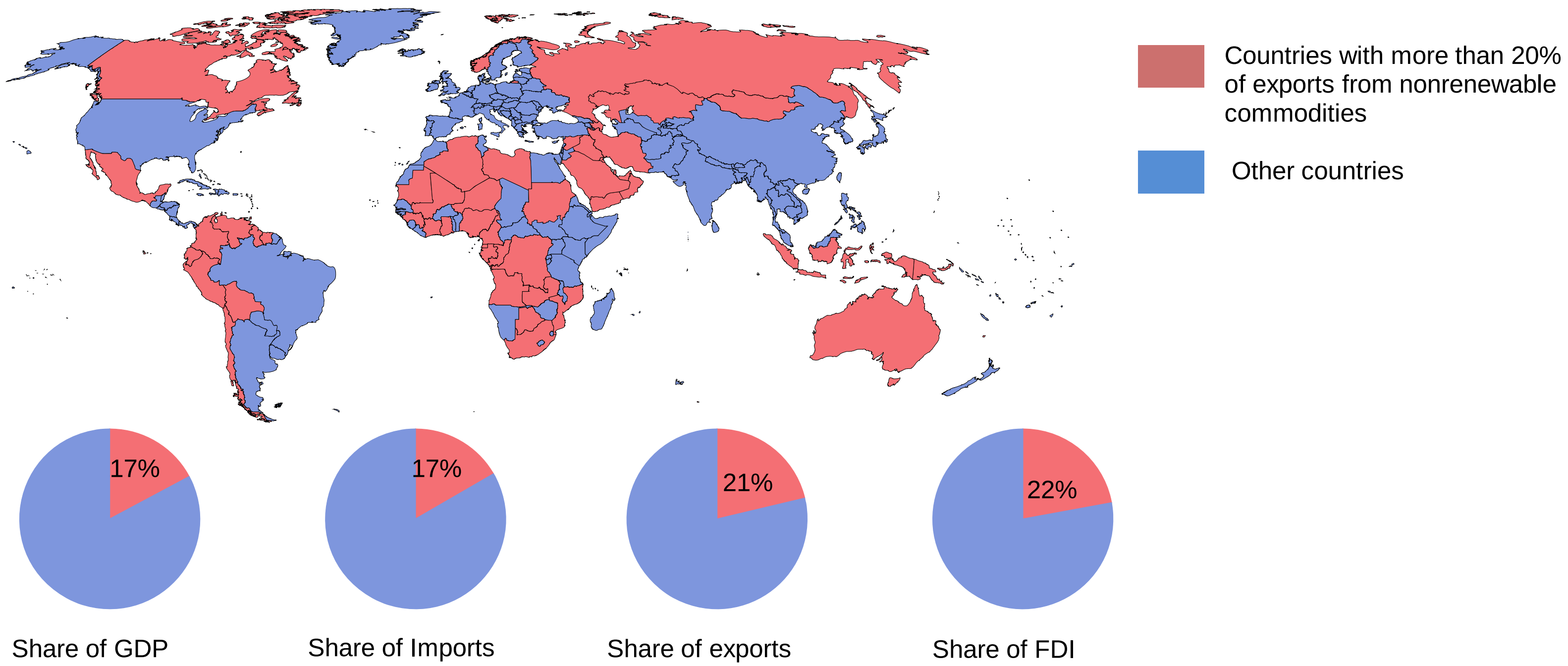
Outline

- The Commodities roller coaster: Illustration of materialization of fiscal risks
- Fiscal risk management framework for commodity exporters

Commodity exporters in the World

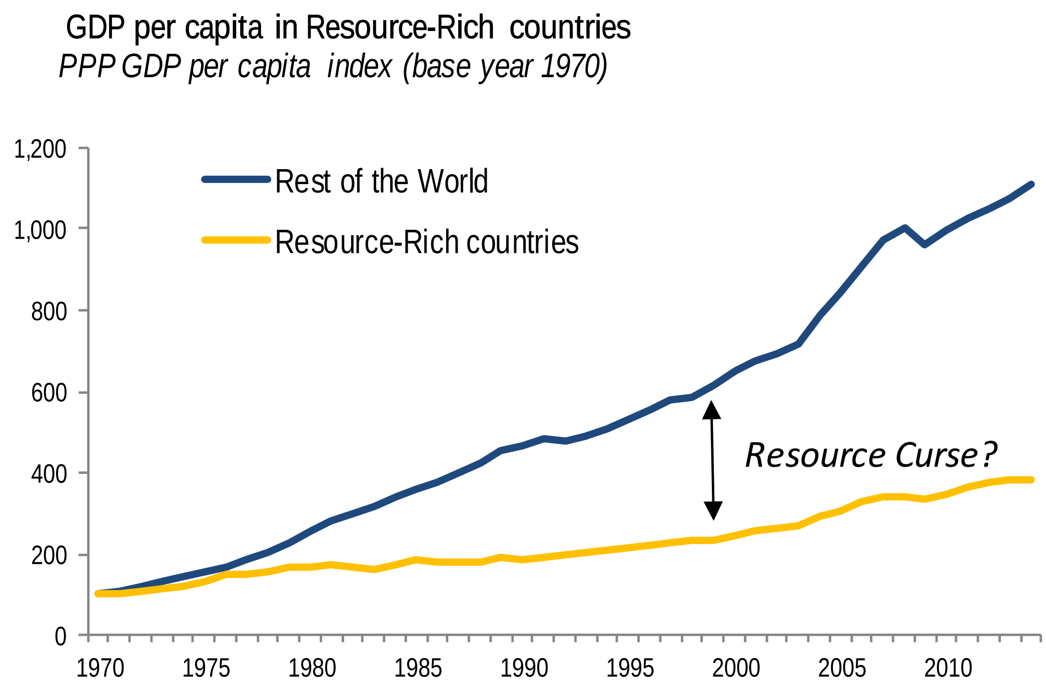
Nonrenewable Commodity Exporters, 2014



Sources: BP Statistical Review, Institutional Investor, National authorities, Sovereign Wealth Center, Sovereign Wealth Fund Institute, and the U.S. Geological Survey.

Natural resources and economic growth

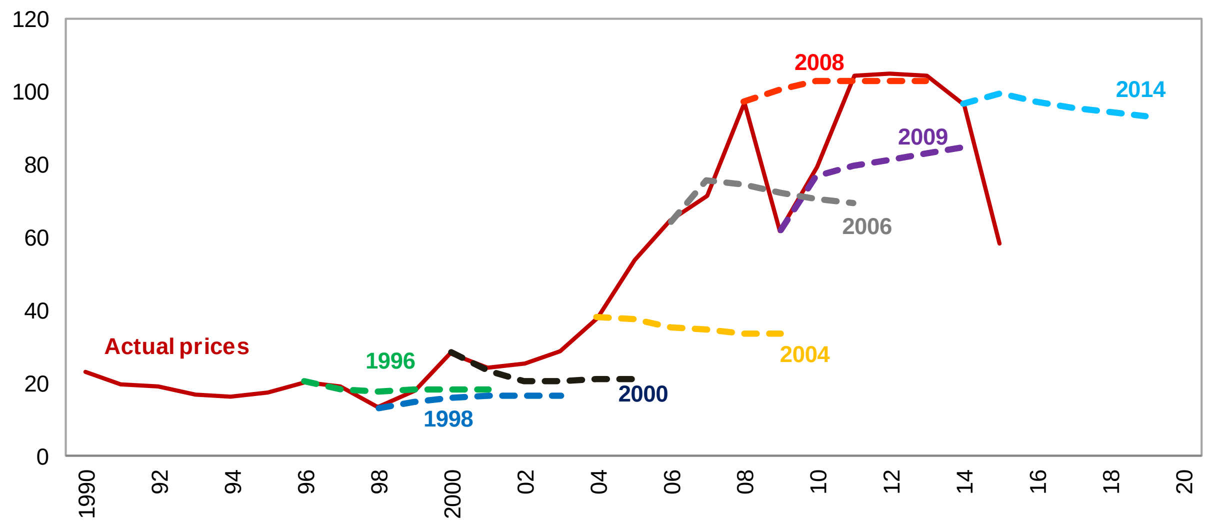
- If resource wealth is consumed, the country will get poorer as reserves are depleted
- But, resources can be leveraged to promote sustainable growth
- Although this has been challenging



Sources: IMF staff estimates

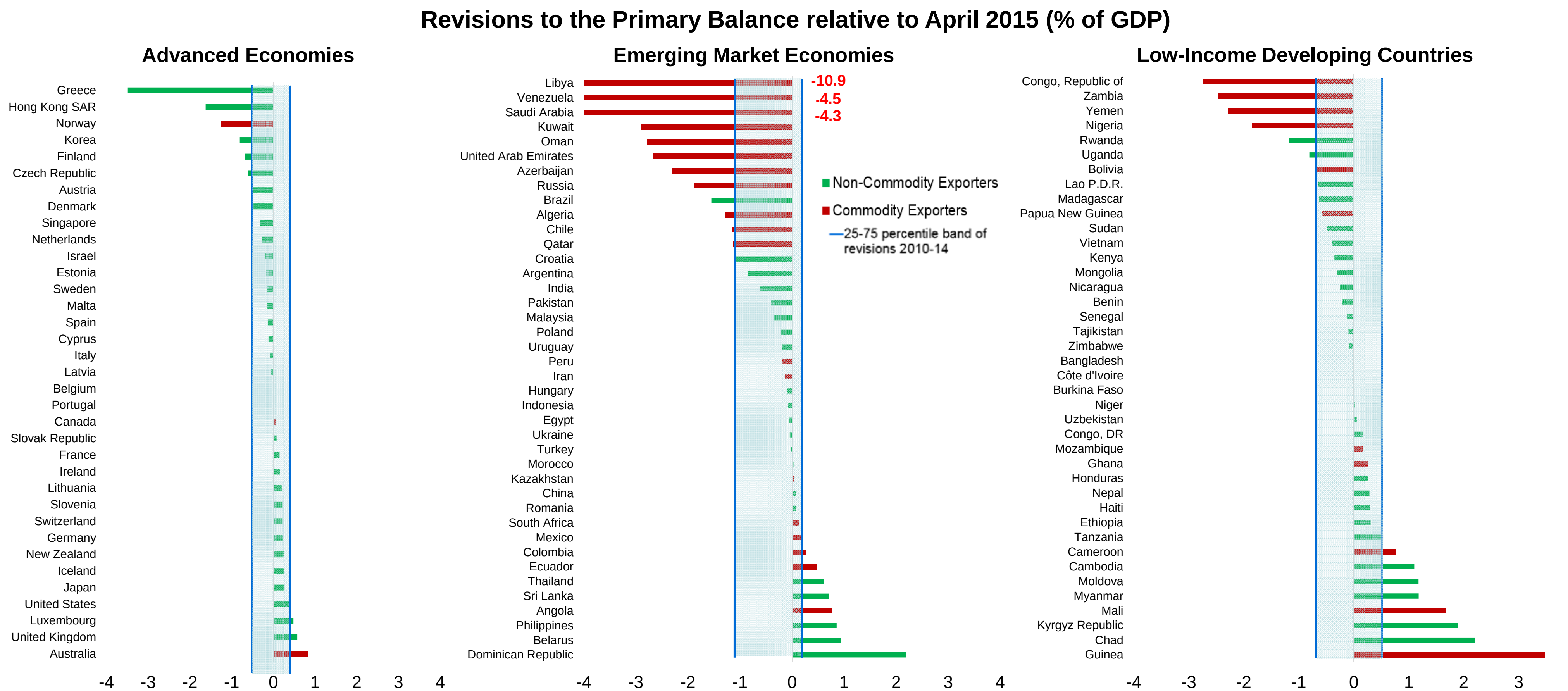
Part of the problem: highly volatile and unpredictable commodity prices

A Poor Record of Forecasting Oil Prices
(Crude oil, U.S. dollars per barrel)



Sources: IMF staff estimates and market projections. 2015 represents an estimate based on actual data for part of the year and future contracts.
Note: The solid line represents actual crude oil average prices for the year. 2015 represents an estimate based on actual data for part of the year and future contracts. The dashed lines are based on market projections for prices

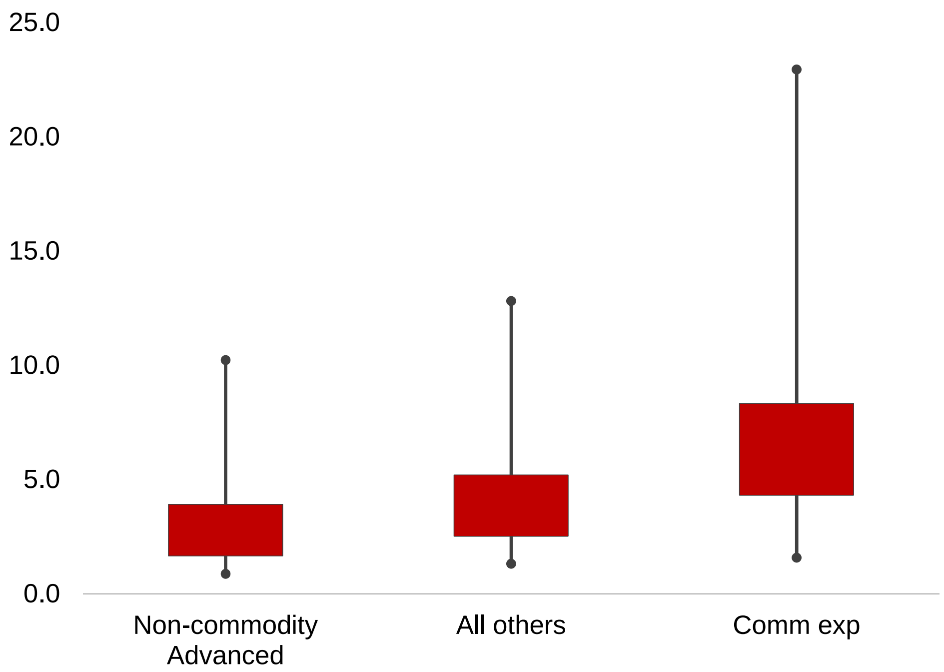
The commodities roller coaster has translated into large fiscal revisions



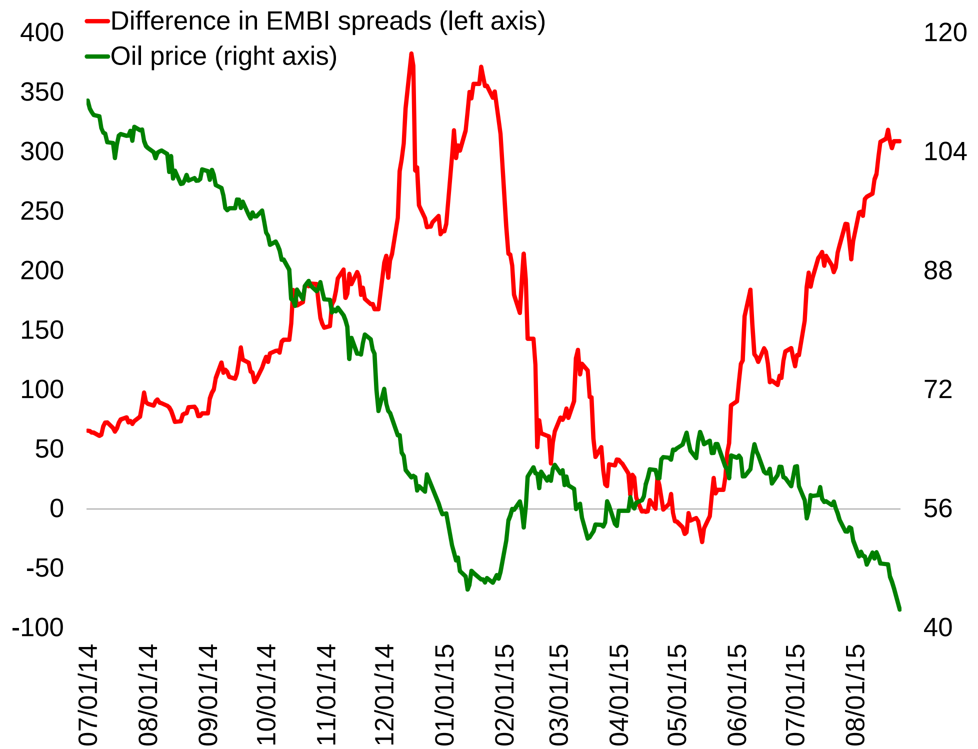
Sources: IMF staff estimates

... and higher uncertainty and risks for commodity exporters

Standard deviation of revenue to GDP, 1980-2014 (min, 25-75 percentile band, and max)



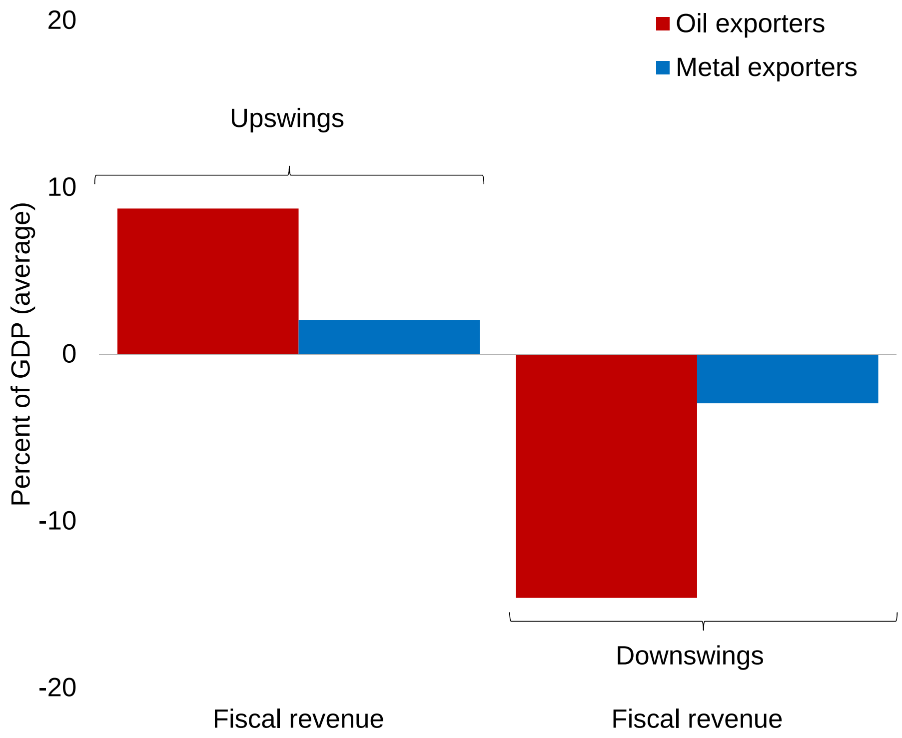
Oil Prices and Difference in EMBI spreads between commodity exporters and non-commodity exporters (basis points)



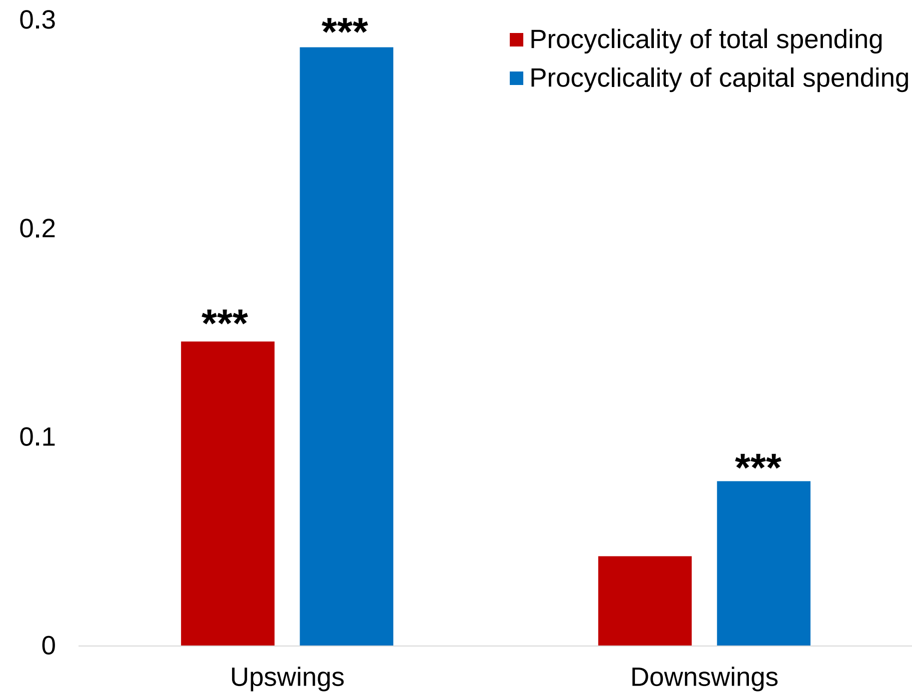
Sources: Bloomberg and IMF staff estimates

Fiscal policy: a key to the transmission of fluctuations of commodity prices

Impact of Commodity Price Swings on Fiscal Revenues (1972-2014)

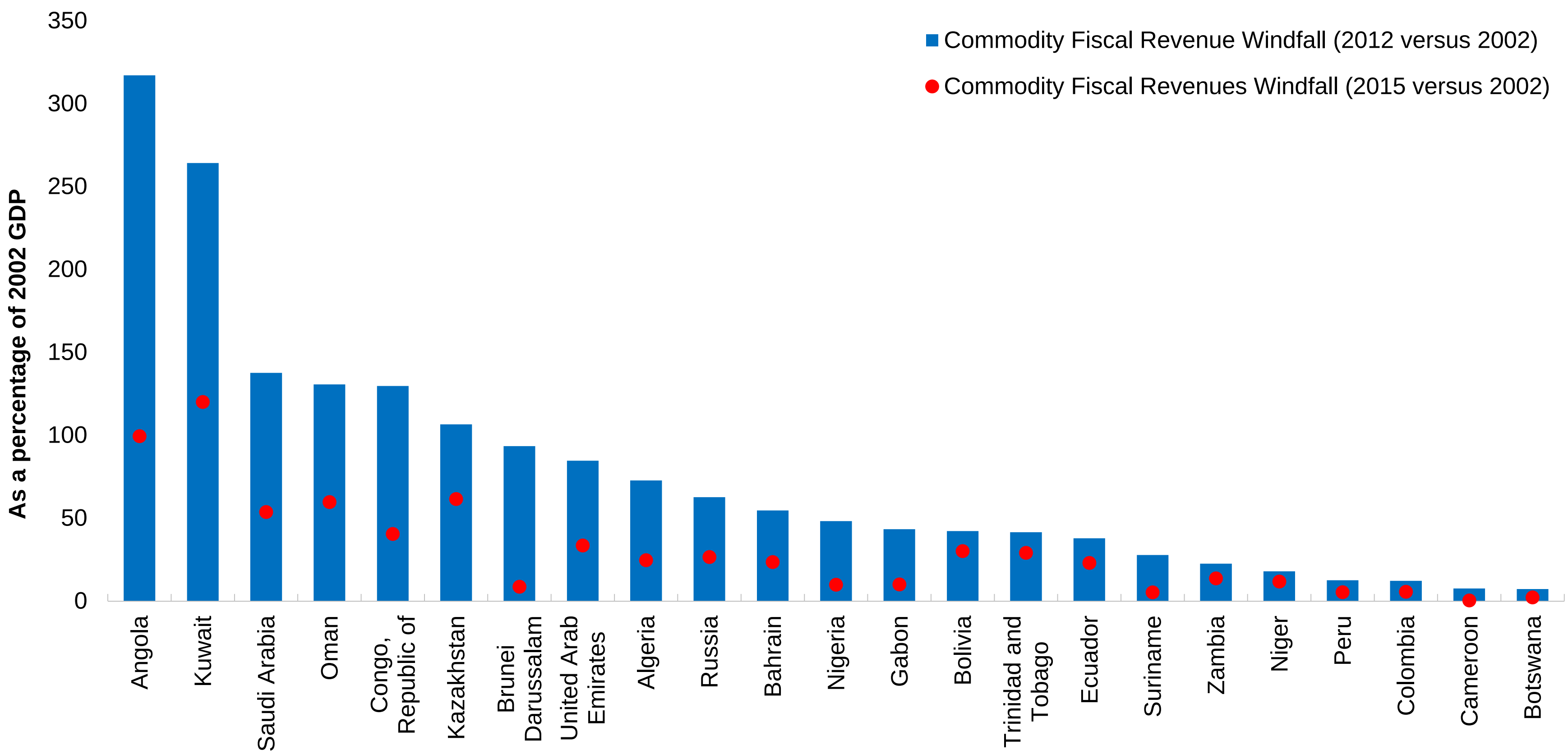


Procyclicality of Spending in Commodity Exporting Countries (Procyclicality Coefficient, 1972-2014)



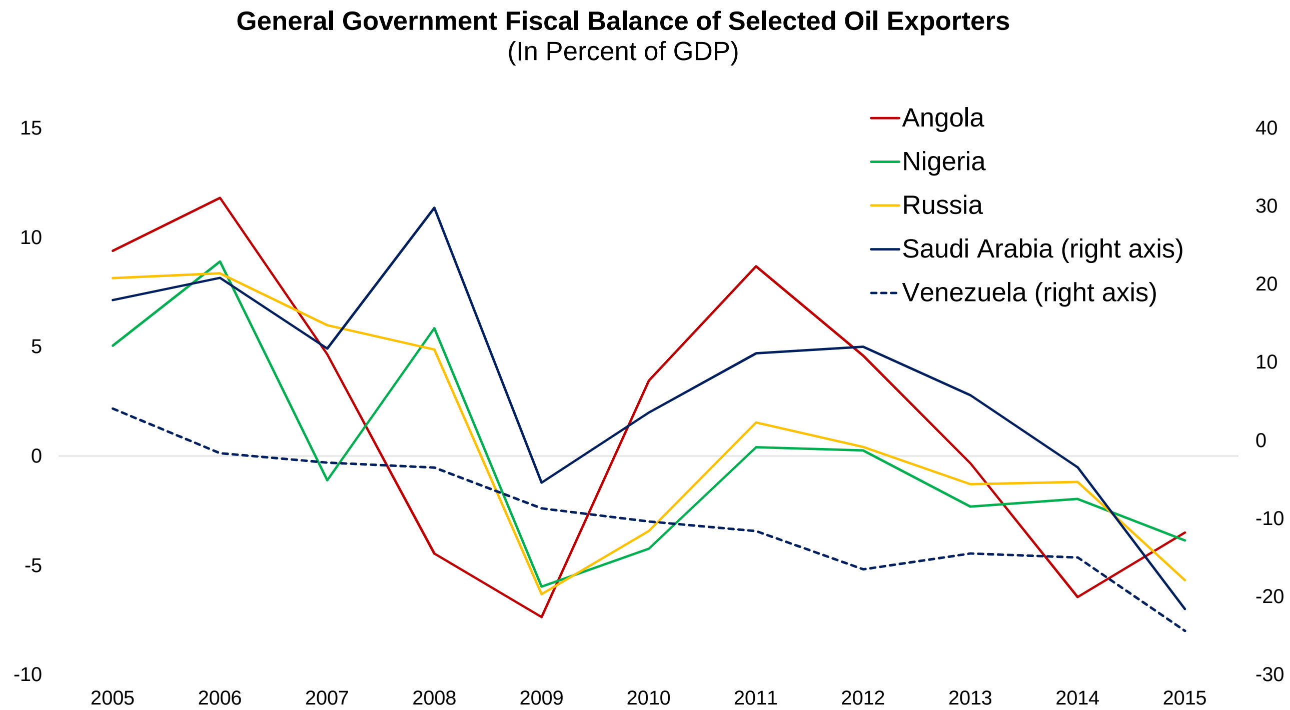
Sources: Fiscal Monitor

The large commodity revenue windfall experienced by resource-rich countries since 2002 is being rapidly unwound



Sources: IMF staff estimates

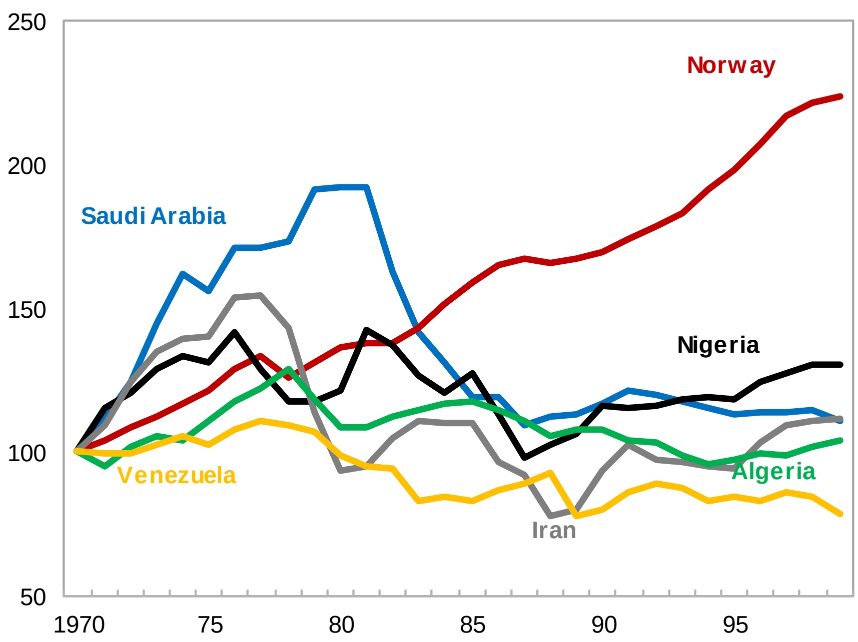
...And the overall balance of resource rich countries deteriorated sharply

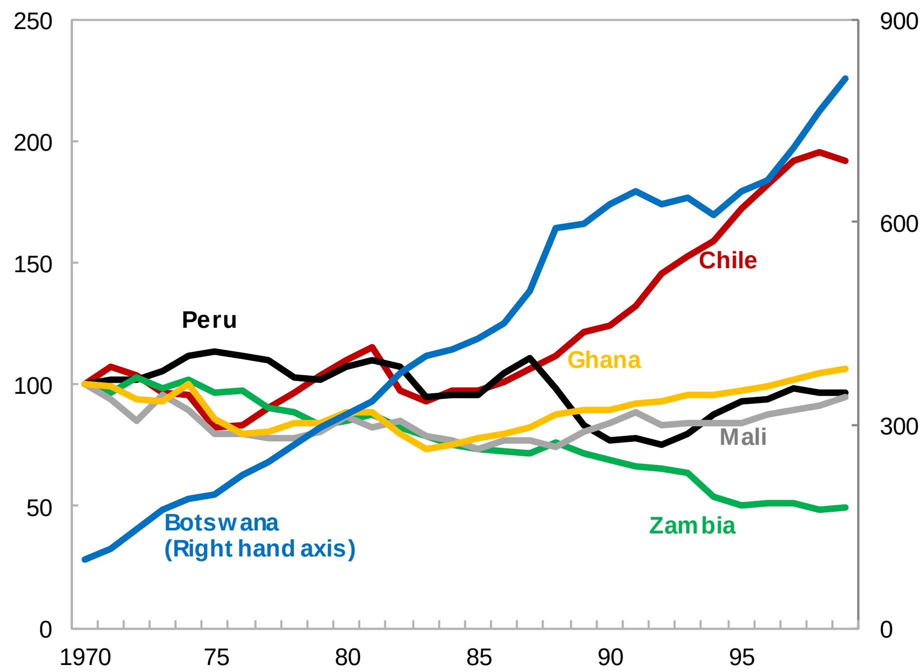


Sources: IMF staff estimates

Booms and busts can be very costly to countries

With few exceptions, most commodity exporters faced a long period of low growth after commodity prices fall in the 1980s
(Real GDP per capita, 1970 = 100)





Sources: IMF staff estimates

Fiscal Risk Management Framework

Managing Natural Resources to Promote Growth

- Natural Resources (oil/gas, metals) are nonrenewable wealth
  - If commodity revenues are consumed, the country will get poorer as reserves are depleted
- Promote sustainable and inclusive economic growth
  - Revenues from natural resources should primarily be directed to build other capital (physical, human)
  - Need balance between: financial savings; investment in public infrastructure, education
- The high volatility and uncertainty complicates policy management

A comprehensive Fiscal Framework to manage volatility and uncertainty

1. Improve Resilience of Budget Revenues

- Tax policies that diversify the revenue base and avoid an overdependence of government spending on the resource sector.

2. Improve Efficiency of Spending

- Strengthen public investment management and expenditure policies
- Energy subsidy reform

3. Fiscal anchors and volatility

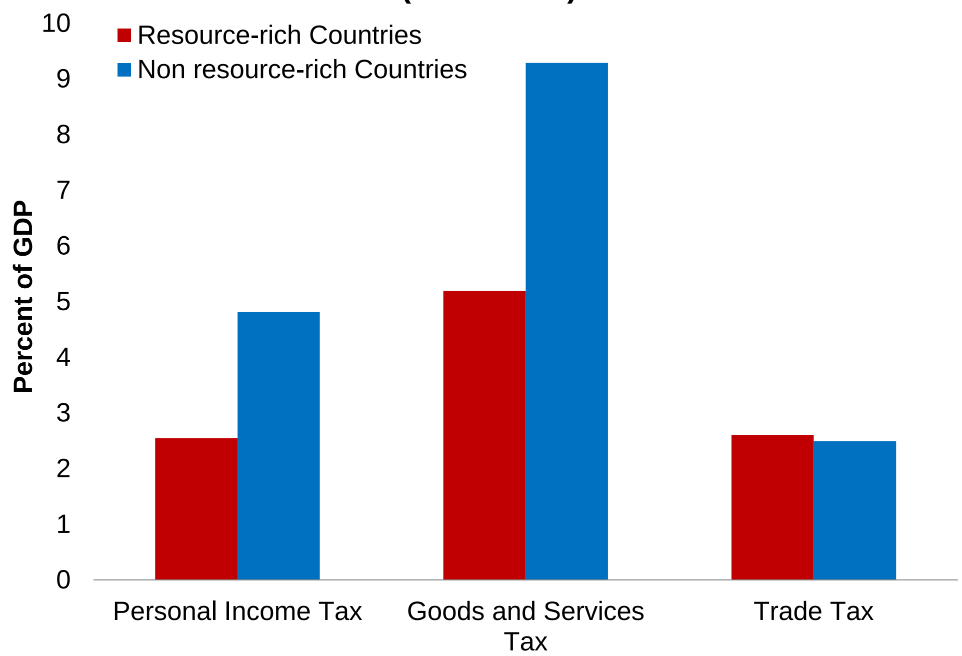
- Long-term planning; take account wealth will be depleted
- Stabilization buffers to de-linking expenditures from volatile resource revenues

4. Strengthen Institutions

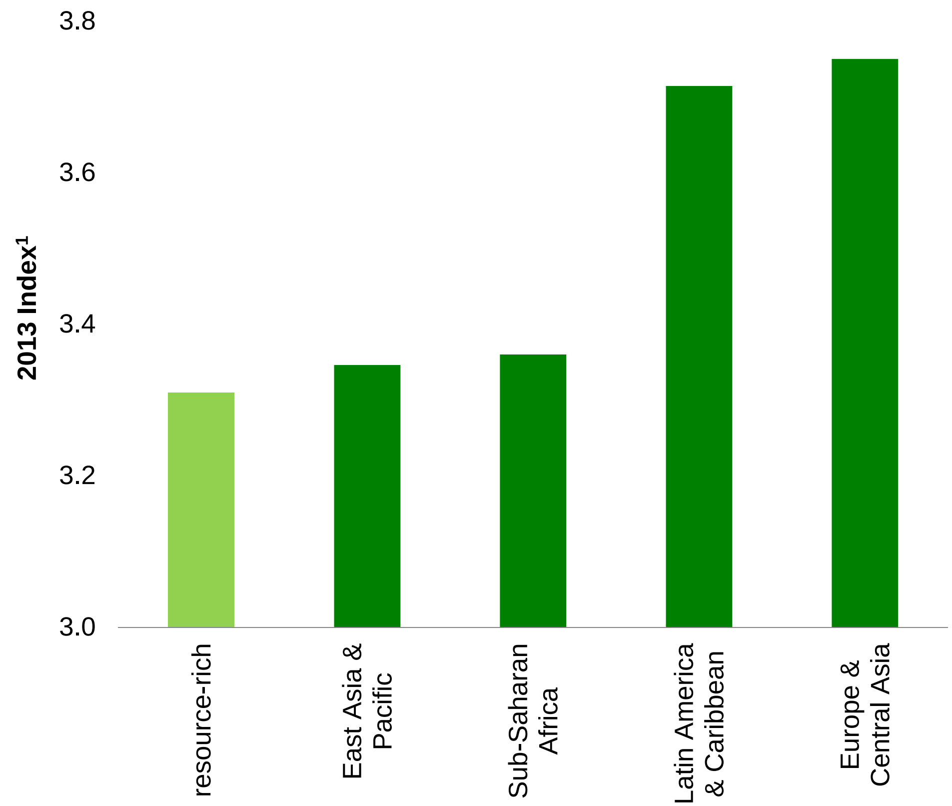
- Medium-term fiscal framework; management of fiscal risks; transparency and governance in the use of resource wealth

1. Improve the resilience of budget revenues

Revenue Ratios from Personal Income Tax and Goods and Service Tax are Lower in Resource-rich Countries (2010- 2014)



Efficiency of Revenue Mobilization

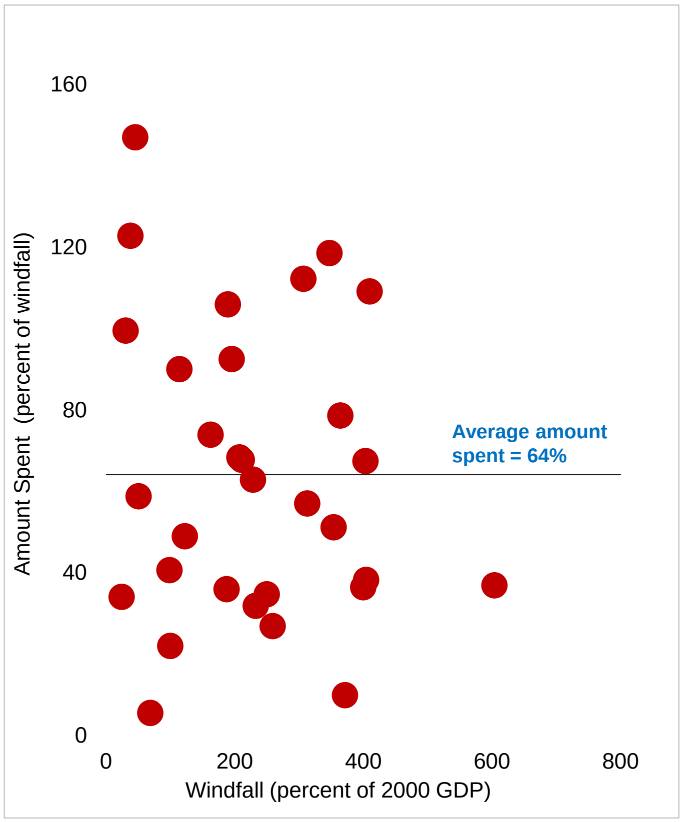


Source: Fiscal Monitor

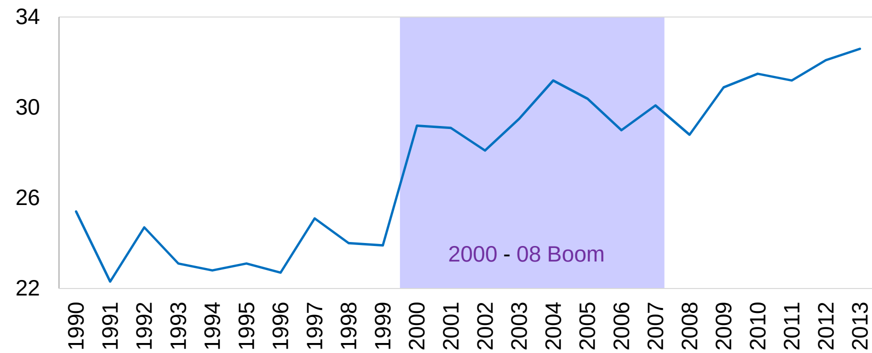
[1] CPIA efficiency of revenue mobilization rating (1=low to 6=high), World Bank

2. It also matters how and how well resources are spent. In the latest boom, countries have scaled up public investment

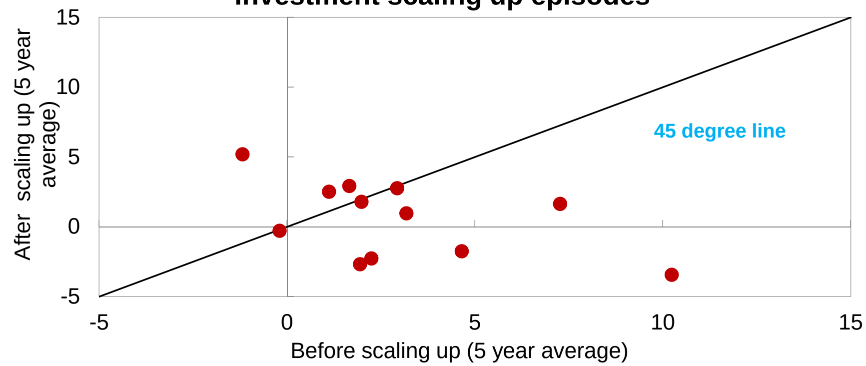
Countries spent a large share of the 2000-08 windfall



Public investment in low income commodity exporters ***(share of total expenditures)***



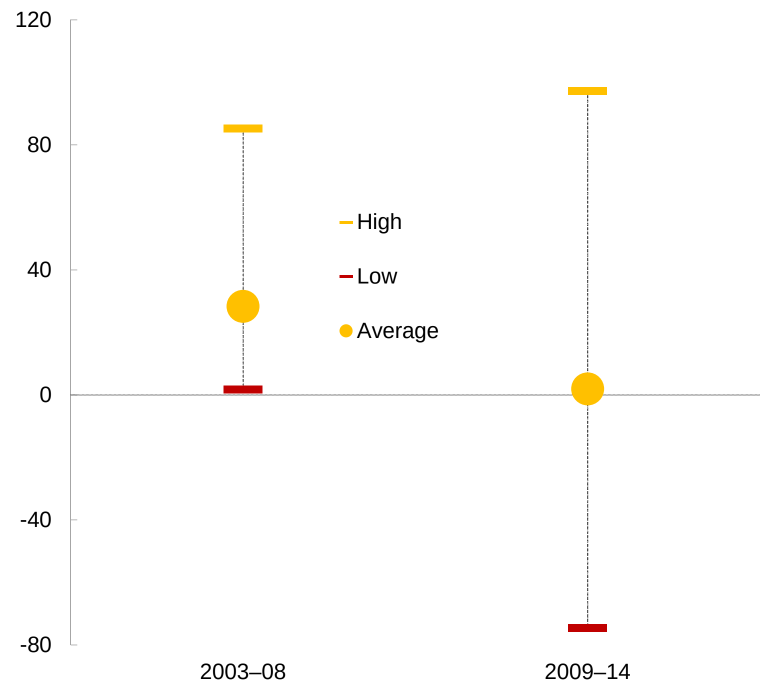
GDP per capita growth rate before and after public investment scaling up episodes



Sources: World Economic Outlook and IMF staff estimates.
Note: The straight line represents 45 degree line.

3. Some countries saved significant share of the revenue windfall (2003-08), building buffers to face future shocks

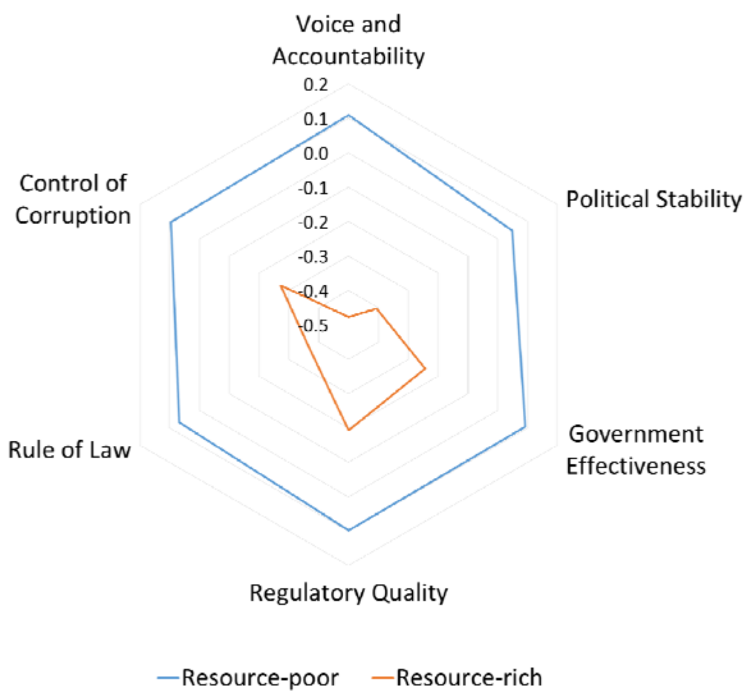
Saving Rates During Boom Years
(Share of commodity revenues)



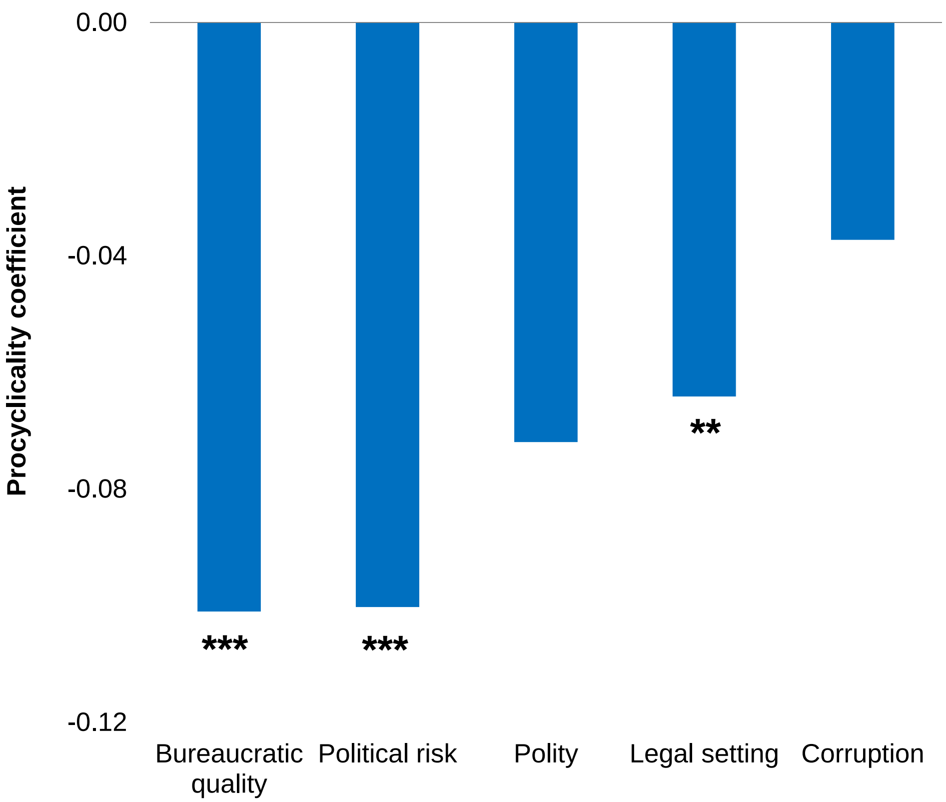
Sources: IMF staff estimates.
Note: Saving rates are calculated as the change in net assets as a percentage of commodity revenue during the 2003–08 and 2009–14 periods (used the longest sample available for each country within the specified periods). Countries included in the sample: Angola, Algeria, Azerbaijan , Chile , Equatorial Guinea, Iran, Kazakhstan , Kuwait , Libya, Nigeria, Norway, Peru, Qatar, Saudi Arabia, Trinidad and Tobago, United Arab Emirates.

4. Strengthen institutions

Institutional Quality in Resource-rich Countries
Resource rich countries tend to have lower institutional quality relative to other countries, 1996-2013



Better Institutions Reduce Procyclicality of Expenditures to Prices



Sources: IMF staff calculations, and Worldwide Governance Indicators (World Bank) for 1996-2014

Concluding remarks

- Recent developments and analyses illustrate the importance of uncertainty for public finance management.
- Fiscal frameworks must be designed to manage public finance risks.
- The magnitude of the challenges in many commodity exporting countries—credibility, end of commodity super-cycle, debt sustainability, financing conditions—points to the need to give priority to adjustment. Availability of fiscal pace will determine the pace.

IMF/FAD Technical Assistance

- FAD has provided substantial Technical Assistance (TA) to resource-rich countries.
  - About 15% of all TA in the past 5 years went to these countries (more than 40). The largest share went to Africa.

- TA covers several areas, including fiscal frameworks, public investment management, tax policy, and revenue administration.
  - The IMF has produced research and manuals to support these efforts. These include the Public Investment Management Assessment, developed jointly with the World Bank, and Pillar IV of the Fiscal Transparency Code.

  - FAD has also developed the *Fiscal Analysis of Resource Industries (FARI) model* to help countries build capacity in designing and analyzing fiscal regimes for extractive industries.