

Fiscal Policy Frameworks for Resource-Rich Economies: Considerations for Liberia

Todd Mattina
Fiscal Affairs Department
International Monetary Fund

March 18, 2013





Presentation plan:

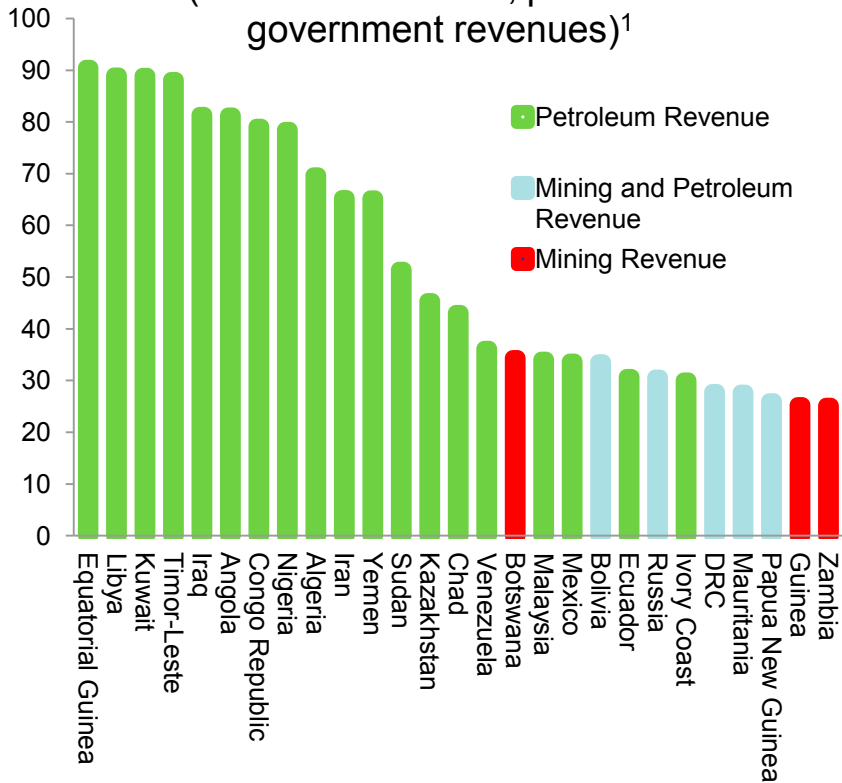
- I. Motivation: Challenges for resource-rich developing countries (RRDCs)**
- II. Fiscal policy frameworks for RRDCs: key considerations**
- III. Summary**

**Motivation:
Macroeconomic and Fiscal Policy
Challenges for RRDCs**

Resource revenues are increasingly important for many developing countries

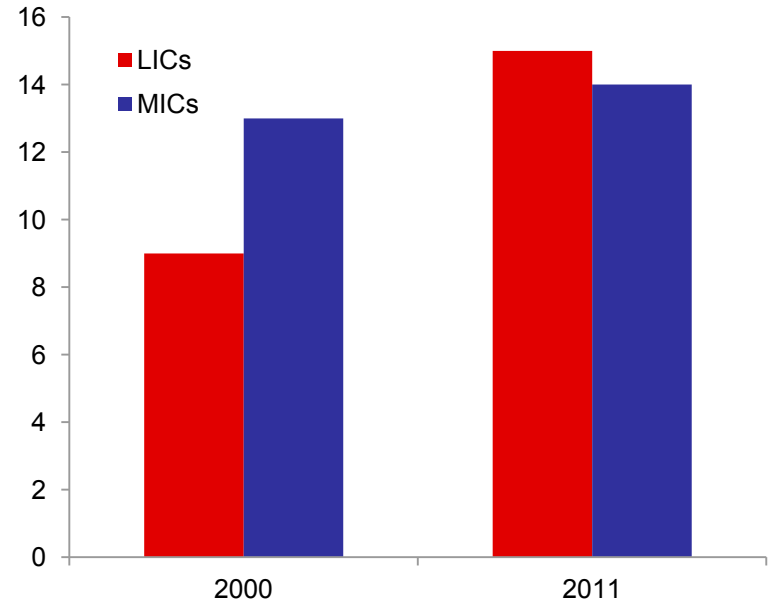
Receipts from Natural Resources in 2011

(Selected countries, percent of government revenues)¹



¹ 27 LICs and MICs have mineral & oil revenue above 25 percent, in 2011.

Number of LICs and MICs with mineral and oil revenue above 25 percent of government revenue ^{1/}

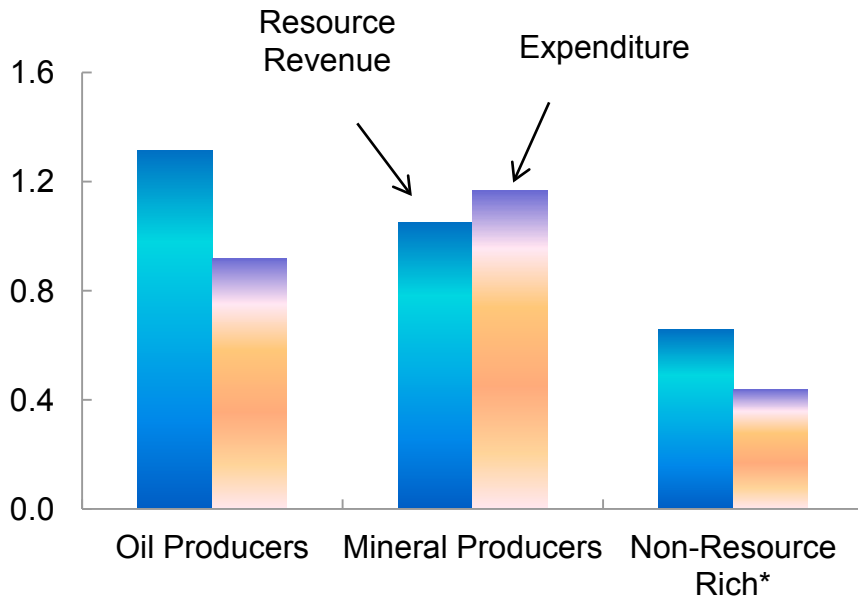


^{1/} Latest data for five countries are as of 2010 and earliest data for five other countries are as of 2001-2004.

Macroeconomic and Policy Challenges in RRDCs

Boom-Bust Cycles

Volatility of Real Resource Revenue and Expenditure
(Coefficient of variation, average: 1992–2011)

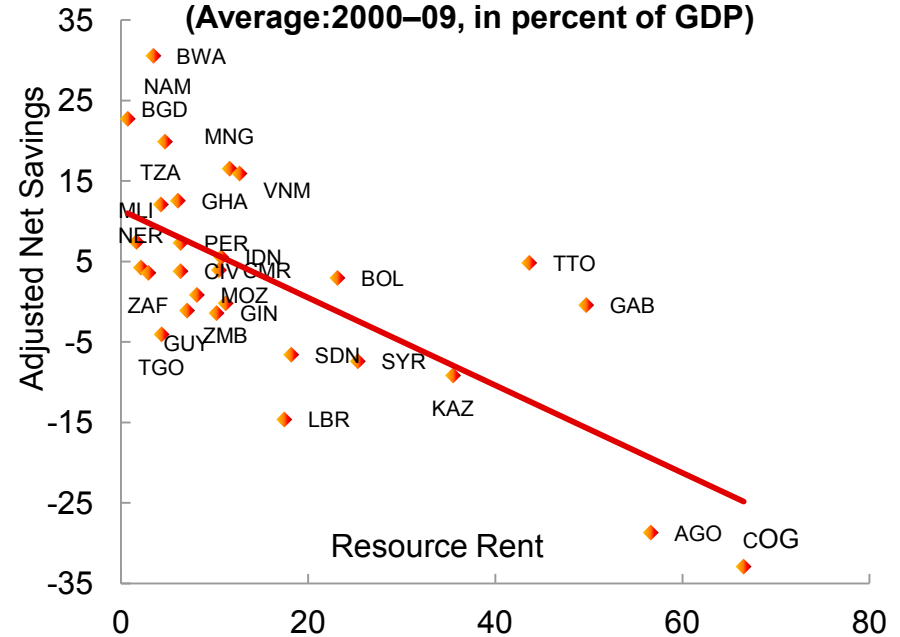


Sources: World Economic Outlook; and IMF staff estimates.

*Real total revenue.

Low Saving Rates

Adjusted Net Savings and Exhaustible Resource Rent^{1,2}
(Average: 2000–09, in percent of GDP)



Sources: World Development Indicators, World Bank; and IMF staff estimates.

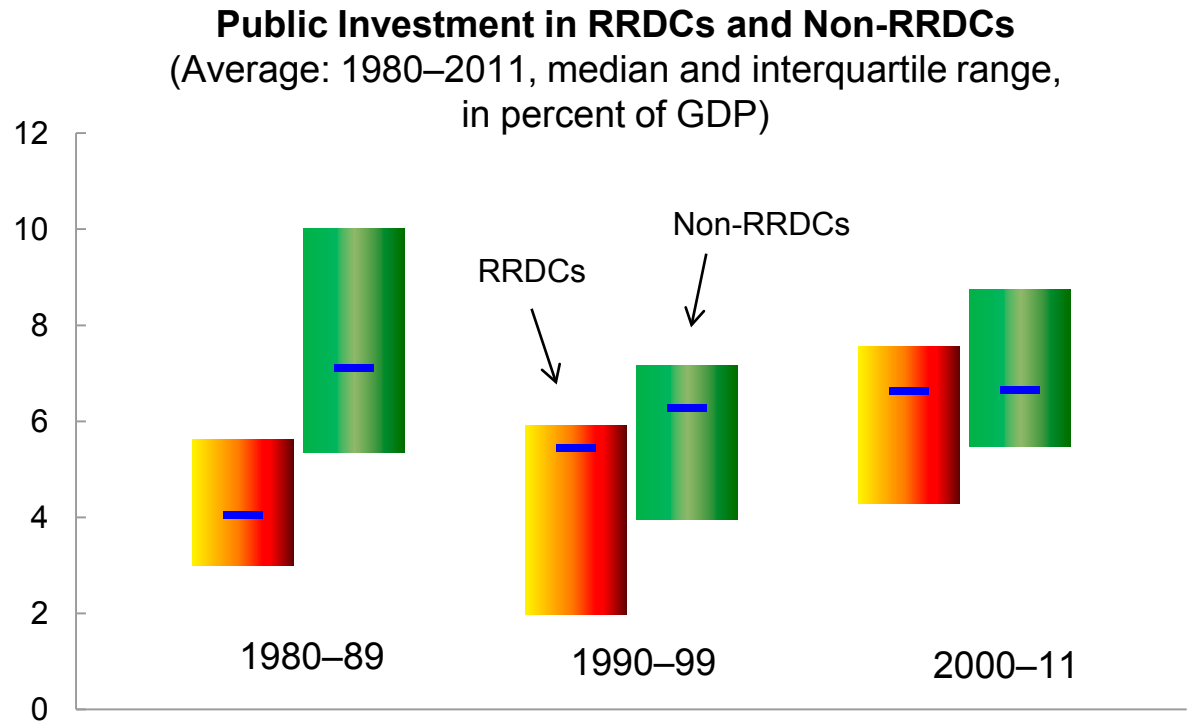
¹Adjusted net savings are net national savings plus education expenditure minus energy, mineral and net forest depletion, and emissions damage.

²Resource rents are unit price minus unit cost of oil, mineral and forest sectors.

Building assets with resource revenues

Low Public Investment in RRDCs

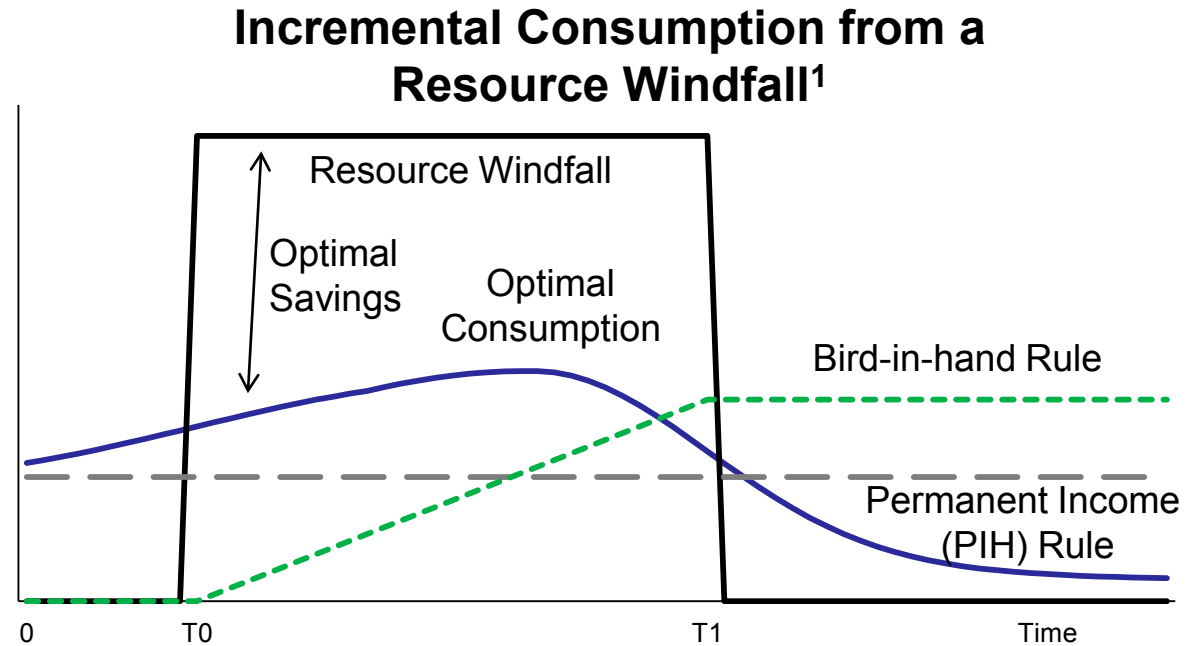
- Public investment in RRDCs has been relatively low compared to non-RRDCs.
- For a lasting impact on development, part of the natural resource revenues needs to be saved or invested.



Sources: World Economic Outlook; and IMF staff estimates.

Consumption and investment benchmarks

- The permanent income hypothesis (PIH) implies that the government should consume the real return on accumulated financial assets and the net present value of future resource revenues.
- When living standards are expected to rise over time, it is optimal to tilt incremental consumption forward to benefit relatively poorer current generations (blue line).



¹Stylized example based on Collier et al. (2010), p. 93.



Fiscal Policy Frameworks for RRDCs



Objectives of fiscal policy frameworks

- As in other countries, the fiscal framework for resource rich countries needs to address two key issues:

Demand management

- How does fiscal policy contribute to domestic demand, growth, inflation and the balance of payments?



Solvency

- Can fiscal policy be sustained once resources have been exhausted?

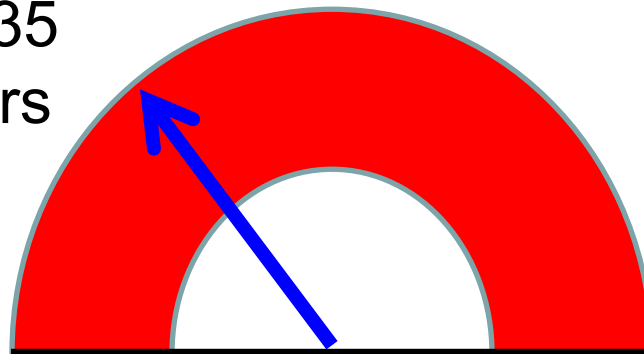
- These issues are complicated by *resource revenue volatility* and *resource exhaustibility*

Fiscal framework design is linked to the “resource horizon”



Resource Horizon: Duration Until Resources are Exhausted

25-35
years



Short Horizon

Focus is on
sustainability

Long Horizon

Focus is on managing
volatility

Managing resource revenue volatility in countries with short resource horizons



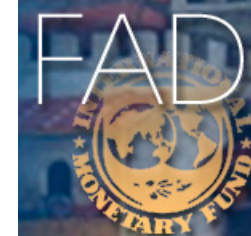
- Fiscal targets based on the non-resource primary balance (NRPB) are appropriate
 - The NRPB is defined as the primary balance less resource revenues (or non-resource revenues less primary spending).
- Since resource revenues largely accrue from abroad, an increase in the non-resource primary deficit generally implies an expansionary fiscal stance.
- Setting fiscal policy based on an NRPB target can de-link expenditures from volatile resource revenues and avoid abrupt adjustments when resources are exhausted.

Managing resource revenue volatility in countries with long resource horizons

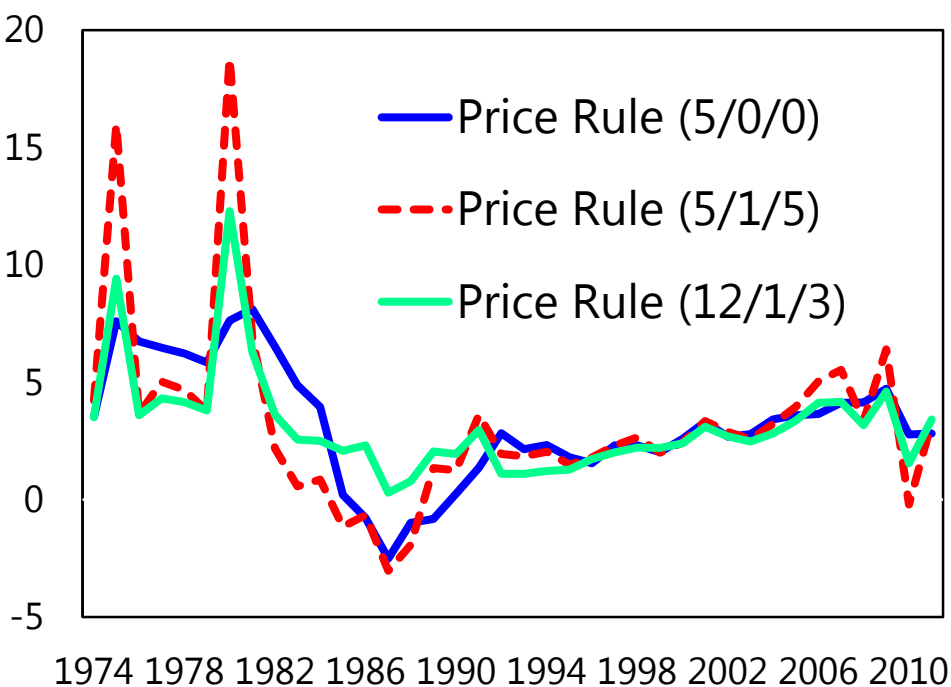


- Resource revenues are often a large share of overall revenues in countries with long resource horizons.
 - Excluding resource revenues from fiscal targets may not be intuitive, easy to communicate and could be misinterpreted.
- A rule based on the “structural primary balance”, defined as the primary balance excluding cyclical resource revenues can help to de-link spending from volatile revenue swings.
- Spending will be a function of “structural” or “normal” resource revenues and the primary balance target.
 - Price-based rules can be used to estimate structural revenues

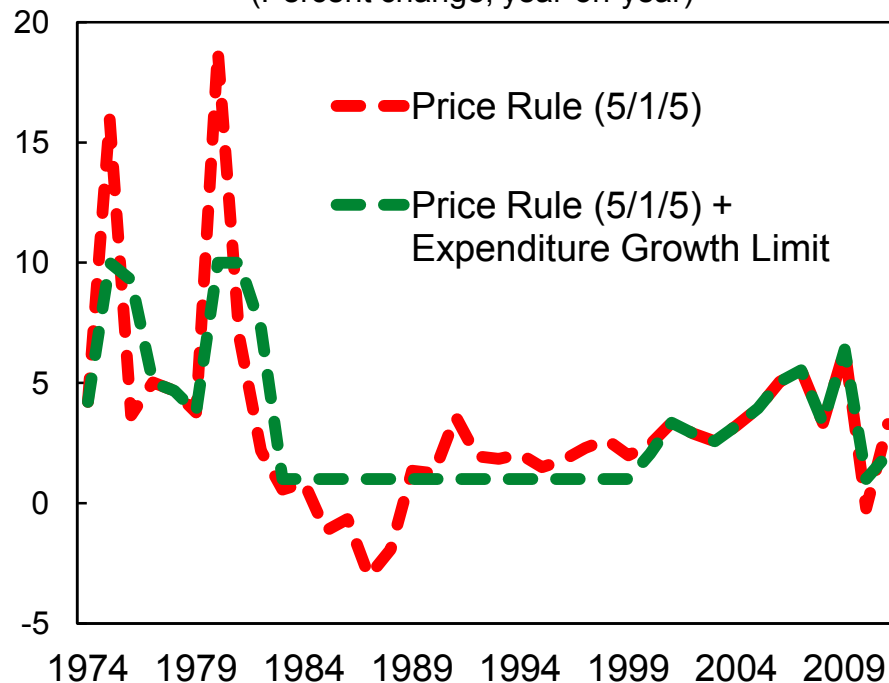
Managing resource revenue volatility: Tradeoffs in price-based smoothing rules



Real Primary Expenditure Growth
(Percent change, year-on-year)



Real Primary Expenditure Growth
(Percent change, year-on-year)

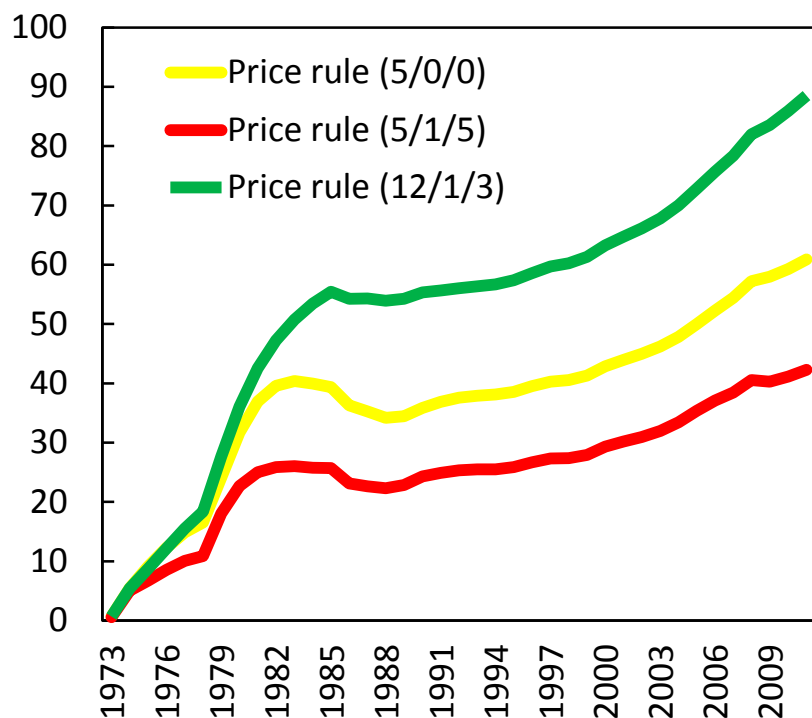


1/ This chart simulates real primary expenditure growth for an oil-producing country following alternative price rules. The rules are a function of an M-year trailing average of historical prices; the current spot price, C; and an N-year average for market-based forward prices (e.g., M/C/N).

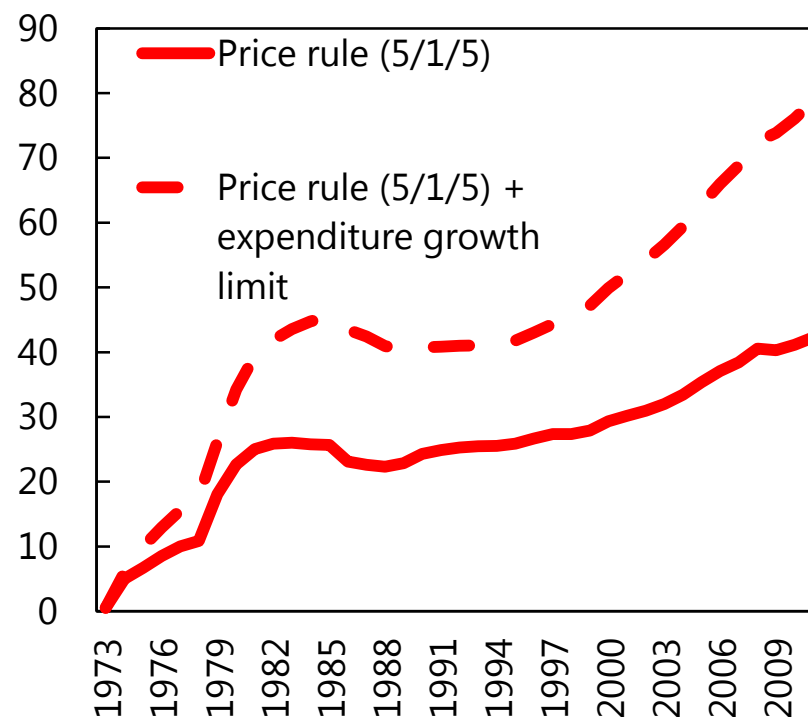
Managing resource revenue volatility: Tradeoffs in price-based smoothing rules



Cumulative financial savings
(Percent non-resource GDP)



Cumulative financial savings
(Percent non-resource GDP)





Assessing fiscal sustainability

- While many fiscal policy paths are sustainable in principle, three “sustainability benchmarks” are of particular interest:

Permanent Income Hypothesis (PIH)

- Government consumption and wealth are held constant over time. The present value of non-resource deficits should equal the present value of resource revenues.

Modified PIH (M-PIH)

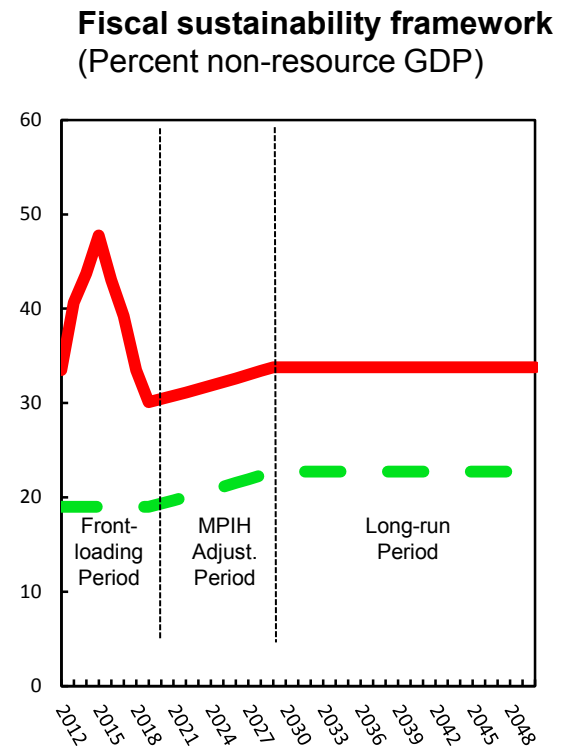
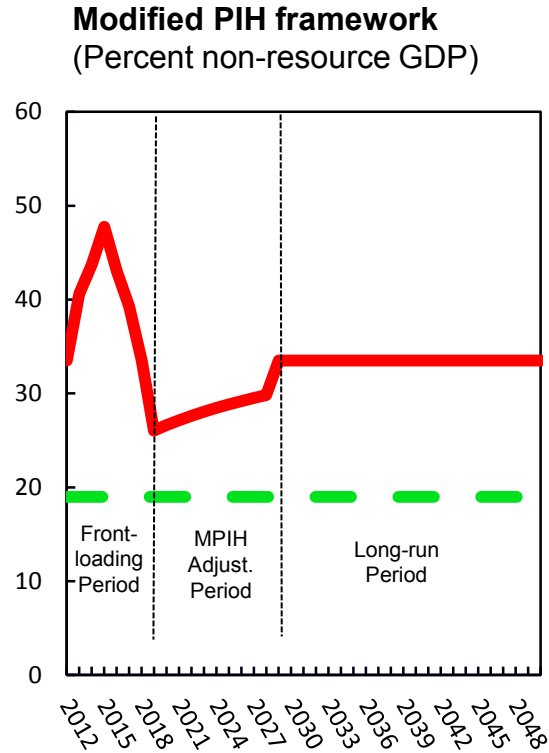
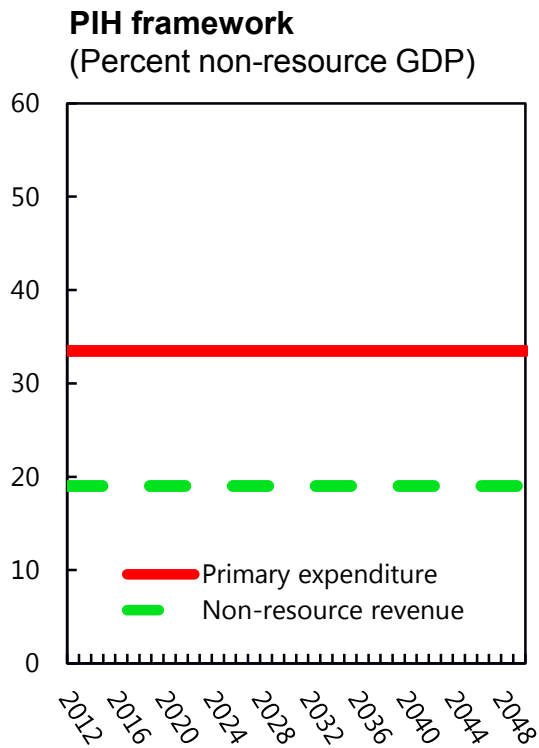
- Allows for a temporary drawdown of financial assets to scale up public investment. The initial drawdown is offset by a future fiscal adjustment to rebuild financial assets.

Fiscal Sustainability Framework (FSF)

- Allows for a sustained drawdown of financial assets to build human and physical capital to deliver an expected permanent gain in non-resource revenues.

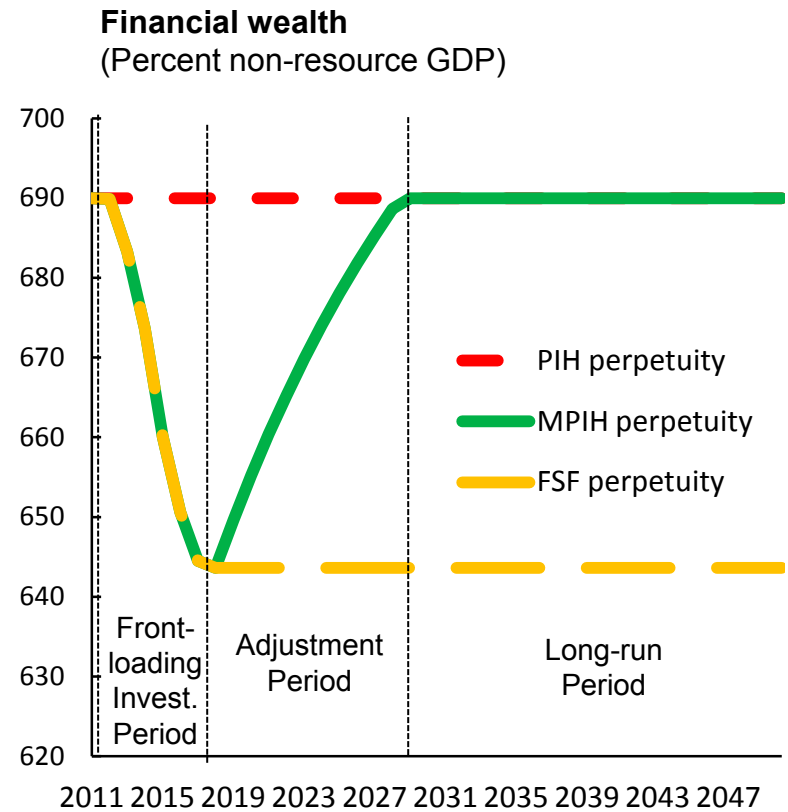
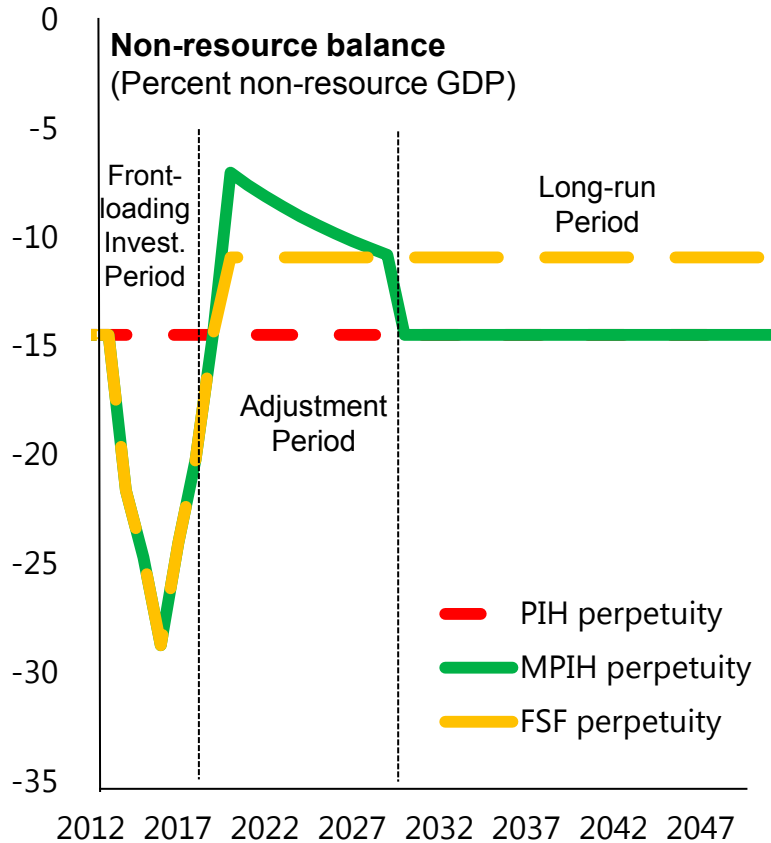
Assessing Fiscal Sustainability

Fiscal Sustainability Frameworks for Resource-Rich Developing Countries



Assessing Fiscal Sustainability

Fiscal Sustainability Frameworks for Resource-Rich Developing Countries



Transparency and Public Financial Management Considerations



- The type of investment with the greatest impact on growth will be country specific
 - Many countries are focusing on infrastructure investment
 - Investments in education and health could be key for some
 - Investments in social capital such as schools and hospitals also require higher recurrent spending to be made productive

- The effectiveness of scaling up depends on capacity to appraise, select, implement and evaluate projects.



Resource Funds

- Resource funds help deal with resource revenue volatility and save for future generations
- Funding should come from fiscal surpluses and remain linked to the government's overall cash management strategy
- Fund flows should be integrated into the budget and should not have independent spending authority
- With weak institutional capacity, it is advisable to have just one resource fund (sometimes with separate portfolios for stabilization and saving).



Summary

Summary

Resource revenues are an opportunity to progress on key development goals, such as poverty reduction, infrastructure and growth.

Fiscal frameworks should be designed to avoid the resource curse of slow growth, pro-cyclical fiscal policies and inadequate savings and investment.

Fiscal rules can help resource-rich countries mitigate externally driven volatility from commodity prices by building saving cushions.

Public investment should only be front-loaded once implementation capacity and fiscal transparency have been strengthened to avoid misuse.



THANK YOU



Presentation is based on:

Macroeconomic policy frameworks for resources-rich developing countries. Available at:

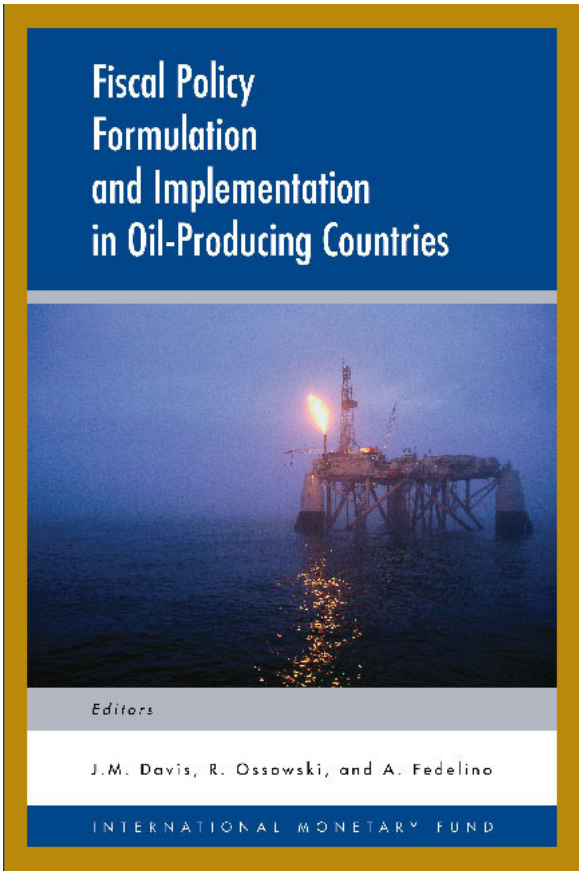
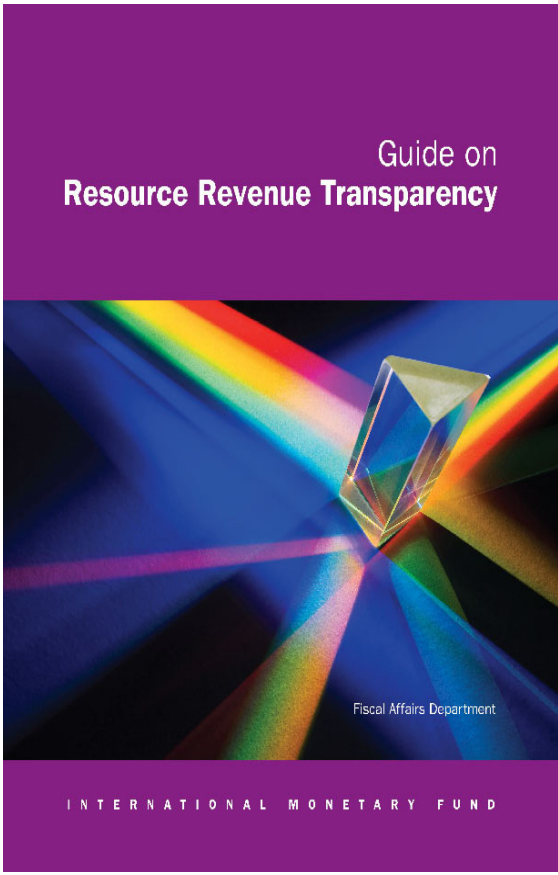
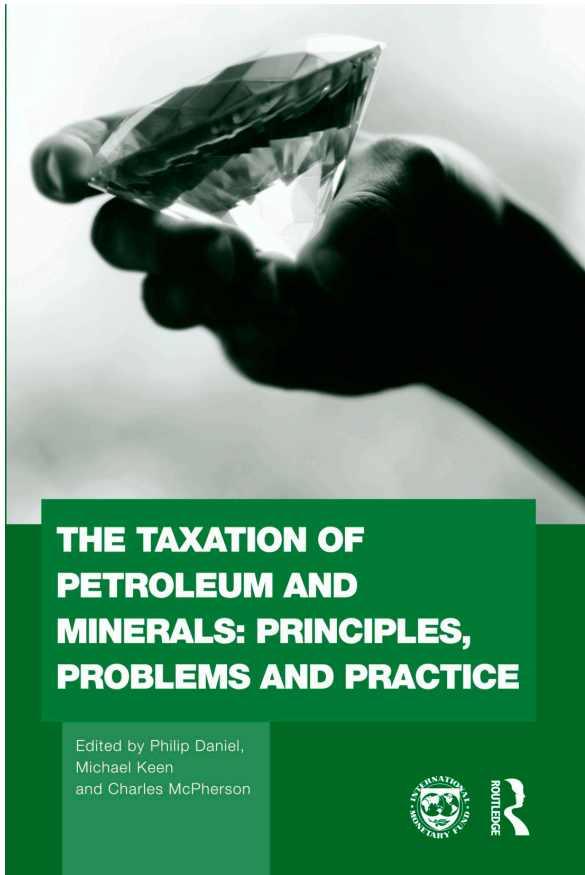
<http://www.imf.org/external/np/pp/eng/2012/082412.pdf>

Fiscal Regimes for Extractive Industries: Design and Implementation, Fiscal Affairs Department, IMF, August 15, 2012.

Available at:

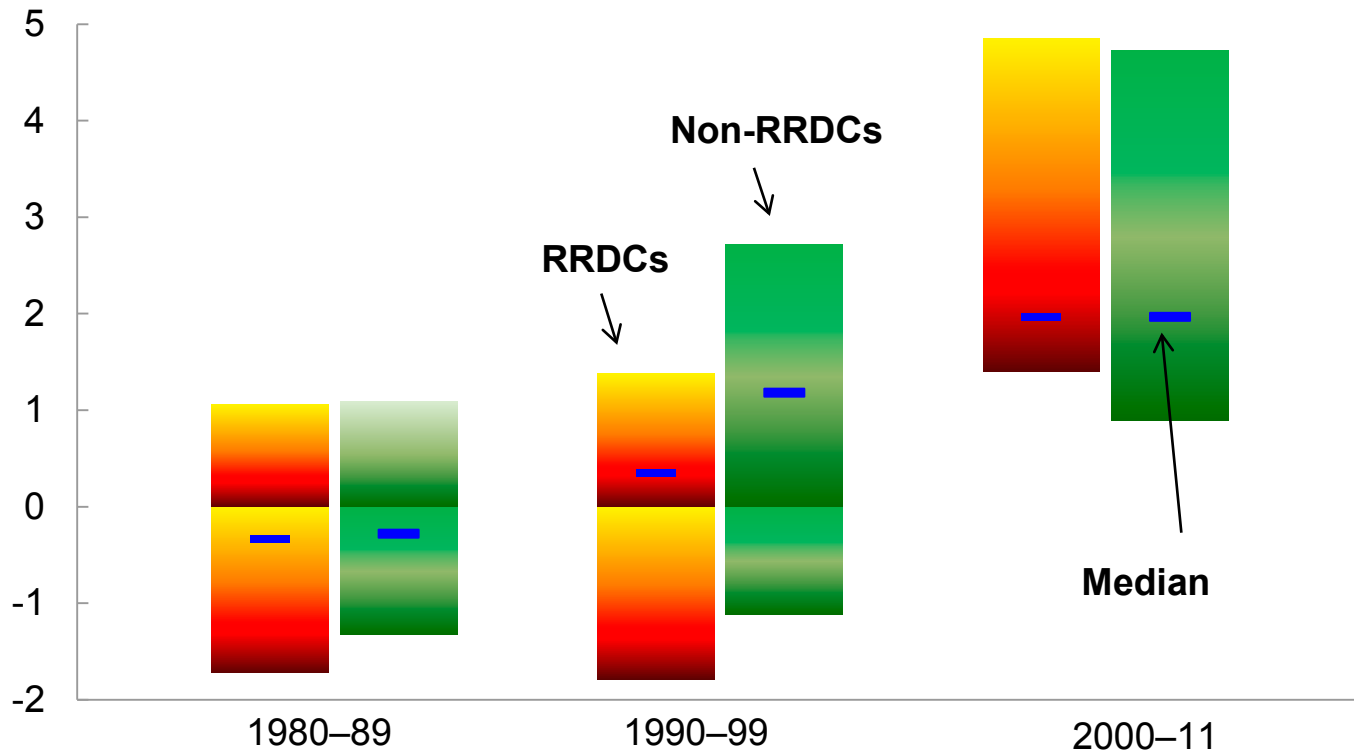
<http://www.imf.org/external/np/pp/eng/2012/081512.pdf>

Other useful references from the IMF's Fiscal Affairs Department



Resource-rich developing countries (RRDCs) have a mixed growth record

Growth in Real GDP Per Capita for RRDCs and Non-RRDCs
 (Averages for 1980-2011, median and interquartile range, in percent)

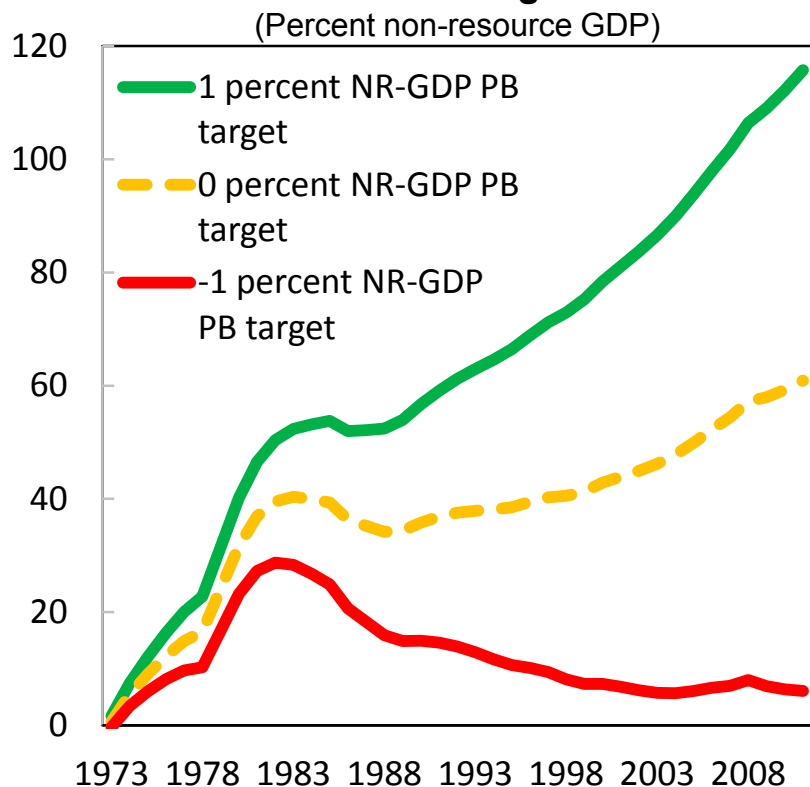


Sources: World Economic Outlook; and IMF staff estimates.

Managing resource revenue volatility: Tradeoffs in price-based smoothing rules



**Cumulative financial savings under 5/0/0
price rule with different overall primary
balance targets**



- Price-smoothing rule can also help to address sustainability concerns.
- This can be achieved by targeting different structural primary balances (e.g., Chile targets a surplus of 1 percent of GDP)
- Adding a “prudence factor” in the forecast (e.g., Mexico multiplies smoothed oil prices by a factor of 0.84).