

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

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# Presentation plan:

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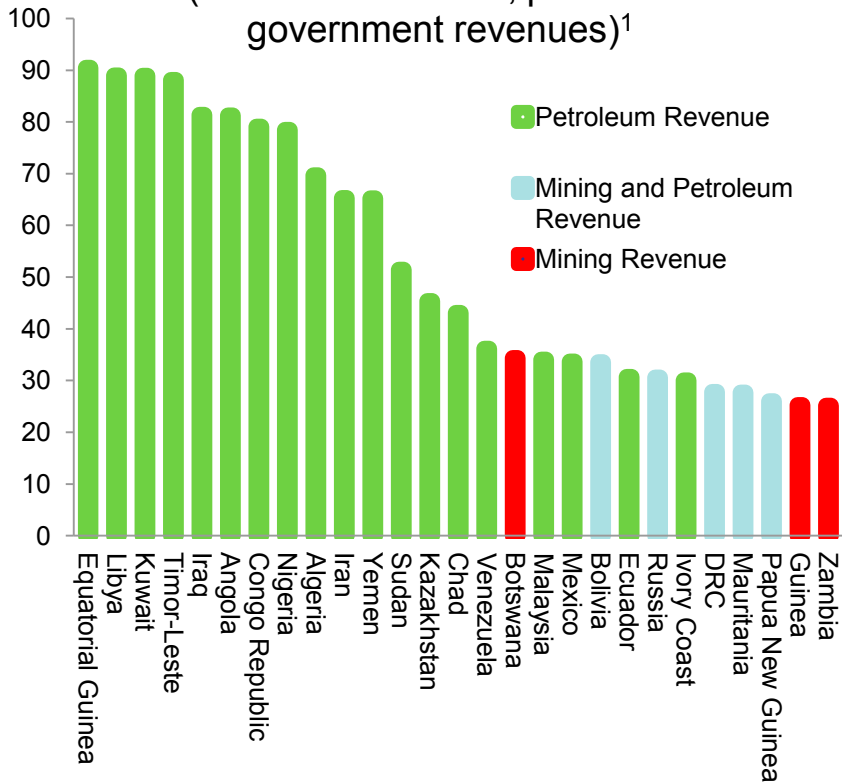
- I. Motivation: Challenges for resource-rich developing countries (RRDCs)**
- II. Fiscal policy frameworks for RRDCs: key considerations**
- III. Summary**

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

# Resource revenues are increasingly important for many developing countries

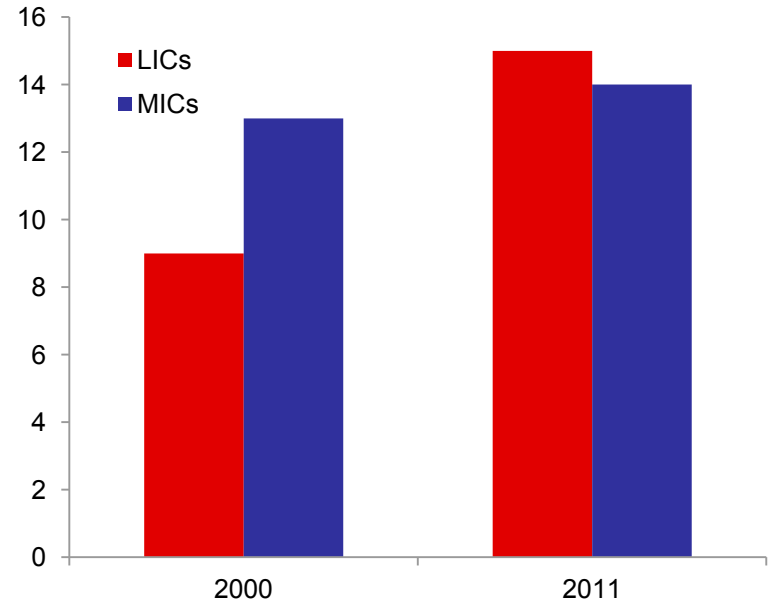
### Receipts from Natural Resources in 2011

(Selected countries, percent of government revenues)<sup>1</sup>



<sup>1</sup> 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 <sup>1/</sup>

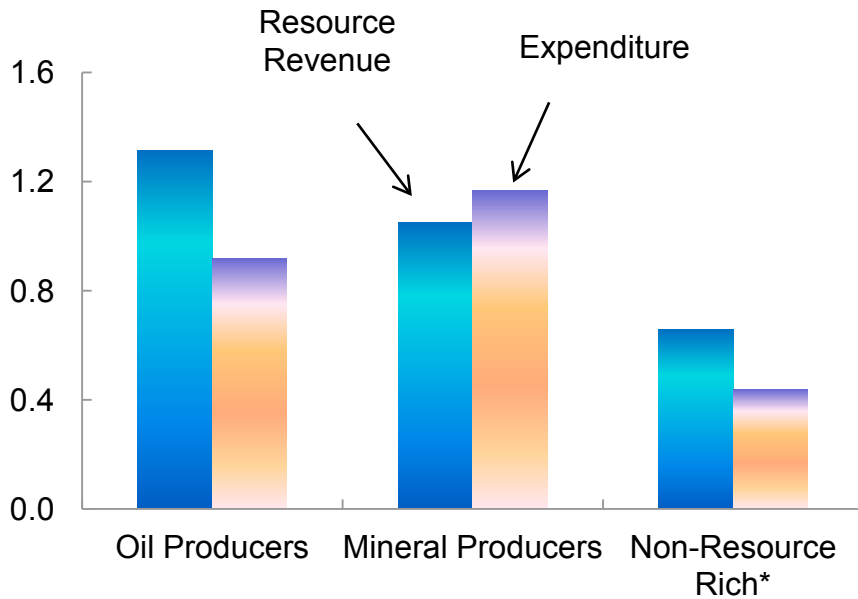


<sup>1/</sup> Latest data for five countries are as of 2010 and earliest data for five other countries are as of 2001-2004.

# Macroeconomic and Policy Challenges in RRDCs

## Boom-Bust Cycles

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

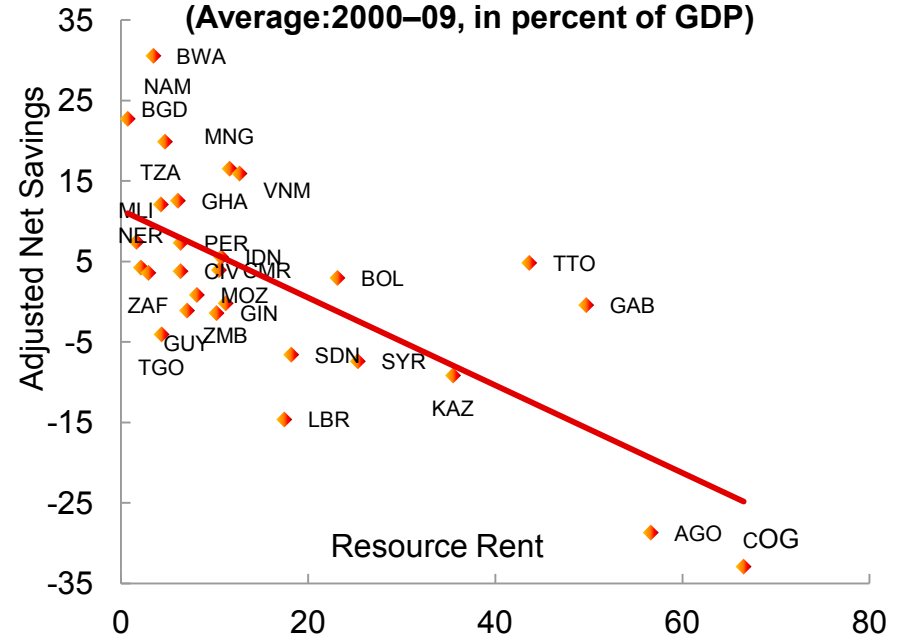


Sources: World Economic Outlook; and IMF staff estimates.

\*Real total revenue.

## Low Saving Rates

**Adjusted Net Savings and Exhaustible Resource Rent<sup>1,2</sup>**  
(Average: 2000–09, in percent of GDP)



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

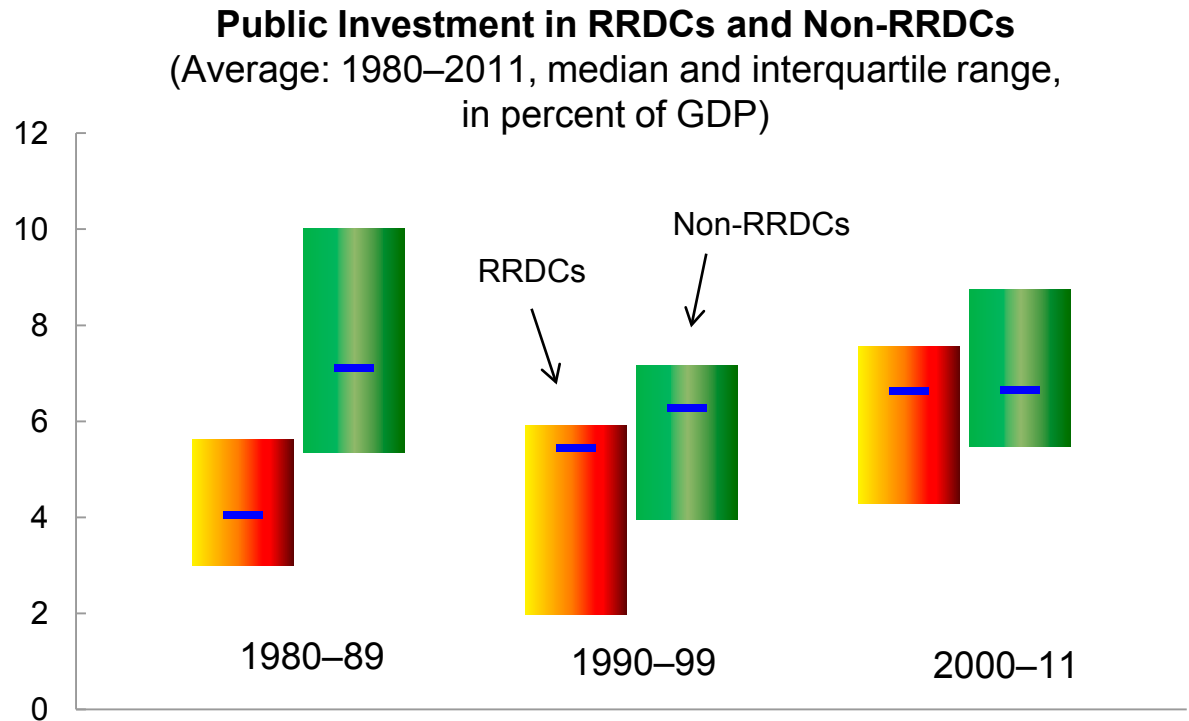
<sup>1</sup>Adjusted net savings are net national savings plus education expenditure minus energy, mineral and net forest depletion, and emissions damage.

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

# Building assets with resource revenues

## Low Public Investment in RRDCs

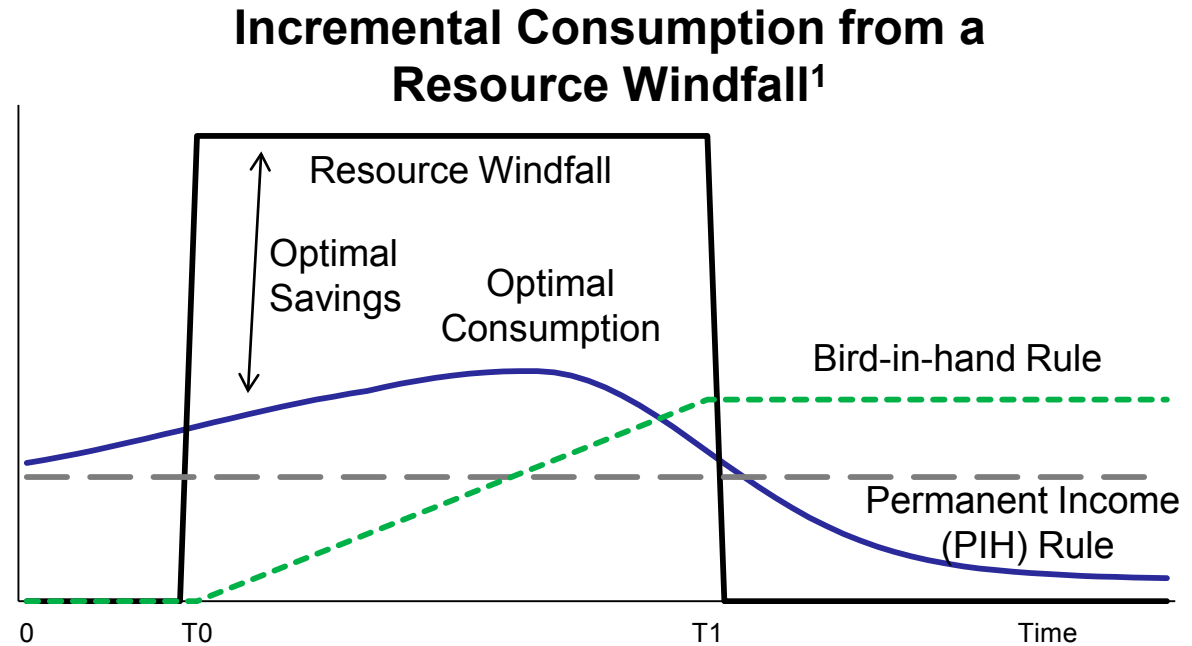
- Public investment in RRDCs has been relatively low compared to non-RRDCs.
- For a lasting impact on development, part of the natural resource revenues needs to be saved or invested.



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).



<sup>1</sup>Stylized 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?

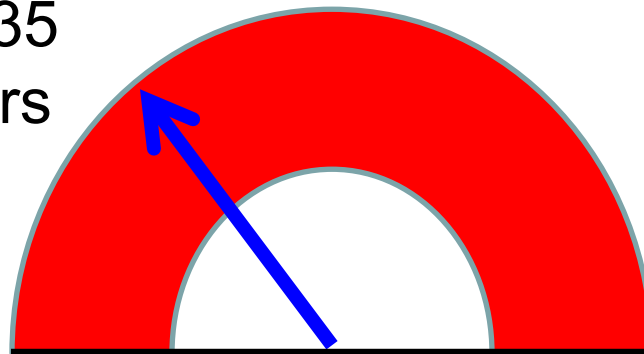
- These issues are complicated by *resource revenue volatility* and *resource exhaustibility*

# 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



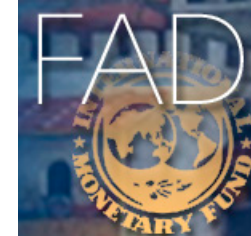
- Fiscal targets based on the non-resource primary balance (NRPB) are appropriate
  - The NRPB is defined as the primary balance less resource revenues (or non-resource revenues less primary spending).
- Since resource revenues largely accrue from abroad, an increase in the non-resource primary deficit 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

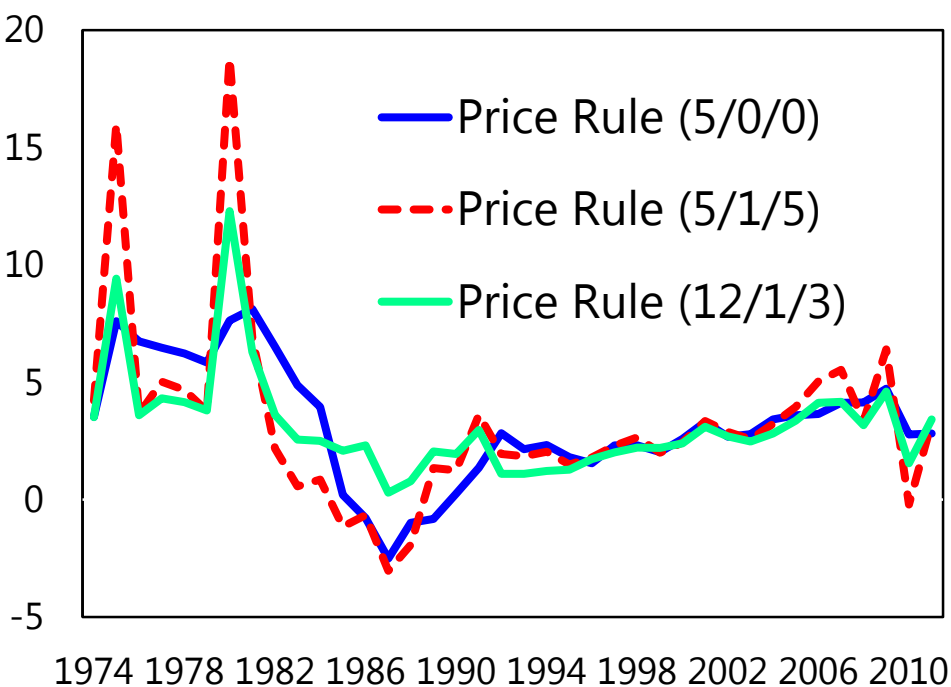


- Resource revenues are often a large share of overall revenues in countries with long resource horizons.
  - Excluding resource revenues from fiscal targets may not be intuitive, easy to communicate and could be misinterpreted.
- A rule based on the “structural primary balance”, defined as the primary 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

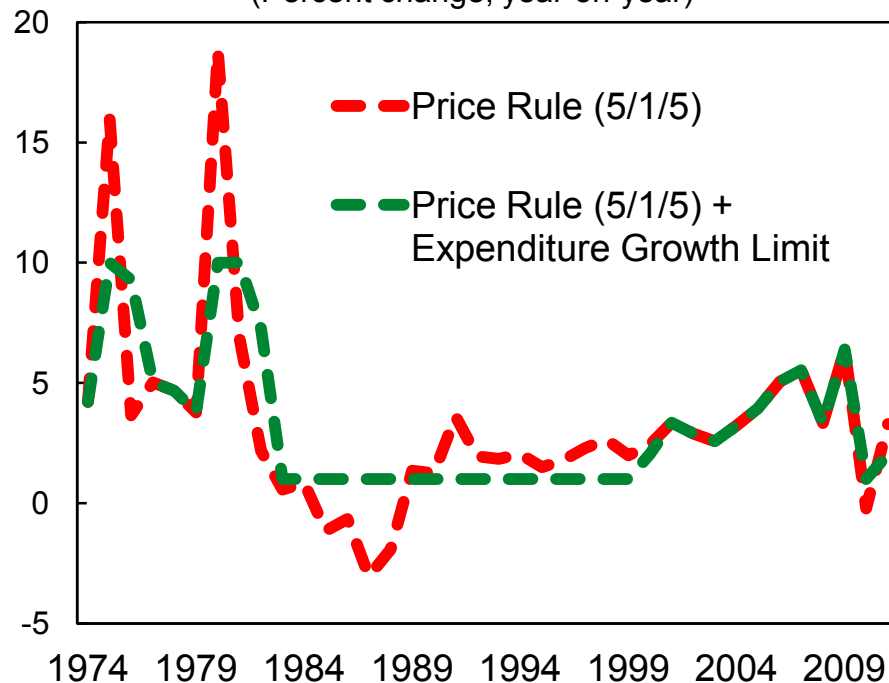
# Managing resource revenue volatility: Tradeoffs in price-based smoothing rules



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



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(Percent change, year-on-year)

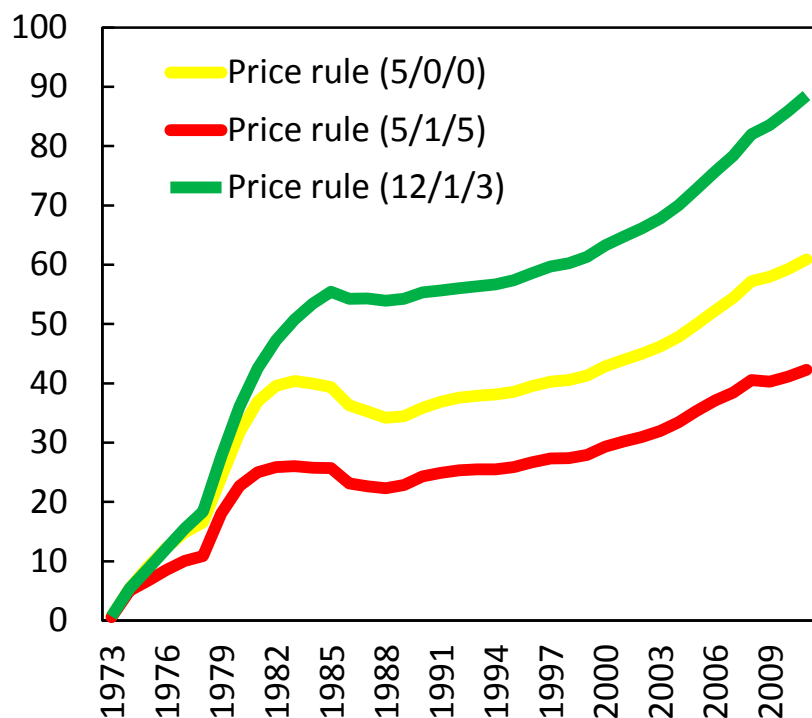


1/ This chart simulates real primary expenditure growth for an oil-producing country following alternative price rules. The rules are a function of an M-year trailing average of historical prices; the current spot price, C; and an N-year average for market-based forward prices (e.g., M/C/N).

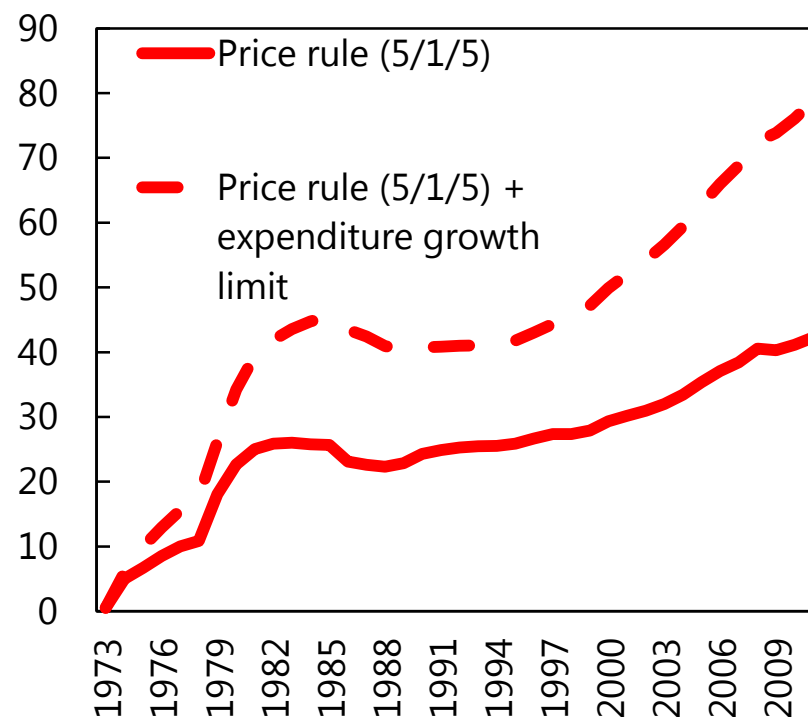
# Managing resource revenue volatility: Tradeoffs in price-based smoothing rules



**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)

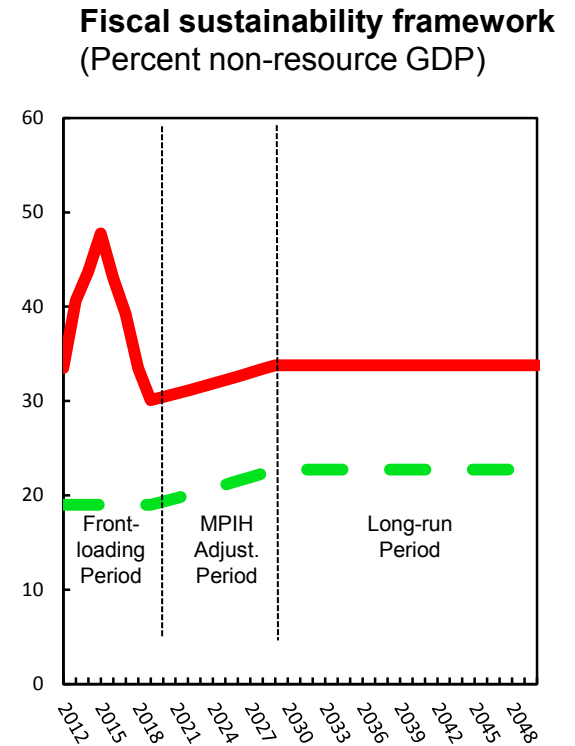
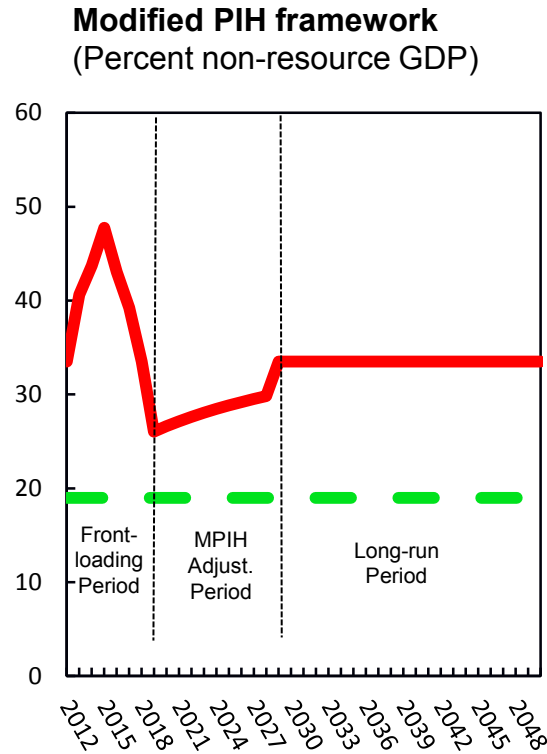
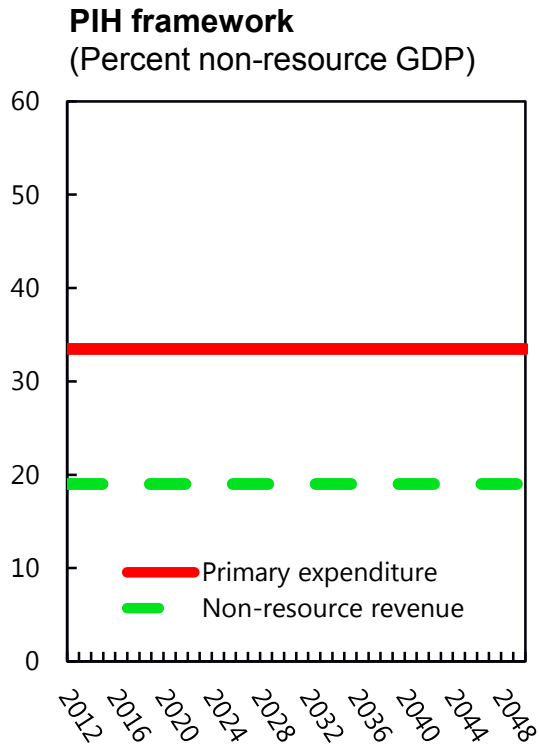
- Allows for a temporary drawdown of financial assets to scale up public investment. The initial drawdown is offset by a future fiscal adjustment to rebuild financial assets.

## 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

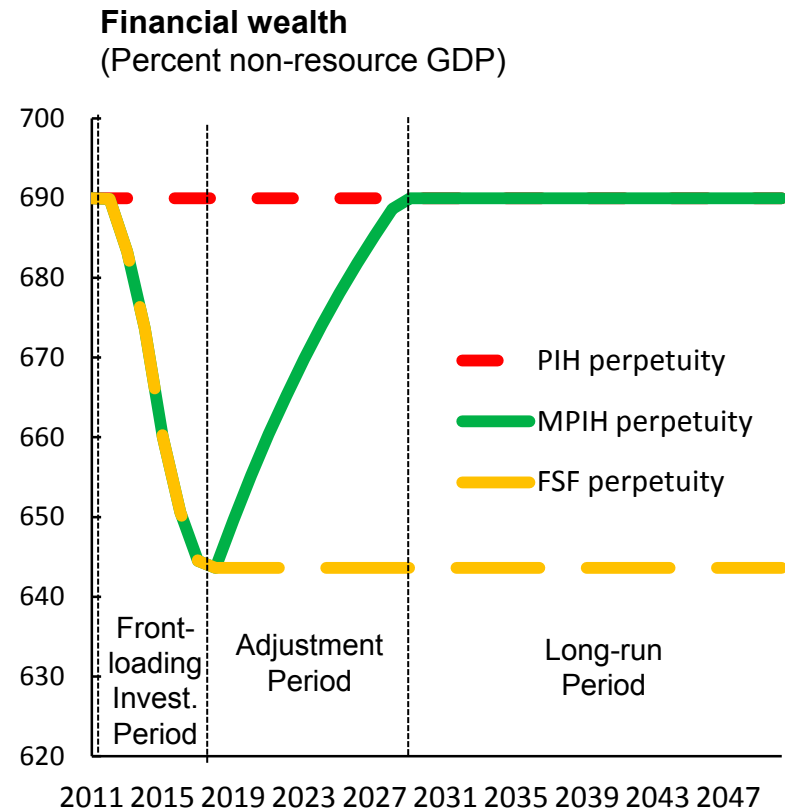
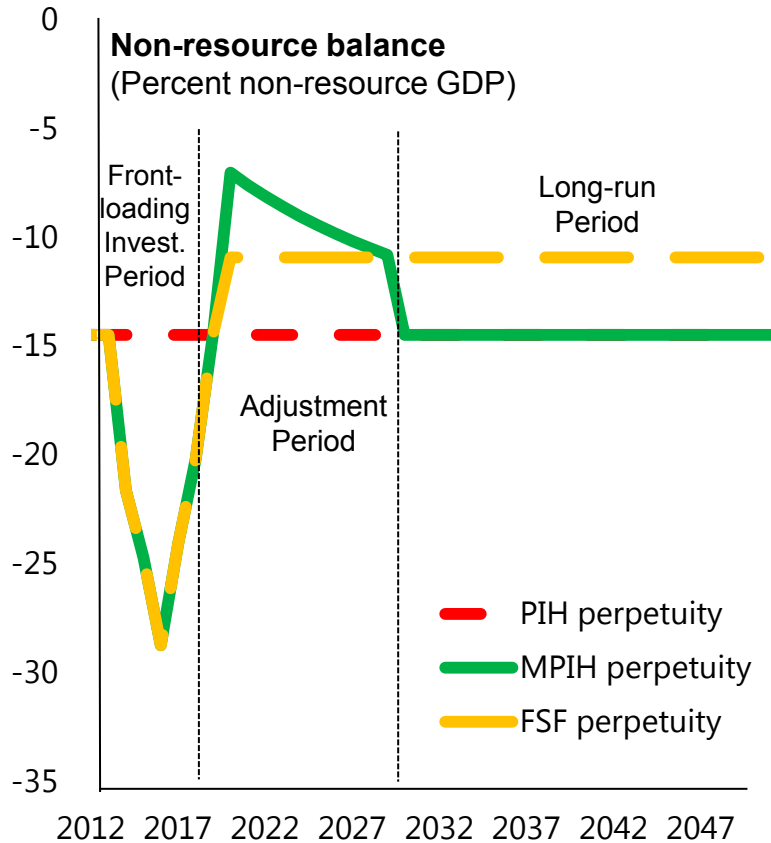
## Fiscal Sustainability Frameworks for Resource-Rich Developing Countries





# 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:**

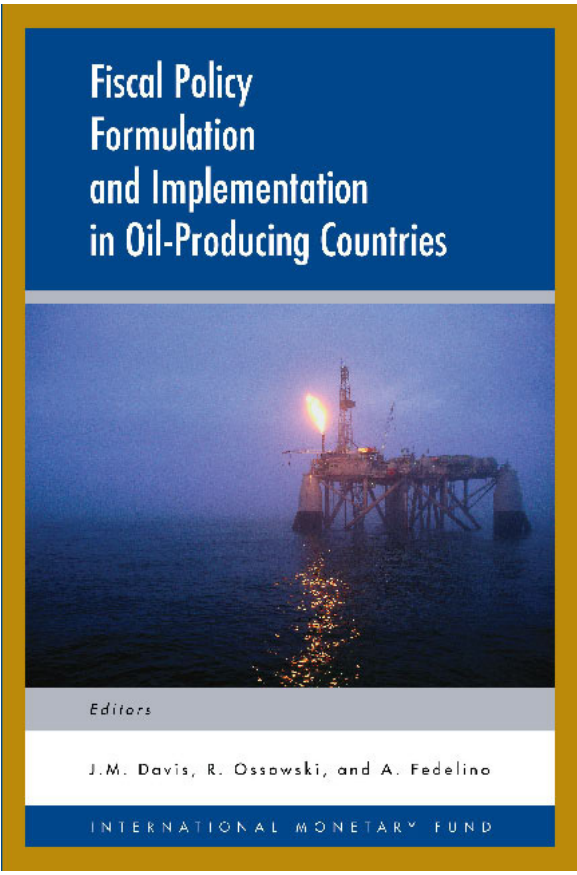
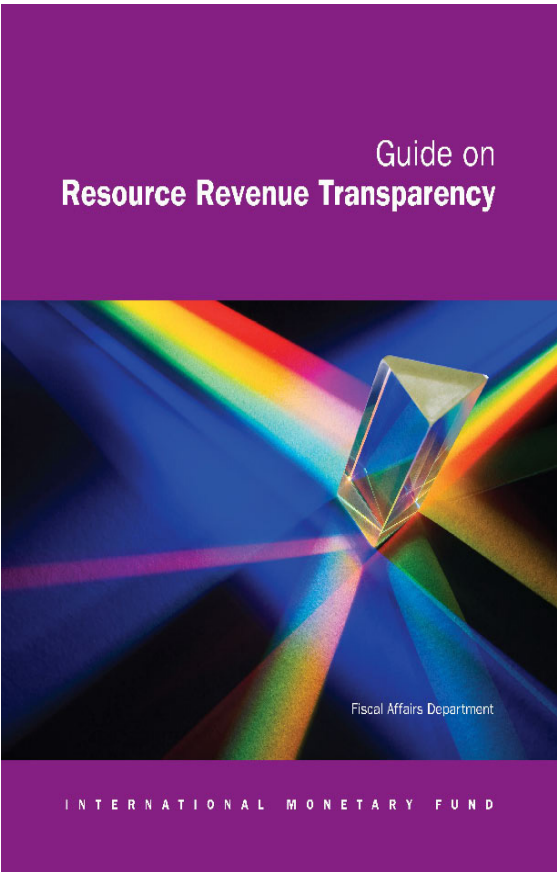
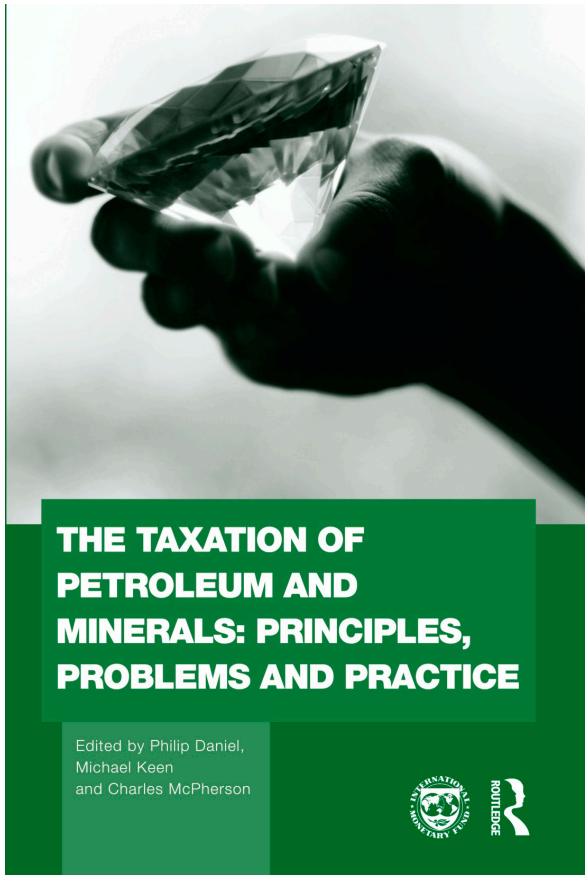
**<http://www.imf.org/external/np/pp/eng/2012/082412.pdf>**

**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>**

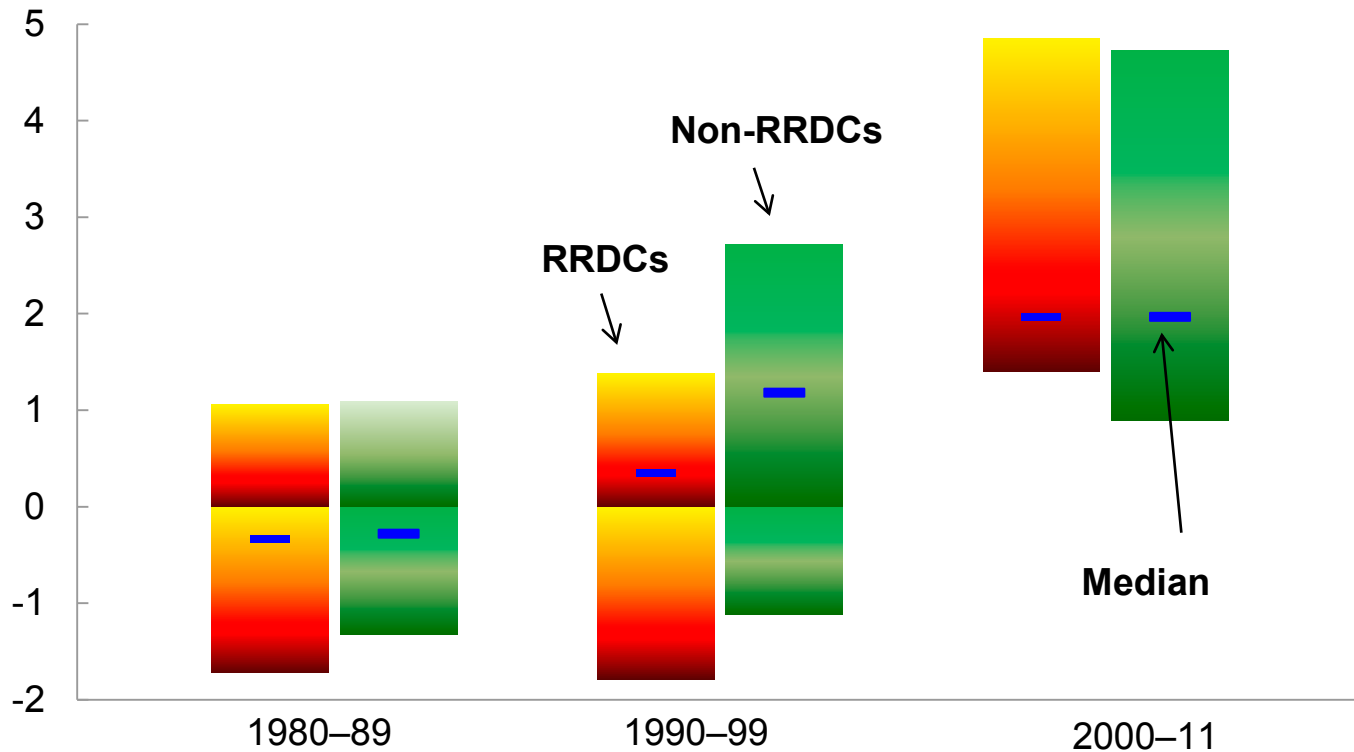
# Other useful references from the IMF's Fiscal Affairs Department





# 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)

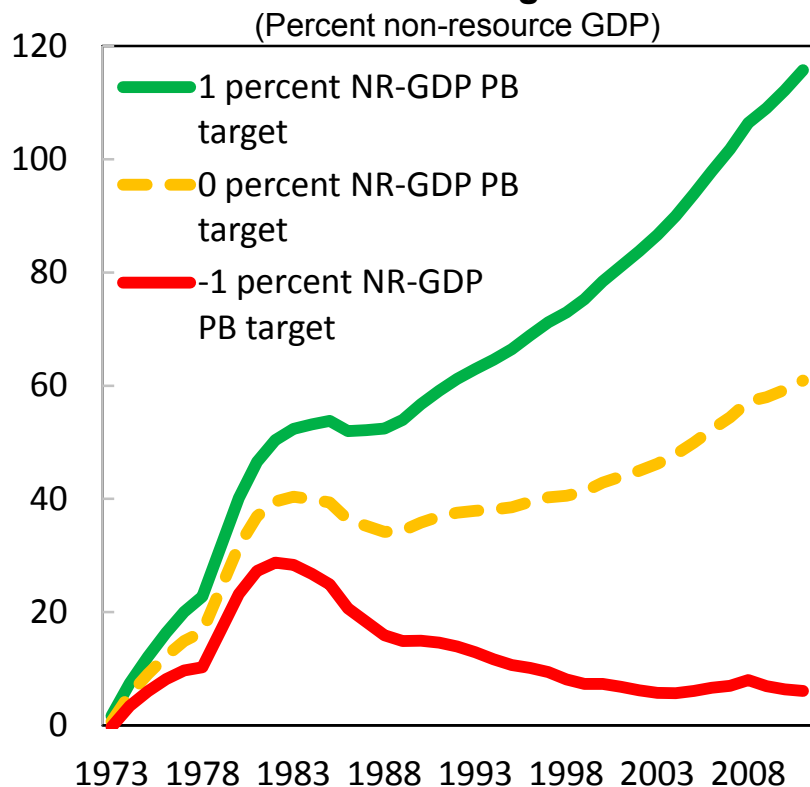


Sources: World Economic Outlook; and IMF staff estimates.

# 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).