

Fiscal Sustainability Module for RMSM-X

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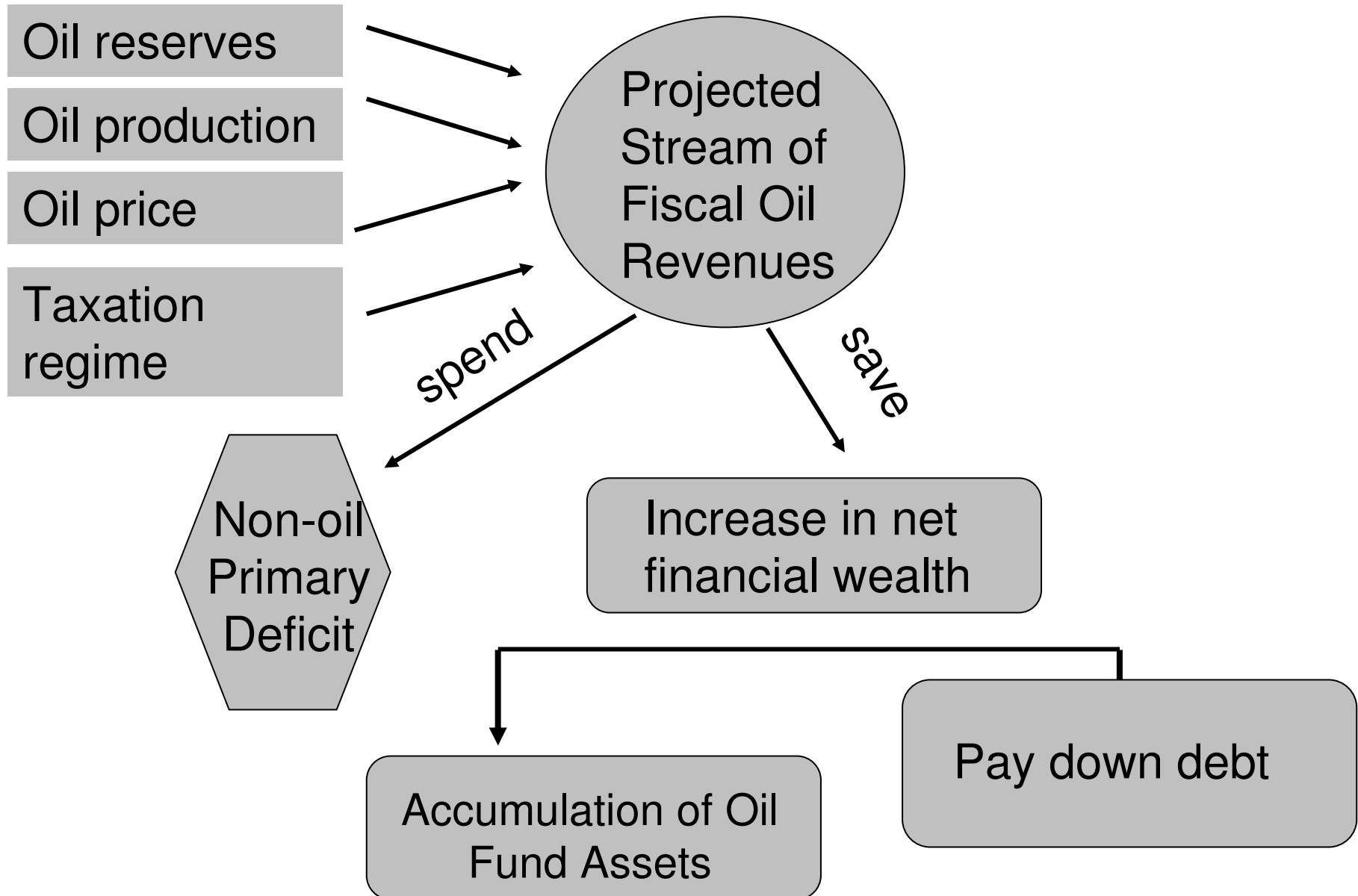
World Bank Fiscal Sustainability Template/Toolkit

- A framework for fiscal sustainability, macroeconomic analysis, and managing uncertainty
 - Model uses simulation methods to forecast distribution and evolution of public debt/assets
 - Takes into account fiscal policy and natural resource revenue rules
 - Allows scenario and stochastic analysis of uncertainty

- The Fiscal Sustainability (FS) Tool
 - Projecting future Debt-Output ratios and “Required Deficit Reductions” under different fiscal rules
 - Stress Tests and Stochastic Simulations
 - Distributions of future debt/output ratios and V@R analysis

- Benefits
 - Public good – can be used by policy makers and practitioners
 - Tied in to databases
 - User Friendly (completely menu driven)
 - Works in “sparse” data environment

Description: FSA module for RMSM-X





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Inputs:

- Macroeconomic data from RMSM-X
 - Macroeconomic, fiscal and debt projections
- Commodity-specific data
 - Reserves, production, value added, prices, budget revenues by key commodities (oil, natural gas, gold, copper, cotton...)
- Government Policies:
 - Assumptions about external Debt rules; rule on non-commodity fiscal deficit; Rule on transfers to the budget from Development Fund ; seignorage revenue



Description: FSA module for RMSM-X

Scenario analysis:

- Set of different fiscal rules
- Commodity prices

Stress-test defined by:

- Shock to commodity prices
- Shock to real GDP growth
- Shock to fiscal balance
- Shock to real interest rate
- Real depreciation
- Contingent liability shock



Description: FSA module for RMSM-X

Platform

- RMSMX
- Software: Exel
- Economic Methodology
 - Optimization subject to the Lifetime Budget Constraint



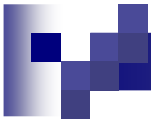
Description: FSA module for RMSM-X

Outputs:

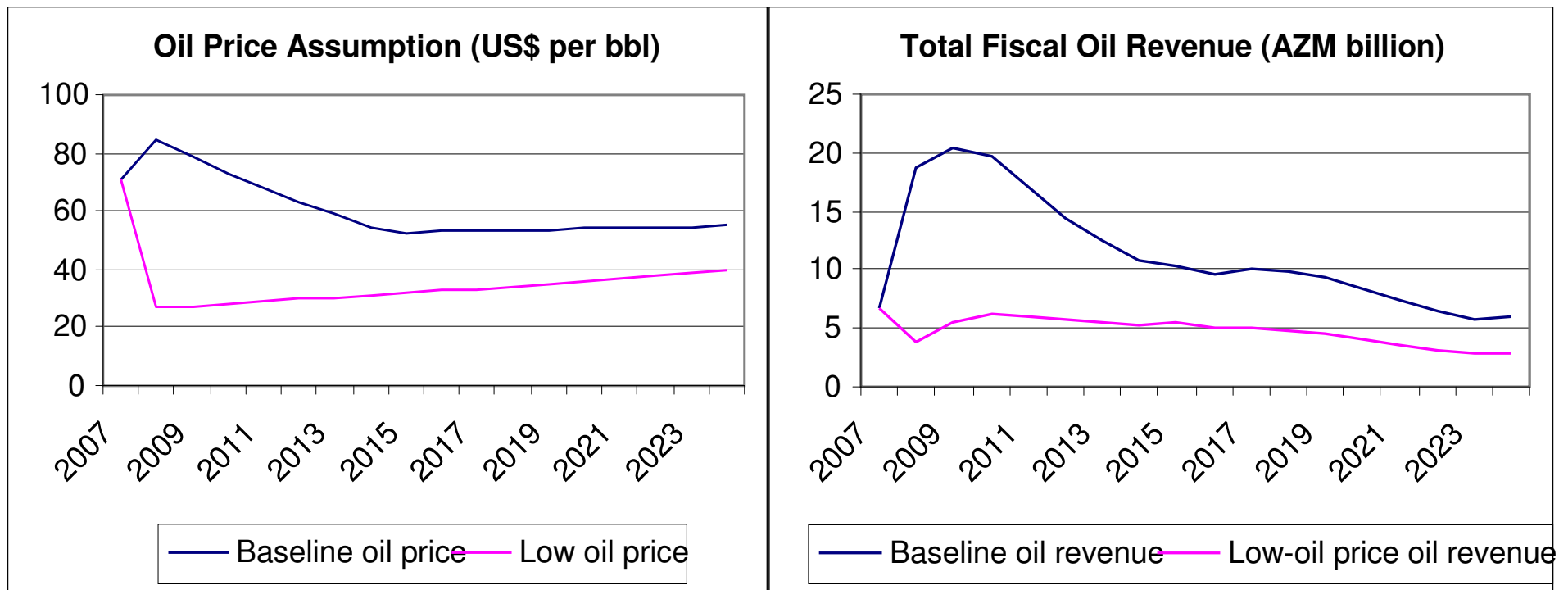
- Annual permanent income level from commodities which targets intergenerational equity over the life time of exhaustable resources

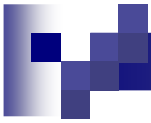
- Set of fiscal and monetary policies without becoming insolvent
 - external debt rules;
 - rule on non-commodity fiscal deficit;
 - rule on transfers to the budget from Development Fund;
 - seignorage

- Future Debt-to-GDP ratio under different fiscal and monetary strategies

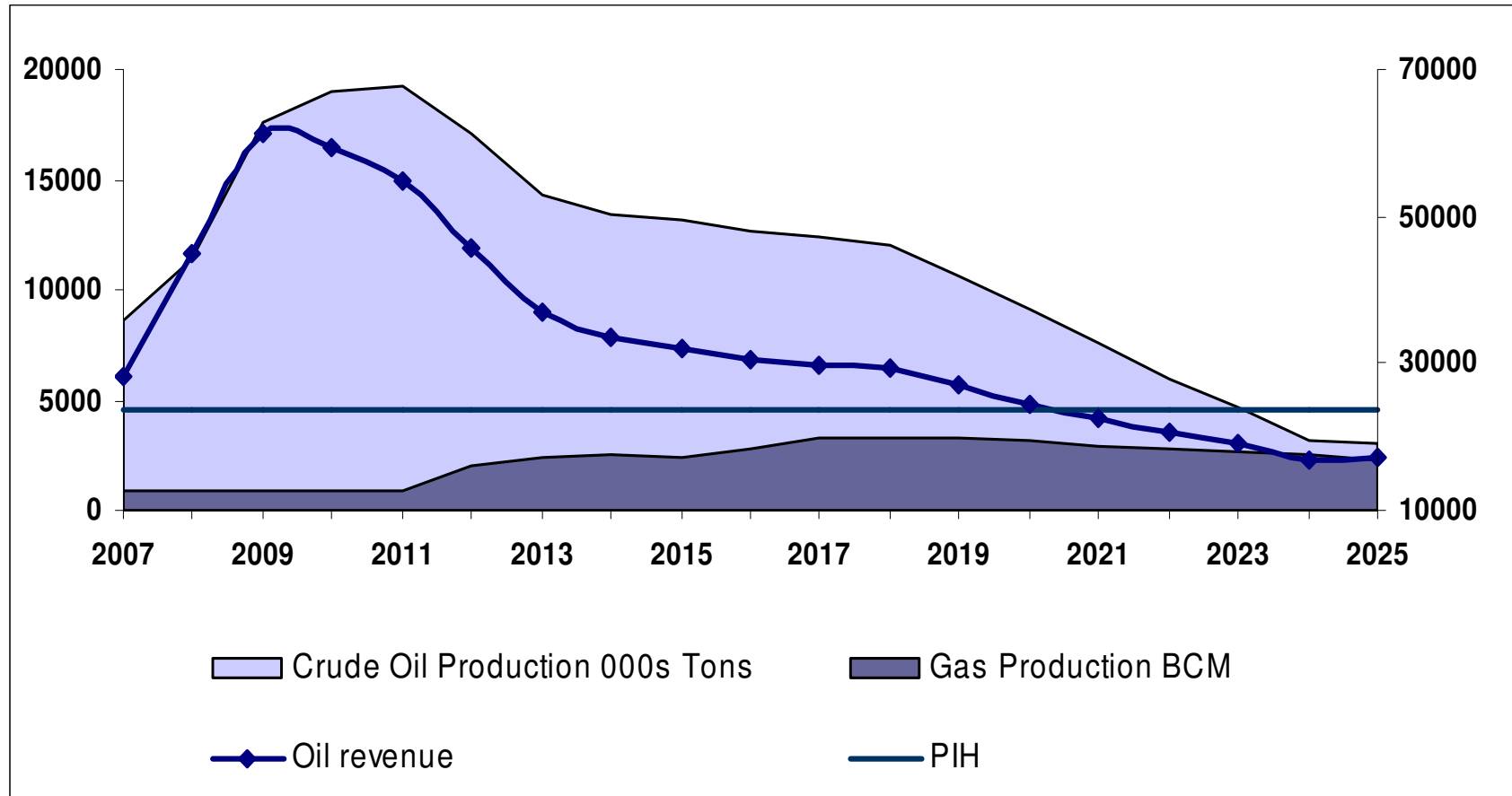


Demo: Oil Fiscal Revenue





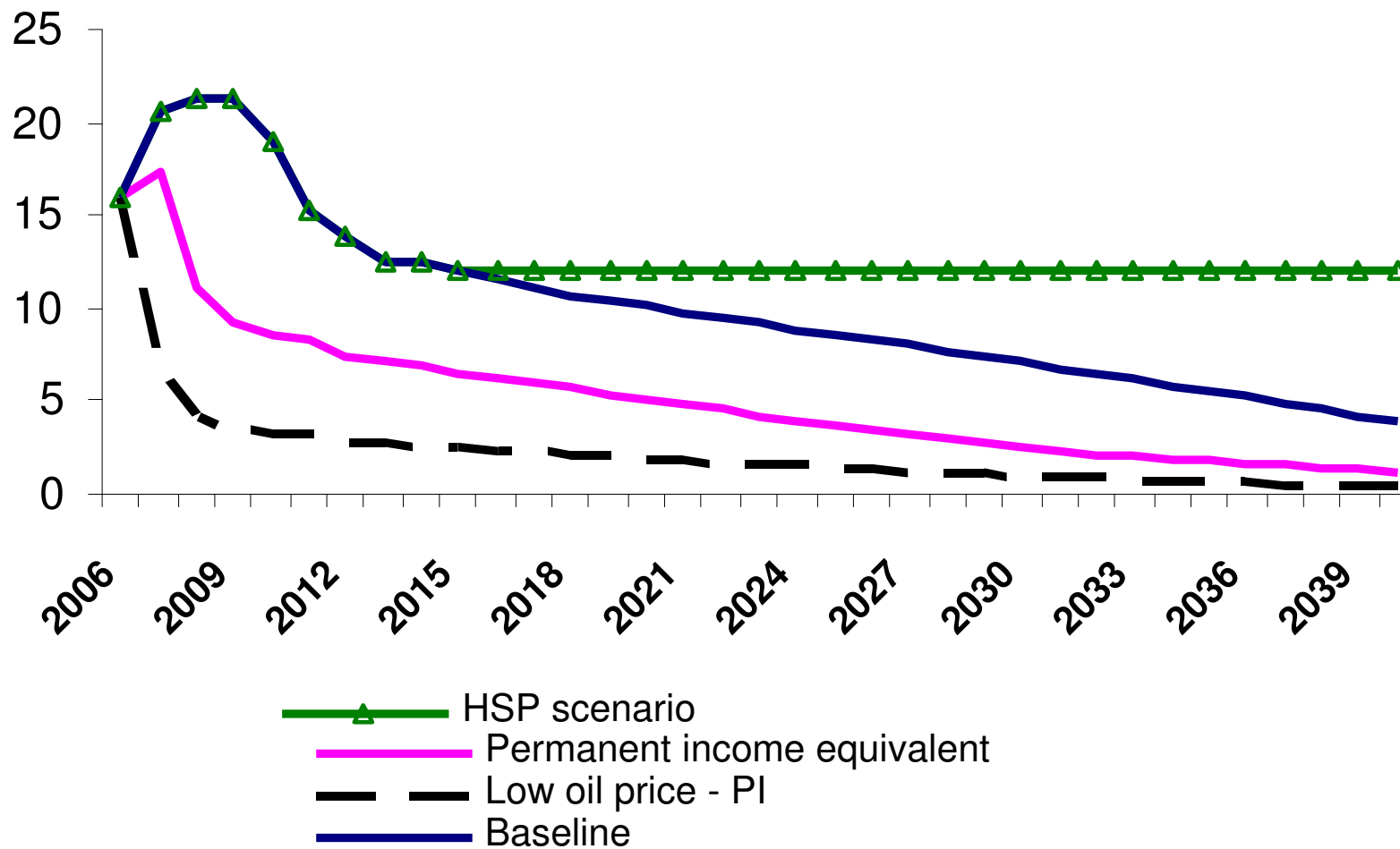
Demo: Resource Wealth



...simply idea: save in good years and spend in bad years, such that value of assets is preserved

Demo: Illustrative Fiscal Strategies

Non-oil primary deficit, % of GDP



Demo: Dynamic Simulations

