

# Revenue Management in the Extractives Sector Dialogue

Accra, Ghana, 26/27<sup>th</sup> April 2016

Successfully linking natural resource exploitation to the broader economy and astute management of the related revenue flows can enable a low-income economy to 'jump' to a diversified and middle-income economy

# CABRI Extractives Revenue Management Dialogue

AGENDA ITEM	TIME
<b>DAY 1</b>	
<b>Session 1: Managing Natural Resource Wealth for Development</b>	09:00 – 10:45
<b>Session 2: Extractives Revenue and the Budget Process</b>	11:15 - 13:00
<b>Session 3: Masterclass</b>	14:00 – 16:30
<b>DAY 2</b>	
<b>Session 4: Fiscal Transparency and Accountability</b>	08:30 – 10:30
<b>Session 5: Managing Revenue through Sovereign Wealth Funds</b>	11:00 – 12:30
<b>Session 6: Panel Discussion and Peer Exchange on Managing Extractives Revenue</b>	13:30 –15.00
<b>Session 7: World Café on Extractives Revenue Management</b>	15:30 - 17:00

# Welcome Remarks - CABRI

# Anticipated Outcomes from the CABRI Dialogue

# Session 1: Managing Natural Resource Wealth for Development

Revenue Management in the Extractives Sector

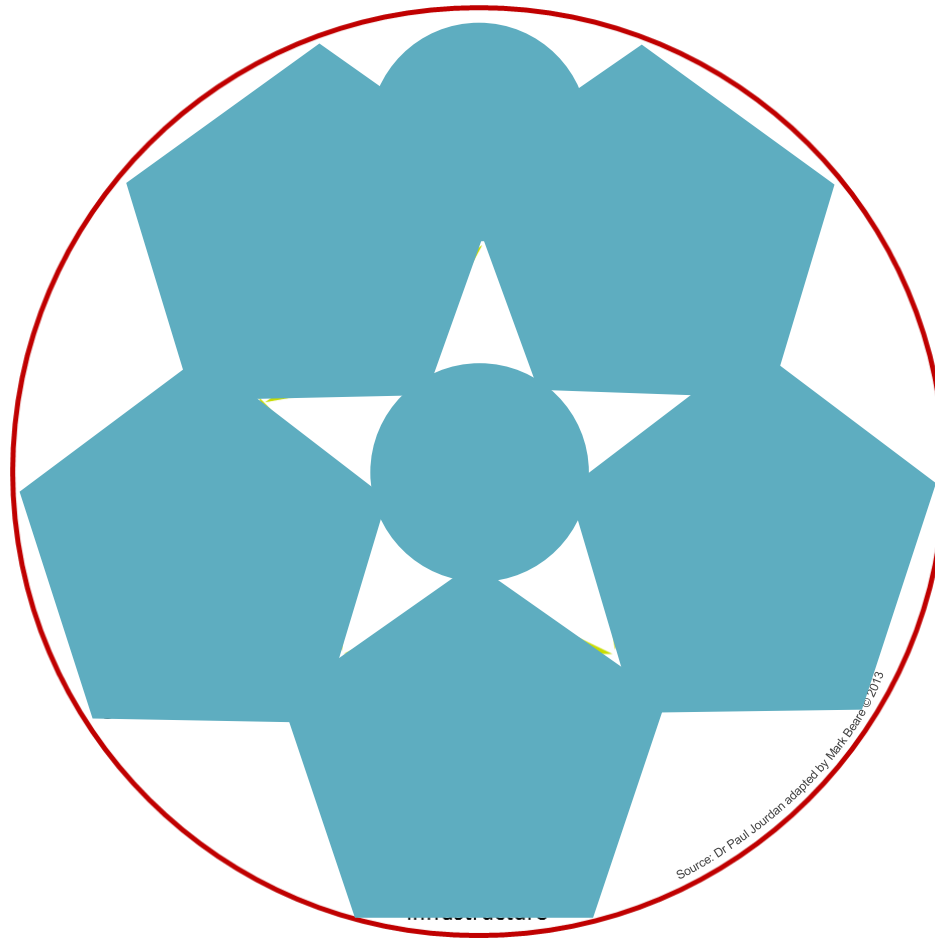
# Introduction

# The Role of Extractives in National Development

- Natural resources should be seen as an accelerator towards national development goals.
- Strengthening linkages between the extractives sector with the rest of the economy is critical.
- Governments, as custodians of natural resources, have the responsibility to develop approaches to maximise linkages with the rest of the economy.
- Need for policy, legislative and regulatory frameworks that are not only pro-growth but also pro-development.

Natural resources are a means to an end and therefore maximum benefits should be leveraged throughout the economy in support of the overall development vision!

# Maximising Natural Resource Linkages



Source: Dr Paul Jordan adapted by Mark Beare © 2013



# Addressing the Linkages

# Spatial linkages

Infrastructure investments for the exploitation of natural resources can benefit the broader economy e.g. electricity access for local community.



## **Example: Shared value at Tenke Fungurume Mine (TFM), Katanga province, DRC**

- TFM financed the renovation of a large portion a regional highway (Lubumbashi to Kolwezi). As a result, access to commercial and public services has improved considerably for the inhabitants of the concession area.
- Similarly, while TFM's investment in a hydro power station (N'Seke) provides TFM with power, it has also brought electricity to other users.
- TFM sponsored a series of urban planning studies resulting in an urban development management plan and an integrated development programme to upgrade social and physical infrastructure.

What has more value? Community projects or hard infrastructure? LED should integrate community engagement in these decisions eg. Turkana/Kwale in Kenya...

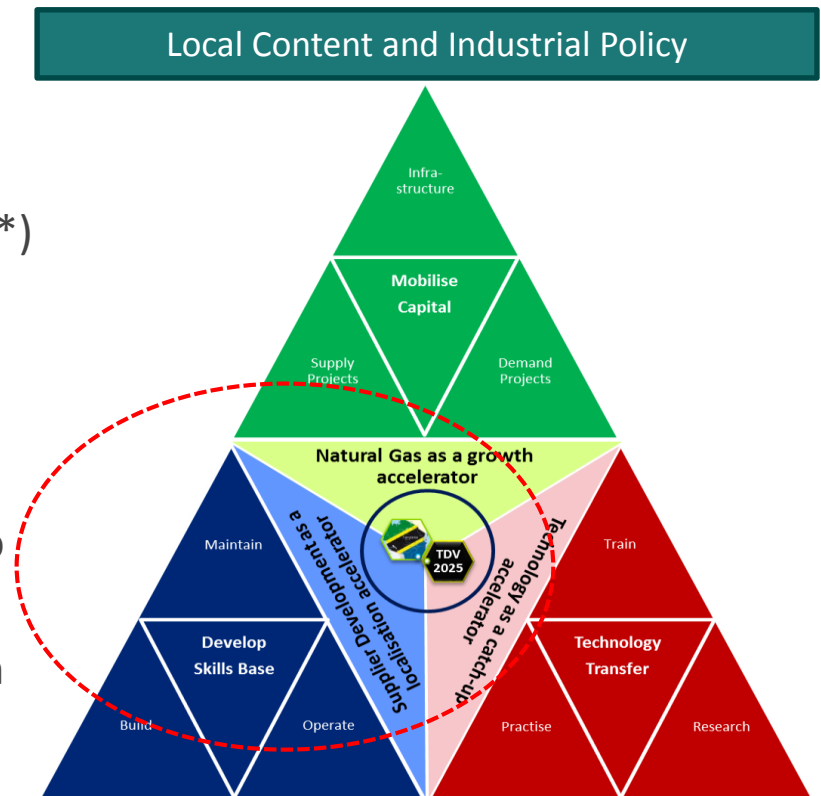
# Backward Linkages

**Backward linkages involve extractives companies sourcing locally supplied goods and services**

Local content and supplier development (LC/SD\*) policies take time to have effect

In Tanzania, gas not expected until 2022, however skills development in full swing.

- Some LC/SD demands are not realistic in the long term ie. investments should be made into sustainable industries.
- Policy questions: what skills to develop? When to import? Who is responsible?



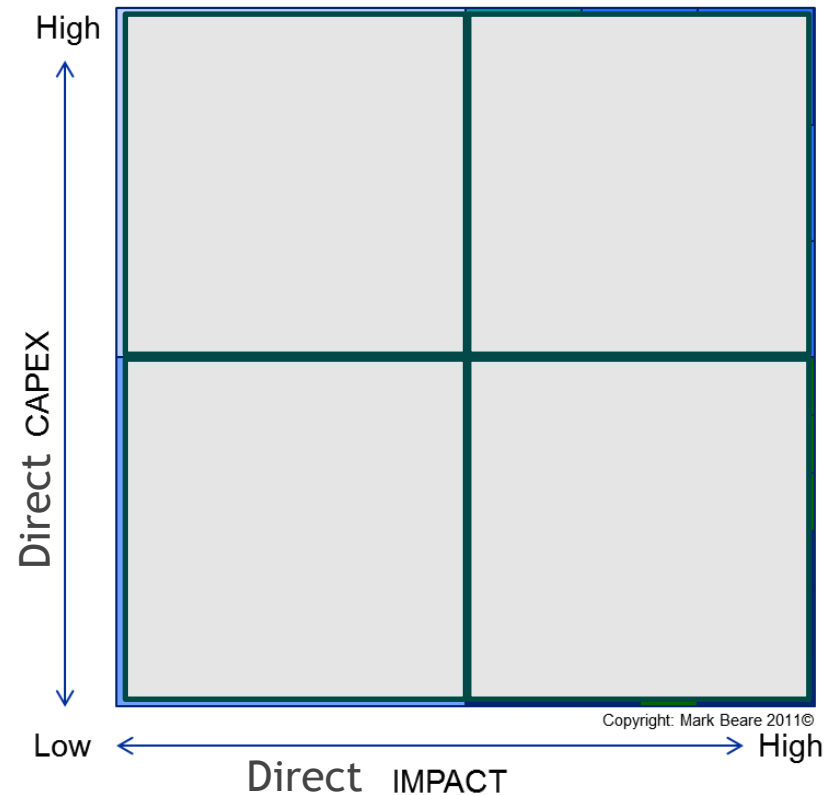
\*Local Content/Supplier Development

# Forward Linkages

As one moves down the value chain, the developmental impacts increases – more labour intensive, sector deepening

The manufacturing sector has the greatest potential for rapid job creation and its most important mineral-based inputs are: steel/alloys, polymers, base metals, fertilisers and cement,

Often need to encourage the upstream players to facilitate downstream beneficiation to produce feedstocks that go into the densification industries.



Integrated industrial planning... interconnected planning to leverage both direct and indirect downstream growth benefits – in who's interest is downstream?

# Knowledge Linkages

**New technology, innovation and research and development (R&D) introduced by extractives companies is an essential input into the country's industrial growth agenda.**

Governments are slow to foster the knowledge linkages - less visible than more politically tangible outcomes.

Governments can require firms to spend a percentage of turnover on domestically based R&D and applied innovation eg Malaysia and Brazil

Governments have to initiate and co-ordinate collaborative interventions such combined R&D/HRD development facilities.

As economy grows and the extractives sectors expand and mature, many countries look to innovation and applied research for sustainable competitive growth

# Fiscal Linkages

The fiscal linkages describe the channels through which the natural resources wealth flows and are formalised by a fiscal regime that governs the transactions involved and often expressed as fiscal instruments that bind the state and investors over time.

- Most countries today have a 'state ownership of the resource' policy framework
- Long, costly exploration periods
- Significant geological, technical, political, environmental risks
- Large up-front investments
- Prices (mostly) set on international markets; price volatility
- High costs of abandonment
- High community impact – social licence

Source: Open Oil (2015)

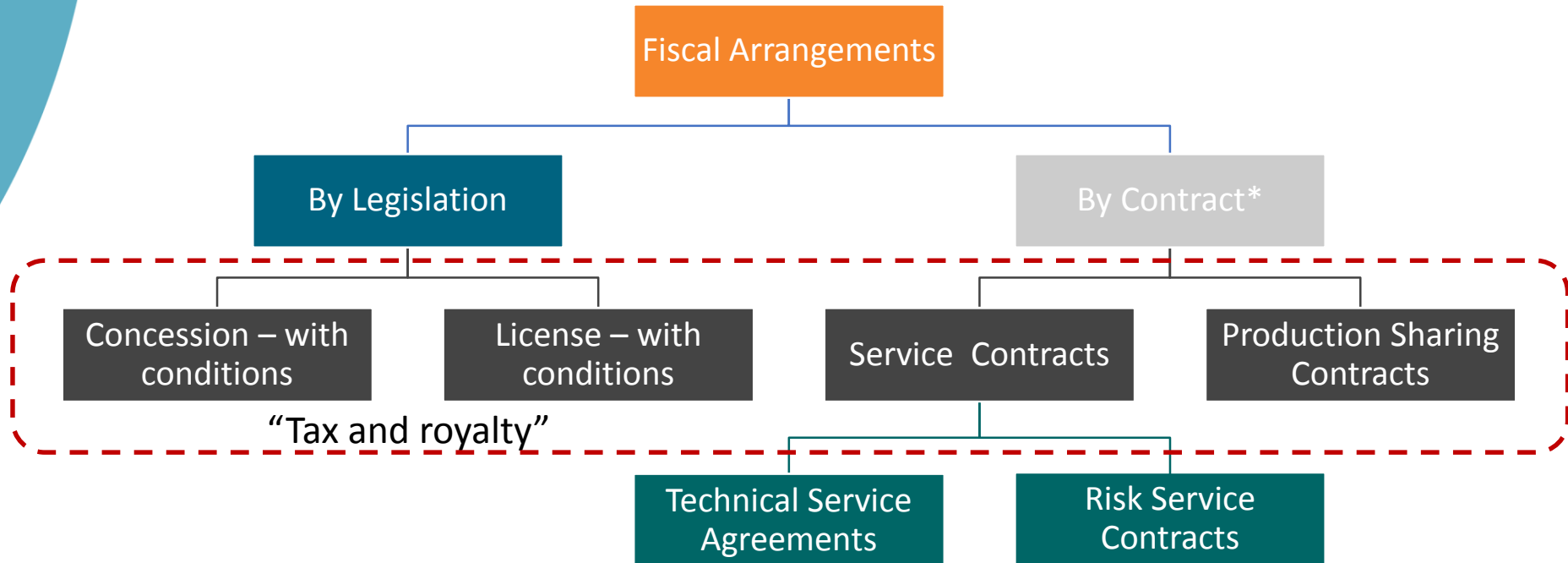
Fiscal Regime is the combination of mechanisms that determine how Natural Resource revenue and risks are shared between government and the mining (or Oil/Gas) company

# Fiscal Instruments

Royalty	A share of the value of production 3-5% pretty common, rates often vary by mineral – oil royalties often higher
Income tax	A share of profit, determined under tax rules 20-30% rate pretty common
Resource Rent Tax	Special tax designed to capture a share of economic rent. Uncommon but often recommended by the IMF and oil RRTs tend to be higher
Windfall Profits Taxes	Additional tax payments, when prices or profits exceed the levels necessary to attract investment – uncommon at start up but often demanded later due to regressive fiscal regime
Import duties	% of the value of imports – often waived for investors and lamented by local firms – can vary significantly but 10% - 30% are not uncommon
Value Added Tax	% of sales (output VAT) and % of costs (input VAT) Under properly functioning VAT the consumer bears the cost – 10%-20% ?
State participation	Government owned company owns a share in the project
Production Sharing Agreements/Contracts	The government either sells its portion on its own, or takes cash payment from the operating companies in lieu of physical delivery of the commodity – usually on a production sliding scale and often not public or transparent
Others	Withholding taxes on subcontractors Withholding taxes on dividends and interest

Source: Open Oil and NRG (2015)

# Types of Fiscal Arrangements



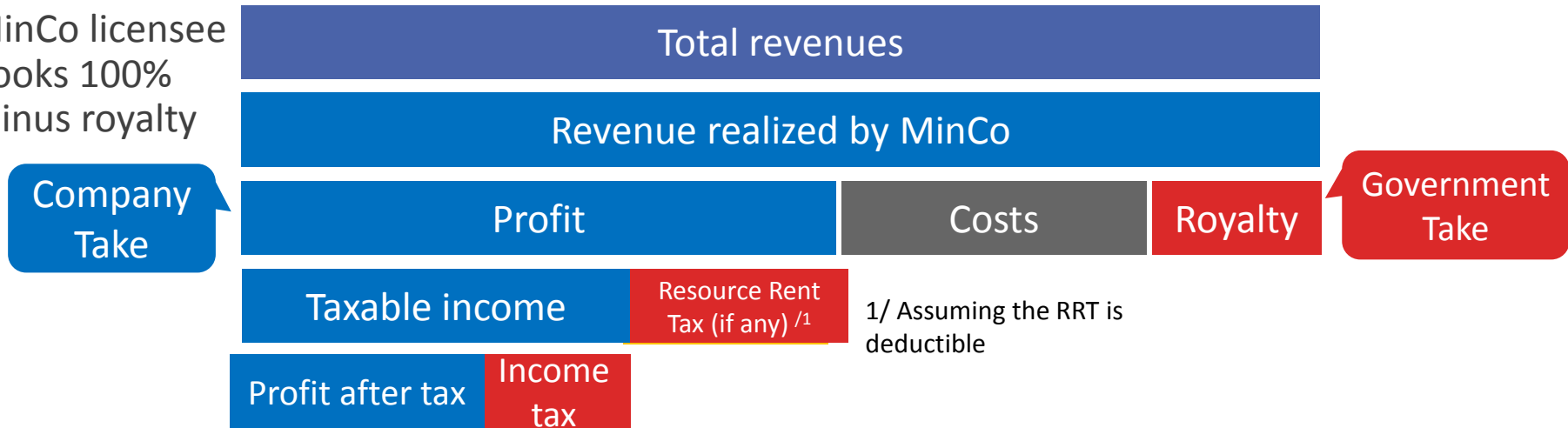
*\*Within enabling legislative framework*

Opaque negotiated fiscal instruments that are used 'in lieu' of a robust, transparent and legislated fiscal regime are open to abuse and should be avoided



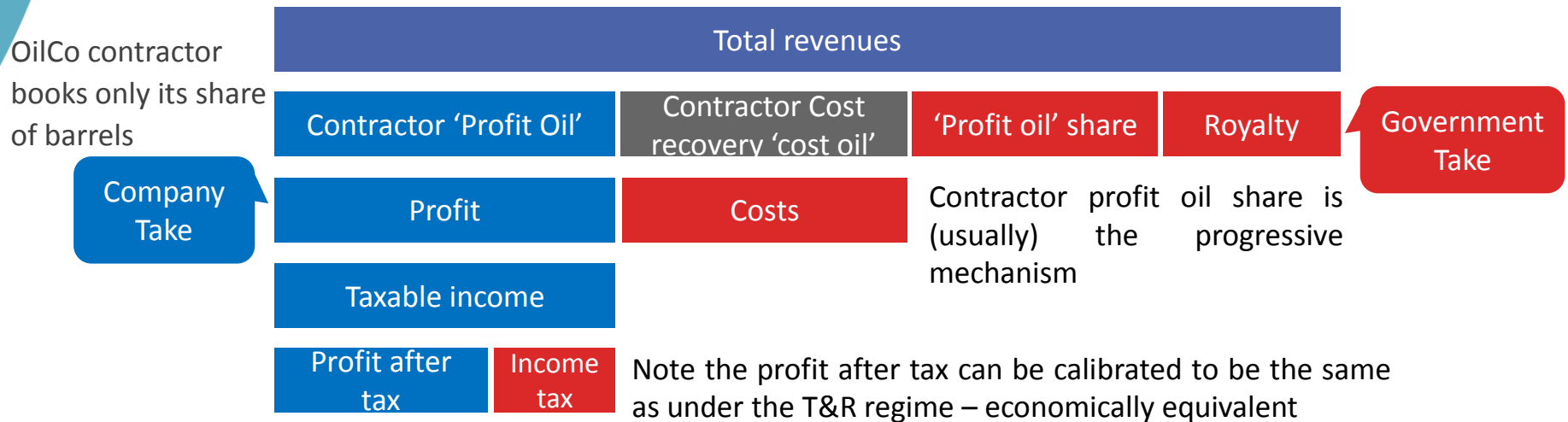
# “Tax and Royalty” regime for hard minerals

MinCo licensee books 100% minus royalty



Petroleum tax regimes are often similar expect they make provision for the potential for higher rents and royalties and the tax rates are often higher than mining

# Production Sharing Contract regime for liquids/gas



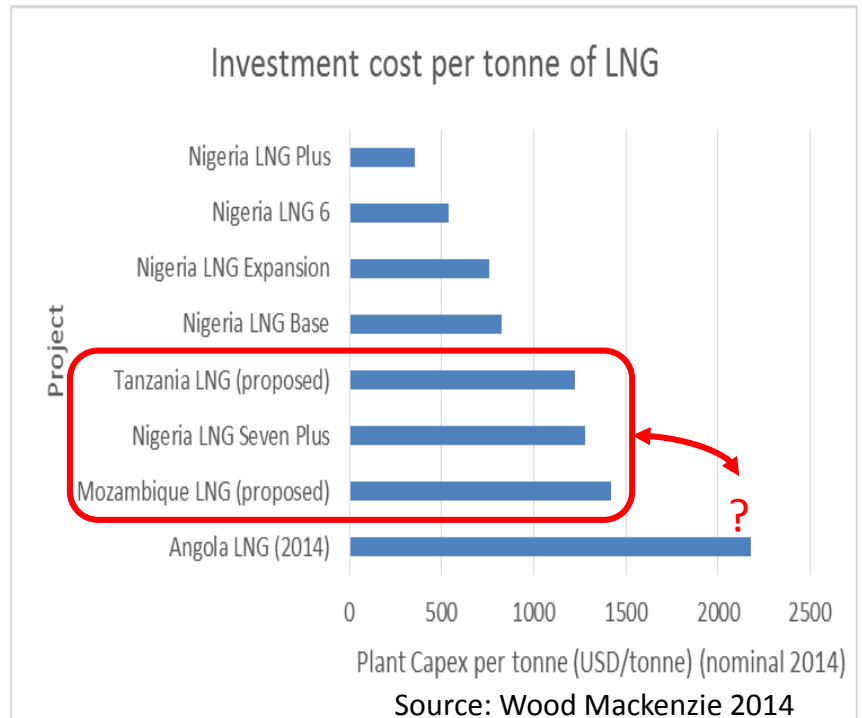
Key difference is that government only ever gets revenue with T&R but gets actual commodity with PSA and therefore can manage its revenue from the commodity sales

# Cost should be prudent to avoid transfer pricing

Cost allocations – especially management overheads and where vertically integrated companies with share in the upstream, midstream and marketing,

Where upstream and midstream developed together, then make sure that costs are allocated correctly and marketing costs are excluded,

In Tanzania LNG, each train was proposed to be a separate ‘company’ buying from the upstream and selling LNG at different prices to ‘optimise’ the tax implications.



The fiscal regime will usually reflect cost recovery and only prudent and relevant costs should be allowed to prevent reducing government revenue unnecessarily

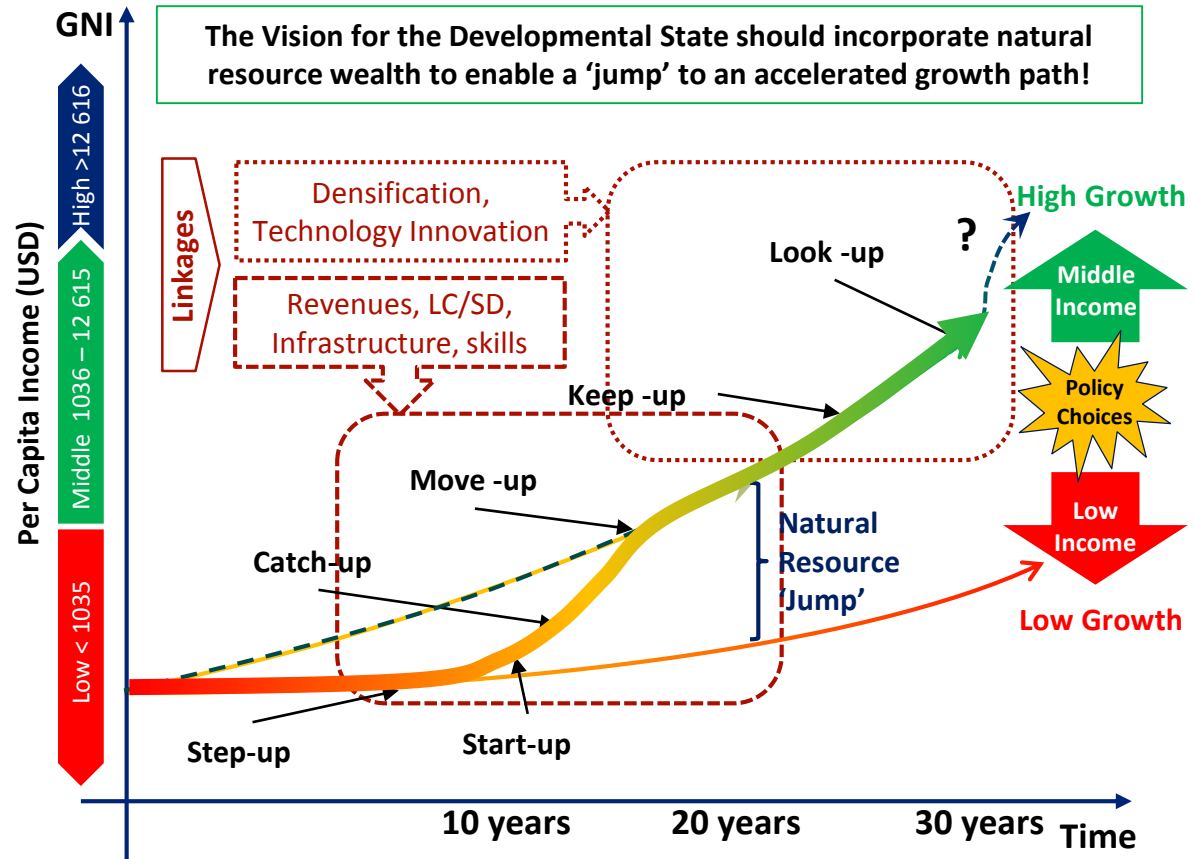
# Strengthening Linkages is a long term vision

**The impact of strengthened linkages will be dependent on:**

- The adaptive efficiency\* of the economy to adjust to the new resource development drivers
- The absorptive capacity of the economy to utilise the resource revenues efficiently for growth

Realising natural resource wealth should not change the vision but the pace – means to an end!

Norway took 20 years to establish SWF and 30 years to leverage meaningful local procurement of goods and services.



\*North, D. 1990. Institutions, Institutional Change, and Economic Performance. Cambridge University Press.

Source: Beare (2013)

# Group Discussions



# Group Discussion: One Question per Table

**Each Table to discuss one question and report back after the allotted time:**

1. If the linkages cannot be made, should natural resources be left unexploited for future generations – how does timing affect this choice?
2. What sort of challenges might one expect when embarking on a strategy to strengthen the forward linkages – beneficiation and downstream development?
3. What type of fiscal regime have your countries employed? What has been the experience?
4. What can be done to develop local content and promote supplier development?
5. What feedstock does your country produce and have these enabled downstream growth in the relevant sectors?
6. Is the extractives sector well aligned to the development visions in your countries?

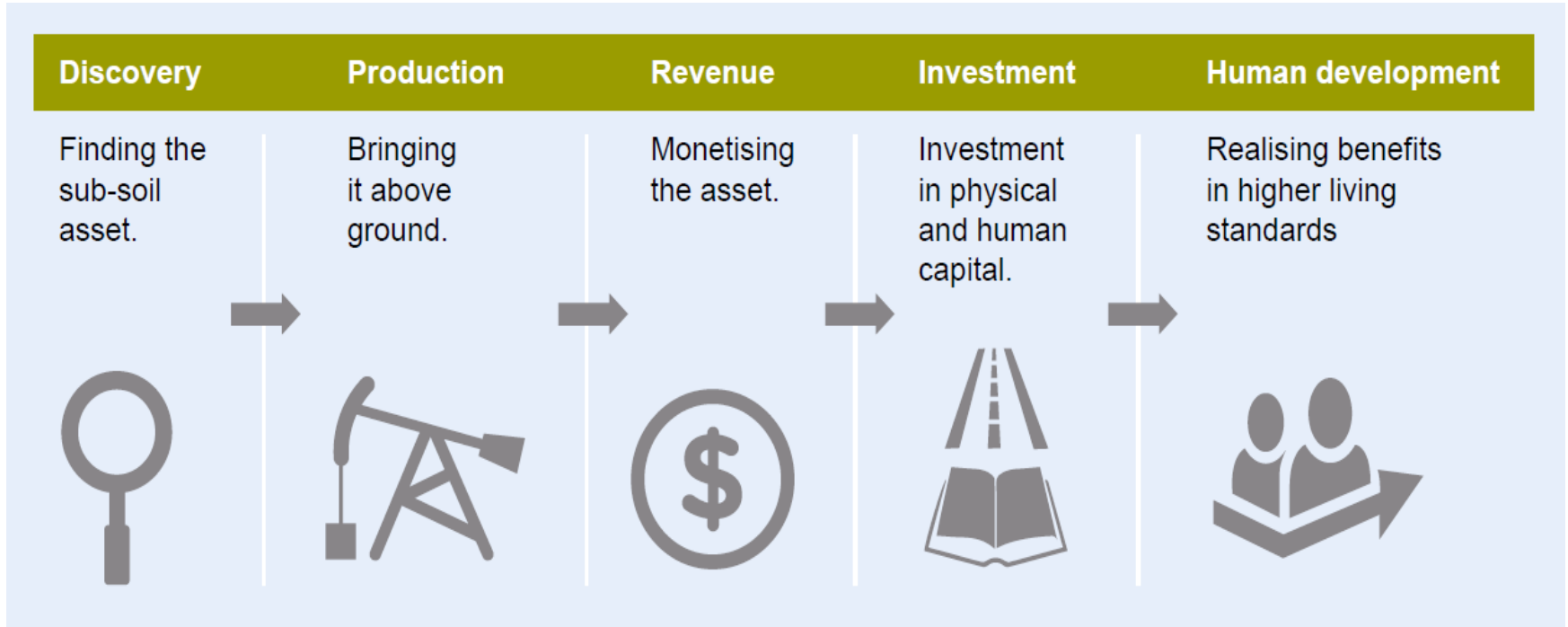
# Session 2: Extractives Revenue and the Budget Process

Revenue Management in the Extractives Sector

# Introduction



# Asset Transformation



FISCAL REGIME

FISCAL RULE

BUDGET PROCESS

# Challenges of extractives revenue management

## **Why are revenues derived from the extractive industries different?**

Considerable uncertainty over the value of the resource and the timing of revenues

Potential instability caused by commodity price volatility over time

Revenues are temporary since their source is exhaustible

The scale of revenues could give rise to so-called 'Dutch-Disease' effects

## **A vast body of literature exists on ways to overcome these challenges, e.g.**

Saving 'excess' revenues abroad to avoid absorption problems

Establishing 'fiscal rules' for stabilization and saving purposes

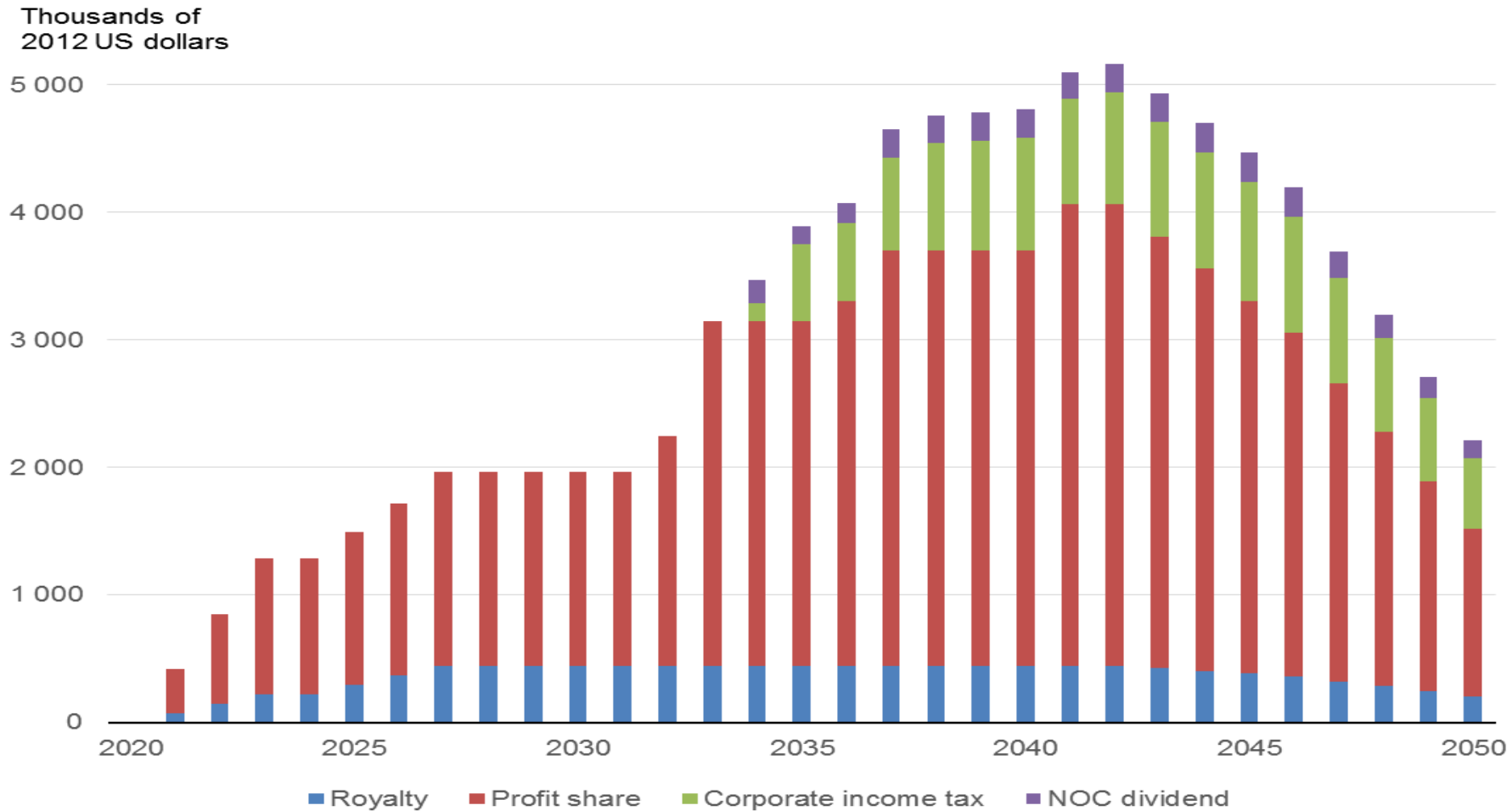
Creating Sovereign Wealth Funds (SWFs) for holding/managing 'excess' revenues

Earmarking revenues for specific purposes within the budget

## **But first... what revenues are we talking about?**

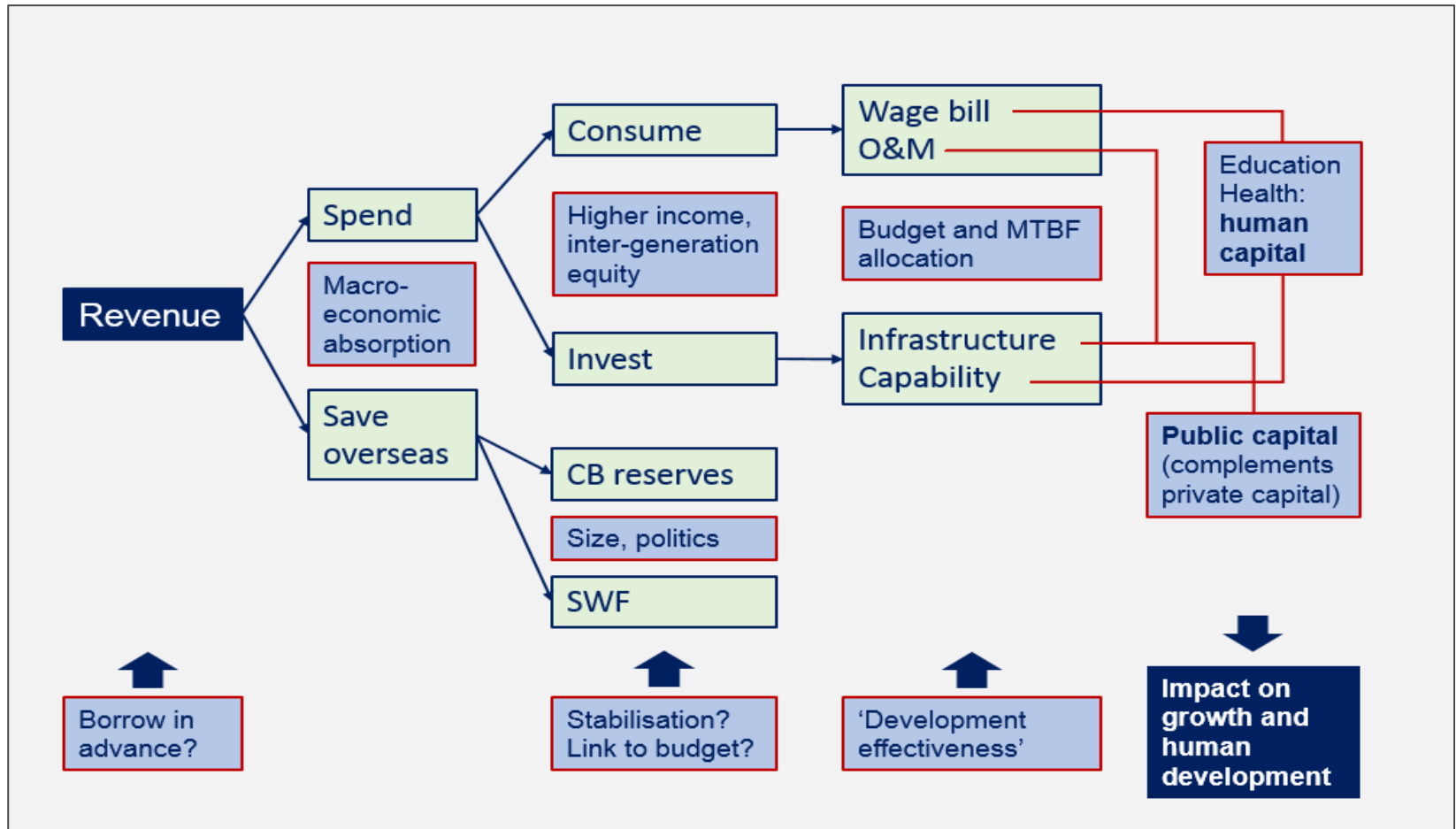
# An example from Tanzania...

Principle revenue streams from Gas and LNG



# Extractives Revenue & the Budget

# A Framework of Fiscal Choices



# Integrating extractives into the budget cycle

## Why?

Significant contributor to total revenues

Regional dimension (e.g. sub-national transfers)

Autonomous agencies (e.g. NoCs) need to be reflected

Transparency / citizen information

**The budget cycle is the key process through which a long term fiscal strategy for a country is implemented – extractives revenues are an important part of this.**

The framework for managing extractives revenue should be aligned with existing budgetary institutions, in order to maintain the integrity of the budget process.

Especially relevant given that usual channels of public accountability are often missing in resource-dependent countries, compared to those that rely on taxing its citizens.

# Dealing with uncertainty: revenue forecasting

**Revenue projections are complicated by two key factors:**

- Uncertainty about (a) the magnitude of the resource and (b) the time profile of the production that will follow (including the start date)
- Price volatility of commodities on world markets, which affects sales prices and profits (and hence royalty payments and income taxes)

**Good practice therefore must revolve around:**

- Data acquisition (e.g. through an enhanced regulatory framework)
- The use of conservative price and production assumptions
- Improved data analysis and modelling
- Strong and empowered institutions that manage the budget process

# Expenditure Management

## Medium Term Budgeting

- Medium-term rolling ceilings for expenditure and the ‘non-resource deficit’
- Ensuring alignment with relevant ‘fiscal rules’
- Ensuring an interface between the MBTF and ‘stabilization’ balances
- Earmarking expenditures (?)

## Treasury Management & Budget Execution

- Establishing a Resource Revenue Account (RRA)
- No special rules for expenditure; should be incorporated into existing system
- Expectations management: internal controls, expenditure tracking

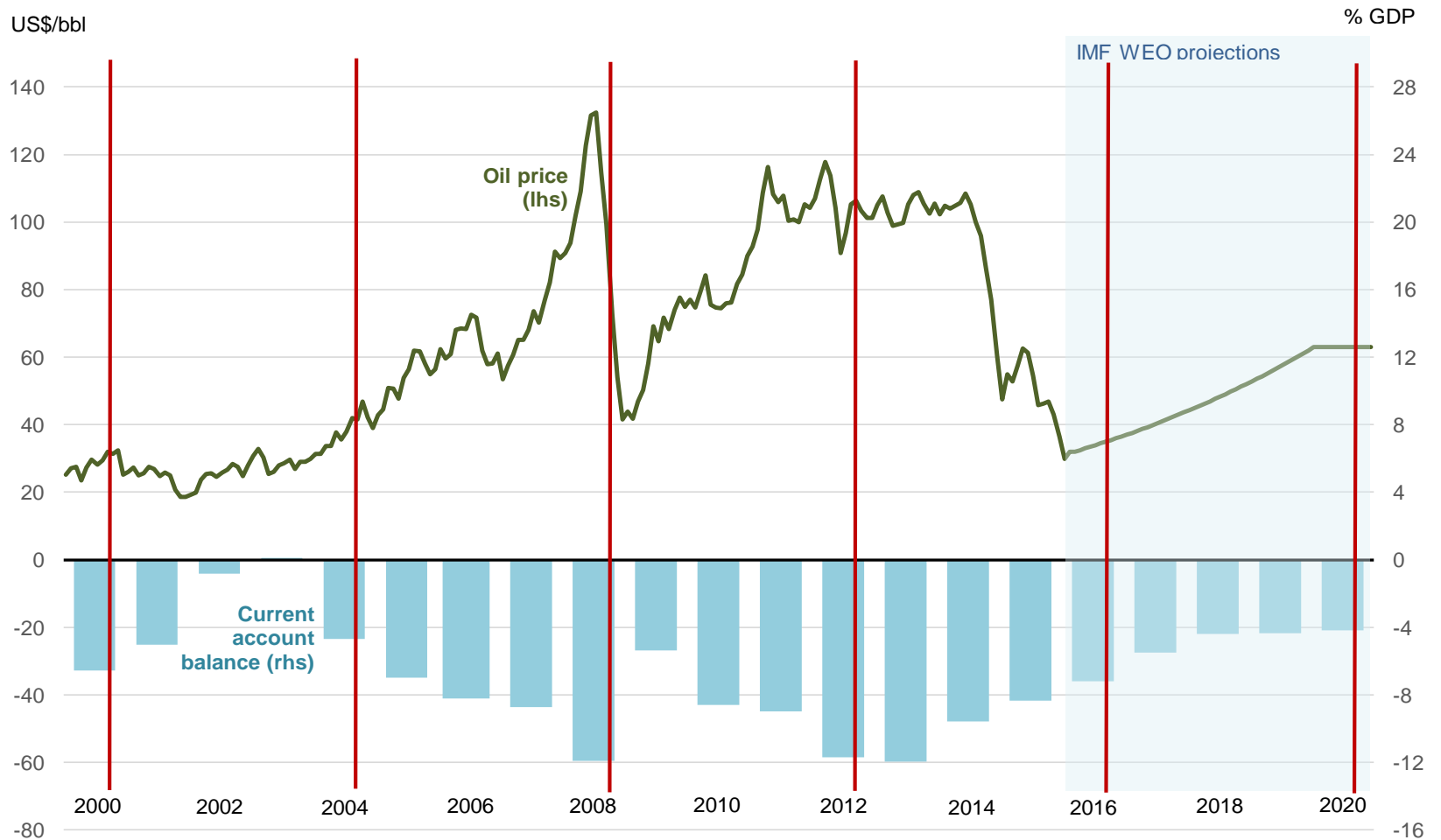
## Audit & Evaluation

- Standard audit procedures are adequate for the *expenditure* of resource revenues
- Complexity associated with *generation* of revenues may warrant further assessment
- EITI & special oversight boards (e.g. PIAC in Ghana)



# Volatility, Fiscal Rules & SWFs

# Revenue volatility



Source: IMF WEO database

Current account balance (%GDP, rhs)

Oil price (US\$/bbl., lhs)

# Managing Volatility: Fiscal Rules (1)

- Represent an attempt to (i) promote long term fiscal sustainability; and (ii) mitigate against revenue volatility
- By placing restrictions on fiscal variables (e.g. deficits, revenue, expenditure, debt) fiscal rules seek to 'stabilise' fiscal policy
- Design must take into account specific fiscal characteristics (e.g. volatility, resource horizon) – *rationale* for rules more straightforward than *application*
- Rules should aim at decoupling expenditure and the non-oil deficit from the short-term volatility of oil revenues
- Fiscal rules are only as strong as the will of the political class to abide by them
- Enforcement mechanisms

# Managing Volatility: Fiscal Rules (2)

Fiscal Rule	Explanation	Example	
<b>Balanced budget rule</b>	Limit on budget balances in headline or structural terms	Norway	Non-oil structural deficit of the central government cannot exceed 4 percent.
<b>Debt rule</b>	Limit on public debt as a percent of GDP	Mongolia	Public debt cannot exceed 40 percent of GDP.
<b>Expenditure rule</b>	Limit spending, either in absolute terms, growth rates, or in percent of GDP	Peru	Real growth current expenditure ceiling of 4 percent.
<b>Revenue rule</b>	Ceiling on overall revenues or revenues from oil, gas or minerals	Ghana	Maximum 70% of seven-year average of revenue enters the budget. Maximum 21% is allocated to a Stabilization Fund. Minimum 9% is allocated to a Heritage Fund for future generations.

# Managing Volatility: SWFs

Special funds to store and manage petroleum revenues for future spending

**Stabilisation:** shield economy from revenue instability

**Savings:** wealth for future generations (i.e. for future spending)

*Should not be confused with Fiscal Rules (SWFs do not contain any fiscal policy)*

**Key questions are:**

Are extractive revenues large enough to justify a SWF?

What are the main operational purposes?

What are the rules/constraints to govern investment and draw down of funds?

What are the broader rules for the governance and accountability of SWFs?

**To be discussed in more detail on Day 2 (session 5)**

# Conclusions



# Conclusions

The implications of extractive industries for PFM start well before the onset of direct revenues accruing from the sale of resources

Once revenues begin to flow, a critical issue is the decision regarding the balance between spending and saving and the composition of expenditure

Extractive revenues should be integrated within the existing PFM system, in order to maintain the integrity of the budget process

A longer-term challenge is the need to manage commodity price volatility, potentially through the adoption of fiscal rules and a SWF

# Group Discussions



# Two Groups to discuss the following:

→ Based on the presentation and your own knowledge of the issues, please discuss the following questions designed to provoke dialogue and learning from cross pollination of insights and learnings from the participants:

1. Do you agree that revenues derived from natural resources are different to other types of revenue? Why?
2. How have extractives revenues been incorporated into the budget process in your country? What have been the major challenges?
3. Has revenue volatility been a major problem/issue in your country? How has your government attempted to deal with it?
4. What type of fiscal rule has your country used to determine the use/allocation of extractives revenue? Has it been effectively enforced and has it contributed to longer term fiscal sustainability?

# Session 3: Masterclass – Revenue Forecasting

Revenue Management in the Extractives Sector

# Session 4: Fiscal Transparency and Accountability

Revenue Management in the Extractives Sector

# Session 5: Managing Revenue through Sovereign Wealth Funds

Revenue Management in the Extractives Sector

# Contextual Presentation

# Overview

**The core purpose of a SWF is to store and manage revenues for future spending**

*Stabilisation:* to mitigate the impact of revenue instability (i.e. short term)

*Savings:* to preserve wealth for future generations (i.e. long term)

**Since 2005 over 40 SWFs have been established; collective assets of over \$7 trillion; over \$4 trillion derived from oil & gas; Norway (\$900 bn); Botswana (\$7 bn)**

**SWFs are no substitute for good fiscal management**

Several important producers operate with out funds (UK, Indonesia)

The integration of any SWF with fiscal management is vital (MTBF, borrowing)

There should be strict limits on domestic investment by the SWF

SWFs can support the overall fiscal strategy (e.g. by shifting the path of absorption and/or reducing uncertainty) but should/do not drive it



# Key Issues

**Key questions to be explored today are as follows:**

Are revenues sufficiently large to justify the administrative costs of a SWF?

If not, what alternatives are available?

What will be the main operational purpose of any SWF that is established?

What rules govern allocation of money to investments and eventual draw-down?

What will be the broader structure of governance and accountability for the SWF?

# Are extractive revenues large enough?

**If revenues are small, SWF might lack credibility or serve no purpose...**

## **Norway:**

SWF established in 1990 with assets of almost \$900 billion (\$178k per capita)

Revenues from gas and oil average around 4% of GDP or a third of all tax revenues

Norway has typically enjoyed large fiscal surpluses of around 10 per cent of GDP

Invests about \$4k per capita each year into the SWF

Low administrative costs (0.5 per cent of total assets); net return of 7% per annum

## **Tanzania:**

Typically runs fiscal deficits of around 3-5 per cent of GDP

Revenues from gas expected to be around 1-4 per cent of GDP

Assuming 0.5 per cent of GDP allocated to SWF each year, after ten years the fund would be worth approx. \$2.5 billion (\$50 per capita or 1/3 of recurrent spending)



# What are the alternatives?

## Two main alternatives:

### **Held on a *long-term* basis in a holding account in the Central Bank**

- Administratively cheap (no new legal structure, admin fees)
- Collectively invested in foreign, mainly liquid, safe, low-yield assets
- Unlikely to be possible to build bigger asset base by seeking a higher RoR

### **Held on a *short-term* basis in a holding account in the Central Bank**

- Explicit intention to eventually establish a SWF once the balance is large enough
- Balances the administrative cost advantages of holding revenues in the reserve account with (eventually) higher Rate of Return through a SWF

# What the main operational purposes of a SWF?

## **Broad set of possible purposes**

stabilisation (e.g. Chile); long term savings (e.g. Ghana)  
social welfare (Norway); cash dividends (e.g. Alaska)  
management and investment allocations determined by purpose

## **Short term (stabilisation)**

invest in liquid foreign assets in order to (i) reduce ER\* risk (ii) reduce DD\*\* effects  
need clear rules governing payments and draw-downs that are enforced  
generally have a mixed record

## **Long term (savings)**

accept a relatively higher level of risk (with expectation of higher returns)  
example: Pula Fund (Botswana)

\*Exchange rate and \*\*Dutch disease

# What rules should guide investment and draw-down?

- Mandate and performance benchmark against which SWF management can be evaluated and held accountable (e.g. returns after inflation)
- Make clear what constitutes “normal times” where SWF capital cannot be withdrawn (or up to some maximum amount)
- For stabilisation funds, specify circumstances when a drawdown is permitted (e.g. fall in the price of commodity by a certain percentage)
- Clearly set out the responsibilities of fund managers to ensure no ethical breaches or conflicts of interest
- Establish management systems that emphasise accountability by specifying targets and consequences for good or poor performance

# Broader rules for governance & accountability?

- Setting clear objectives for the fund in an official documents (ideally legislation)
- Regular public disclosure of key information and audits to encourage compliance with fiscal and investment rules
- Ensure that oil funds should not have the authority to spend
- Stringent mechanisms to ensure good governance, transparency, and accountability
- Ensure accountability to elected representatives
- Establishing strong oversight bodies to monitor fund behaviour and enforce rules
- Santiago Principles - Sovereign Wealth Funds. Generally Accepted Principles and Practices (GAPP) used to evaluate success of SWFs

# Conclusion

## **SWFs offer policy makers some significant potential advantages...**

- A tool for supporting the implementation of sound fiscal policy
- Can enhance the transparency of resource revenues and credibility of fiscal policy
- Can help maximise the yield of financial savings from extractives sector

## **However, the record of SWFs has not been particularly good...**

- Focus on SWFs can outweigh attention given to the overarching fiscal anchor
- Poor governance arrangements can lead to worse transparency and investment risk
- Management, administration and oversight costs are significant
- Have often led to fragmentation of the budget process

# Role Play

# Negotiation Role Play

Issue ideation: (in plenary)

- **Background:** the country Governance Republic (GR) has a natural Gas upstream in shallow water off its coast in a remote rural region characterised by under development and low population density and a subsistence agricultural sector. The fiscal regime has as its cornerstone a series of 20 year production sharing agreements that generate between 4-5 billion dollars of revenue for the government per year.
- The Ministries of Finance and Economic Development each seek to influence the use of the revenues to either spend now on current development needs or to save for future economic shocks and generations.
- The **Ministries** are now locked in negotiation to agree the way forward.

Role Play: (in groups)

- Notes: choose chief negotiator and two advisors with rest of the team analysing the data to brief the advisors during the negotiation process

Brainstorm  
issues to be  
considered  
when  
deciding  
whether to  
save or  
spend

# Negotiation Role Play (cont.)

Role Play (cont.) Snapshot of the economy

Indicator	2015	Trend since 2010
<b>General indicators</b>		
Population (million)	35	+1%
Tarred roads – Regional Average = 3000 km	1500 km	-2%
<b>Macroeconomic indicators</b>		
GDP (current, million USD)	55 000	+2%
Gas GDP	35 000	-20%
Non-gas GDP	20 000	+10%
Capital expenditures budget (current, million USD)	2 000	+10%
Capital expenditures actual (current, million USD)	500	-5%
Government non-gas revenues(current, million USD)	3 000	+20%
Gas Revenues (current, million USD)	5 000	-20%
Budget deficit/Surplus (-/+ ) % of GDP	-12	+5%
<b>Socioeconomic Indicators</b>		
Life Expectancy (M&F) – Regional Average = 65	45 years	-1%
Infant Mortality (deaths per thousand births) – Regional Average = 50	200	-5%
Literacy rates, both sexes (15 years and above, %, ) – Regional Average = 75	45	+5%
Gross enrolment ratio, tertiary, both sexes (%, ) – Regional Average = 30	10	+5%



# Negotiation Role Play (cont.)

The main areas for negotiation are:

- Does GR spend all its revenue on its urgent development needs or save all of its revenues in stabilisation and/or future wealth funds
- Should a sovereign wealth fund be established and if so how much should be saved -% or value?
- Should revenues be used for economic development (infrastructure, schools/healthcare etc.)and if so how much should be spent -% or value?

# Session 6: Panel Discussion and Peer Exchange on Managing Extractives Revenue

Revenue Management in the Extractives Sector

# Session 7: World Café on Extractives Revenue Management

Revenue Management in the Extractives Sector

Thank You