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Fiscal instruments in oil and gas regimes

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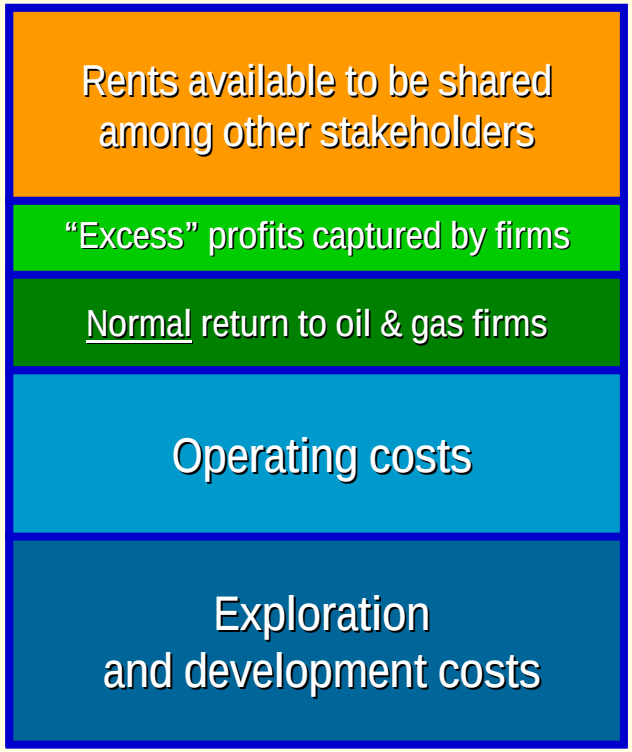
Map of session

1. Rents from oil and gas resources
2. Role of government in rent collection
3. The problem of uncertainty
4. Fiscal instruments
5. Issues for discussion

Oil & gas often generates substantial economic rents

i.e. their value often greatly exceeds their cost of production

Total value of natural resources production



Total economic rents available for sharing among stakeholders

Total economic cost of producing natural resources

Oil & gas rents flow to many different stakeholders…

…in a wide variety of ways

To the owners of the resource

- Royalties
- Equity stakes
- Production sharing
- Sale / auction of exploration, development and production rights
- Black market sales / smuggling

To governments

- Taxes on production from privately owned oil & gas
- Revenues devolved/shared by other levels of government
- Export taxes
- "Excess profit" taxes
- Specific targeting of resource sector by corporate, property, sales or other general taxes
- Sale/auction of pollution permits
- Carbon tax

To private citizens

- Above-average wage rates or corporate profits in resource sector
- Subsidized prices for end use of oil & gas (e.g. as fuel) by residents
- Theft / black market sales
- Graft and corruption of public officials (regulatory officials, managers of state assets, etc.)

Oil & gas rents in the Iraqi context

- Oil & gas rents are particularly significant in Iraq:
  - world's second largest reserves of oil (with many parts of Iraq still not fully explored for additional reserves)
  - highly favourable geology translates into very low extraction costs and large rents
- Oil and gas rents are also particularly important to Iraq:
  - oil & gas account for about two-thirds of GDP
  - oil & gas generate 98% of public revenues
  - provide 97% of export earnings

Oil & gas rents in the Iraqi context

- But: Iraq also faces significant impediments to maximizing benefits to the Iraqi public from their ownership of oil & gas:
  - ongoing security issues and constitutional uncertainties (including the precise division of governmental powers over oil and gas)
  - legacy of destroyed / damaged oil & gas infrastructure (including some damage to oil reservoirs in the ground)
  - significant ongoing “leakages” of oil & gas (and related revenues) to theft, black market sales and corruption
  - general lack of transparency in the oil & gas sector

Key challenge for governments

How to maximize public benefits

- Rents from oil & gas invite "rent-seeking behaviour"…
  … and the greater the rents, the more intense the behaviour
- Public ownership alone is NO guarantee of ability to maximize public benefits from oil & gas revenues
- Key challenge is how to minimize revenue leakages:
  - to corruption / other private benefits from use of public funds
  - to private / foreign oil & gas firms (e.g. above-normal profits)
  - to private end users of oil & gas (e.g. excessive fuel subsidies)

The problem of uncertainty

Significant uncertainty surrounds the value of oil & gas wealth

- In most cases, (public) owners cannot readily assess the magnitude of potential revenues from oil & gas
- Governments have typically limited technical expertise:
  - limited geological and other expertise relating to exploration
  - limited access to advanced extraction technologies required to increase recovery and prolong life of maturing deposits
- Resulting “asymmetry of information” regarding likelihood of finding new deposits, their extent and production lives

The problem of uncertainty

As a result, <u>joint</u> public-private involvement is usually desirable

- Private sector brings technical expertise (including cutting-edge technologies) and can also be:
  - significant sources of capital (to fund oil & gas development)
  - a source of expertise for local capacity-building (in private sector and even for governmental activities)
  - a force for increased transparency in government management of the oil & gas sector (and in governance generally)

Risk-sharing under oil & gas fiscal regimes

Need to strike right balance in public / private risk and rewards

- A wide variety of instruments are used in different countries to generate oil & gas revenues
  - e.g. various types of taxes, royalties, production sharing, equity stakes, sales of rights to explore, develop and produce, etc.
- Used in different combinations, they result in different patterns of public and private risk and reward…

  … and different incentives for investments in oil & gas

Revenue generating instruments

Revenue Instrument	*Ex ante or Ex post*	Main Risk Bearer
SOC profits	*Ex post*	public
State/SOC joint ventures	*Ex post*	shared
Royalty/production sharing	*Ex ante*	private
Price-sensitive royalties	*Ex post*	public
Sale/auction of rights	*Ex ante*	private
Service contracts	*Ex post*	private
Oil & gas taxes	*Ex ante*	private
General taxes	*Ex post*	public

Combination of instruments used in many countries

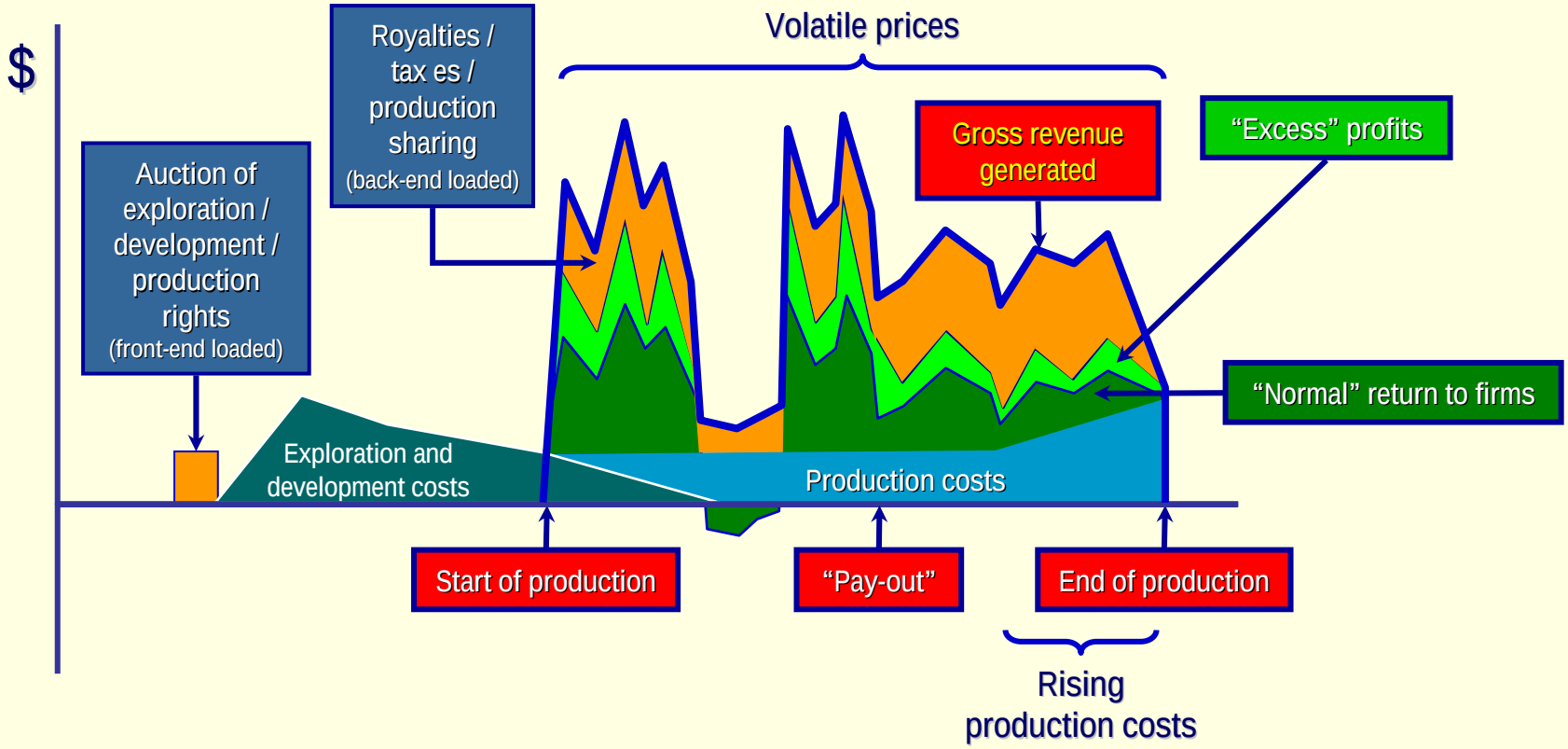
But: Need the right "mix" to maximize public benefits

- Higher net revenues likely to result from:
  - predictable fiscal/regulatory regimes (minimal case-by-case negotiation of terms, low risk of unilateral changes *ex post facto*)
  - substantial sharing of risk by governments (with resulting increase in private exploration and subsequent production)
  - high degree of transparency (with fewer resulting opportunities for corruption / other leakages to public sector agents)…

    …with especially significant benefits from open auctions with multiple bidders when rules are known in advance

Combinations of fiscal instruments work best

Illustration of "front-end" bids and "back-end" royalties / taxes



Combinations of fiscal instruments work best

A wide variety of common practices around the world

	Canada	Indonesia	Nigeria	Norway	UAE	Venezuela
Profits from state / SOC oil & gas production		+ +	+ +	+ +	+ +	+ + +
State / SOC equity stakes (e.g. joint ventures)		+ +	+ +	+ +	+ +	+
Royalties / production sharing (pre-“payout”)	+	+	+ +	+	+ +	+
Royalties / production sharing (post-“payout”)	+ + +			+		
Price / production-sensitive royalties / production shares			+		+	+
Sale / auction of rights (at front-end)	+ +	+	+		+	+
Service contracts for exploration / development						+
Oil & gas-specific taxes				+ +	+ +	+
General taxes (including “excess profits taxes”)	+		+	+ +		+

Legend

+ = minor contribution to revenues
+ + = major contribution
+ + + = dominant contribution

Oil & gas fiscal regimes in a federal context

- In federal countries, <u>most</u> revenue-generating instruments are applied by the government that owns the resource
- But: fiscal instruments wielded by other governments can (and often are) used to claim some portion of oil & gas rents
  - e.g. local property taxes targeted on oil & gas properties, federal export or environmental taxes, etc.
- Joint use of these instruments can be by <u>mutual agreement</u> (e.g. as a way of sharing revenues among governments)…

… but requires ongoing inter-governmental <u>coordination</u>

Oil & gas fiscal regimes in a federal context

- Key fiscal federalism questions to be addressed:
  - How much of Iraq's oil revenues flow to its regions and governorates – and how much to the federal government?
  - Should the federal government collect revenues and remit them to the regions or should regions collect revenues directly? Could different regions opt for different arrangements?
  - Should revenue disparities among regions and governorates be addressed through a) equalization transfers from the centre? b) resource revenue sharing? c) other mechanisms?

Oil & gas fiscal regimes in the Iraqi context

- Historically, oil & gas revenues in Iraq either:
  - flowed predominantly to major foreign oil companies, or
  - were highly centralized and flowed (with minimal transparency) through a state oil company monopoly
- In the current and medium-term context, Iraq's oil & gas fiscal regime may need to strike a different balance among
  - maximizing public benefits from oil & gas revenues
  - encouraging investment in the oil & gas sector
  - accommodating the preferences of different governorates for alternative arrangements in their jurisdictions

Key issues for discussion

- Once security / constitutional issues are resolved, what are the major challenges facing development of Iraq's oil & gas sector?
- Will private sector investment and expertise be required?
- Should Iraq's future oil & gas fiscal regime be designed to:
  - maximize production?
  - maximize public revenues? (and over what time frame?)
  - support progress toward transparency in Iraq's public finances?
- How will Iraq's federal and sub-national governments coordinate their oil & gas revenue-raising policies?