GLOBALIZACIÓN ENERGÉTICA

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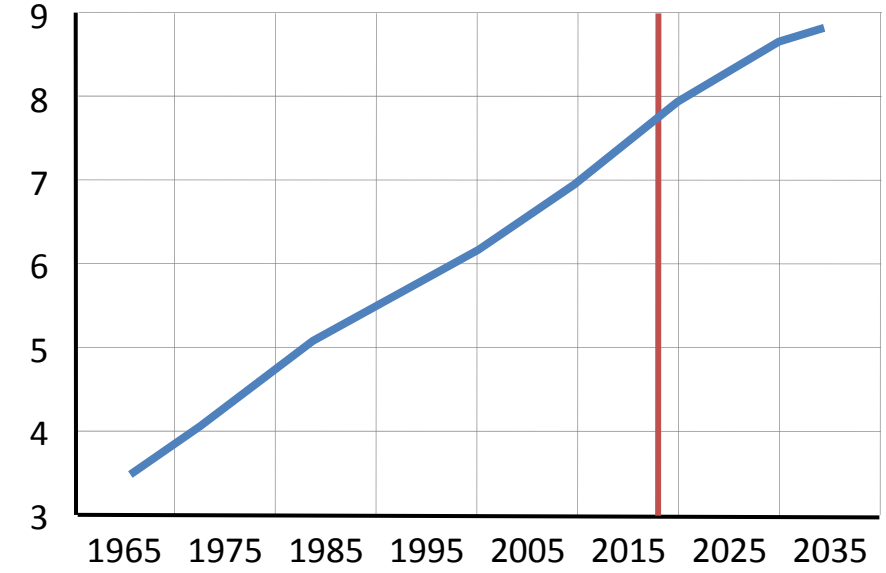
World population will approach 9 billion, and energy demand will approach 18 billion TOE by 2035.

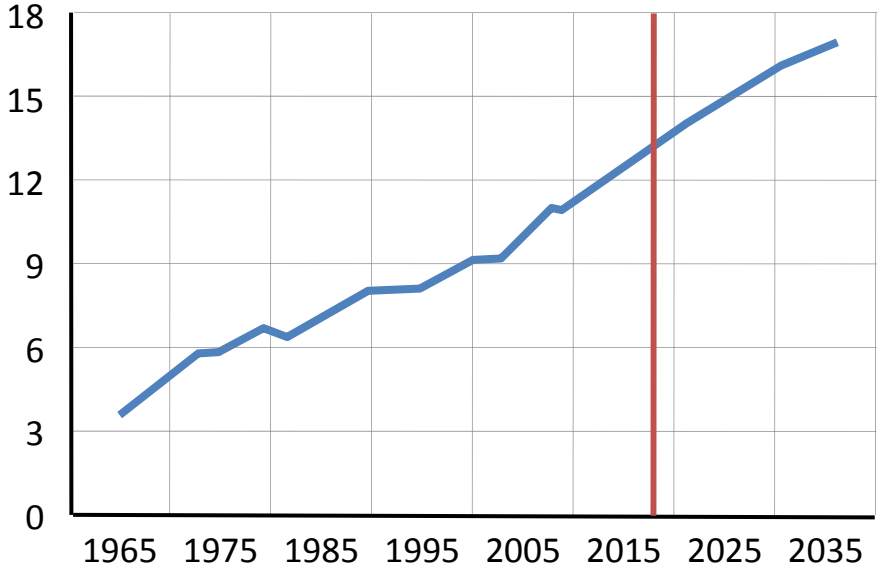
1 Ton of oil equivalent (TOE) = 7.4 BBLS

Population (billions)



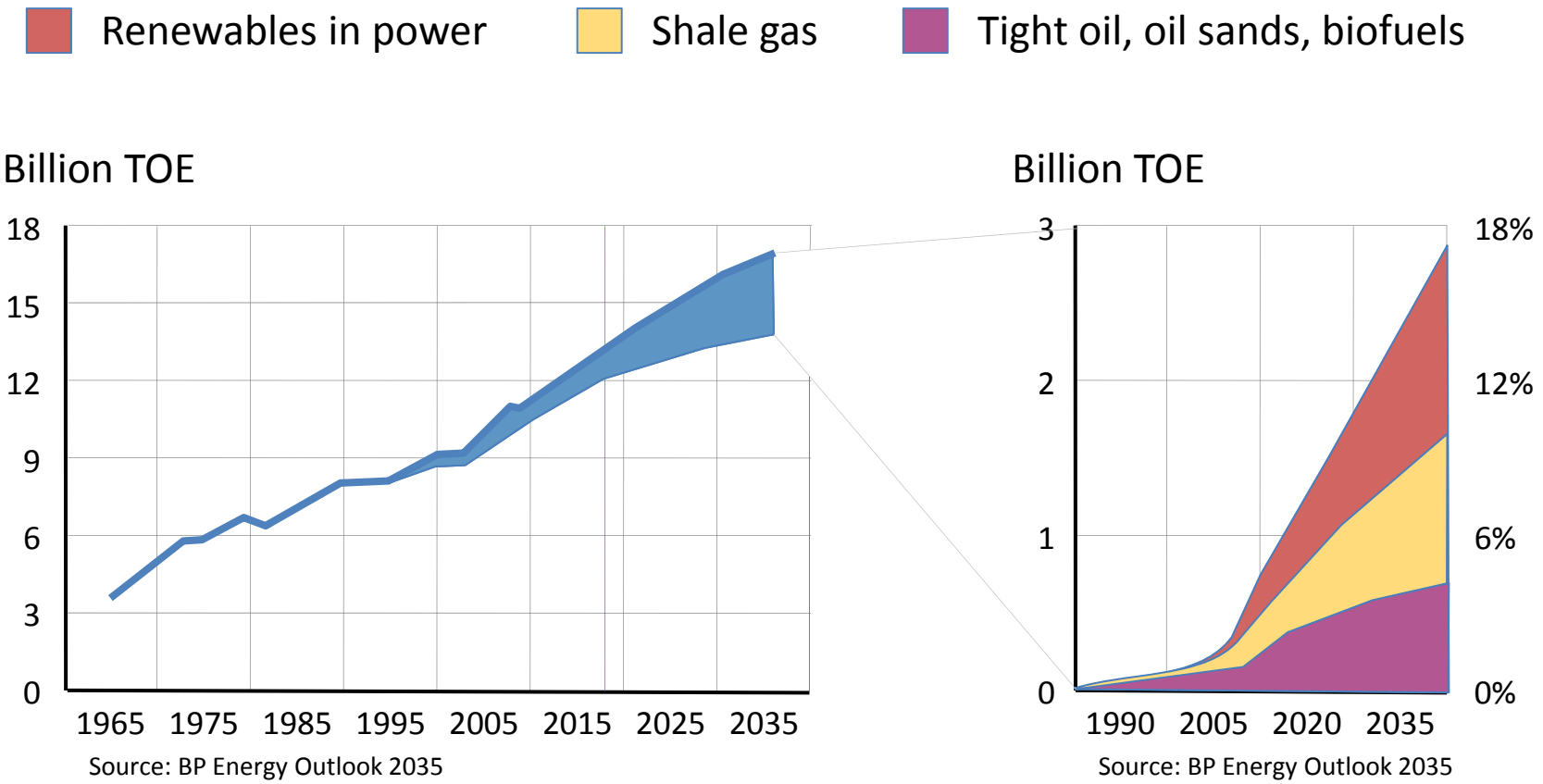
Various sources

Billion TOE

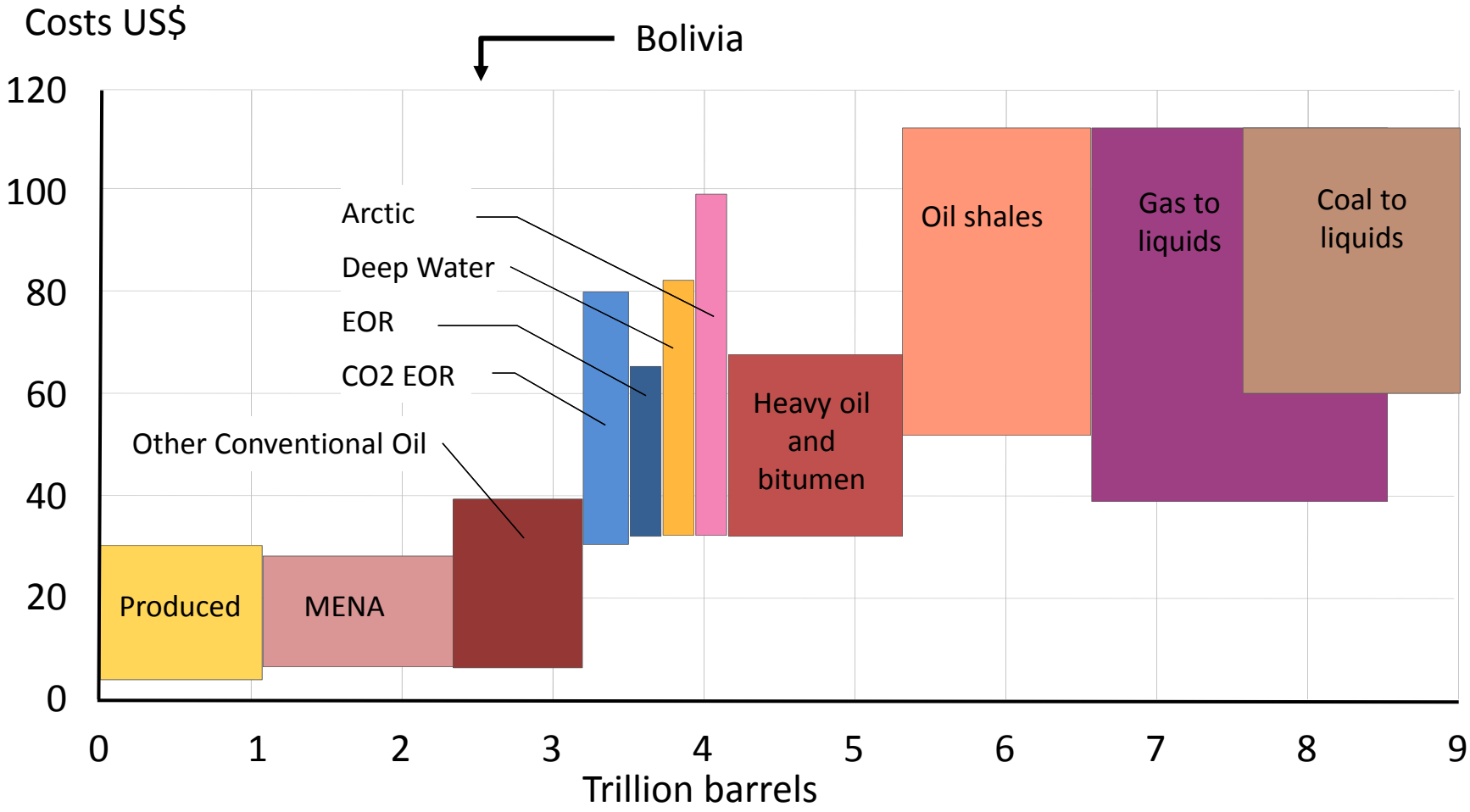


Source: BP Energy Outlook 2035

Renewables, biofuels, and new plays will account for roughly 18% of supply by 2035.



Costs will continue to increase – as we move away from conventional supplies.



Source: Adapted from World Energy Outlook 2008 (with 2008 dollars)

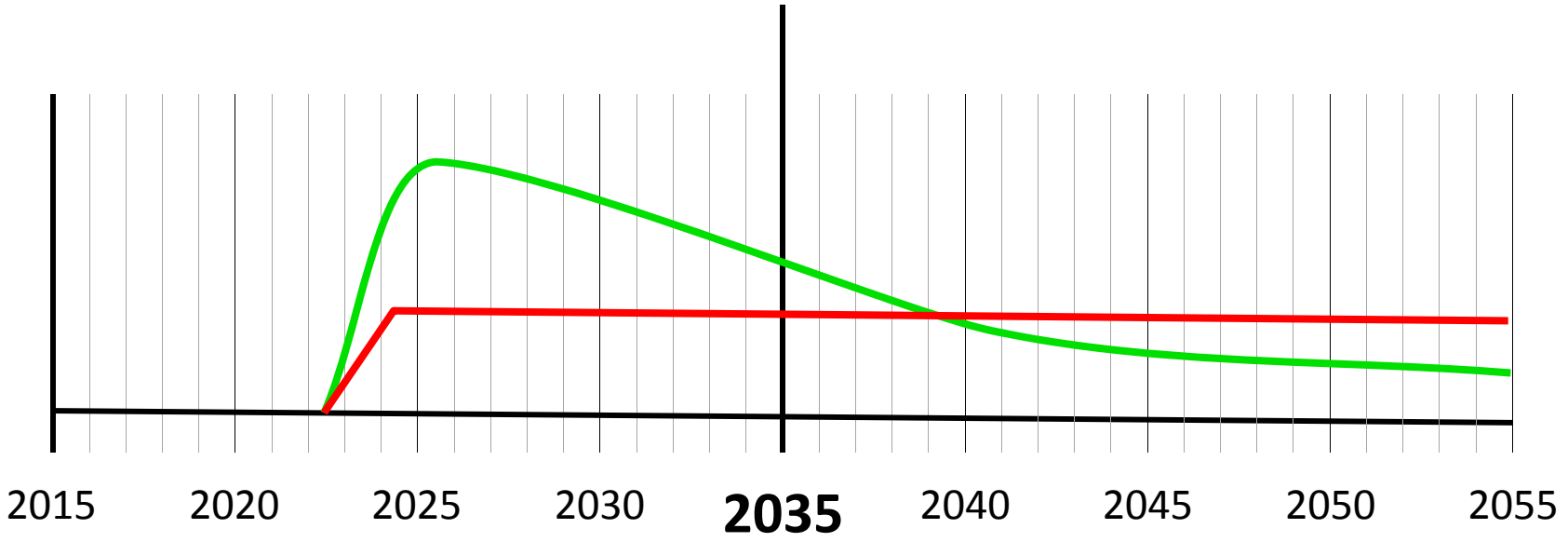
New plays will require more flexible legal and fiscal terms . . .

New high cost plays will likely require modified – more flexible – fiscal terms.

We expect other changes to fiscal terms in the interests of both governments and investors.

. . . and fiscal regime design today must plan well beyond 2035.

Problems tend to arise throughout the life of projects – and the analysis of those problems are driving change.

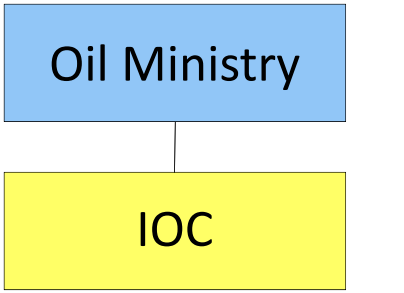


The following are expected trends/changes in the industry and particularly to fiscal regime design.

Much of this comes from our involvement in roughly 55 disputes – covering including:

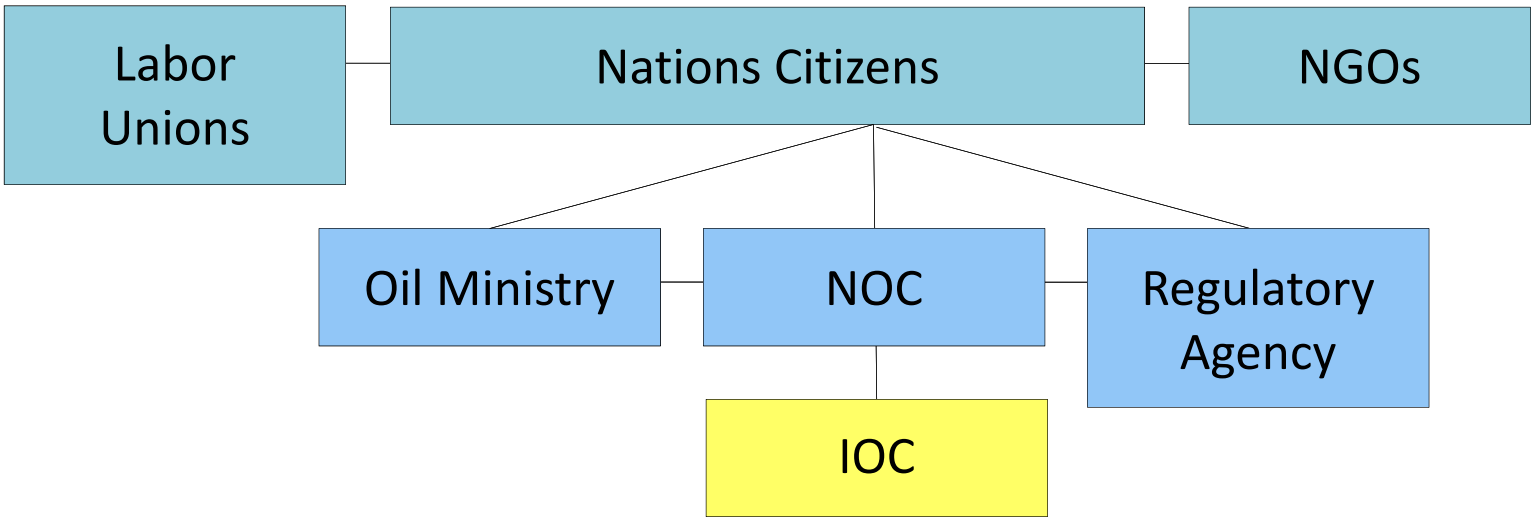
Litigation
Arbitration
Conciliation
Mediation
Renegotiation
and those problems tried in the court of public opinion

Government/Investor relations are and will continue to evolve.



Many changes are driven for transparency reasons – and early relationships although simpler risked conflicting interests.

Referred to as the ‘Norwegian Model’.



Relationships are generally gaining harmony, understanding, and empathy.

IOC involvement today is much more sustainable

Early involvement
Provide capital, technology, and managerial expertise
Supply energy to domestic market
Pay royalties and taxes

Evolving participation
Technology transfer
Help build host country capacity
Assist in industrialization and economic diversification
Spur meaningful job creation
Maximize local content

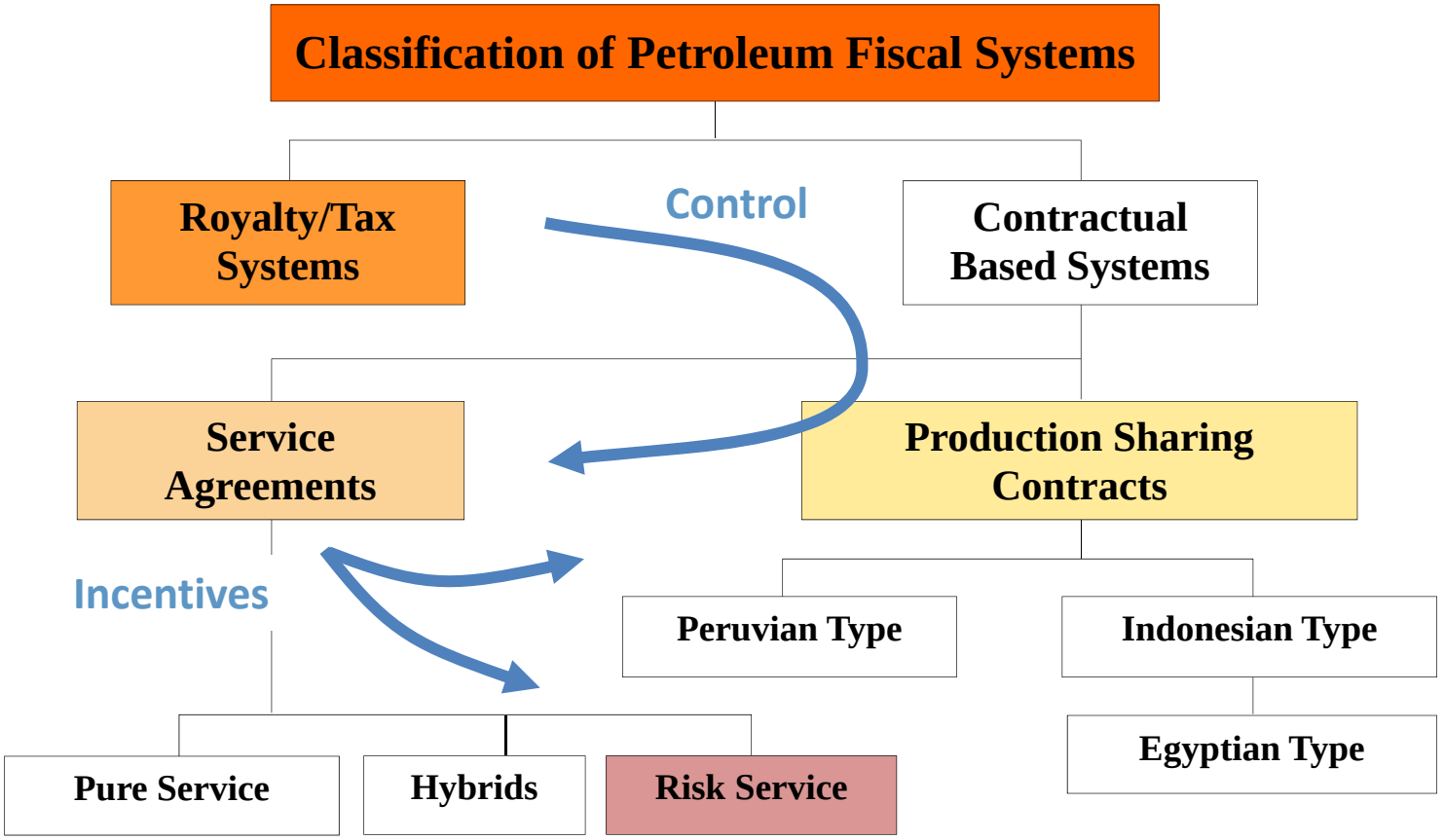
Governments and Oil Companies still have different needs.

What Governments want
Fair Take
Progressive system
Reasonable ERR
Technology transfer
Investment
Local economic development

What Oil Companies want
Opportunity to recover costs and make a profit
Stable terms
Good prospectivity
Minimal grief

System selection is generally driven by control concerns, but also to offer incentives.

Mexico is moving from pure service agreements to Risk Service agreements. Iran is now offering Production Sharing Contracts.



Fiscal system differences are still primarily legal.

	R/T Systems	PSC	Service Agreements
Title to facilities	Oil Company	Government	Government
Hydrocarbon title transfer	"At the wellhead"	At export point	No title transfer
Entitlement	Typically around 90%	Typically 50-60%	NA
Effective Royalty Rate	Equals Royalty Rate	Influenced by Royalty and C/R Limit	
Government Participation	Less likely	More likely	
Project Type	All types Exploration, development, EOR	All types Exploration, development, EOR	All types but often non-exploration, unconventional, and 'resource plays'

Government Control . . . . . increasing . . . . . > > > >

Profit sharing still preferred over revenue sharing or fees.

Moving to revenue sharing is currently being debated in India and Mexico.

One key aspect of revenue sharing is it could require little or no verification of costs – but not always.

Revenue sharing schemes are extremely regressive.

95% of the worlds petroleum regimes are based on profit sharing.

Not revenue sharing or fees (as seen with Service Agreements).

R/Ts and PSCs are fundamentally and ultimately based on profit sharing.

Capital Gains Taxes (CGT) now imposed on sales of oil assets.

Newly imposed capital gains taxes on sales of oil assets will need to be addressed in future agreements.

Own Our Oil calls for 66% Capital Gains Tax on the Sale of Irish Oil and Gas Licences

24 August 2010

By Keith Myers1

Selling Oil Assets in Uganda and Ghana – A Taxing Problem

Oil & Gas

April 18, 2011 10:16 pm

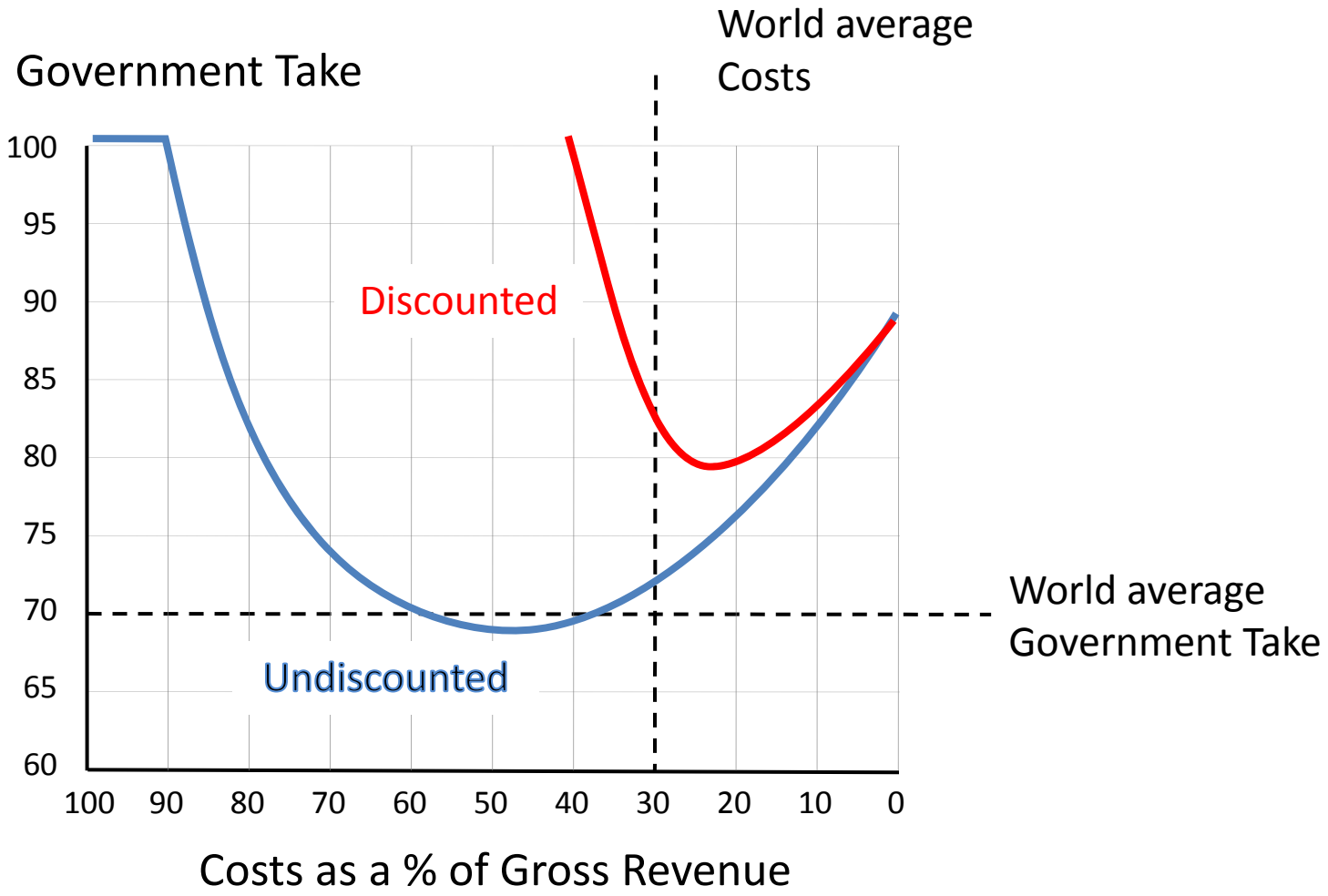
Tullow sues Heritage over Uganda tax bill

By David Blair, Energy Correspondent

The primary elements of fiscal system design are undergoing change.

Division of Profits Or “Take”	Percent of economic profits the Host Government or contractor gets.
Progressiveness	Increase in government’s share of profits increasing with increasing total profits.
Effective Royalty Rate (ERR)	The minimum percent of gross revenue or production a Host Government can expect in any accounting period.
Savings Index	Contractors incentive to keep costs down.
Lifting Entitlement	Contractors ability to lift or book barrels.

Governments are employing progressive fiscal elements, for a greater share of rising profits.



Effective Royalty Rates (ERR) seem to be increasing – the wrong ways in some cases.

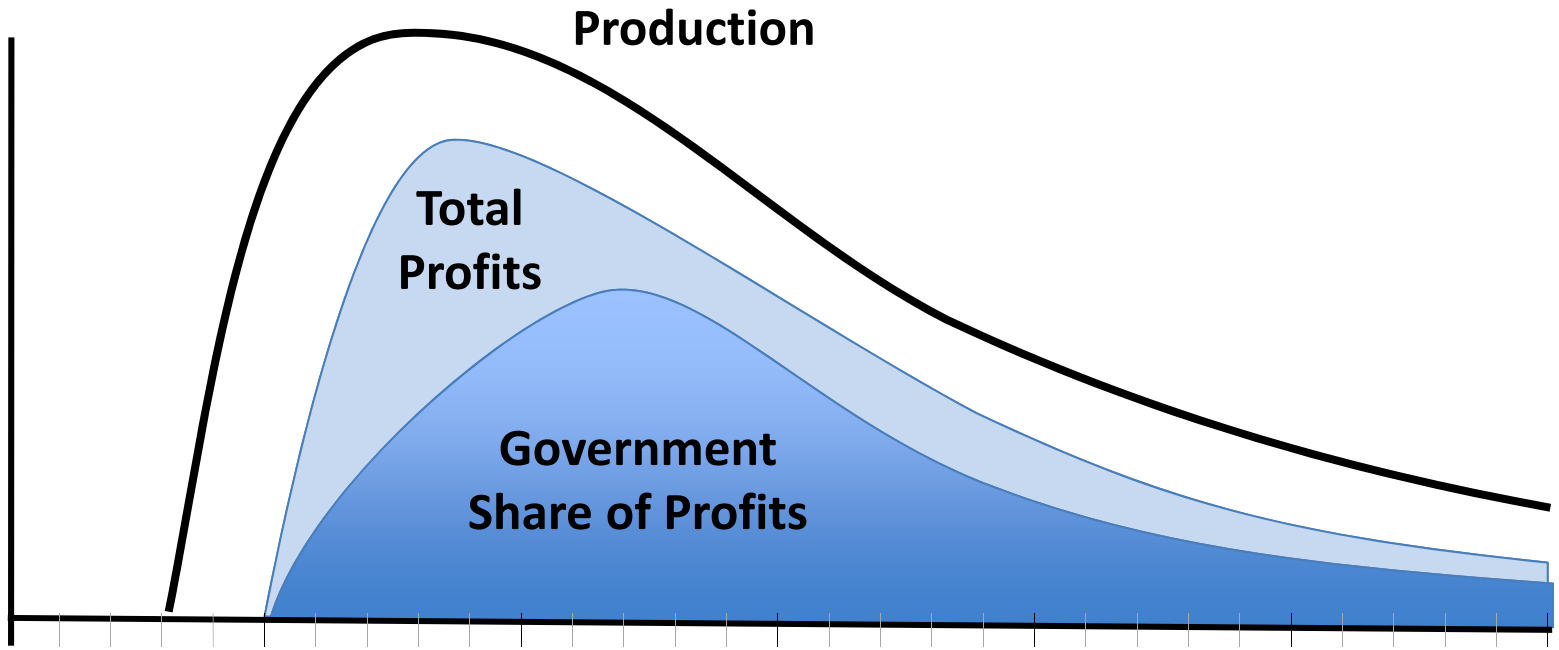
The effective royalty rate is a measure of the percentage share of gross production governments can expect in any given accounting period – World average 20%..

Royalties and cost recovery limits contribute the greatest to ERRs.

ERRs that exceed 20% can cause problems; cost recovery problems for high cost projects, and end of life problems with the economic limit.

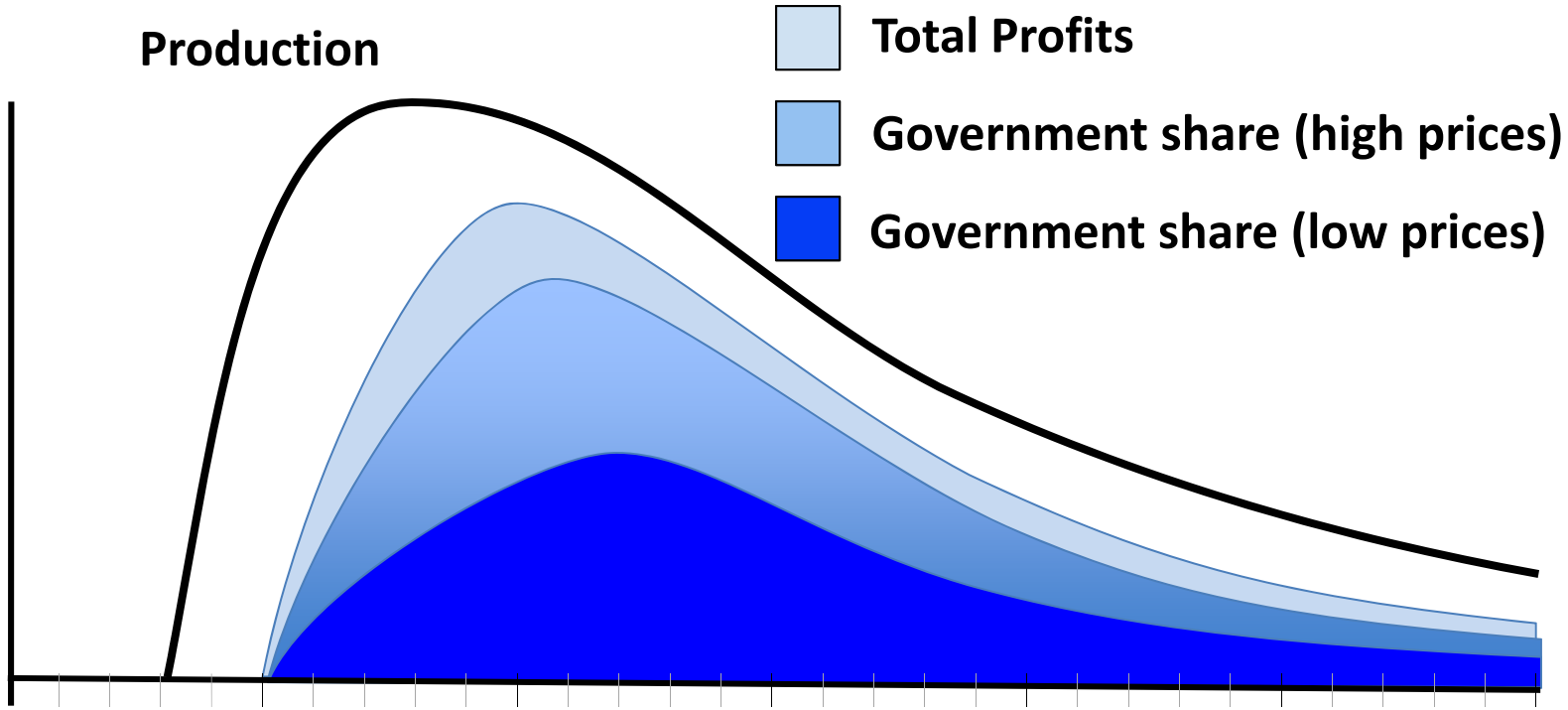
Two of the most popular sliding scales employed - ‘R’ Factors and Rate of Return features.

These sliding scales tend to be back-end loaded – providing the government with their share of profits later.
Significant testing of these systems should check for goldplating.



Oil of gas price based sliding scales aren't truly progressive – and can cause problems.

These sliding scales tend to be back-end loaded – providing the government with their share of profits later in the project life cycle.

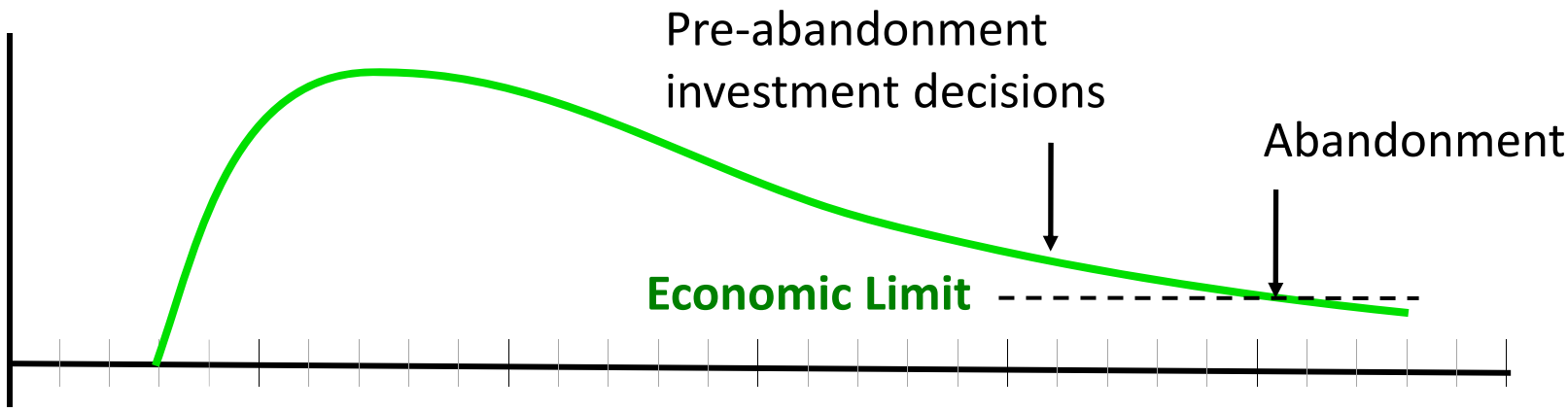


End of life problems arise when investors can't justify continued investment.

When investors are reluctant to continue investment, governments usually aren't prepared to do anything about it.

Economic Limit is when;

production - costs = Effective Royalty Rate



More governments will employ Mirroring Provisions.

Recoverable Costs = Deductable Costs

Mirroring provisions ensure that only those costs eligible for tax calculation purposes will be eligible for cost recovery purposes.

Mirroring provisions simplify cost recovery and tax calculations – reducing administrative burdens.

Governments will include provisions to avoid Warehousing.

Warehousing is a situation where a discovery is made – but the investor doesn't move forward with development.

- Contracts today have few if any alternatives to warehousing.
- Sole Risk provisions could offer governments an alternative.
- Provisions in the development plan might provide governments a means to advance development.
- Or, commerciality clause language could do it – but today most contracts simply don't offer governments much protection from warehousing.

We'll see greater government participation – government as working interest partner.

Government participation is where a government agent, typically the NOC, holds a working interest in petroleum operations.

- Participation enhances oversight and control.
- It improves government capacity and provides technology transfer
- It is politically popular with citizens and promotes citizen buy-in.
- Provides opportunities for Sole Risk Operations (Exploration, appraisal, and development) .
- One of the four main means by which governments get a share of profits.

Stabilizing provisions will continue to evolve – some projects demand fiscal certainty.

Most fiscal regimes (70-80%) now have stabilizing provisions of some sort or another.

It is becoming almost mandatory - especially in those cases involving large-scale, long-term projects such as liquefied natural gas (LNG) or major pipelines.

Local Content provisions target development of local economies.

More and more governments are including provisions local economic development, the use of labor, goods, and services provided by local communities.

- Requirements are popular with citizens.
- Local Content requirements can be unreasonably high – or act as subsidies
- Some provisions may conflict with World Trade Organization regulations.

Work commitments or Phase I work program requirements are being guaranteed.

Exploration phase I work requirements, often bid items, are requiring guarantees to ensure more realistic bids.

Companies could bid a 10 well program to win a bid without really being committed to drilling the 10 wells.

Work program guarantees keep this from happening.

Guarantees protect governments as well as other bidders.

We'll see more Corporate Social Responsibility (CSR) requirements defined.

CSR requirements define investor responsibilities; including health, education, and welfare contributions, as well as investor's environmental and safety roles.

When contributions that are cost recoverable and tax deductible governments ultimately pay for the development costs.

Much of the spirit of CSR expenditures is undermined if the government (indirectly) pays for most of them.

Can be popular with citizens.

Incentives will be designed to benefit all parties to the project.

There will be different incentives for different project types or needs – some encourage investment, encourage participation, allow quicker cost recovery . . .

Project types

Enhanced Oil Recovery (EOR)
Tight sands
Oil sands
Heavy oil
Shale plays
Arctic region
Pre or sub-salt

Systems we design today could still be producing hydrocarbons when we've all retired.

Be cautious of employing too many changes! Unintended consequences could show up at any time along the project life span.

Thank you

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