Study Group 1.3
Gas Rent and Mineral Property Rights

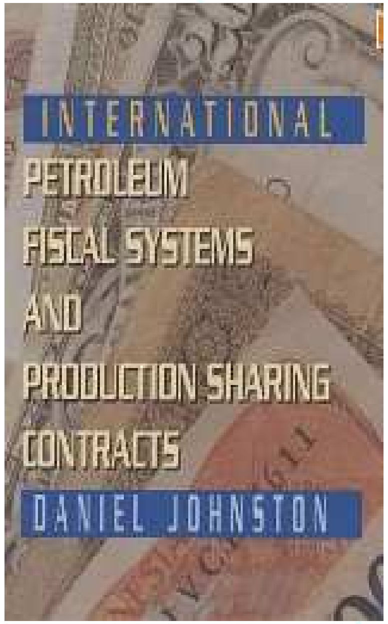
2nd WOC 1 Meeting
Rio de Janeiro
18-21 February 2013

Previously in Gas Rent and Mineral Property Rights...

Contractual models

Concession, production sharing and service contracts

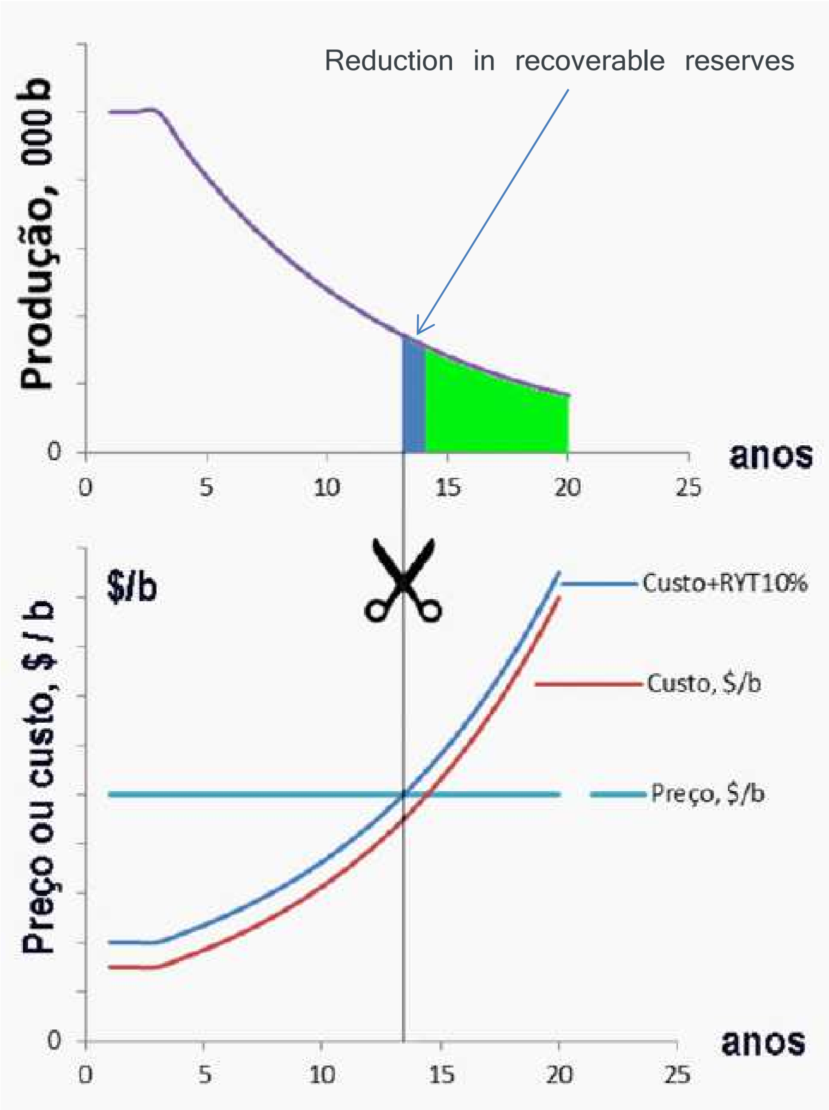
- ***There are more petroleum fiscal systems than countries (Johnston, 2012)***
- ***Ownership is the most important element of distinction***
- ***Similar cash flow results can be obtained, but***
  - ***PSA (PSC) quickly growing in lieu of concession contracts - controversy***
  - ***Service contracts remain limited to a few countries***



Fiscal instruments

- *Regressive*
  - *Royalties, bonuses*
  - *Non-profit related; the lower the profitability the higher they become*
- *Progressive*
  - *Income taxes, special petroleum (gas) taxes*

A criticism to royalties

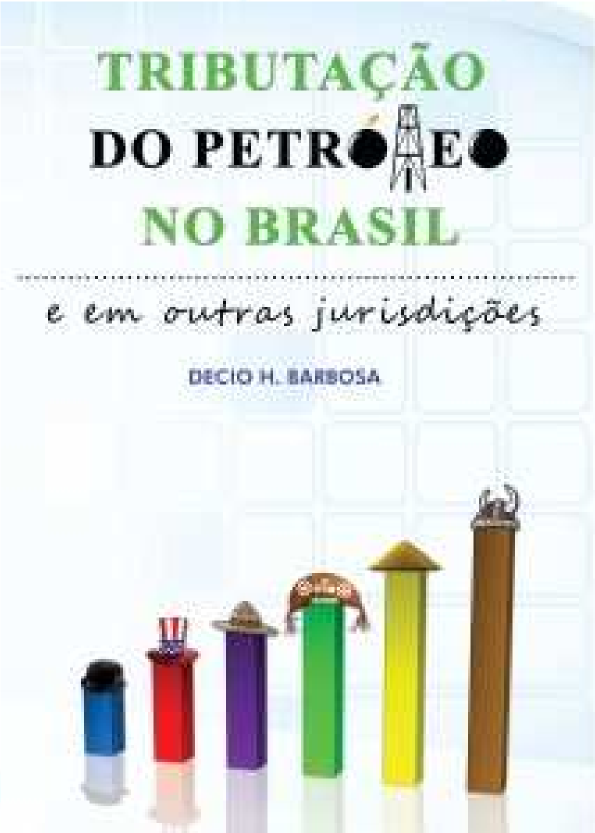


- ***Provide benefit to the government at the earliest stages of production, but***
- ***Can cause premature abandonment (inefficiency), as production tends to halt when marginal costs reach market prices***
- ***Royalties are being discarded in favour of higher taxes***

Décio Barbosa, Royalties: Use com Moderação *in* Monitor IBP, January 2011, Year III, Number 1, pp. 2-3.

Case study

- *Recoverable reserves of 850 million barrels*
- *Exploration in two years*
- *Exploitation in five years*
- *In production for 20 years*
- *20 production wells*
- *10 injection wells*
- *FPSO 200 kbpd*
- *Rig leasing at US$ 500,000/day*
- *Decline rate of 10% p.a.*
- *Well cost US$ 100 million*



United Kingdom

- *Corporation tax 30% (ring fence rate for O&G E&P)*
- *Supplementary charge rate now at 32%*
- *Petroleum revenue tax discontinued in new areas*
- *Capital allowances*
  - *Accelerated depreciation*
  - *Immediate write-off for exploration costs*
- *Investment incentives*
  - *Losses can be carried forward indefinitely*
  - *R&D incentive*

Norway

- *No royalties, bonuses or production sharing*
- *Income tax of 28%*
- *Additional special O&G upstream tax of 50%*
  - *Applies to the Norwegian Continental Shelf and onshore areas*
  - *Cannot be deducted for purposes of income tax*
- *Capital allowances*
  - *Offshore investments depreciated linearly over six years*
  - *Uplift of 30% applies to the special O&G tax*
    - *7,5% per year in four years*
- *Investment incentives*
  - *Losses can be carried forward indefinitely with interest rates nominated by the Ministry of Finances (1.9% in 2011)*
- *No ring fencing*

Production sharing

- ***Mineral rights granted exclusively to the winner of a bidding process to explore, develop and sell part of the production***
- ***Investor receives part of the oil produced as a compensation for its risks, after cost compensation***
- ***National oil company may have an administrative role***
- ***Winner must execute working programme (seismic work, production pilots, drilling activity, etc)***

PROFIT SHARING	
"R" Factor	Contractor's Profit Share (%)
$R \leq 1.0$	50
$1.0 < R \leq 1.5$	45
$1.5 < R \leq 2.0$	40
$2.0 < R < 2.25$	30
$2.25 < R < 2.5$	20
$R > 2.5$	15
R is the ratio of cumulative revenue to cumulative expenditures.	

Angolan regime for ultra deep waters

- Signature bonus
  - US$ 10 million non-recoverable, unshared)
- Training fee
  - US$ 200 thousand during exploration and development
  - US$ 0.15/bbl during production period
- Social contribution
  - US$ 4 million at start-up, non-recoverable
- State share (Sonangol)
  - 20% carried through to commercial discovery, with repayment of past exploratory costs by Sonangol
- Cost recovery 50%, 4 years (20% uplift development)
- Income tax 50%
- Profit sharing
  - Calculated quarterly

IRR (%)	Profit share
< 10.0	70
10.0-12.5	55
12.5-17.5	45
17.5-20.0	30
> 20%	20

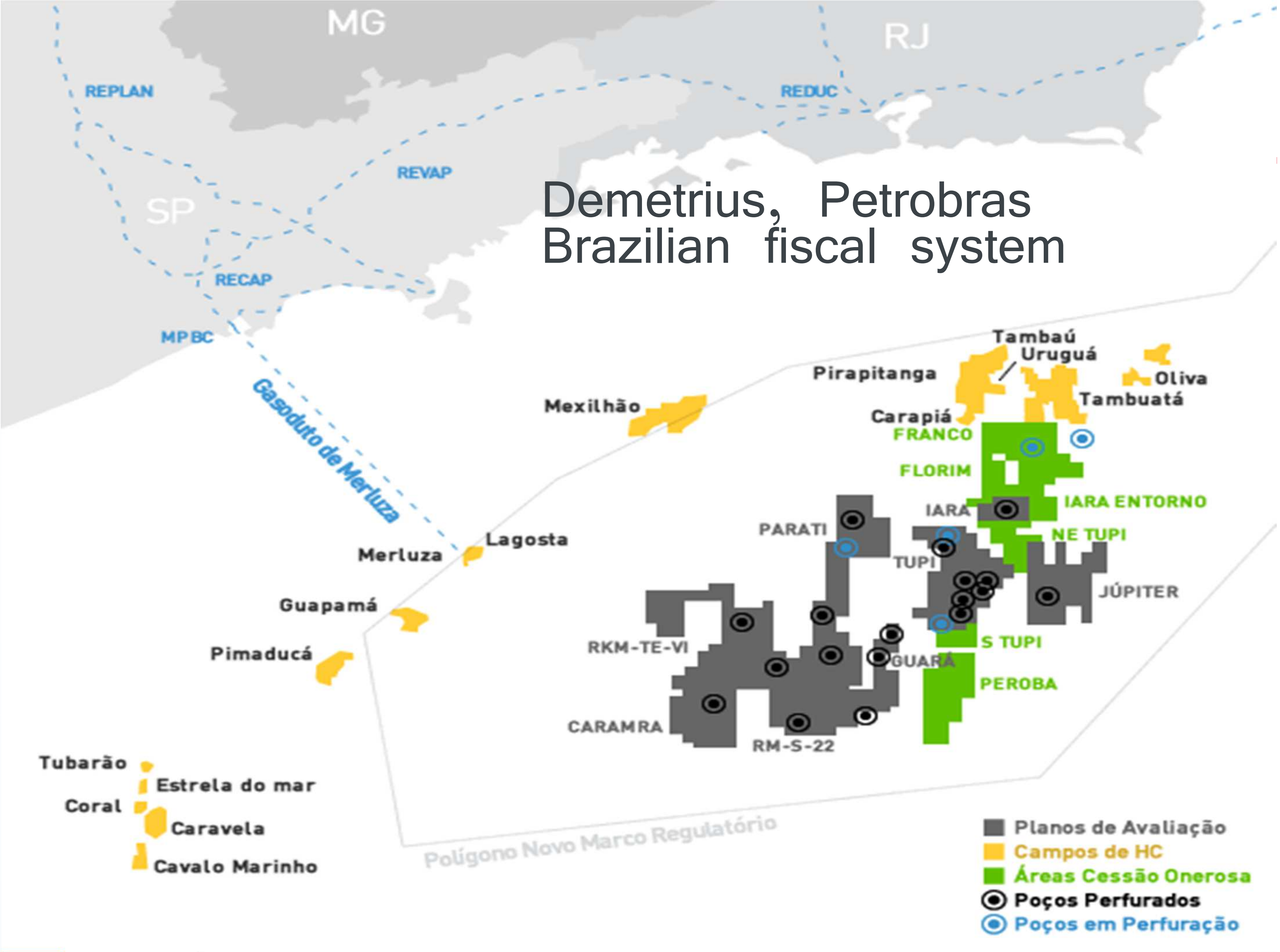
Granting Documents

Upstream Contract Models with Governments

For IGU
Rio de Janeiro
2013

Adauto Carneiro Pereira
PETROBRAS

Demetrius, Petrobras Brazilian fiscal system



Questionnaire

	Question	Totally disagree	Partially disagree	Neutra / Non-appl.	Partially agree	Totally agree
1	In my country the fiscal system for the production of oil and gas is modern and effective					
2	A different fiscal system should be developed specifically for gas					
3	Associated and non associated gas should have a different set of fiscal instruments					
4	Foreign investment is important for the production of gas in my country					
5	The current fiscal system that we have is efficient to attract investments to the upstream segment of the gas industry					
6	Production sharing contracts tend to replace concession and service contracts in the future					
7	Royalties constitute an old fashioned fiscal instrument, whose use tend to disappear in the long term					
8	In my country bidding processes take place regularly					
9	In my country direct negotiations with government authorities are possible					

Thank you!