

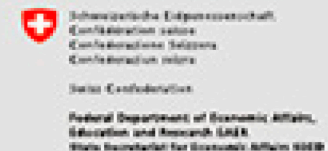
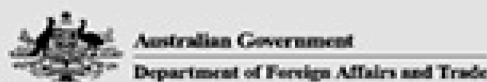
FISCAL MANAGEMENT OF MINING AND PETROLEUM IN WEST AFRICA

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FARI Workshop Case Studies

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Agenda

1. Configuring an Oil Project Example
2. Modeling a Tax/Royalty Regime
3. Modeling a Production Sharing Contract
4. Fiscal Regime Evaluation

Case Study 1: Configuring

Case study steps

1. Review the project example already loaded in the model
 - This is a stylized version of a real West African off-shore project
2. Evaluate project phasing, production profile and cost structure during each phase:
 - Exploration, development, production, decommissioning
 - Vetting reasonableness of production and cost
 - Evaluate project unit costs: (1) over project life (2) unit operating costs across the life of the project
 - Consider when the project might shut-down
3. Create a duplicate project example and modify the production and cost profile, then use this in the fiscal regime analysis to follow

Case Study 2: Modeling a Tax/Royalty Regime

Case study steps

1. Enter fiscal parameters
 - Royalty
 - Corporate income tax
 - Additional profit tax
 - Withholding taxes
2. Understand how each fiscal parameter is modeled and interaction between them
3. Analyze the model results and perform sensitivity analysis on prices and costs

Fiscal parameters

| Parameter | Details |
|---------------------------------|--|
| Signature bonus | Yes, 10 million |
| Royalty rate | 10% |
| Royalty base | Net of transportation costs after fiscal point |
| Decommissioning fund/provision? | Yes, starting when 60% of reserves are depleted |
| Corporate income tax rate | 30% |
| Exploration costs depreciation | Expensed from start of production |
| Development costs depreciation | Straight line over 5 years |
| Additional profit tax | 20% cash flow tax, with 15% one time uplift on exploration and development costs |
| Dividend withholding tax | 10% |
| State participation | 10% carried through development |

Case Study 3: Modeling a Production Sharing Contract

Case study steps

1. Enter fiscal parameters
 - Cost recovery limit
 - Production sharing mechanism and shares
 - Corporate income tax
 - State participation
2. Understand how each fiscal parameter is modeled and interaction between them
3. Analyze the model results and perform sensitivity analysis on prices and costs

Fiscal parameters

| Parameter | Details | | | |
|---------------------------------------|---|-----|----------------------|-----|
| Signature bonus | Yes, 10 million | | | |
| Decommissioning provision? | Yes, starting when 60% of reserves are depleted | | | |
| Cost recovery limit | 75% | | | |
| Cost recovery rules | All costs are expensed as incurred | | | |
| Government shares of profit petroleum | DROP | | R-Factor | |
| | DROP < 15 Mbopd | 40% | R-Factor < 1 | 40% |
| | 15 < DROP < 30 Mbopd | 50% | 1 < R-Factor < 1.5 | 50% |
| | 30 < DROP < 45 Mbopd | 60% | 1.5 < R-Factor < 2.0 | 60% |
| | 45 < DROP < 60 Mbopd | 65% | 2.0 < R-Factor < 2.5 | 65% |
| | DROP > 60 Mbopd | 70% | R-Factor > 2.5 | 70% |
| Corporate income tax rate | 30% | | | |
| Exploration costs depreciation | Expensed from start of production | | | |
| Development costs depreciation | Straight line over 5 years | | | |
| Dividend withholding tax | 10% | | | |
| State participation | 10% carried through development | | | |

Case Study 4: Fiscal Regime Evaluation

Case study steps

Evaluate the three regimes modeled in terms of:

1. Annual government revenue profile
2. AETR
3. METR and breakeven price
4. Progressivity: AETR and share of total benefits under different profitability scenarios
5. Other indicators?

Questions?