Seminar for Civil Society:
Timor-Leste Fiscal Regimes &
ESI calculation

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16 August 2010
History

• Production sharing contracts issued under Timor Gap Treaty 1991
  – ZOCA Zone of Cooperation Area A
  – 50/50 sharing

• Timor Sea Treaty 2001*
  – ZOCA becomes JPDA Joint Petroleum Development Area
  – 90/10 Sharing
  – Annex F: PSCs reissued with same terms for Bayu Undan (03-12; 03-13) and Sunrise (03-19; 03-20)

* Timor-Leste ratified TST in 2002; Australia in 2003
### Fiscal Regimes in Timor-Leste

<table>
<thead>
<tr>
<th><strong>Timor Sea Treaty</strong></th>
<th><strong>Production Sharing</strong></th>
<th><strong>T-L Income tax</strong></th>
<th><strong>Australia Income tax</strong></th>
<th><strong>Other treaties</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayu Undan</td>
<td>ZOCA PSC + Appendix X</td>
<td>90% TBUCA</td>
<td>10% Australia Tax Law</td>
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<tr>
<td>Sunrise (JPDA portion)</td>
<td>ZOCA PSC IUA</td>
<td>90% Indonesian Tax Law 99</td>
<td>10% Australia tax Law</td>
<td>CMATS (shares all upstream revenues 50/50)</td>
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<tr>
<td>New JPDA (Kitan)</td>
<td>New PSC</td>
<td>90% Taxes and Duties Act</td>
<td>10% Australia tax law</td>
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<tr>
<td>New T-L Exclusive areas</td>
<td>New PSC + 20% State Participation</td>
<td>100% Taxes and Duties Act</td>
<td>Not applicable</td>
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</table>
Bayu Undan

• Production Sharing contract
  – ZOCA
  – Amended by Appendix X to facilitate full gas development

• Timor-Leste Tax on 90%
  – Taxation of Bayu Undan Contractors Act
  – 30% Income Tax
  – Additional Profits Tax
Bayu Undan

Production Sharing

1. 10% First Tranche Petroleum (FTP)
   - Designated Authority (ANP)
     - Same shares as Profit petroleum
   - Contractor
   - Contractor
   - Contractor

2. Cost recovery
   - 127% Investment credits
   - Exploration
   - Capital
   - Non-capital costs

3. Profit Petroleum
   - Condensate 50% to DA
   - LPG and Gas 40% to DA
   - ANP

T-L Income Tax

- 90% revenue
- FTP
- Cost Recovery
- Profit Petroleum
- Less: 90% of deductible costs
- = Taxable income
- x 30% Income Tax
- Additional Profits Tax
  - 22.5% of cashflow > 16.5% IRR

Australia Tax

- 10% revenue
- Less: 10% of deductible costs
- = Taxable income
- x 30% Income Tax

Timor-Leste Petroleum Revenues

- 90% of DA FTP
- 90% of DA Profit Petroleum
- Income Tax
- APT (Additional Profits Tax)
Sharing of LNG Revenue

- FGSPA = Feed Gas Sale and Purchase Agreement
- LNG SPA = LNG Sale and Purchase Agreement
- FGSPA and LNG SPA “back-to-back”
LNG

1. Upstream gets 100% of LNG revenue
2. Upstream pays to LNG and Pipeline:
   – Capacity Reservation Charge (fixed)
   – Operating Cost Charge (actual costs)
3. CRC calculated to give DLNG and Pipeline 8% fixed return on investment over 15 years
4. Upstream keeps 100% of any LNG price increase or decrease
## LNG calculations

### Illustrative example of LNG calculations

<table>
<thead>
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<th>$\text{million}</th>
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<tr>
<td>\text{Pipe OCC}</td>
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</table>

\text{Net Upstream LNG revenue} \begin{align*} & \text{750} \quad 850 \quad 650 \\ & \text{change} \quad 100 \quad -100 \end{align*}

- Upstream takes all the downside, and gets all the upside
- Maximizes Timor-Leste share of price upside

Note: The figures are for illustrative purposes only
Sunrise

- **Timor Sea Treaty**
  - Apportioned 20.1% JPDA; 79.9% Australia

- **International Unitization Agreement (IUA)**
  - Unitized development
  - Development plan
  - Pricing of gas sales for JPDA portion
    - 10.5% pre tax rate of return to LNG and Pipe
    - 14% pre tax rate of return to FLNG

- **PSC 03-19 and 03-20 for JPDA**

- **Australian License outside JPDA**
Total revenues are collected and then shared 50:50 under CMATS
CMATS

- A collected by Timor
- B + C collected by Australia
- Australia pays Timor \((A + B + C)/2 - A\)
- Timor and Australia each end up with 50%

TL and Australia agree not to pursue maritime boundary claims for life of Sunrise project
New JPDA

- New regime introduced in 2005
- Applies to any new project in JPDA*
- New PSC agreed with Australia
- Timor-Leste applies Taxes and Duties Act on 90%
- Australia income tax on 10%

- Kitan is under new scheme but some features of cost recovery under old scheme are preserved
New JPDA

Production Sharing

1. Total Production
   - 5% to ANP (royalty)

2. Cost recovery
   - Exploration
   - Capital
   - Operating
   - Uplift on unrecovered costs @ Bond Rate + 11%

3. Profit Petroleum
   - 40% to ANP

Designated Authority (ANP)

T-L Income Tax

- 90% revenue
  - Cost Recovery
  - Profit Petroleum

Less: 90% of deductible costs

= Taxable income

x 30% Income Tax

Supplemental Profits Tax
22.5% of cashflow > 16.5% IRR

Australia Tax

- 10% revenue

Less: 10% of deductible costs

= Taxable income

x 30% Income Tax

Timor-Leste Petroleum Revenues

- 90% of DA Royalty
- 90% of DA Profit Petroleum

- Income Tax
- SPT (Supplemental Profits Tax)
Timor Exclusive Areas

- Introduced in 2005
- Applies to any new project outside JPDA
- PSC – same as new JPDA except TL has option to take 20% interest in any new project
- Timor-Leste Taxes and Duties Act on 100%
  - 30% income tax
  - 22.5% SPT after 16.5% return on investment
  - (SPT is the same as Bayu Undan APT)
ESI calculation
Petroleum Revenues

Good to have but...

• Temporary
• Uncertain
• Volatile

If all revenues consumed when received:

• Inflation
• Potential Waste
• Painful adjustments when revenue stops...
Petroleum Fund

Philosophy:
- Smooth consumption of oil revenues
- Smooth out volatility from oil prices
- Insulate economy; avoid inflation
- Save wealth for future generations

PF Law:
- ESI is a benchmark for sustainable spending
- Higher withdrawals are allowed if justified, certified and approved by parliament
Sustainable Income

- Turn $100 per year for 5 years
- Into $14 per year forever...
### Sustainable Income

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenues</th>
<th>Financial assets</th>
<th>Revenues Added</th>
<th>Withdrawals</th>
<th>Investment return</th>
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</tbody>
</table>

- If 3% is assumed return on investments
- Spend 3% of value of future revenues
- Save the rest; build up investment fund
- After revenues stop, spend investment return forever
Estimated Sustainable Income

- Petroleum Fund Law Article 9
  - No transfer in excess of ESI unless justified in long term interest of Timor-Leste
- ESI Calculation in Schedule 1 of PFL
  - Petroleum Wealth x 3%
- Petroleum Wealth =
  - Balance in the Petroleum Fund
  - Value today of future Petroleum Fund Receipts
- Discount rate for present value = US bond rate = assumed real investment return
ESI calculation

Schedule 1 in petroleum fund law

1. Estimate the balance in the petroleum fund as at the end of the current year
2. Forecast petroleum revenues over the remaining life of the project
3. Calculate the average US bond rate over the same period as the petroleum revenues
4. Calculate NPV of future revenues
5. PFund + NPV = Petroleum Wealth x 3% = ESI
Forecasting

Project Cashflows

- Production
- Oil Price
- Product prices
- Upstream costs
- Downstream costs

Fiscal Regime

- PSC rules
- Income tax rules

Timor-Leste revenues

- FTP
- Profit Oil
- Income Tax
- APT
- Other taxes
2010 ESI

Projected Balance at 1 January 2010 $5.2 Bn
Petroleum revenues from 2010 $13.1 Bn
Present value of future revenues $11.4 Bn
Petroleum wealth $16.7 Bn
ESI (petroleum wealth x 3%) $502 M
Data package from JV operator

- Production profiles – Low, Base, High
- Upstream capital costs
- Upstream operating costs
- Downstream Capital costs
- Downstream operating costs
- Revenue forecast – “calibration case”
- Analysis of changes since last forecast
Other data collected

• ANP: Condensate and LPG shipments and realized prices relative to WTI
  – Check COP production and analyze differentials
• NDPF: Petroleum Fund actual receipts
  – Reconcile to previous forecasts
• NDPR: Tax returns and receipts
  – Reconcile to previous forecasts
West Texas Intermediate
Average price per year

WTI Actual

EIA low case used for budget 2010
Changes in ESI

ESI Budget 2010
Changes from Budget 2009

- Budget 2009 ESI: $408
- Budget 2010 ESI: $401
- Oil prices: $21
- Production: $27
- LNG prices: $93
- Discount Rate: $5
- Misc. changes: $9
- Budget 2010: $502

$mm
Sensitivity Analysis

- Downstream operating costs +/- 10%
- Upstream operating costs +/- 10%
- JCC differential -12.5% to -4.0% of WTI; Basecase -7.5%
- Condensate differential -15% to -5%; basecase -10%
- LPG differential 60% to 70%; basecase 65%
- Discount rate 3.5% ; base case 2.6%
- LNG prices “Slope” high 0.1580, low 0.1225, base case 0.14025
- Oil price +/- $10

Estimated Sustainable Income $mm

Budget 2010