# Financial Payment System for Deep Sea Mining of Polymetallic Nodules

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# Agenda

- Review of financial payment system options
  - “Fairness” as guiding principle for choosing system & rates
  - Challenges of achieving fairness due to different Sponsor State CIT rates
- Equalization
  - Concept and potential need
  - Approaches
- Comparison of different equalization mechanisms under uncertainty
- Development of hybrid equalization system

# Review of Financial Payment System Options

Four Options

1. Fixed ad valorem - one stage
2. Fixed ad valorem - two stage
3. Blended Profit – two stage
   (fixed ad valorem 1st stage, blended profit & fixed ad valorem 2nd stage)
4. Variable ad valorem - two stage
   (fixed 1st stage, variable 2nd stage)

One Stage vs Two Stages:

- One stage: same rate in all years
- Two stage: rate changes in 2nd stage

Financial Systems:

- Fixed ad valorem rate
  (in each stage)
- Variable ad valorem rate
  (rate changes with metals prices)
- Blended ad valorem and profit

All systems can be designed to meet a desired goal (e.g., revenue to the ISA, Effective Tax Rate, or any goal)

Rates can be chosen to make any system meet stated goal under baseline conditions

However, each system will react differently to changes in Metals Prices, Costs and other assumptions

# Fairness as Basis for Selecting Rates

- Financial system neither advantages nor disadvantages DSM vs land based mining
- Contractors should be subject to the same overall tax burden as comparable land based mines (Effective Tax Rate)
- Two studies have looked at the range and average Effective Tax Rates
  - 39.2%, 46.0%
  - Some agreement around **42.6%** (average of these two values)

# Updated Baseline Results Using 42.6% ETR Royalty Basis: Gross Metal Value

| Option | 1st Stage Rate | 2nd Stage Rate | Effective Tax Rate | ISA Revenue | Contractor IRR |
|---|---|---|---|---|---|
| 2. Two Stage Fixed Ad Valorem | 2.5% | 7.0% | 42.5% | $3.7 billion | 15.9% |
| 3. Profit plus Ad Valorem | 2.5% | 15% | 42.6% | $3.7 billion | 15.9% |
| 4. Two Stage Variable Ad Valorem | 2.5% | 4.5% @ GMV = $510/t - 9.5% @ GMV = $720/t | 42.5% | $3.7 billion | 15.9% |

Under baseline metal price forecasts, GMV = $614/t, Option 4 gives same result as Option 2
Assumes contractors pay 25% Corporate Income Tax to their Sponsor State
Gross Metal Value defines as value of contained Copper, Nickel & Cobalt metal plus the reminding Mn-oxide ore

# What happens if contractors don't pay full 25% CIT or equivalent to their Sponsor State?

| Option | 1st Stage Rate | 2nd Stage Rate | ETR no CIT | ETR full 25% CIT |
|---|---|---|---|---|
| 2. Two Stage Fixed Ad Valorem | 2.5% | 7.0% | 24.9% | 42.5% |
| 3. Profit plus Ad Valorem | 2.5% | 15% | 23.8% | 42.6% |
| 4. Two Stage Variable Ad Valorem | 2.5% | 4.5% @ GMV = $510/t - 9.5% @ GMV = $720/t | 24.8% | 42.5% |

Financial system is no longer fair for contractors not paying full 25% CIT

# Can We Define an Equalization System to Remedy this Issue?

- Equalization System Requirements
  - Brings all contractors, regardless of Sponsor State CIT payments up to fair level of ETR
  - Doesn’t penalize contractors already paying the full 25% Sponsor State CIT assumed when rates were analyzed
  - Simple to administer
  - Satisfies all requirements under a variety of conditions
    - Different future metals prices
    - Different future contract costs

# Three Proposed Approaches to CIT Equalization

1. Additional Fixed Rate Royalty
   - Ad valorem rate applied in same manner as base royalty
   - CIT and related payments to sponsor state deducted

2. Additional Profit Share
   - Tax rate applied to positive cash flows (additional details)
   - CIT and related payments to sponsor state deducted

3. Top-up Profit Share
   - Use newly developed Globe to determine contractor CIT payment rate
   - Additional payment assessed if rate is below 25%

# Equalization System #1: Additional Fixed Rate Royalty

Contractors will pay an additional royalty to the ISA against which CIT is creditable

- **Key Details:**
  - Additional and separate from existing royalty
  - Rate set from the 5th year of production
  - Contractors that did pay 25% CIT should have no additional tax burden
  - Only actual and verified sponsored state cash payments are creditable against the royalty
  - Cost uplift can be used when setting rate to eliminate risks of overpayment if costs increase

**Pro:**

- Simple to implement compared to other approaches
  - Uses existing Ad Valorem framework
    No additional accounting system needed

**Con:**

- Imperfect equalization
- In some years, contractors already paying full 25% CIT may not have enough to fully offset additional payment
- If costs are higher than anticipated in model, contractors may always end up paying additional royalty even when paying full 25% CIT

# Equalization System #2: Additional Profit Share

Contractors will pay additional profit share to the ISA to which CIT is creditable

**Key Details:**

- Additional and separate from existing royalty
- Based on both positive profits and cumulative profits
  - Only kicks in after cumulative profits are positive
- "Profits" calculated on a cash flow basis
  - Simplifies need to consider capital depreciation
- Rate can be chosen so that contractors paying no Sponsor State CIT will meet overall Effective Tax Rate target
- Contractors that did pay 25% CIT should have no additional tax burden

**Pro:**

- Automatically adjusts additional payment if contractor cost and therefore profits vary
- Simpler profit calculation by eliminating need for depreciation calculations
- Provides better equalization than pure Additional Royalty system

**Con:**

- More complex to develop & administer
- All cash flows must be monitored and audited to determine payment
- Imperfect equalization

# Equalization System #3: Top Up Profit Share

Contractors make additional payment to bring Global CIT to 25%

**Key Details:**

- The additional payment is directly calculated as the amount needed to bring all contractors to a combined payment (CIT plus additional payment to ISA) equal to 25% CIT
- This mechanism will be based on the OECD Model GloBE Rules with adjustments for ISA-specific requirements (25% requirement)
  - The goal of the GloBE model is to prevent tax avoidance and tax base erosion by multi-national companies
  - Simple ETR calculations that can be compared across jurisdictions
  - Adopted by over 140 countries
- Independent auditors exists, compliance can be outsourced
- Rules updated by OECD as needed to close loopholes

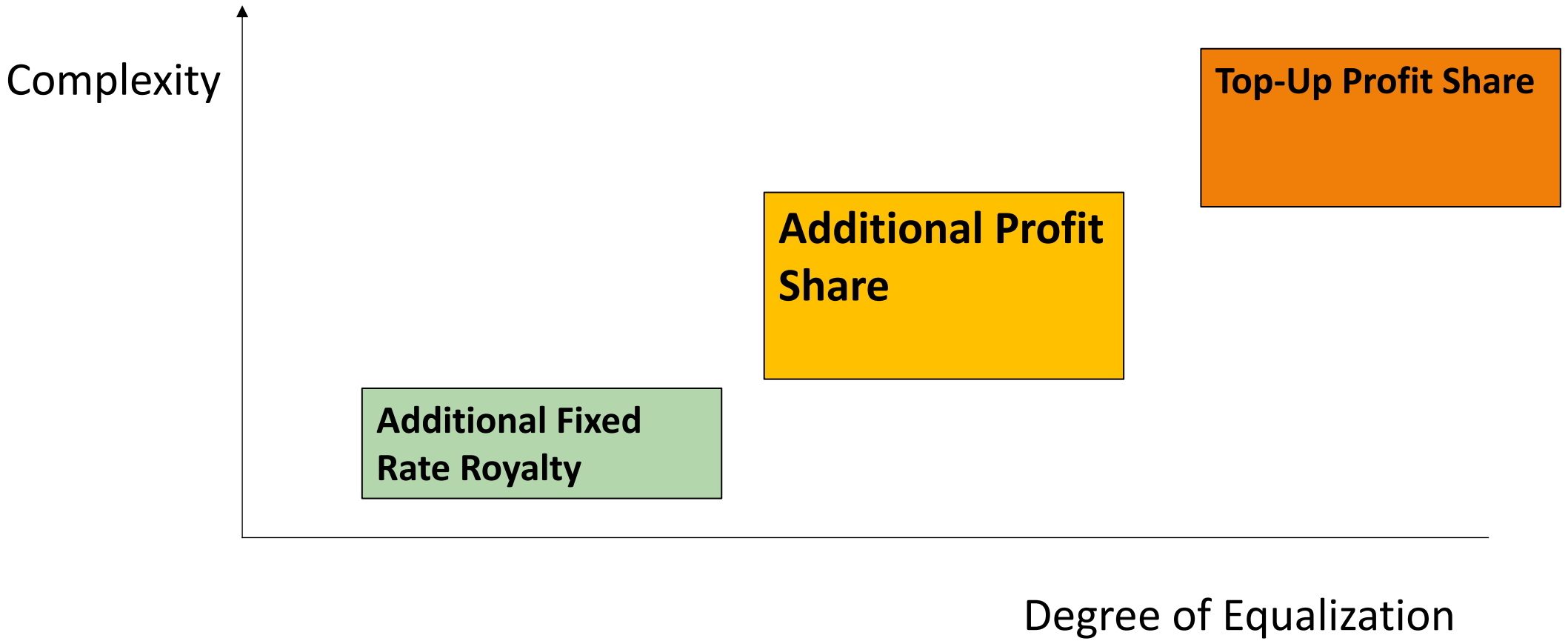
**Pro:**

- Avoids distortions; Perfect equalization
- Auditing can be outsourced to independent accounting firms using OECD GloBE system

**Con:**

- Complex mechanism
- Need to collect all needed accounting data

# Pros & Cons of Systems: Tradeoff between Complexity & Full Equalization



# Complexity and Equalization Issues

| | Costs | Revenues | Accounting System | Deductions | Equalization issues |
|---|---|---|---|---|---|
| **Additional Fixed Rate Royalty** | Not needed | Based on metals prices, already required for base royalty payment | Not needed | CIT Payment<br>Other expenses? | No single rate can bring those not paying CIT up to the base ETR without also incurring an additional cost |
| **Additional Profit Share** | All costs need to be tracked | All revenues need to be tracked | Simplified accounting system without depreciation needed | CIT Payment<br>Other expenses? | Because cash flow and profits are not the same calculations, the equalization is close but imperfect |
| **Top-Up Profit Share** | All costs need to be tracked | All revenues need to be tracked | Use Globe accounting system being developed by OECD | No deduction needed | Perfect Equalization |

# Base Case Results for Each Equalization System Option #4: Variable Rate Ad Valorem 2.5%→4.5/9.5%

| | | Effective Tax Rate | |
|---|---|---|---|
| **Equalization System** | Rate | CIT = 0% | CIT = 0%<br>No add'l payment |
| **Additional Fixed Rate Royalty** | 7% | 42.6% | 24.8% |
| **Additional Profit Share (cash flow approach)** | 25% | 42.5% | 24.8% |
| **Top-Up Profit Share (GloBE rules)** | Up to 25% | 42.5% | 24.8% |

# Can a hybrid system combine strengths of different mechanisms?

- **Additional Royalty** system:
  - Very appealing due to its simplicity
  - However, the potential for overcharging is very concerning

- **Top-Up Profit Share** system:
  - Very appealing due to ability to exactly bring all contractors up to the 25% Sponsor State CIT assumed in model when rates where determined
  - However, complexity for legal drafting and monitoring (even if much of this can be outsourced)

- **Hybrid Proposal**:
  - External auditors certify contractors are meeting 25% CIT rate using Globe rules, either directly or through additional payments
  - If not, contractors must pay the full Additional Royalty system payment

# HOMEWORK: What needs to be decided now?

- **Do you want an equalization system?**
  - Many states have indicated support, but not all
  - Without equalization mechanism either:
    - Contractors not paying full 25% CIT assumed in model have ETR levels far below norms of "fairness"
    - Raise base rates based on assumption that contractors pay lower CIT, but then those paying full 25% CIT will have ETR's far above norms of "fairness"

- **Which equalization mechanism do you prefer?**
  - Balance between simplicity and complete equalization?
    - Additional Royalty
    - Additional Profit Share (cash flow system)
    - Top-Up Profit Share (GloBE rules)
    - Hybrid System: Additional royalty payment if auditors determine contractor not meeting GloBE 25% CIT level

# MORE HOMEWORK: What's next?

- **Develop legal text**
  - Review/edit draft text
  - Agree upon details

- **Final decision on rates**
  - Base royalty rates including price triggers in variable ad valorem system
    - Current model values: 2.5% → 4.5% ($510/t GMV) up to 9.5% ($720/t GMV)
  - Parameters for equalization mechanism (depending on which, if any are chosen)
    - Current proposals:
      - Additional Royalty System: 7% ad valorem on GMV
      - Additional Profit Share: 25%, (should there be a cost uplift?)
      - Top-Up Profit Share: 25% using GloBE rules