TRANSFER MISPRICING VIA MINERAL PRODUCTS

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Tax Base Erosion and Profit Shifting Workshop
IGF-OECD Collaboration
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Now to the outputs.

- Transfer mis-pricing can also occur on mine outputs – particularly mineral products.
- Aim is to give a mix of theoretical TP foundations, and also practical examples in an industry sector that’s important to many countries.
Our areas of focus

• G20 asked us to look at how we could help developing countries address a big concern
• We responded that one part of the answer is to better understand the mineral product prices used by multinationals
  – Formulation, forces affecting prices
  – Economic context to transactions
• The work is on medium/large scale mines where MNEs are operating (not artisanal)
• Build a stock of knowledge and a methodology
What’s wrong?

• Concern that mineral product producing countries not receiving an appropriate return from extraction and sale of mine products because of base erosion
  – Under-price mine products in related party transactions
  – (or over-charge for related functions – as noted)

• So this is a subset of all the many and varied TP issues that might arise
An example

<table>
<thead>
<tr>
<th>Copper Concentrate Shipment</th>
<th>Arm’s Length Price</th>
<th>10% Under-priced Copper</th>
<th>Copper under-priced, no gold declared</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$m</td>
<td>$m</td>
<td>$m</td>
</tr>
<tr>
<td>Gross Value of Cargo FOB [A]</td>
<td>39.5</td>
<td>35.1</td>
<td>32.7</td>
</tr>
<tr>
<td>Production Costs [B]</td>
<td>22.5</td>
<td>22.5</td>
<td>22.5</td>
</tr>
<tr>
<td>Royalty [C]</td>
<td>1.7</td>
<td>1.5</td>
<td>1.4</td>
</tr>
<tr>
<td>CIT Base [A-B-C]</td>
<td></td>
<td>11.1</td>
<td>8.8</td>
</tr>
<tr>
<td>Company Tax Payable [D]</td>
<td></td>
<td>3.3</td>
<td>2.6</td>
</tr>
<tr>
<td>Total Revenue per shipment</td>
<td></td>
<td>4.8</td>
<td>4.0</td>
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<tr>
<td>Potential Revenue Loss Per</td>
<td></td>
<td>-1.4</td>
<td>-2.2</td>
</tr>
<tr>
<td>Shipment</td>
<td></td>
<td>-71.4</td>
<td>-112.3</td>
</tr>
</tbody>
</table>
Why is this happening?

- Revenue authorities may still be building their sector knowledge and administrative capabilities.
- Legal settings may be under-developed – (eg reporting, international information networks).
- The information needed to verify whether the transaction arm’s length simply may not exist.
- Authorities may not know what information they require or where to look for it.
- The information may be difficult or expensive to obtain.
Essential building blocks in effective TP

Transfer Pricing Analysis of Commodity Transactions

**Industry knowledge**
Revenue authorities need to understand the industry value chain, commodity market functioning, the role of key price indices, common price adjustments and awareness of the role of financing.

**TP rules, procedures and documentation**
Revenue authorities need internationally consistent, comprehensive rules, internal processes to apply them effectively and documentation that enables effective analysis.

**Information networks**
Revenue authorities need effective domestic information sharing with other agencies, as well as an effective international network for information exchange.
A SYSTEMATIC APPROACH
• **Building an understanding of the mining sector is essential** to understanding potential base erosion risks and to applying transfer pricing analysis.
  – The key is to build that knowledge in a systematic way.

• **Here’s one way: A 6-step methodology.**
  – Steps aim to sequentially understand the profile and structure of the domestic mining industry, the mines in operation and what they are producing.
  – Once the mining sector has been mapped, this allows administrators to identify key mineral products to be examined, as well as data that may be needed to assist in understanding the economic context of the industry.

• **As knowledge increases, info asymmetries narrow and revenue authorities should be able to use market pricing information more effectively.**
  – Naturally, you are at different stages of expertise with mining practices and mineral product markets, which will affect the amount of time needed for each step.
  – And it should help to narrow areas of dispute with taxpayers based on misunderstandings.
6 steps.

1. review each mine for how minerals are extracted and transformed to saleable products
2. identify in detail the actual products each mine produces and sells, and whether the processing facilities are also used by third parties under tolling arrangements
3. understand what those products are used for, what drives their prices and how they are traded internationally
A foundation

- 4. identify related party sales and understand the economic context to those transactions (including the functions, assets and risks of the related parties)
- 5. identify available information, analysis and data to review product sales transactions between related parties
- 6. devise approaches or methodologies that can address as many of those information gaps as possible
Then four example case studies

**COPPER**

1. **Oxide Ores**
2. **Sulfide Ores**
3. **Recovery of copper**
4. **Copper concentrate**
5. **Casting**
6. **Copper cathodes**

**THERMAL COAL**

1. **Extraction**
2. **Crushing and screening**
3. **Washing**
4. **De-watering and dewatering**
5. **Coal (grues and free)**
6. **Coal (concentrated)**

**IRON ORE**

1. **Ore extraction**
2. **Crushing and screening**
3. **Grinding (flour only)**
4. **Iron ore lumps** (widely traded)
5. **Iron ore fines** (widely traded)
6. **Concentration**
7. **Iron ore concentrates** (some trading)
8. **Iron ore pellets** (widely traded)

**GOLD**

1. **Ore extraction**
2. **Leaching (cheap or basic)**
3. **Gold recovery from solution using carbon or electorization**
4. **Carbon-hydrogen recovery**
5. **Smelting**
6. **Unrefined bars (gold)**
7. **Refined gold**

*Iron ore fines and concentrates are also used to produce pellets*
Delivery

- This information is all contained in a toolkit – released by the Platform for Collaboration on Tax

Some Issues Raised

• Needless to say, understanding the mining industry is essential.
• Each mineral has unique characteristics and market structure.
• Pricing data is not available for every transaction, and some components of a price are more difficult to verify.
  – Eg products with opaque markets
• Other transactions may be embedded in prices (eg project financing, service fees), making TP analysis more difficult.
• This work has limits – elements of price that will be unique to the facts and circumstances of the transaction.
• Verifying prices best if it’s done in a timely way.

Broader issues
• Product testing is fundamental
• Wider efforts to obtain information can greatly assist in revenue protection
• Broader revenue policies (eg incentives) may be undermining goals
Where it’s going

• Under the IGF-OECD project, we plan to extend the work

Bauxite Study and the challenges of opaque reference markets

Strengthening Govt Oversight of Mineral Value

Led by:
Focus questions

• What issues are you seeing?

• What approaches are working?

• How can we support your work?
THANK YOU!

Web: http://www.oecd.org/ctp/tax-global/taxanddevelopment.htm

email: dan.devlin@oecd.org
EXAMPLE CASE STUDY
GOLD DORÉ
**Ore extraction**

**Leaching (heap or tank)**

**Gold recovered from solution using carbon or zinc**

**Smelting**

**Gravity separation**

**Unrefined bars (doré)**

**Electrolysis**

**Refining**

**Refined gold**

*Silver and other precious metals also recovered*

**Alluvial gold**

*Can be sold or smelted into doré*

Higher-grade ores

Remaining ore

Carbon-based recovery

Zinc-based recovery
Doré – eg 85% gold, 10% silver, impurities

Source: bay area business centre

Refined gold

Alluvial gold

Source: Australian Mining Monthly
Risks

• High value metal..

• Gold can go missing during recovery processes
  – Early on: Gravity separated gold fragments
  – Later: Controls on doré bars – discrepancies between mine weight and refined weight

• Doré is mis-priced (sold cheaply to related entity abroad) or there are “handling/marketing fees”
Gold Pricing

• Doré an important export for many
  – requires refining to transform to pure gold, separate precious metals

• refinery will process the doré and sell the refined gold into global bullion markets
  – Might return to customer (eg breaking down a large gold bar)
Gold Refining

• An important third party against price manipulation. Most miners don’t have their own refinery.

• Why? It’s a competitive, low margin business.
  – Over-capacity globally
  – Quick turnaround to minimise price risks
  – Means they are very careful with weights/measurement

• Earnings are from:
  – Refining fee
  – Margin on price (paid to doré seller vs LBMA)
  – Bonus metals (grams not paid to doré seller)
    • Can be recovered at specialised facilities (especially Japan)
  – Special products e.g. retail coins
  – They will usually fully hedge price risks
MEMORANDUM OF OUTTURN

Our Ref: 
Date of Lodgement:  /11/2011
Date of Outturn:  /11/2011 10:32
Gold Price:  $ 0.00
Silver Price:  $ 0.00
Shipment No.: 

<table>
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<th>Deposit Number</th>
<th>Receipt Wt(oz)</th>
<th>Official Weight</th>
<th>Assay Gold(%)</th>
<th>Report Silver(%)</th>
<th>Fine Gold Allowed(oz)</th>
<th>Fine Silver Allowed(oz)</th>
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<td>624.85</td>
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Total Fine Allowed: 2066.526 362.470

To Metals Account: 2066.526 362.470

Buyer:

L/No: 

Less Charges: Refining 1,499.79
Assay 265.50
Environmental 81.91
Freight Dep No: 25792 2,299.69
GST 0.00

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Amount Due To Refinery USD 4,146.89

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Brief comment on gold markets

- Not a formal currency, but almost
- There’s a global reference price
  - London Bullion Market Association (LBMA)
- But not all doré sellers get exactly the same price (commissions, fees etc)
- Implications:
  - Small regional differences may arise, but quickly eroded by arbitrage
  - Pricing should not deviate too far from LBMA
  - No need for marketing