MINERAL PRODUCT PRICING RISKS AND WAY FORWARD

Dan Devlin
Senior Tax Adviser – Extractive Industries
OECD Centre for Tax Policy and Administration
• What is the base erosion risk?
  – What’s wrong?
  – What have we seen?
• How can we address?
  – Build industry knowledge
  – Harness expertise
What’s wrong?

• Concern that mineral product producing countries not receiving an appropriate return.
  – Under-price mine products in related party transactions
  – (or over-charge for related functions)

• This is a subset of all the many and varied TP issues that might arise.
<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>11.1</td>
<td>8.8</td>
<td></td>
</tr>
<tr>
<td>Company Tax Payable [D]</td>
<td>3.3</td>
<td>2.6</td>
<td></td>
</tr>
<tr>
<td>Total Revenue per shipment [C]</td>
<td>4.8</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Potential Revenue Loss Per Ship</td>
<td>-1.4</td>
<td>-2.2</td>
<td></td>
</tr>
<tr>
<td>Potential Annual Revenue Loss</td>
<td>-71.4</td>
<td>-112.3</td>
<td></td>
</tr>
</tbody>
</table>
What have we seen?

- Reference prices don’t match the product
  - Or keep changing without good reason
- Price is for a particular date
  - Can allow MNEs to choose lowest price in the month
- Adjustments for physical characteristics (e.g. price penalties) are excessive/don’t match industry practices
- Unnecessary handling fees/trial discounts/good customer discounts embedded in contracts
  - E.g. charging a marketing fee even when product never sold on (used in MNE’s production processes)
So how do we proceed?

TP Risks - Product Sales

- transaction doesn’t match actual shipment
- over-charging for
  - transport
  - commissions
  - marketing/logistics/sales
- mine financing mixed in (e.g. streaming)
Pricing work – build a foundation first

6 steps.

1. review each mine for how minerals are extracted and transformed to saleable products
2. identify actual products each mine produces and sells, and whether the processing facilities are also used by third parties (tolling)
3. understand what those products are used for, what drives their prices and how they’re traded
The process continued

4. identify related party sales and their economic context (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
Toolkit on Mineral Product Pricing

Toolkit has been delivered under the Platform for Collaboration on Tax (available in EN, FR, ES)

How to proceed?

• Once you understand the products and their markets, it’s harder to be misled and it reduces time auditors have to spend on this issue (still lots of others).

• Then:
  – Capture that knowledge (e.g. procedures/manuals).
  – Proactively work with companies to settle pricing approach for each product (e.g. interpretive guidance/MOU with company).

• For those minerals without transparent markets: consider more prescriptive approaches (e.g. price formula, APAs).

• Getting detailed industry expertise essential.
  – Can be costly if it’s wrong!
Where do you get the expertise?

• Other entities of government.
• External data providers.
• International/Regional organisations.
• Industry Bodies.
• Companies themselves!
• Others in the supply chain with no connection to your companies (e.g. refineries, smelters).
• Informal tax networks (e.g. these kinds of regional meetings with other countries).
  – grab those business cards.
• Formal tax networks/information exchange.
Further work underway in related areas

Toolkit has been delivered under the Platform for Collaboration on Tax (available in EN, FR, ES)

Planned extensions:

- Pricing challenges in opaque reference markets (bauxite case)
- Examining metals streaming
- Strengthening Oversight of Mineral Testing
MINERAL PRODUCT
PRICING RISKS AND
WAY FORWARD

Dan Devlin
Senior Tax Adviser – Extractive Industries
OECD Centre for Tax Policy and Administration
ADDITIONAL SLIDES - EXAMPLE CASE STUDY GOLD DORÉ
Ore extraction

Leaching (heap or tank)

Gold recovered from solution using carbon or zinc

Smelting

Gravity separation

Electrolysis

Unrefined bars (doré)

Refining

Alluvial gold

*Can be sold or smelted into doré

*Silver and other precious metals also recovered
Alluvial gold

Source: Australian Mining Monthly

Doré – eg 85% gold, 10% silver, impurities

Source: bay area business centre

Refined gold
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”
Ore extraction

Leaching (heap or tank)

Gold recovered from solution using carbon or zinc

Smelting

Unrefined bars (doré)

Gravity separation

Alluvial gold

Higher-grade ores

Remaining ore

Electrowinning

Carbon-based recovery

Zinc-based recovery

Refining

Refined gold
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>
<thead>
<tr>
<th>Deposit Number</th>
<th>Receipt Wt (oz)</th>
<th>Official Weight</th>
<th>Assay Gold (%)</th>
<th>Assay Silver (%)</th>
<th>Report Fine Gold Allowed (oz)</th>
<th>Report Fine Silver Allowed (oz)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>25790</td>
<td>624.85</td>
<td>620.20</td>
<td>77.150</td>
<td>20.490</td>
<td>478.006</td>
<td>125.808</td>
<td>Description: SR 4393-</td>
</tr>
<tr>
<td>25791</td>
<td>968.77</td>
<td>963.99</td>
<td>87.020</td>
<td>10.870</td>
<td>835.025</td>
<td>103.738</td>
<td>Description: SR 4395-</td>
</tr>
<tr>
<td>25792</td>
<td>906.04</td>
<td>902.94</td>
<td>83.200</td>
<td>14.870</td>
<td>750.495</td>
<td>132.924</td>
<td>Description: SR 4397-</td>
</tr>
</tbody>
</table>

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  

Amount Due To Refinery  
USD  4,146.89
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 far from LBMA
  – No need for marketing