Special Rules for Commodity Sales: Zambia’s Use of the ‘Sixth Method’

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SUMMARY

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<th>Challenge</th>
<th>Designing a rule to help determine prices in mineral sales between related parties, prevent under-invoicing and increase income tax collection. (Precept 4 of the Natural Resource Charter)</th>
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<td>Zambia, 2008 to present</td>
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<td>Challenge in country</td>
<td>Mining income tax collection was low relative to the value of copper exports. The Zambia Revenue Authority (ZRA) identified under-invoicing of related party mineral sales as a potential cause.</td>
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<td>Core decisions</td>
<td>Whether to use publicly quoted benchmark prices as the basis for calculating sales revenue from related party mineral sales</td>
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<td>Policy decisions, implementation and governance</td>
<td>In 2008 the Ministry of Finance amended transfer pricing rules, requiring mining companies to use publicly quoted benchmark prices as the basis for determining the transfer price of related party mineral sales. This is commonly referred to as the “sixth method.”</td>
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<td>Did it work?</td>
<td>The Zambia Tax Appeals Tribunal recently ruled that Mopani Copper Mines must pay approximately USD 500,000 in outstanding taxes due to under-invoicing of mineral sales to its parent company, Glencore International. In addition to correcting prior pricing practices, ZRA can avoid complex transfer pricing analysis of mineral sales, instead focusing its limited resources on other issues. The tax treatment of sales revenue is now more predictable for mining companies.</td>
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<td>Quantified losses</td>
<td>In 2008, when the sixth method was introduced, income tax ZRA collected from mining amounted to only 18 percent of the total value of copper exports. A preliminary audit of one mining company identified systematic under-invoicing of sales to a related party through a hedging agreement.</td>
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<td>Lessons learned</td>
<td>To apply the sixth method with quality adjustments, a tax authority should have access to expertise and equipment to test the grade and quality of mineral exports. Coordination between the tax authority and the mining regulatory agency is necessary to ensure consistent valuation of mineral sales for the calculation of royalties and income tax. The sixth method works best for minerals that are traded into terminals or stock markets and priced on an international index. Resource-rich countries should consider using reference prices as the basis for valuing all mineral sales, regardless of whether they are controlled.</td>
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ABOUT THE SERIES

This is one of a series of case studies that illustrates the principles of the Natural Resource Charter. The charter is a tool used by governments and societies seeking to better harness the opportunities created by extractive resources.
THE CHALLENGE

In developing countries, foreign multinationals often carry out large-scale mining operations, selling their production either directly to affiliated smelters or refineries, or to an associated marketing or trading company. Companies may deliberately distort the price of related party mineral sales to pay less tax in the source country, allowing profits to accumulate offshore. Many countries lack facilities to test the grade and quality of mineral exports, putting them at a further disadvantage when assessing related party sales.

From the late 1990s through to the mid-2000s, the government of Zambia offered mining companies generous fiscal terms under individual development agreements. During this period, mining activity in Zambia increased substantially. Despite the increase in production and the rise in copper prices, tax revenues from mining companies remained low. This led to a public perception that Zambia was not receiving its “fair share” of the returns from mining.

In addition to the generous fiscal terms, ZRA pinpointed mispricing of related party sales as a specific reason for low revenue collection. A preliminary audit report in 2009 alleged that the Mopani Copper Mines Plc, owned by the Anglo-Swiss multinational Glencore, was using hedging contracts with related parties to set an artificially low sale price for its production. This created systematic hedging losses, ultimately reducing the company’s taxable income in Zambia. Although these allegations are yet to be resolved (the case is currently under audit), ZRA’s suspicion of price manipulations at the time, given the low revenue collection and limited mining audit capacity (only two auditors were monitoring the sector in 2008), was sufficient to trigger a legislative response.

THE RESPONSE

In 2008 the Ministry of Finance introduced several reforms to improve mining revenue collection. In particular, it amended the transfer pricing provisions of the Income Tax Act, Section 97A, to require mining companies to calculate all related party mineral sales according to global reference prices. The Ministry of Finance authorized the following price indexes: London Metals Exchange (LME), the Metal Bulletin, or any other metal exchange market approved by the commissioner-general of ZRA. The Ministry of Mines and Mineral Development cross-referenced...

Zambia’s approach is commonly referred to as the “sixth method.” The sixth method originated in Argentina in 2003, when the government was seeking to evaluate the sale of raw materials to related parties in countries with lower tax rates. It is a simplified version of the comparable uncontrolled price (CUP) transfer pricing method, designed specifically to limit the risk of transfer mispricing in commodity transactions. Argentina’s legislation requires that taxpayers selling commodity products to offshore related parties use the publicly quoted price of the traded goods on the date the goods are shipped, unless the price the related parties agree to is higher than the quoted price. The sixth method has become a popular way for resource-rich developing countries, particularly in Latin America, to simplify the application of the arm’s length principle to commodity transactions. Zambia is the only African country currently using the sixth method.

Zambia’s version of the sixth method applies to base and precious metals or substances containing these metals. This is primarily because copper and cobalt are leading commodities for Zambia, but also because publicly quoted prices are readily available for these products. Refined base and precious metals are sold into terminal commodity markets, with a range of indexes providing daily quoted prices. Applying the sixth method to other substances will depend on the availability of pricing information. For example, specialty metals, non-metallic industrial minerals and gemstones are highly specialized products for which benchmark prices may not exist.

Action 10 of the base erosion and profit shifting initiative by the Organisation for Economic Co-operation and Development recently endorsed the use of benchmark prices as one basis for applying the CUP method to related party mineral sales. However, for the benchmark price to be applicable, the circumstances of the actual sale must be sufficiently similar to those that decided the benchmark price in terms of mineral quality, contractual terms, transportation and insurance. Recognizing the relevance of benchmark prices in international norms is a positive step, but the extensive comparability analysis required to implement the CUP method undermines the simplicity ZRA was seeking by using the sixth method.

**Challenges to implementing the sixth method in Zambia**

The market value of minerals, and therefore the sale price receivable, depends on grade and quality. Consequently, the Income Tax Act allows mining companies to adjust the relevant reference price downwards in cases where customers require discounts for low quality ore. By allowing for quality adjustments, the Ministry of Finance responded to companies’ main concern with reference prices. However, ZRA lacks the mineral laboratory facilities to test the quality and grade of mineral exports, making it difficult to verify quality adjustments that companies make. The ministry of mines, energy and water development has done some metal assaying in the past, with limited facilities, in order to value minerals to calculate royalties. However, it has not automatically shared the results with ZRA, nor has ZRA received this information upon requesting it. Independent valuation of mineral exports is a challenge for most African governments. Accordingly, there is a strong argument to disallow any deductions or adjustments in applying the sixth method. Where mining agencies do have mineral testing facilities, coordination with the tax authority is critical to ensure alignment of mineral valuation for royalties and income tax.
The sixth method is a transfer pricing method. This means that it is only applicable to related party sales. However, tax authorities are not always able to determine whether local mining subsidiaries and international buyers are related. For example, it was recently confirmed in London’s High Court that Vedanta Resources, the parent of Konkola Copper Mines Plc (KCM), a company operating in Zambia, was using subsidiary Furaijah Gold to buy under-valued copper from KCM.\(^1\) Many mining multinationals have complex and opaque group structures that make it difficult for revenue authorities to identify related party transactions. Consequently, tax authorities should consider extending the sixth method to all mineral sales, whoever the buyer is. This approach is already common in valuing the base of mineral royalties. Extending it to income tax base calculations would go against most current international practices, but with proper regulations, and in consultation with the industry, it could be an effective policy to protect the tax base of developing countries.

**THE OUTCOME**

There is consensus between ZRA and the mining industry that companies are complying with the sixth method and use the LME as the basis for mineral pricing of their sales to related parties. Some companies had been engaging in aggressive transfer pricing in the past, but ZRA has identified and rectified these. In the case of Mopani Copper Mines, the Zambia Tax Appeals Tribunal ruled that it must pay ZRA approximately half a million USD in outstanding taxes for the period 2006–2010, due to manipulation of mineral prices between Mopani and its parent company, Glencore International.\(^2\) Mopani is likely to appeal the decision. While the judgment is yet to be released, this case will help ZRA quantify the impact of the sixth method, comparing variation in pricing, as well as income tax collection, from Mopani before and after the rule was introduced.

In addition to tightening up prior pricing practices, ZRA reports that the sixth method has simplified income tax administration with respect to mineral sales, freeing up valuable time and resources to focus on other transfer pricing issues. When a mining company submits its tax return online, the system automatically inputs the relevant LME price for related party sales and calculates the tax accordingly, reducing the need for transfer pricing analysis. According to one ZRA official, “Section 97 acts a deterrent. It removes a free kick for companies.”

Companies report a positive experience with the implementation of the sixth method. One representative referred to it as a “pragmatic approach” that has made ZRA’s tax treatment of sales revenue more predictable. Companies appreciate ZRA’s flexibility in allowing deductions for quality adjustments. The fact that there hasn’t been a strict interpretation of reference prices seems to have been important in maintaining buy-in from companies, although risks of overestimating these deductions remain as long as ZRA and the ministry of mines lack adequate mineral laboratory facilities to verify quality adjustments.

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LESSONS LEARNED

Applying the arm’s length principle to related party mineral sales is difficult, requiring tax authorities to make complex adjustments for which they lack comparable data or industry expertise. To simplify pricing of related party mineral sales, finance ministries should consider developing special transfer pricing rules based on benchmark prices, reflecting the fact that benchmark prices do play a key role in the normal commercial pricing of many minerals.

In designing a special transfer pricing rule for related party mineral sales, finance ministries, along with tax authorities and mining regulatory agencies, should consider the following:

- **Having access to expertise and equipment to test the grade and quality of mineral exports.** When applying the sixth method with quality adjustments, the tax authority must be able to verify all quality adjustments reported by companies, either by establishing its own mineral testing facilities, collaborating with existing facilities or contracting an assaying firm. If none of these options are available, the finance ministry should formulate the sixth method such that quality adjustments are not permitted.

- **Coordination between the tax authority and the mining regulatory agency.** Both agencies undertake mineral valuation, but for different purposes. To ensure that valuation is consistent, both agencies should share testing facilities, or at least exchange assay results, to achieve a common understanding of the grade and quality of mineral exports as a basis for calculation of royalties and income tax.

- **The sixth method works best for minerals that are traded into terminals or stock markets and priced on an international index.** Daily quoted prices for minerals sold into terminal commodity markets are easily obtainable from a range of indexes to benchmark related party sales. Applying the sixth method to other substances will depend on the availability of sufficient pricing information for a particular mineral product.

- **Using reference prices as the basis for valuing all mineral sales, regardless of whether they are controlled.** It can be difficult for tax authorities to determine when to apply the sixth method, as it may not be immediately apparent that a local mining subsidiary and international buyer are related. A more radical approach would be to apply the sixth method to all sales of a particular commodity, irrespective of whether a related party is involved.