

IGF-OECD PROGRAM TO ADDRESS BEPS IN MINING

# THE HIDDEN COST OF TAX INCENTIVES IN MINING

CONSULTATION DRAFT



**IGF**

INTERGOVERNMENTAL FORUM  
on Mining, Minerals, Metals and  
Sustainable Development



BETTER POLICIES FOR BETTER LIVES

This toolkit has been prepared under a programme of cooperation between the OECD and the Inter-Governmental Forum on Mining, Metals, Minerals, and Sustainable Development (IGF), as part of a wider effort to address some of the challenges developing countries are facing in raising revenue from their mining sectors. It complements action by the Platform for Collaboration on Tax to produce toolkits on top-priority tax issues facing developing countries.

It reflects the views of staff of the OECD Centre for Tax Policy and Administration Secretariat and IGF, but should not be regarded as the officially endorsed view of either organization or of their member countries.

The lead organisation for this toolkit was the IGF. It is a consultation draft.

#### **More Information on the Program:**

This program builds on the OECD BEPS Actions to include other causes of revenue loss in the mining sector, such as the use of harmful tax incentives, abusive hedging arrangements and metals streaming.

The program will cover the following issues:

1. Excessive interest deductions
2. Abusive transfer pricing
3. Undervaluation of mineral exports
4. Harmful tax incentives
5. Tax Stabilisation
6. International Tax Treaties
7. Metals Streaming
8. Abusive Hedging Arrangements
9. Inadequate Ring-fencing

OECD: <http://www.oecd.org/tax/beps/>

IGF: <http://igfmining.org/tax-avoidance-guidance-document/>

#### ***Acknowledgements***

*IGF would like to thank the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH for its support. The GIZ's support of this research is made possible through a grant to the IGF and this support does not influence the outcomes of this research.*

<b>INTRODUCTION.....</b>	<b>4</b>
ABOUT THIS TOOLKIT.....	4
HOW IS IT STRUCTURED?.....	5
WHO IS THIS TOOLKIT FOR? .....	5
WHAT GAP IS THE TOOLKIT FILLING? .....	6
<b>TAX INCENTIVES FOR MINING INVESTMENT .....</b>	<b>8</b>
WHAT IS A MINING TAX INCENTIVE?.....	8
WHERE ARE INCENTIVES FOUND IN THE LAW?.....	9
TAX INCENTIVES AND THE OECD BASE EROSION AND PROFIT SHIFTING PROJECT .....	10
<b>A GUIDE TO REVIEWING MINING TAX INCENTIVES .....</b>	<b>11</b>
STEP 1: WHAT IS THE <i>TYPE</i> OF TAX INCENTIVE?.....	11
STEP 2: HOW IS THE TAX INCENTIVE <i>DESIGNED</i> ?.....	12
STEP 3: WHAT IS THE POTENTIAL EFFECT ON GOVERNMENT REVENUES? .....	13
<b>RISK REVIEW OF MINING TAX INCENTIVES AND RELATED BEHAVIOURAL RESPONSES .....</b>	<b>14</b>
<b>TAXES ON INCOME.....</b>	<b>14</b>
1. INCOME TAX HOLIDAYS .....	14
2. WITHHOLDING TAX RELIEF .....	18
3. COST-BASED INCENTIVES.....	21
<b>TAXES ON IMPORTS AND EXPORTS .....</b>	<b>25</b>
4. EXPORT PROCESSING ZONES .....	25
5. IMPORT DUTY RELIEF .....	28
<b>TAXES ON PRODUCTION.....</b>	<b>32</b>
6. ROYALTY-BASED INCENTIVES.....	32
<b>OTHER.....</b>	<b>36</b>
7. STABILIZATION OF FISCAL INCENTIVES .....	36
<b>SOURCES OF INFORMATION FOR REVIEWING TAX INCENTIVES .....</b>	<b>40</b>
<b>CONCLUSION .....</b>	<b>43</b>
<b>BIBLIOGRAPHY .....</b>	<b>45</b>

## Introduction

In a world of mobile capital and profits, many developing countries use tax incentives in the hope of attracting domestic and foreign investment. Their effectiveness however, has often been disputed, not least in relation to the mining sector, which involves location specific resources that cannot be moved. Tax incentives are also costly, leading many countries to forgo vital revenues in exchange for often illusive benefits.

Nonetheless, governments may determine that they would still benefit from introducing tax incentives for the mining sector because of some specificities in their jurisdiction. For example, changing tax arrangements may appear easier to deliver than other investment-promoting actions such as infrastructure. In such cases, tax incentives need to be carefully designed to be effective (that is, they achieve their policy objective) and efficient (the policy goal is achieved at the minimum cost to government revenue).

### Box 1. Efficiency? Effectiveness?

#### Effectiveness is when...

- The policy objective is achieved
  - E.g., increased investment (which must also yield the desired social benefits in broader welfare terms, jobs for example).
- The investment would not have happened without the incentive.

#### Efficiency is when...

- Objectives are achieved at low social costs
  - E.g., low revenue losses for government, no displacement of investment, etc.
- The resource cost of administering the incentive is low.

The framework is covered in detail in the Platform for Collaboration on Tax (PCT) report *Options for Low Income Countries' Effective and Efficient Use of Tax Incentives*, which is the backdrop to the toolkit currently at hand, developed by the Intergovernmental Forum on Mining, Metals, Minerals and Sustainable Development (IGF), and the OECD.

### About this Toolkit

This toolkit looks at tax incentives in the mining sector. For many developing countries, receipts from mining are often a major source of revenue. The central task for policy makers, therefore, is to design fiscal regimes for the mining industry that raise sufficient revenue, whilst providing adequate inducement to invest. Many times, governments have given tax incentives to mining investors that have turned out to be overly generous, forgoing significant tax revenues, and sometimes resulting in conflict with investors.

Preventing similar occurrences from happening again, demands sector-specific guidance on the design and use of tax incentives.

Building on the efficiency and effectiveness framework, this toolkit zeros in on the types of behavioural responses of taxpayers, and unintended consequences that might flow from providing tax incentives. For example, if a mine is given a time-limited tax holiday one response might be to speed up the rate of production to increase its tax-free revenue during the period (the “behavioural response”). When the holiday expires, there is less ore left to extract than if the mine had maintained a normal rate of production, further reducing government revenue (the “unintended consequences”).

The goal of this toolkit is that governments of resource-rich countries are better equipped to identify, and cost potential behavioural responses by mining investors to tax incentives.

### How is it structured?

The toolkit is divided into three sections.

- a) A **step-by-step guide** to reviewing mining tax incentives
  - What is the type of tax incentive, and the related behavioural responses?
  - How is the incentive designed?
  - What is the cost to government revenue?
- b) A **detailed risk review** of mining tax incentives: definitions, behavioural responses (including real-life examples), and recommendations for how incentives could be better designed to mitigate unintended revenue losses.
- c) An **information checklist** that highlights some of the information government needs to assess possible behavioural responses, and the impact on revenue.

Supplementary guidance on how to integrate behavioural responses into project-level financial models, plus a dataset of incentives from approximately 160 mining contracts in 22 countries are forthcoming.

### Who is this toolkit for?

The toolkit is intended for use by government decision-makers to analyse tax incentives in relation to mining fiscal regime design, and contract negotiation. The aim is to generate informed, well-grounded decisions particularly with respect to the potential revenue cost. It may also be used by tax administrators to identify potential risks to the tax base, and shape audit priorities. Finally, the toolkit may help parliamentarians, and civil society examine tax incentives in order to strengthen government accountability.

## What gap is the toolkit filling?

There is a wealth of information available on mining fiscal regime design. Readers should refer to the *International Monetary Fund (IMF) handbook series on natural resource taxation*, the *United Nations Handbook on Extractive Industries Taxation (2018)*, and the *World Bank Sourcebook for mining tax administration (2013)*. In addition, there is authoritative guidance on the design and use of tax incentives not specific to mining. For example, the PCT report *Options for Low Income Countries' Effective and Efficient Use of Tax Incentives for Investment*, including the background document which suggests practical ways to assess the costs and benefits of incentives; and 'Rethinking Investment Incentives' by the Columbia Centre for Sustainable Investment.

These documents are important context, however there were two gaps identified that this toolkit seeks to address. The first was guidance on tax incentives in the mining sector specifically. Whilst tax incentives feature in the literature on mining fiscal regime design, there is no guidance specifically devoted to the topic. The second was insights on how mining investors may change their behaviour in response to tax incentives to maximise the tax benefit beyond what government intended. Government decision-makers and technicians are increasingly aware of the direct impact of tax incentives on revenue collection, but less so the ways incentives may be misused.

## Box 2. A Note of Caution

This toolkit should not be read as an endorsement of tax incentives, but rather a pragmatic attempt to assist officials with providing comprehensive advice to ministers and, where a decision to give incentives is nevertheless made, to then minimise their harmful effects.

Before using tax incentives, policymakers should consider the following:

**There are many drivers of mining investment decisions.** One survey<sup>1</sup> of mining companies lists the following factors in order of priority:

- a) quality of the resource;
- b) economic factors - location of the resource (i.e. transport costs, ease of export); price outlook for target minerals, and technology (i.e. challenges relating to recovery of the mineral).
- c) policy climate - enforcement of existing rules, taxation, security of tenure, infrastructure, political stability, labour issues, and security, to name a few.

**There is no empirical evidence that tax incentives attract mining investment in developing countries.**

- (Klemm and Parys 2011) find that tax incentives may have a small positive effect on foreign direct investment (FDI) but no effect on increasing fixed assets, for example, machinery, equipment and buildings, which means new foreign direct investment mainly displaces other investment.
- (James 2009) finds that tax incentives are not able to compensate for serious deficiencies in a country's policy environment, and economic factors.

Despite their questionable efficacy, tax incentives remain a quick “go to” response for many countries eager to attract investment and to drive industrialisation and local value adding.

This toolkit takes the view that it is essential that governments carefully consider the trade-offs related to tax incentives: the revenue cost, versus the benefits from the investment (i.e. jobs, infrastructure, revenues etc). It seeks to assist in this process, recognizing that in many developing countries officials are (and will be) tasked to design and implement tax incentives to promote their mining sector.

## Tax Incentives for Mining Investment

Mining is a high-risk, long-lived business. It is capital intensive, with significant investment in exploration and development, mostly sourced from the private sector. It has long periods of pre-production during which no revenue is earned. It is high risk because it depends on exploration being successful, and its profit is sensitive to highly volatile commodity prices and exchange rates. In this light, governments sometimes choose to offer carefully designed tax incentives to induce mining investment.

On the other hand, mineral resources are finite, non-renewable, and generally owned by the state for the benefit of its citizens. Thus, government has a responsibility to transform its mineral wealth into lasting development outcomes. However, according to *Breaking the Curse* (2009), African governments have granted too many tax concessions and subsidies to the mining industry, which have been made worse by aggressive corporate tax avoidance. As a result, citizens of mineral-rich countries continue to live in poverty.

To break this particular manifestation of the ‘resource curse’, government must carefully consider if or when tax incentives are necessary to attract mining investment, and how to design them in a way that minimises the cost to government revenue.

### What is a mining tax incentive?

The analysis of tax incentives faces fundamental definitional obstacles, related to the determination of the relevant benchmark. The benchmark, and hence what constitutes a tax incentive, will differ from country to country.

In this toolkit, by a ‘tax incentive’ is meant:

- .....any **special tax provisions**
- .....granted to **mining investors**
- .....that provide **favourable deviation**
- .....**from the general tax treatment** that applies to all corporate entities.

E.g., The **benchmark** (i.e. the general tax treatment) is that all corporate entities must pay income tax at a rate of 30 per cent. The **incentive** is that mining investors pay income tax at a rate of 25 per cent.

The incentive need not apply to mining alone, it could be that other sectors, or categories of investors also receive the same benefit provided it is not the general tax treatment.

The first column in Table 1 outlines the main fiscal instruments (taxes, royalties, etc.) that determine how the revenues from mining projects are shared between government and investors. The second column lists the corresponding tax incentives that government may use to compete for mining investment, that are covered in detail later in this toolkit.

Table 1. Mining fiscal instruments and corresponding tax incentives

Mining fiscal instruments	Corresponding tax incentives
<b>Taxes on income</b> (e.g., corporate income tax, resource rent taxes, withholding taxes)	<ul style="list-style-type: none"> <li>- income tax holiday,</li> <li>- accelerated depreciation,</li> <li>- investment allowance / tax credit,</li> <li>- longer loss carry forward,</li> <li>- withholding taxes relief on interest expense, dividends, services (e.g., management fees)</li> </ul>
<b>Taxes on production</b> (e.g., mineral royalties)	<ul style="list-style-type: none"> <li>- reduced or deferred mineral royalties,</li> <li>- royalty holiday,</li> <li>- sliding scale royalty</li> </ul>
<b>Tariffs on imports and exports</b> (e.g., tariffs on import of capital inputs)	<ul style="list-style-type: none"> <li>- import duty relief,</li> <li>- export processing zones</li> </ul>
<b>Others</b>	<ul style="list-style-type: none"> <li>- stabilization of fiscal terms</li> </ul>

For an overview of mining fiscal regime design see *Fiscal Regime Design: What Revenues the Government Will be Entitled to Collect (2015)*.

### Where are incentives found in the law?

The benchmark will always be derived from the general income tax code, this is because it is the law that applies to all taxpayers by default. Tax incentives, however, may be contained in additional sources of law. For mining specifically, tax incentives may be found in three sources of law:

1. **The general income tax code**, which may include special provisions for mining, either in a separate schedule or chapter, or in the main part of the code.  
E.g., a lower rate of corporate income tax.
2. **The mining law**, which may contain more detail on the sector-specific fiscal regime. E.g., a reduced rate of tax collected on imported goods for mining.
3. **The mining contract**, which may include project-specific fiscal terms.  
E.g., a complete exemption from paying taxes for a period.

There are two additional potential sources of law that may contain mining tax incentives but are not covered in this toolkit. These are Double Taxation Agreements (DTAs), and investment laws. DTAs are bilateral, or multilateral agreements between countries that set out which country has the right to collect tax on different types of income. These will be covered in detail in separate guidance under the IGF-OECD cooperation.

### Tax Incentives and the OECD Base Erosion and Profit Shifting Project

Tax incentives may provide an additional motivation for investors to engage in base erosion and profit shifting (BEPS) practices. According to the OECD BEPS project, which was launched in 2013, BEPS refers to tax avoidance strategies that exploit gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations.

The BEPS practices mentioned in this toolkit are abusive transfer pricing (BEPS Actions 8-10) and thin capitalisation (BEPS Action 4).

- Transfer pricing is a business practice that consists of setting a price for the purchase of a good or service between two related parties. It becomes abusive when the related parties distort the price of a transaction to reduce their taxable income. More information: *Toolkit for Transfer Pricing Risk Assessment in Mining*
- Thin capitalization arises when a company is financed through a high level of debt compared to equity, which results in excessive interest deductions.

The use of tax incentives may make government revenues more vulnerable to these BEPS practices, than if the general tax treatment applied.

E.g., A mine receives management and administrative services from a foreign related party, located in a lower-tax country. It must pay a fee in return (the “transfer price”). Normally, this fee would be subject to withholding tax in the country where the mine is located. However, due to an incentive there is no tax to be paid. In response, the related party artificially increases the fee, thus stripping profit out of the mine, and transferring it offshore. This is a case of a tax incentive increasing the motivation of the group of companies to manipulate the transfer price.

## A Guide to Reviewing Mining Tax Incentives

Step 1: What is the *type* of tax incentive?

Table 2. Type of tax incentive and the related behavioural response

Tax incentive	Potential Behavioural Response
<b>Income tax holidays</b>	Investors may increase their income during the tax-free period by speeding up the rate of production, and shifting the profits offshore.
<b>Export processing zones (EPZs)</b>	EPZs may set up a competing fiscal regime between the mineral processing facility, and the mine. In response, investors may seek to reduce their taxable income by selling its mineral production at below market rate to its related party smelter, which is subject to lower tax rates in the EPZ.
<b>Royalty-based incentives</b>	Investors may shift revenues into the tax-free period, like the response to a tax holiday. A sliding scale royalty may encourage tax planning strategies to avoid falling into a higher royalty bracket.
<b>Withholding tax relief on interest and services</b>	Investors may increase the amount of interest expense, and charges for administrative services paid to foreign affiliates, usually in low tax jurisdictions.
<b>Cost-based incentives</b> (e.g., accelerated depreciation)	Investors may inflate their capital expenditure (i.e. money spent on assets, building, and equipment) above what is needed, in order to maximise the tax benefit (“gold plating”).
<b>Import duty relief</b>	Investors may increase the cost of machinery and equipment purchased from related parties to increase their deductible expenses.
<b>Fiscal stabilisation assurances</b> (i.e. the mining fiscal regime is frozen)	Combining tax incentives with excessive use of fiscal stability provisions will magnify the adverse impact of tax incentives, including the unintended consequences, by potentially cutting off government ability to correct mistakes and unexpectedly large revenue losses.

## Step 2: How is the tax incentive *designed*?

### *Does the tax incentive create parallel fiscal regimes side-by-side?*

- Incentives that apply to one segment of the mining value chain (e.g., processing), and exclude others, may create opportunities for transfer pricing manipulation.

### *Is the 'base' to which the tax incentive applies clearly defined?*

- Where the 'base' is expenditure (i.e. in the case of an investment allowance), it is necessary to clarify (i) what type of expenditure is included; (ii) whether losses can be carried forward to be offset against income in future years, and (iii) if they can be added to the deductible expenditure;

### *Does the incentive create cliff edges?*

- The abrupt ending of a tax incentive may create an incentive to shift profits forward to avoid paying taxes when the incentive ends.
- E.g., in the case of sliding scale royalties, where the rate adjusts depending on the price (or other variables), companies near to the boundary of a rate change may be incentivised to under-price sales.

### *How does the tax incentive interact with other tax incentives?*

- When combined, certain groupings of incentives may increase the revenue cost; E.g., combining an income tax holiday with an exemption from withholding tax on shareholder dividends will result in significant profits going completely untaxed.

### *Is the fiscal stabilization clause limited in time and scope?*

- E.g., Stabilisation could be limited to specific fiscal terms relating to capital recovery, income and withholding tax rates, royalty rates, and the maximum rate on import duties. All other changes in tax law that apply generally and do not discriminate against mining would apply

### *Is the tax incentive open ended?*

- There should be opportunities for review, as well as sunset clauses to reduce the potential costs of badly designed tax incentives programmes. E.g., government could specify that an investment tax credit be carried forward for the first three "profitable" years; thus, preventing the deferral of tax payments for long periods.

### Step 3: What is the potential effect on government revenues?

#### *Estimate baseline revenues from the mining project*

- Baseline revenues are what would be collected without the incentive;
- When modelling tax incentives for the mining sector the appropriate baseline will be the tax regime that applies to general taxpayers. For specific mining projects, the appropriate baseline will be the mining fiscal regime, which may be in sector specific law, or the general tax code.

#### *Estimate the revenue cost of the proposed tax incentives*

- Incorporate the specific tax incentive to the fiscal regime being modelled;
- Calculate the difference between baseline total revenues and total revenues after the tax incentive is applied.

#### *Estimate the cost of the behavioural response(s) that may flow from tax incentives.*

- While it might not be possible to know the extent of the behavioural response, attempting to model it can still give an indication of the risks involved and the potential orders of magnitude.

#### *Run scenario and sensitivity analyses to determine the revenue cost of the incentive depending on different underlying assumptions.*

- The revenue cost of tax incentives may vary depending on the rate of production, the cost profile of the mine, and future commodity prices. It is necessary to model different scenarios to establish a robust cost estimate.

#### Box 3. A Checklist for Good Governance and Tax Incentives:

- The government should have clear, measurable policy objectives for the incentives regime that are publicly stated, subject to public consultations, and regular monitoring;
- Incentives should be given out through laws only, rather than individual mining contracts;
- Incentives should be available to all mining investors based on clearly articulated eligibility criteria prescribed in the law;
- The government should regularly calculate, and report publicly, the amount of revenue loss attributable to incentives.

## Risk Review of Mining Tax Incentives and Related Behavioural Responses

### TAXES ON INCOME

#### 1. *INCOME TAX HOLIDAYS*

**Definition:** A tax holiday is a tax-free period. The duration may vary from one year, to the entirety of the project. It may take the form of a complete exemption from profits tax, or a reduced rate, or a combination of the two (Zolt, 2015).

#### 1.1 Behavioural Responses

##### a) High-grading

“High-grading” involves companies increasing the rate of extraction, or preferentially extracting high-grade ore, compared to what they would otherwise do absent tax considerations. The result is that the amount of tax relief is well above that originally envisioned by government. This is most likely to occur when the tax holiday is time-limited, for example, five years in Cote d’Ivoire, and unconstrained (i.e. not linked to the level of production).

However, while high-grading with the express purpose of avoiding tax is a possibility, it is also not unusual for a company to want to mine high value, easy to access ore first, to improve its cash flow, rather than the other way around. For example, if there is a gold dome on a copper deposit, the company will mine the gold first. Therefore, it is important to closely examine the circumstances surrounding high-grading, to determine whether it is a behavioural response to the tax regime, or simply a mechanism to improve the profitability of the mine.

##### b) Abusive Transfer Pricing

It is common for mining companies to have multiple projects in the same country. If the individual mines are subject to time-bound tax holidays, for example, a period of five years, there may be an incentive for companies to shift profits from older mines no longer enjoying tax holidays, to newer mines, using the mechanism of abusive transfer pricing (IMF, 2017). For example, the older mine might procure goods and services from the newer mine at an above market rate. A more extreme measure is to physically move mineral production from one to the other, so it is counted as part of the new mine’s production, minimizing the group’s overall tax bill.

### More reasons not to grant income tax holidays

Irrespective of the potential behavioural responses, income tax holidays are an inefficient and ineffective incentive for mining.

Table 3. Reasons not to offer income tax holidays to mining investors

Reason	Explanation
<b>Mining is location specific</b>	The resource is available only, or primarily in a particular place, making it difficult for investors to move where they are offered better fiscal terms.
<b>Marginal mines benefit less from tax holidays than more profitable mines</b>	E.G., if a mine’s gross profit is \$200 and its operating costs are \$50, a tax holiday means it keeps \$150 in revenue; whereas for a mine that has the same costs but only \$100 in profits, it keeps just \$50 in revenue.  Government forgoes more revenue from the profitable project, (less likely to require tax incentives) than the marginal project, whose viability may depend on favourable fiscal terms.
<b>Tax holidays have no impact on the cost of investing</b>	Tax holidays are only relevant once a mine is profitable, and in a tax paying position, which may be years after the decision to invest.
<b>Mining companies are not well disposed to tax holidays</b>	They would prefer countries to improve other aspects of their mining fiscal regime to make it more competitive (ICMM, heads of tax network, personal communication, October 2017).

### 1.2 Recommendations

If government regards tax holidays as essential, they should include these conditions:

- a) A minimum amount of investment, or the creation of new jobs.

Governments should bear in mind that these conditions may be gamed by investors by overvaluing the assets contributing to the investment, or making up the number of employees by hiring staff with minimal duties at low wages.

- b) Depreciation costs should be deducted in assessing taxable income.

During the tax holiday, there is no taxable income against which to offset deductions for the depreciation cost of mining plant and equipment. Unless stated otherwise, companies will accumulate these deductions, deducting them from taxable income once

the tax holiday expires. In effect, the tax holiday is extended, reducing future tax collection (Guj 2014). To avoid this, governments should require that depreciation costs be deducted in assessing taxable income to which the tax holiday applies.

- c) Limit the holiday to the time anticipated for a specified tonnage to be extracted.

Government may reduce the risk of high-grading by agreeing a tax holiday on a tonnage-of-ore-extracted basis i.e. once the agreed tonnage has been extracted the tax holiday expires (Guj, 2014). The 2012 Mali Mining Code states that if production exceeds the levels approved annually by the company's board of directors by 10%, the generally applicable corporate income tax rate is applied to the excess. An alternative would be to benchmark production to the feasibility study, rather than the decision of the board.

#### Box 4. 'Pioneering Status' in Singapore

The Government of Singapore offers a concessionary tax rate, or complete exemption to "pioneering" investors for five years, provided they fulfil certain conditions on an annual basis, including total business expenditure, the creation of jobs, payments to local suppliers, and knowledge and technology transfer. The incentive is in the law, it is available to all investors that fall into the category of "pioneering". If the conditions aren't met the tax rate steps up.

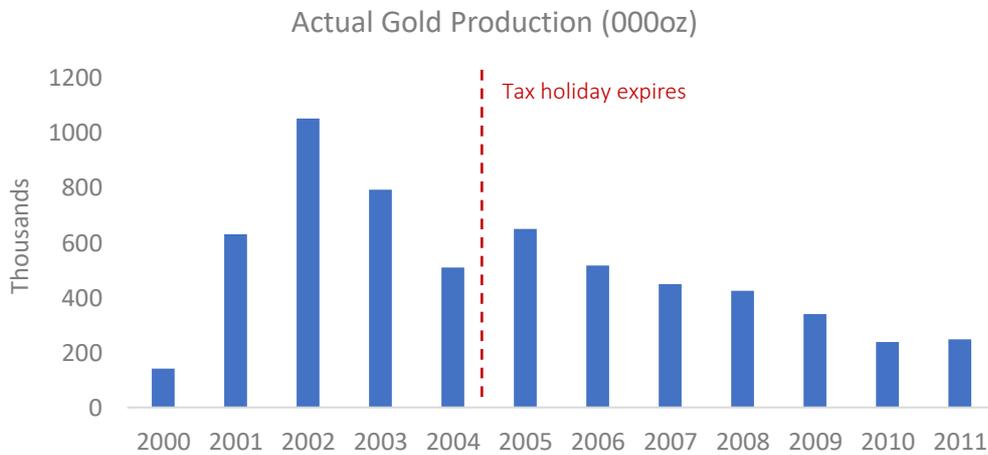
The incentive is monitored by the Economic Development Board (EDB). Investors that are granted the incentive must submit regular progress reports to the EDB for the evaluation of performance. If there is any breach of conditions, the incentive may be revoked, as well as recovery of associated benefits.

### Example: High-grading in the Gold Sector

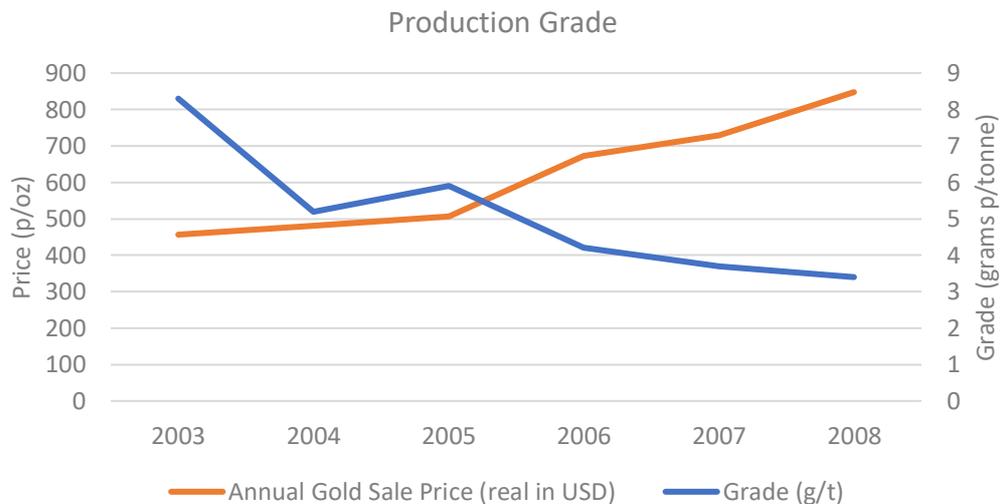
MineCo is a gold mine in Country D. It is subject to a corporate income tax holiday for the first five-years of production, per Country D’s mining law.

MineCo started production in 2000. According to the feasibility study, MineCo was expected to continue to produce until 2015. However, in 2008, mining stopped, and the site was converted into a stockpile retreatment operation. There are two strong reasons to suspect MineCo was engaged in high-grading:

1. MineCo reached peak production in the first five-years from when production started. Between 2000 and 2005, MineCo produced 3,781,668 (000oz) of gold, roughly 63% of the mine’s total production.



2. MineCo extracted the higher-grade ore during the first few years of production, despite the gold price being comparatively low at the time.



## 2. WITHHOLDING TAX RELIEF

**Definition:** WHT requires the taxpayer to withhold some income tax on outbound payments. For example, a taxpayer in Country A borrows \$1000 from a lender in Country B; the lender requires 10% interest on the loan, which is \$100. The WHT rate in Country A is 5%, meaning the borrower must withhold \$5 income tax on the \$100 interest it pays to the lender.

WHT is usually levied on management charges, shareholder dividends, and interest expense on foreign loans. The significance of these costs to mining operations make administration of WHT critical to revenue collection, conversely this may be used to justify exemptions; for example, a reduced WHT rate on interest payments.

### 2.1 Behavioural Responses

WHT applies to payments to foreign entities, primarily related parties, and includes:

- payments of interest,
- management or administrative charges, and
- shareholder dividends.

Base erosion and profit shifting risks are significant with respect to the first two types of outbound payments. Dividends, on the other hand, cannot be deducted from taxable income (unlike interest expense, or service payments), in which case, there is limited incentive for investors to artificially inflate dividends to maximise WHT concessions. Notwithstanding, WHT is the last chance for governments to tax profits before they leave the country, as such it may be unwise to offer a reduced rate of WHT on dividends irrespective of the low tax risk. Governments that offer tax holidays, should be wary of also giving WHT relief on dividends, as this may result in profits going entirely untaxed.

#### a) Excessive interest deductions

Mining requires significant up-front finance during construction and pre-production phases, and additional financing throughout the mine's life to maintain operations and fund expansions. While parent companies can attract commercial lenders at the global level, this may be more difficult for mining subsidiaries based in developing countries, primarily due to country risk. In most cases, debt is provided by a related party company resident in a low tax jurisdiction. If WHT is reduced, or exempt, the host country ends up with interest allowed as a deductible expense, and no tax on the interest income received by the related party. Moreover, it encourages the group to highly leverage its mining subsidiary to strip profits out via interest expense.

## b) Inflated Management Charges

Mining subsidiaries can access a range of administrative and technical services from their parent company, or, in some cases, from a specially designated related party services company. In most instances, the parent or services company covers the cost of delivering these services, then charges it as management service fees to its subsidiaries.

The behavioural response is that companies use management fees to transfer profits from the mine to a foreign affiliate, usually in a low-tax jurisdiction. Provided that WHT applies, there is a cost to companies inflating management fees (e.g., if WHT is 15% and the taxpayer increases the fee from \$100 to \$200 the tax cost also increases from \$15 to \$30) that may reduce dividends, as well as increase financing costs. However, if WHT is lowered, or exempted, any safeguard against profit shifting is eliminated, and it is highly likely management fees will increase.

In some cases, there may be an additional incentive which relates to how the management charge is calculated. Rather than enforcing the arm's length principle, which requires taxpayers to price transactions between related parties as if they were taking place between unrelated parties, the government agrees to the taxpayer deducting a fixed amount, or percentage, for management service charges. It is not uncommon to see mining companies operating in Africa charging a percentage of the mine's total sales revenue, which has no relationship with the actual service that has been provided. These combined incentives make profit shifting highly likely.

## 2.2 Recommendations

### a) Limit excessive interest deductions.

See IGF-OECD Consultation Draft *Limiting the Impact of Excessive Interest Deductions on Mining Revenues* for an in-depth review of potential policy responses.

### b) Legislate the cost-plus method for management fees.

Governments are advised to adopt *OECD BEPS Action Items 8-10* which states that in the case of routine services, for example, management services, the charge should be the cost of providing the service, plus a mark-up of 5%.

### Example: Fixed Management Service Charges

In 2010, MineCo, signed an Investment Agreement with Country C to develop a gold mine. The agreement states that service charges paid by MineCo, to its parent company HeadCo, in return for a range of management and administrative services, will be calculated as follows:

- Four per cent of all capital and operating costs incurred from the beginning of the agreement until production starts, and
- Seven per cent of capital and operating costs incurred after commencement of production.

The provision deviates from Country C's general tax code, which states that the transfer of goods and services between related parties should be made at the 'market price'. It also prevents the tax authority in Country C from making any adjustments should the charges be found to be non-arm's length.

HeadCo is the majority shareholder of MineCo. Since 2011, it has been the manager of the MineCo gold project. The services provided by HeadCo include mining expertise and technical services, procurement and logistics, risk and compliance, commercial services and human resources services. Most of these services would be defined as "low-value adding"<sup>1</sup> according to OECD BEPS Actions 8-10, and should be charged on a cost-plus basis, with a mark-up of approximately five per cent. Cost-plus refers to the cost of providing the service, not the capital and operating expenditure of the mine, which is the basis for calculating management charges paid by MineCo to HeadCo. According to analysts, service charges are likely to cost MineCo approximately \$ 4.8 billion.

Transfer pricing practitioners regard fixed fees as non-arm's length. This is because no independent parties would agree to a fixed amount for service charges over an extended period, for example the life-of-mine. Service charges should be calculated each year; the expectation being that the value of the charge should change because companies are becoming more cost efficient.

---

<sup>1</sup> Services that are of a supportive nature; not part of the core business of the group; not dependent on contributing to unique and valuable intangibles; and do not involve substantial or significant risk.

### 3. COST-BASED INCENTIVES

Cost-based incentives include investment allowances, investment tax credits, accelerated depreciation, and loss carry forwards, all of which decrease the cost of capital. These types of incentives are better suited to mining investments than tax holidays.

- They allow taxpayers to recoup their investment through appropriate deductions from their taxable income, or directly from their tax bill;
- They defer tax to later stages in a project's life and therefore don't eat into cash flows in the initial critical years when capital is most needed;
- It is easier to anticipate the revenue cost of the incentive because it is based on the amount of investment.

#### Definitions:

**a) Accelerated depreciation:** Capital expenditures result in assets, for example, a drilling rig, that has a useful life of several years. Resource accounting and tax systems usually spread the cost of the asset over its useful life (known as depreciation or amortization), rather than upfront when the expenditure is made. Mining companies may be allowed a faster rate of depreciation on assets to recoup their costs sooner.

E.g., If the asset costs \$200 and the standard depreciation period is ten years, the company can deduct \$20 from its taxable income each year for ten years. An accelerated depreciation rate of five years would allow \$40 to be deducted each year for five years. This means the project will pay less tax in the first five years and therefore recover its costs quicker.

**b) Investment allowances:** An investment allowance gives the taxpayer the right to offset a percentage of its capital expenditure against its taxable income in the year the expenditure is made, rather than spread over time through depreciation.

E.g., If the taxpayer spends \$200 and the allowance is 50 per cent, it can deduct \$100 from its taxable income in the first year. Applying a 20 per cent corporate income tax rate means the taxpayer's liability is reduced by \$20. This enables even quicker cost recovery than accelerated depreciation.

**c) Investment tax credits:** An investment tax credit enables a taxpayer to reduce the amount of *tax payable* by a portion of its investment expenditure in the first year, rather than reduce its *taxable income*, as with investment allowances.

E.g., For example, if the investment is \$200 and the investment credit is 50 per cent, the taxpayer can reduce its tax liability in that year by \$100. If the tax payable is \$40, the taxpayer can apply this \$100 investment credit to reduce its tax liability to minus \$60. This balance could be paid back to the investor from the tax authority, carried forward to offset tax liabilities in future years, or expire. The investment credit is four times more generous than the investment allowance (minus \$60 versus a \$20 tax liability).

**d) Longer loss carry forward:** The general tax code usually allows operating losses to be carried forward to offset taxable income in a future year, with a limit on the loss carryforward period. The large, upfront costs involved in mining mean that a longer loss carryforward period may be allowed. This reduces tax revenues where losses that would have otherwise expired can continue to be carried forward to reduce taxable income.

### 3.1 Behavioural Responses

Investors may artificially inflate the cost of investment to increase the tax benefit.

The behavioural response to cost-based incentives can be broken down into four types:

1. Investments which were not intended to be eligible, or fall outside the time-period of the incentive, are included.
2. Taxpayers inflate the cost of capital items purchased from related parties; sometimes referred to as “gold plating.” Cost-based incentives may induce companies to spend more on capital investment which involves related parties, to defer tax for longer, and thus claim a greater share of project revenues. However, depending on the marginal tax rate and the generosity of the allowances, the cost of gold plating may ultimately exceed the tax benefit.
3. Investment allowances and credits may pose a further base erosion risk depending on how they interact with the standard depreciation regime, specifically, whether they provide an opportunity for the same capital costs to be deducted twice: once through the investment allowance/credit, and again through depreciation. In principle, costs should only be deducted once. E.G., , if the investment allowance provides for 100 per cent of capital costs to be deducted in the first year, the asset’s costs should not also be deductible via depreciation; if the investment allowance is 50 per cent, only the remaining 50 per cent of the asset’s value should be deducted through depreciation.

4. Assets which get the accelerated treatment are then exported, and transferred to another country to be offset against income tax there (see the section on import duty relief).

### 3.2 Recommendations

Governments that wish to provide cost-based tax incentives to mining investors should adopt the following complementary measures to protect against the risk of base erosion:

- a) Clearly define the assets, and asset categories to which the cost-based incentive applies, as well as the time-period.

E.g., in Mongolia the government offers an investment tax credit for depreciable capital assets during the construction of a mine, but caps it at 80 per cent of taxable income, and only allows the expenditure to be carried forward for three profitable years before it expires.

- b) Monitor import duty concessions for mining imports.

Monitoring revenue forgone from import duties is always advisable, but, in the context of cost-based incentives, there is an even greater need to ensure mining investors are not using their duty-free status as an added opportunity to inflate the value of imports to increase the tax benefit (see section on Import Duty Relief).

### Example: Capital Allowance Uplift

MineCo is a gold mine located in Country A, it benefits from a Capital Allowance Uplift (“uplift”) for mining expenditures. The provision in the general tax code states that:

- All expenditure is deductible in the year it is incurred;
- An uplift of ten per cent is allowed on unredeemed qualifying capital expenditure (UQCE), which include development costs, but not exploration costs;
- The “allowance base” for calculating the uplift includes the uplift earned in the previous year. This final feature means the incentive is compounded. As a result, the date on which the first tax is due from a mining operation can be deferred for a long time.

Figure 1. The impact on MineCo’s cost deductions with and without the uplift

	Without uplift	WITH uplift	Uplift is COMPOUNDED
<b>Year 1</b>			
UCQE	82	82	82
<b>Year 2</b>			
UCQE (Yr 1)	82	82	82
Tax Income	18	18	18
Deduction	64	64	64
Uplift		6	6
Total expenses	64	70	70
<b>Year 3</b>			
UCQE (Yr 2)	64	70	70
Uplift (Yr 2)		7	7
Total exp. (Yr 2)		77	77
Uplift (Yr 3)			8
Total exp. (Yr 3)			85
Tax Income	18	18	18
Deduction	46	59	67

Annotations:

- Remaining \$64 is carried forward (Year 2 Deduction to Year 3 UCQE)
- Uplift of 10% is applied to \$64. (Year 2 Uplift)
- Same as above. (Year 3 Uplift)
- Total exp. from Yr 2 (inc. uplift) (\$77) is uplifted by a further 10% in Yr 3, thus compounding the incentive. (Year 3 Uplift)
- WITH uplift + COMPOUNDING deduction increases by 21 (Year 3 Deduction difference)

Note: Tax income should be read as taxable income before deduction of UQCE.

For MineCo, Country A’s biggest large-scale gold mine, the uplift permanently deferred all income tax. However, due to political pressures to increase taxation on the sector, MineCo has voluntarily relinquished the incentive. But, it already has a balance of \$900 million that can be offset against future income tax – comprising \$440 million in UQCE, plus \$460 million in accumulated uplift. Only when MineCo uses up all these deductions will it start to pay income tax.

Governments must clearly define the base to which the tax incentive applies. It is unlikely that Country A intended the uplift to be compounded year-on-year, as the effect was to defer income tax for a considerable period. The provision was repealed only three years after it was introduced, however, due to fiscal stabilisation, investors could retain the incentive.

## TAXES ON IMPORTS AND EXPORTS

### 4. EXPORT PROCESSING ZONES

**Definition:** A common characteristic of Export Processing Zones (EPZs) is the provision of special incentives to attract investment, mostly foreign, for export production. Incentives may include tax holidays, duty free export and import, and free repatriation of profits.

#### 4.1 Behavioural Responses

EPZ's may set up competing fiscal regimes which lead to transfer pricing abuse.

EPZ status is usually granted to a company's mineral processing operations alone, and includes incentives such as tax holidays, duty-free export and import, VAT and withholding tax relief. Whereas the mine itself, responsible for extracting the product for export but outside the EPZ, may be obliged to pay tax on profits, as well as mineral royalties, depending on the applicable fiscal regime. Consequently, there is an incentive for the company to shift profits from the mine to the processing facility to reduce its overall tax bill. The most obvious way to do this is by under-pricing the intermediate mineral product sold to the processing facility for smelting and refining; thus, reducing the company's taxable income.

#### Box 5. EPZs may harm the tax base of other countries

Countries using poorly designed incentives risk contravening the OECD initiative on Harmful Tax Competition launched in 1998, and, more recently, *BEPS Action 5*.

An EPZ may be a "harmful preferential regime" if:

- The regime is preferential (i.e. it offers some form of tax preference in comparison with the general principles of taxation in the relevant country, for example, a lower corporate tax rate);
- The preferential regime is potentially harmful (some key factors include the regime imposing no or low effective tax rates, or being ring-fenced from the domestic economy);
- The preferential regime is *actually* harmful (i.e. the tax regime shifts activity from one country to the country providing the preferential tax regime).

Where a preferential regime is found to be actually harmful, the relevant country will be required to abolish it, or remove the features creating the harmful effect.

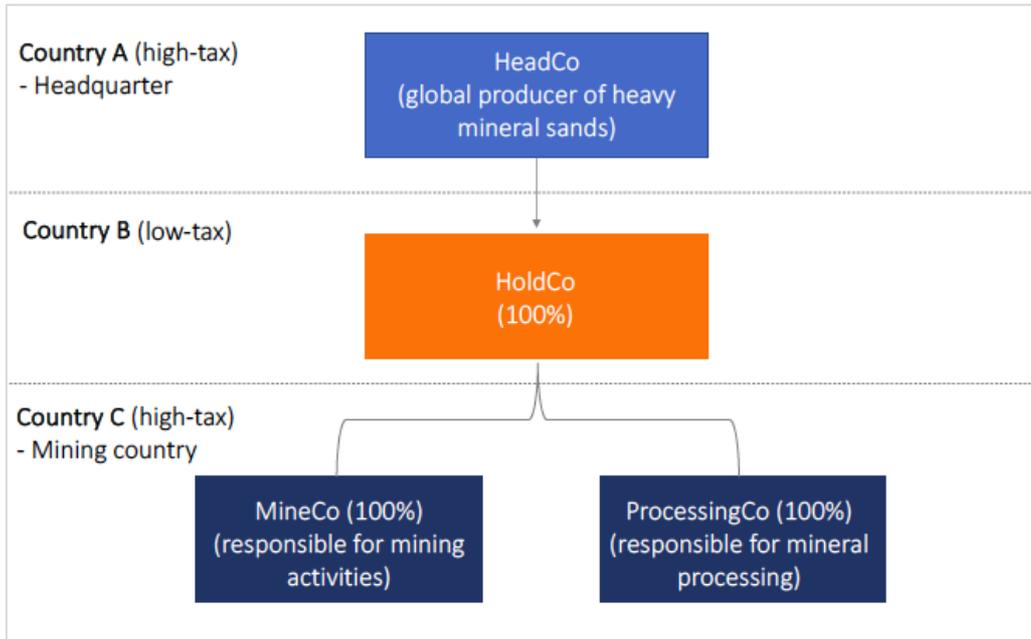
## 4.2 Recommendations

If government wants to extend EPZ status to mining activities, policymakers should consider the following measures:

- a) Constrain the application of EPZ status to customs and indirect tax exemptions, or to areas which are closely supervised – excluding upstream activities;
- b) Monitor all transactions with affiliates with EPZ status to ensure they comply with the arm's length principle. Transfer pricing rules will need to cover instances of transfer pricing manipulation at the domestic level, as well as cross-border transactions.
- c) Retain the right of approval over major related party sales contracts, sourcing external expert advice to determine an appropriate benchmark price.

Example: Undercharging for Minerals Sold to a Related Party with EPZ Status

HeadCo is a major global supplier of heavy mineral sand products located in Country A. It operates HoldCo, a 100 per cent owned subsidiary in Country B (low-tax country), which operates through branches, MineCo, and ProcessingCo in Country C (mining country).



In 2000, Country C granted ProcessingCo EPZ status, which means it is exempt from corporate income tax. Its only tax liability is a revenue tax of one per cent charged after six years of operation, which became payable in 2013. By contrast, MineCo, also in Country C, is subject to a three per cent royalty, plus corporate income tax at a rate of 17.5 per cent for the first ten years of production (2007 onwards), thereafter transferring to the standard rate of 35 per cent.

MineCo sells 100 per cent of its production to ProcessingCo. Between 2007 and 2013, when the latter is tax exempt, MineCo is found to have sold its mineral production to ProcessingCo at below market rate, thus reducing its taxable income, as well as royalties, which are calculated on the sale price received.

## 5. IMPORT DUTY RELIEF

**Definition:** Import duties are taxes collected on imported goods. The tax is usually based on the value of the good. For example, if import duty is ten per cent on mining inputs, a company that brings in drilling equipment valued at \$500,000 will have to pay \$50,000 in tax.

### 5.1 Behavioural Response

Companies increase the cost of imported equipment and machinery procured from related parties.

The main tax risk from import duty exemptions is companies increasing the cost of imported equipment and material procured from related parties to reduce taxable income in the host country. Import duties reduce the incentive to artificially inflate the cost of imported equipment and machinery as the duty provides a direct financial cost to importing goods at higher prices. Import duty relief reduces that direct financial cost, while a waiver removes it altogether.

Companies could artificially inflate prices by:

- paying the retail price for older equipment and machinery that has been used by an affiliate company in operations elsewhere, and should therefore be purchased at a lower price that reflects the reduction in the value of the asset, particularly due to wear and tear;
- by paying a high mark-up on the cost of equipment and machinery purchased through a corporate services hub located in a low- or zero-tax jurisdiction.

### 5.2 Recommendations

Despite the risks, import duty relief is a common feature of the mining fiscal regime. It reduces input costs and risks for mining projects, which is especially important to investors given the substantial amount of capital investment required during the development of a mine.

While import duty relief may be necessary to attract mining investment, government should still protect its import duty base by adopting the following measures:

- a) Levy a partial import duty (e.g., half the standard rate); this avoids raising the cost of investment to the level of a full import duty, whilst discouraging over-

invoicing. It also creates an incentive for customs authorities to verify the cost of mining imports, which they may not if there is no revenue to collect;

- b) Issue a “mining list” which identifies goods intended for mining that are subject to duty concessions, versus goods for general use (e.g., photocopiers used incidentally by mining companies);
- c) Require taxpayers to apply for an import permit for equipment and machinery on the mining list. Customs would verify the value of the import giving it the opportunity to make an adjustment upfront rather than when the item is re-exported. To avoid operational delays, taxpayers should be encouraged to engage customs in advance of the equipment and machinery arriving;
- d) Assess the value of the duty as usual under customs legislation, and reduce the duty payable, or set it to zero, as required by the mining law. This allows the duty to be levied later if the item is exported or used for purposes other than those which attract the mining concession (e.g., 4WD sold to a non-mining company);
- e) Revalue second hand equipment to determine the residual value, considering the wear and tear over time. It is common in the oil and gas sector for Production Sharing Agreements (PSAs) to contain standard rules for costing used equipment. E.g., in the case of materials purchased from affiliates, the price may be between 50 per cent to 75 per cent of the current international price of the material, depending on whether it requires reconditioning before it can be reused.
- f) Ensure there is a legal basis for the tax authority to adjust the taxable income of the taxpayer in the event that an asset is transferred between related parties at a non-market price.

**Example: Sale of Assets**

MineCo operates an iron ore mine in Country A. According to the mine development agreement, the tax incentives given to MineCo also apply to its subcontractors. The relevant incentives are an exemption on import duties, and accelerated depreciation.

Three years ago, MineCo’s subcontractor, ServiceCo, imported a fleet of dump trucks to transport the ore from the mine site to the port of export. The total cost of the trucks was \$1 million. ServiceCo was exempt from paying import duties (10 per cent), which means the government forewent \$100,000 in tax revenue.

Over the next three years ServiceCo depreciated the capital costs of the trucks at a rate of 30 per cent. The table below sets out the value of the trucks each year minus depreciation (the “adjusted value”), and the depreciated cost, which is deducted as capital allowance.

	Adjusted value	Capital allowance (30%)
<b>Year 1</b>	\$1,000,000 (import value)	\$300,000 (i.e. \$1 million*0.3)
<b>Year 2</b>	\$700,000 (i.e. \$1 million - \$300,000)	\$210,000
<b>Year 3</b>	\$490,000	\$147,000
<b>Year 4</b>	\$343,000	Depreciation period ends

At the end of year three, ServiceCo had claimed a total of \$657,000 in capital allowances, and the trucks had a remaining adjusted valued of \$343,000. In year four, ServiceCo transferred the dump trucks to its affiliate company in neighbouring Country B.

During an audit in Country A, the tax authority discovered two problems.

1. The dump trucks had been second hand when brought into Country A, although ServiceCo assigned high market values to the trucks to increase their depreciable value, and hence the amount of capital deductions.
2. Instead of transferring the trucks to its affiliate at the adjusted value of \$343,000 in year four, it used an inflated ‘fair market value’ of \$850,000. (Note that the market value of the trucks as determined by ServiceCo was 85 per cent of the assets’ import value).

The tax authority’s response was to adjust ServiceCo’s chargeable income by adding back the inflated capital allowances it had deducted over the past three years. According to the law in Country A, the transfer of assets to affiliates must be at fair market value, and

the profits subject to tax. Because the tax authority lacked the expertise to determine the actual market value of the trucks, it deemed the sale of the trucks at ServiceCo's own inflated 'fair market value' of \$850,000.

The tax authority made the following adjustment:

$$\begin{aligned} & \text{Sale value (\$850,000) – remaining adjusted value (\$343,000)} \\ & = \$507,000 \end{aligned}$$

The \$507,000 is the difference between the sale value, and the remaining adjusted value of the trucks after depreciation (i.e. the "balancing charge). The tax authority added the balancing charge back to ServiceCo's taxable profits. The amount neutralised the excess capital allowances claimed (a total of \$657,000 in the three years), except \$150,000. A rate of 30 per cent corporate income tax was levied on the \$507,000, resulting in \$152,000 in additional tax revenue.

## TAXES ON PRODUCTION

### 6. ROYALTY-BASED INCENTIVES

**Definition:** Royalties are charged on mineral sales, most commonly as a percentage of the sales value (“ad valorem”). Royalty-based incentives could be provided by:

- royalty holiday - the royalty is reduced (or waived) for a period; or
- royalty deferral - the payment date is extended (usually no more than three months);
- sliding-scale - the rate varies depending on sales, production, price, or cost.

Total exemption of royalties is generally infrequent (Otto, 2008).

#### 6.1 Behavioural Responses

- a) A royalty holiday or deferral provides an incentive to shift revenues into the tax-free period, like the response to an income tax holiday.

For most countries, royalties are applied at a constant rate, either to the value of production (“ad valorem”), or a physical unit of production (e.g., dollars per ton iron ore), thus imposing a fixed cost on investors regardless of their profitability. To increase the responsiveness of royalties to profitability, particularly during low commodity price periods, governments may offer a partial or complete royalty holiday for a period of years, or allow deferral of payment. Another reason governments might agree to reduce royalties is to prevent early termination of mineral production as the natural resource approaches exhaustion.

These may be reasonable trade-offs, depending on the circumstances, nevertheless, governments should be mindful that investors may respond by speeding up the rate of production, and extracting the highest value ore, to maximise sales revenue during the tax-free period. In this regard, the behavioural response to royalty-based incentives is like that for income tax holidays, but potentially more significant given the regressive nature of a royalty. There is also no guarantee they will make royalties more responsive to profit, but an increase in administrative complexity is guaranteed (IMF, 2014).

- b) A sliding scale royalty may encourage taxpayers to adopt tax planning strategies to avoid falling into a higher royalty bracket.

There may be merits to sliding scale royalties insofar as they tax companies more in times of high profits and allows some relief in periods when gains are low. The intention is not to evaluate these merits here, but to highlight the potential behavioural responses to sliding scale royalties that may undermine government revenue.

Sliding-scale royalties can have a “slice” or a “slab” structure:

- A **slice structure** operates like progressive income tax regimes in many countries around the world, with a different marginal royalty rate applied to each “slice” of the mineral price.
- A **slab structure** applies the royalty rate to the entire price of the commodity depending on which “slab” of the rate table the commodity price is in.

A slab structure is easier to calculate and simpler to administer, but it can also distort investor behaviour due to the step-change in the average tax rate at each boundary of the royalty rate table.

Box 6. Sliding scale royalties: “slice” versus “slab”

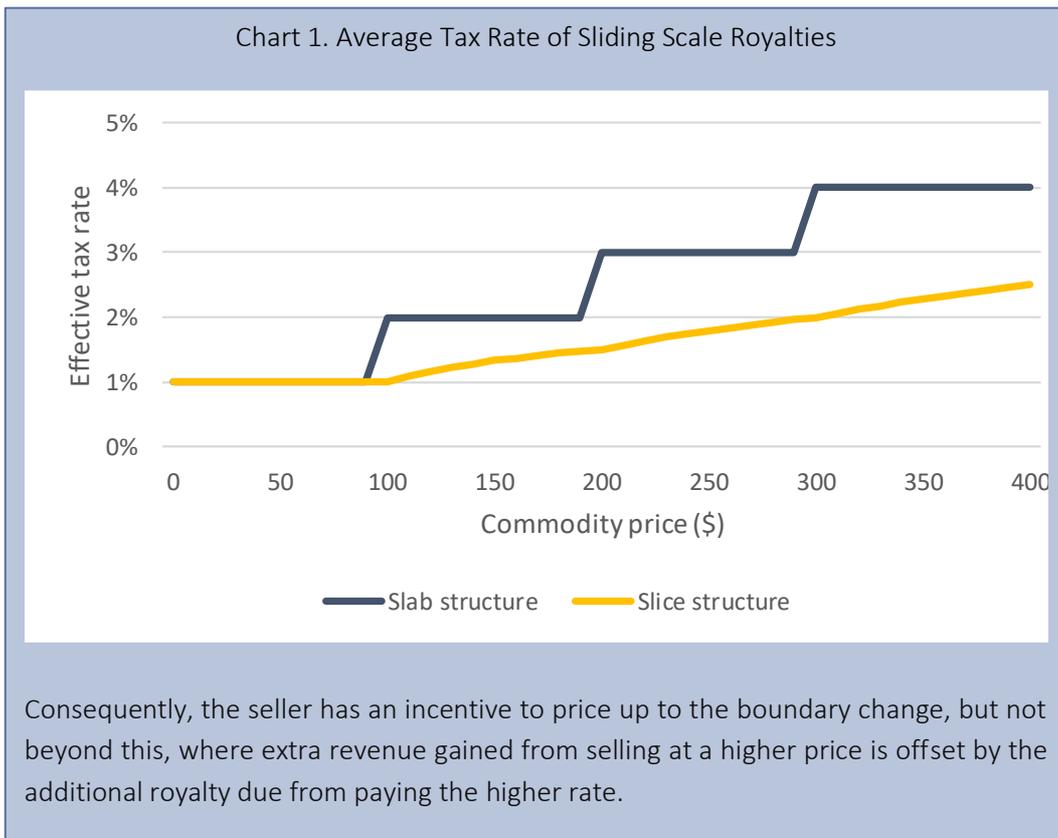
A sliding-scale royalty has the following rate table:

Commodity price from...	...up to	Royalty rate
0	99.99	1%
100	199.99	2%
200	299.99	3%
300	unlimited	4%

Under a slice structure, the royalty on sales at a price of \$250 would be calculated as  $(\$100 * \text{one per cent}) + ((\$200 - \$100) * \text{two per cent}) + ((\$250 - \$200) * \text{three per cent}) = \$4.50$ . The effective royalty rate is 1.8 per cent (calculated as  $\$4.50 / \$250$ ).

Under a slab structure, the three per cent rate would be applied to the entire \$250 price, giving a royalty of \$7.50. The effective royalty rate, three per cent, is higher than the effective royalty rate of 1.8 per cent under the slice structure.

The average tax rates of the slice and slab structure royalties are shown in the chart below. The tax rate in the slice structure increases in a relatively smooth line, whereas the tax rate in the slab structure jumps at each price boundary. This creates an incentive to set prices just below the boundary, as set out below.



Unlike other tax incentives included in the toolkit, this incentive exists even in sales to unrelated parties, as both parties may be better off pricing just below the boundary, and not in the price bracket above (i.e. the seller pays less royalties, and the buyer gets a cheaper product).

## 6.2 Recommendations

Countries that would like to provide royalty-based incentives to mining investors should adopt the following complementary, or alternate measures to limit potential behavioural responses:

- a) Establish clear and objective criteria, and procedures, for the deferral or waiver of royalty payments, including rules about interest on the deferred payment (IMF, 2014). Criteria may include:
  - o cash flows must negative;
  - o the mine does not have the funds to pay the royalty by the due date;
  - o the cash flow difficulties are temporary and capable of being overcome (i.e. periods of deferral should be short (a few months));
  - o the mine may have to close with job losses if royalties were demanded.

- b) Offer a sliding scale royalty that uses a “slice structure”, which is less likely to lead to undercharging for mineral exports. Because the average tax rate increases gradually, taxpayers get less of a tax benefit from setting the mineral price just below the rate boundary, than under a slab structure (see Box 6).

## OTHER

## 7. STABILIZATION OF FISCAL INCENTIVES

**Definition:** Fiscal stabilization is intended to preserve the taxation, production-sharing, pricing, or state participation rules that govern the division of proceeds from a resource project at the time of contract. There are generally three approaches to stabilization:

- the laws (or contract terms) in force on the date of agreement are frozen,
- any future tax policy changes that would increase the tax burden on the project won't apply, although the project can benefit from tax decreases, or
- there is an agreement to negotiate to maintain economic equilibrium if there are any adverse changes (Daniel et al 2008).

Fiscal stabilization is an incentive in and of itself, as well as having the potential to lock in any other incentives offered in the primary legislation, or the project-level contract.

## 7.1. Behavioural Response

Fiscal stabilisation may permanently freeze all tax incentives.

Fiscal stabilization clauses freeze the tax law, as well as any contract-level incentives. Most sectors of the economy are subject to changes in domestic law as they arise. But, for mining, oil and gas, because of the size and long-term nature of the investment, it is common for companies to request, and for governments to grant, a legal guarantee that fiscal terms won't change adversely (or otherwise, in some cases) for the duration of the investment, or a shorter period depending on how the clause is designed.

In addition to locking in standard fiscal terms, stabilization will apply to tax incentives provided for in domestic law, and at the contract-level, as of the date the mining agreement is signed, or ratified by parliament, which is required by law in many developing countries (e.g., Liberia, and Sierra Leone).

If there is a significant change in circumstances, for example, commodity prices rise making it easier to attract investment, or a tax incentive is used in a way that government didn't anticipate, unsustainable benefits may result. The tax risk is that fiscal stabilization locks in all the aforementioned behavioural responses linked to tax incentives.

## 7.2. Recommendations

Countries that want to include a fiscal stabilisation provision in their mining agreements should consider the following:

- a) Limit the time limit and scope of the fiscal stabilisation provision.

Include a time-limited provision that would cover capital recovery rules, the income and withholding tax rates, royalty rates, and a maximum rate on import duties. However, any tax law change that affects businesses generally (e.g., transfer pricing rules, or a limit on debt relative to equity) and that does not discriminate against the mining sector would apply;

- b) Explicitly charge an “insurance premium” for a fiscal stability assurance.

E.g, Peru charges a two per cent premium on the income tax rate where an investor takes a stability assurance. Papua New Guinea also introduced a premium on the income tax rate in 2002 (IMF, 2010).

For more information on the design and use of stabilisation clauses, see forthcoming IGF-OECD guidance on Stabilisation Clauses and Investment Treaties.

### Example: Tax Stability Agreement Freezes Reinvested Profits Incentive

In the early 90s, the government of Country F granted mining investors a ‘reinvested profits incentive’ through the mining law. The incentive meant that mining companies did not have to pay income tax on the “retained profits” they reinvested, provided the reinvestment plan was first approved by the ministry of mines. The incentive was stabilised according to the Tax Stability Agreement in the mining law, which functioned to freeze the investor’s tax regime for the duration of the Agreement. In return for stabilisation, the government charged a two per cent premium on income tax.

To qualify for the incentive, retained profits could be reinvested in the following:

- installation or expansion of mineral processing facilities;
- works and acquisition of necessary equipment for the installation of new mechanized systems, for the development, exploitation and benefit of minerals;
- general work and mining transport;
- installation or expansion of power plants, whatever their source of energy;
- installation of distribution system and interconnection of electric power and construction of internal access and interconnection ways, among others.

The reinvested profits could not exceed 80 per cent of the company’s total profits.

In 2000, the government of Country F repealed the reinvested profits incentive. The main reason for repealing the incentive was Country F’s improved economic circumstances, which meant the perceived need to offer incentives to attract foreign direct investment was reduced. However, due to the Tax Stability Agreement, the incentive remained in force for most companies until the end of their agreements.

MineCo, one of the biggest producers of copper in Country F, entered into a Tax Stability Agreement in 1998. In 2004, four years after the incentive had been repealed, MineCo submitted a Reinvestment Program for the period October 2004 to February 2007 for the construction of a Concentrator Plant to process primary sulphide ore to produce copper concentrate. The budget for was around \$800 million. The program was approved by the ministry in December that year.

Reinvested profits by MineCo (\$USD millions):

Year	2004	2005	2006	2007	TOTAL
Reinvested Profits	5	150	320	330	800
Income Tax Forgone (rate of 30%)	1.5	45	96	993	2403

MineCo was not the only mining company using the reinvested profits incentive. For the 14 mining companies benefiting from the incentive, a total amount of \$3,643,000,000 was reinvested between 1993 and 2011. Consequently, despite the incentive having been removed from the statute books in 2000, by 2011, the government of Country F had forgone \$1,093,000,000 in income tax due to tax stabilization.

## Sources of Information for Reviewing Tax Incentives

This section sets out the information government needs to assess possible behavioural responses, and their impact on mining revenues. The availability of information, and its relevance, may vary depending on the stage of the project. During contract negotiation, the pre-feasibility study will be the basis for estimating the revenue cost of tax incentives. Once the mine is operational, additional information such as tax returns, transfer pricing documentation, and company reports can be used to monitor the revenue cost of tax incentives, as well as investor compliance with performance conditions (e.g., production targets, jobs).

General Information to be collected:

### *Legal regime*

- Income tax law;
- Mining law;
- Mining contract;
- Investment promotion law;
- Double taxation agreements (DTAs).

### *Company documentation*

- Mine feasibility study;
- Investor’s financial model, especially the internal rate of return (IRR);
- Production profile (e.g., tons of copper concentrate per year);
  - o Prices: historical and future;
  - o Quality adjustments;
- Costs: exploration, development, and operating;
- Financing (volume of debt, interest rate, repayment schedules);
- Company annual reports, filings to stock exchanges;
- Tax returns, and financial statements (e.g., turnover, earnings before income tax, depreciation, and amortization - EBITDA)
- Transfer pricing documentation (e.g., intercompany loan agreements, mine offtake agreements, service agreements).

Table 4. Information Checklist

Tax Incentive	Specific Sources of Information
Income tax holiday	- Mine feasibility study, information to pay attention to includes production and price forecasts, the mine planning process, specifically how the investor will mine the orebody to maximise

	<p>returns (i.e. “pit optimization”);</p> <ul style="list-style-type: none"> <li>- Price data, historical prices (e.g., World Bank Pink Sheets), as well as forecasted prices;</li> <li>- Depreciation schedule, and loss carry forward allowance, these provisions must be closely monitored to prevent investors from deducting accumulated costs once the tax holiday expire;</li> <li>- Ring-fencing rules, these may affect the extent to which costs, and income can be transferred between related mines in the same country.</li> </ul>
Withholding tax relief	<ul style="list-style-type: none"> <li>- Thin capitalisation rules (e.g., debt-to-equity ratio, limit on interest deductions);</li> <li>- Intercompany loan agreement (key terms include the interest rate, the payment schedule, loan instalments, guarantees, financial or non-financial covenants);</li> <li>- Treasury policy documents;</li> <li>- Operational expenditure plan;</li> <li>- Management services agreement (key terms are the cost allocation method, and the mark-up);</li> <li>- Dividend policy.</li> </ul>
Cost-based incentives and import duty relief	<ul style="list-style-type: none"> <li>- List of mining inputs eligible for cost deduction;</li> <li>- Capital and operating expenditure plan;</li> <li>- Depreciation schedule (i.e. what’s the rate of depreciation);</li> <li>- Import duty rates;</li> <li>- Loss carry forward (i.e. eligibility, and time limit);</li> <li>- Relevant intercompany service agreements, especially those relating to purchasing.</li> </ul>
EPZs	<ul style="list-style-type: none"> <li>- Fiscal regime for export processing zone (EPZ), pay special attention to any relief or exemption on profit-based taxes (e.g., income tax, withholding tax), as this will significantly increase the risk of profit shifting;</li> <li>- Value chain analysis, which activities have EPZ status (e.g., downstream mineral beneficiation – smelting and refining);</li> <li>- Offtake agreement between the mine and the mineral beneficiation facility (key terms include price, volume, payment terms, quotation period, and quality);</li> <li>- Sales agreement between the smelter/ refinery and the next customer, if it is an independent customer (i.e. not related) the agreement may be a useful benchmark for the offtake.</li> </ul>
Royalty-based incentives	<ul style="list-style-type: none"> <li>- Royalty regulations, including terms and conditions for incentives. This is especially relevant if the government is contemplating offering a sliding scale mechanism, where the different royalty rates will need to be applied to various price</li> </ul>

	<p>scenarios to calculate the potential revenue loss, should the taxpayer deliberately under-price its mineral exports;</p> <ul style="list-style-type: none"> <li>- Royalty returns, including production volumes, grade, and quality adjustments;</li> <li>- Third party sales invoices;</li> <li>- Mine feasibility study, including production and price forecasts, the mine planning process, specifically how the investor will mine the orebody to maximise returns (i.e. “pit optimization”);</li> <li>- Price data, historical prices (e.g., World Bank Pink Sheets), as well as forecasted prices.</li> </ul>
<p>Fiscal stabilisation</p>	<ul style="list-style-type: none"> <li>- Specific wording of the fiscal stabilisation provision i.e. which fiscal terms it applies to, what it excludes the duration, and opportunities for review;</li> </ul>

## Conclusion

Governments control the design and use of tax incentives to attract mining investment. If incentives are overly generous, or poorly drafted, governments should not be surprised to find that investors have maximized the tax benefit in ways they did not anticipate.

For this reason, careful thought must be given to how investors are likely to respond to incentives, and whether unintended revenue losses may ensue. These potential costs should be factored into an assessment of the efficiency and effectiveness of tax incentives in the mining sector.

However, policy choices about tax incentives are not solely technocratic. There will be trade-offs between securing revenues for public spending, and a competitive tax regime for mining investors. There are no easy answers to how to balance these goals. But at a minimum, governments should have clear, transparent, measurable policy objectives that are subject to public consultation, and regular monitoring.

The following conclusions are intended to help governments of developing countries make informed, well-grounded decisions about mining tax incentives, considering the unintended revenue losses that may flow from granting incentives.

1. **Before agreeing to any tax incentives governments should use a financial model to estimate the cost of incentives, and their impact on investment decisions.** Costs estimates should include potential behavioural responses. Combinations of incentives being considered should always be analysed together to determine the collective effect on revenues foregone. For example, reduced royalty rates will increase profits that go untaxed when combined with an income tax holiday.
2. **Avoid tax incentives that create parallel fiscal regimes side-by-side, which may lead to abusive transfer pricing.** Tax incentives that apply to one segment of the mining value chain, for example, processing, and exclude others, may create opportunities for profit shifting.
3. **Limit the most damaging incentives, notably tax holidays.** Tax holidays create an incentive to shift profits forward into the holiday to avoid paying taxes when it ends. They are poorly suited for mining given the location specific, and long-term nature of investments. A more efficient approach is to offer accelerated depreciation schemes, and investment allowances.
4. **Clearly define the investment expenses to which cost-based incentives apply.** Cost-based incentives lower the cost of capital, and thus make a great number of mining projects more profitable at the margin. However, it is necessary to clearly

specify the types of mining expenditure that are eligible for allowances, whether these expenses can be carried forward to future years, and for how long.

5. **Carefully consider the base erosion and profit shifting risks of incentives that lower the rate of tax on outbound payments to foreign entities.** Lowering, or exempting withholding taxes on outbound payments may motivate investors to artificially increase the volume, and price of related party debt, as well service fees, to erode the tax base of the host country, and shift profits offshore.
6. **Avoid tax incentives that create cliff edges.** Sliding scale royalties that use a “slab” structure may incentivise companies near to the boundary of a rate change to under-price sales, or defer sales when prices are falling, to benefit from the lower royalty rate. This also applies to tax holidays, as mentioned previously.
7. **Finally, tax incentives should not be open ended.** There should be opportunities for review, as well as “sunset” clauses (e.g., a limit to how long a tax credit can be carried forward) to reduce the potential costs of badly designed programmes.

## Bibliography

- Calder, Jack, 2014, *Administering Fiscal Regimes for Extractive Industries: a handbook*, Washington, D.C.: International Monetary Fund, 2014.
- Daniel, Philip, and Sunley, Emil M., (IMF), 2008, *Contractual Assurances of Fiscal Stability*, presentation to IMF Conference on Taxing Natural Resources September 25-27, 2008 [http://www.imf.org/external/np/seminars/eng/2008/taxnatural/pdf/sunley\\_pr.pdf](http://www.imf.org/external/np/seminars/eng/2008/taxnatural/pdf/sunley_pr.pdf)
- Daniel, Philip; Keene, Michael; Swistak, Arthur; Thuronyi, Victor (IMF), 2017, *International Taxation and Extractive Industries*, IMF, Routledge London and New York.
- Daniel, Philip; Keen, Michael; McPherson, Charles, (IMF), 2010, *The Taxation of Petroleum and Minerals: Principles, Problems, and Practice*, IMF, Routledge London and New York.
- Guj, Pietro; Martin, Stephanie; Maybee, Bryan; Cawood, Frederick Thomas; Bocoum, Boubacar; Gosai, Nishana; Huibregtse, Steef, 2017, *Transfer pricing in mining with a focus on Africa: a reference guide for practitioner*, Washington, D.C.: World Bank Group, 2017.
- Hartley, Julien and Otto James, 2008, *Managing Mineral Resources: From Curse to Blessing*, in *Post-Stabilization Economics in Sub-Saharan Africa: Lessons from Mozambique*. International Monetary Fund, 2008.
- IMF, 2012, *Philippines: Reform of the Fiscal Regimes for Mining and Petroleum*, available at <https://www.imf.org/external/pubs/ft/scr/2012/cr12219.pdf>
- IMF, 2012, *Fiscal Regimes for Extractive Industries: Design and Implementation*, available at <https://www.imf.org/external/np/pp/eng/2012/081512.pdf>
- Johnson, Lise, and Perrine Toledano. 2013. "Investment Incentives: The Good, the Bad and the Ugly Assessing the Costs, Benefits and Options for Policy Reform." IFC, The World Bank, Investment Consulting Associates, available at [http://ccsi.columbia.edu/files/2014/01/VCC\\_conference\\_paper\\_-\\_Draft\\_Nov\\_12.pdf](http://ccsi.columbia.edu/files/2014/01/VCC_conference_paper_-_Draft_Nov_12.pdf).
- Keen, Michael, and Mansour, Mario, 2009, *Revenue Mobilization in Sub-Saharan Africa: Challenges from Globalization*, International Monetary Fund Working Paper
- Klemm, Alexander, and Van Parys, Stefan, 2011, "Empirical Evidence on the Effects of Tax Incentives." *International Tax and Public Finance* 19 (3): 393–423. doi:10.1007/s10797-011-9194-8.
- OECD (2007), "Tax Effects on Foreign Direct Investment, Recent Evidence and Policy Analysis", *OECD Tax Policy Studies*, No.17, Paris.

OECD, 2015, *BEPS Action Items 8-10*, pg.157, available at <http://www.oecdilibrary.org/docserver/download/2315351e.pdf?expires=1509455502&id=id&accname=guest&checksum=9ED19718016EC691837E4434702AF91E>

Osmundsen, Petter, 2005, *Optimal Petroleum Taxation Subject to Mobility and Information Constraints*, pp.12-25 in Solveig Glomsrød and Petter Osmundsen (eds), *Petroleum Industry Regulation within Stable States* (Aldershot: Ashgate)

Platform on Tax Collaboration, 2015, *Options for Low Income Countries' Effective and Efficient Use of Tax Incentives for Investment: a report to the G-20 Development Working Group by the IMF, OECD, UN and World Bank.*

Readhead, Alexandra, 2017, *Toolkit for Transfer Pricing Risk Assessment in the African Mining Industry*, GIZ and the African Tax Administration Forum (ATAF), available at [https://www.bmz.de/rue/includes/downloads/2017\\_GIZ\\_Transfer\\_Pricing\\_Risk\\_Tool\\_EN.pdf](https://www.bmz.de/rue/includes/downloads/2017_GIZ_Transfer_Pricing_Risk_Tool_EN.pdf)

Scurfield, Thomas, 2017, *The Challenge of Adding Value in Tanzania's Mining Sector*, NRGi, available at <https://resourcegovernance.org/blog/challenge-adding-value-tanzania's-mining-sector>.

Sebastian James, 2009, *Incentives and Investments: Evidence and Policy Implications*, 58816. The World Bank, available at <http://documents.worldbank.org/curated/en/945061468326374478/Incentives-and-investments-evidence-and-policy-implications>.

Tavares-Lehman, Anna Teresa; Toledano, Perrine; Johnson, Lise; Sachs, Lisa, 2017, *Rethinking Investment Incentives*, Columbia University Press, New York.

Vu Xian Nguyet Hong; Ngo Minh Tuan; Ho Cong Hoa, 2008, *Sustainable Development Impacts of Investment Incentives: A Case Study of the Mining Industry in Vietnam*, Natural Resource Governance Institute," available at <http://archive.resourcegovernance.org/fr/node/5159>.

Zolt, Eric, 2015, *Tax Incentives: protecting the tax base*, Paper for Workshop on Tax Incentives and Base Protection New York, 23-24 April 2015.