Summary Brief

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# What Have We Learned About Mining Taxation in Africa?[1]

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## The political reality

The efficient and effective taxation of African mining would be a valuable public good. In 2012, over half of African countries were mineral producers and twenty of them, out of a total of fifty-four, were natural resource-rich according to IMF criteria. In practice, the sector is taxed badly, and is likely very much under-taxed. It is estimated that, during the 2000-10 natural resource super-cycle, while turnover in the mining sector increased globally by a factor of 4.6, tax revenues earned by African governments increased only by a factor of 1.15. According to one study, a group of African governments could have collected 70 billion USD in additional tax in the years 2003-8 if they had levied the same implicit rate of tax on mining as the Australian government.

Even if the world market prices of mined commodities were to recover from the recent slump, improvements in the taxation of mining are likely to be slow and difficult. There are a set of structural characteristics of mining, especially pronounced in Africa, that result in mining projects and mining

[1] This paper is based on a variety of sources, including Manley, D. (2012) *Caught in a Trap: Zambia's Mineral Tax Reforms*, ICTD Working Paper 5; Lundstøl, O., Raballard, G. and Nyirongo, F. (2013) *Low Government Revenue from the Mining Sector in Zambia and Tanzania: Fiscal Design, Technical Capacity or Political Will?*, ICTD Working Paper 9; Siu, E., Picciotto, S., Mintz, J. and Sawyerr, A. (2015) *Unitary Taxation in the Extractive Industry Sector*, ICTD Working Paper 35; Laporte, B. and de Quatrebarbes, C. (2015) *What Do We Know about Mineral Resource Rent Sharing in Africa?*, Working Paper 39; Clausing, K. and Durst, M. (2015) *A Price-based Royalty Tax*, ICTD Working Paper 41; Muganyizi, T. (2012) *Mining Sector Taxation in Tanzania*, ICTD Research Report 1; previous published work by the second author; and IMF work, notably *Fiscal Regimes for Extractive Industries: Design and Implementation*, 2012.



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taxation typically becoming highly politicised and enmeshed in controversy, confrontation, uncertainty, large-scale rent-taking and a range of illicit practices. These structural characteristics[2] include:

Very large 'rents' (super-profits) can be earned from control of mineral resources. This creates incentives for politicians, criminals and predatory business people to find ways to obtain a share of these rents and for all the parties involved to give, seek and take bribes of various kinds.

- Mining projects typically involve high up-front investment costs and long exploration and development phases lasting up to a decade before any revenue is earned. This leaves investors vulnerable to policy change or political extortion once they have made substantial investments.
- World market prices for minerals are unstable, and tend to fluctuate in long 'super-cycles' that are of very different and unpredictable lengths. This generates major uncertainties about the likely long term profitability of individual mining projects.
- In terms of both volume and product quality, the likely output of individual mines is often hard to predict in the early stages of exploration or extraction. That again increases uncertainty about long term profitability.
- Most mining projects are developed and operated by large transnational mining companies, almost entirely for export markets. The companies may have considerable scope to reduce their tax bills through the use of transfer mispricing and other tax avoidance practices.
- Joint ventures between public sector organisations and private corporations – or indeed between more than one corporation – are widespread in the oil and gas sectors, but very rare in mining. This reduces the capacity of host governments to develop the understanding of the mining sector that enables them to tax it more efficiently and effectively. When negotiating mining contracts (for exploration, extraction, and final decommissioning), large transnational companies typically have much more relevant geological, engineering, economic and financial information and expertise than host governments.

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- Detailed information on movements in world prices for oil and gas ('spot prices') is widely available. This helps revenue authorities check on the revenues reported by exporting companies. Such price information is much less abundant for mined commodities.
- Mining projects often require major supporting infrastructure investments, in roads, ports, railways, electricity and water. Governments may agree to reduce companies' tax liabilities if they take responsibility for providing (and operating) this infrastructure – while typically having little accurate information on the real cost of the infrastructure or the distribution of the benefits between the company and the public.
- Mining projects may have high impacts, both positive and negative, on local, economies

[2] None of these characteristics are unique to mining. They appear there with greater frequency and intensity, compared even to typical oil and gas projects.

and environments. On the one hand, they can generate jobs and business. On the other, they can pollute water and soil. Politicians, governments and the companies themselves, possibly aided by journalists and activist NGOs, have scope to manipulate local populations to create (competing) narratives about the impact of mining. They can then use those narratives in their own struggles to get control of mining rents.

Many African countries lack stable, robust and transparent political institutions for reconciling competing interests and reaching authoritative public policy decisions. If they become the site of significant mining activities, the 'natural' outcomes are that (a) the regulation of mining – including taxation – takes place outside formal organisations and procedures, and (b) emerges from opaque interactions between mining companies and small groups of people holding political power. Power-holders and companies negotiate – directly or indirectly, smoothly or with conflict – a range of inter-related issues, including rights to explore and extract minerals, infrastructure provision and taxation. Companies might accept low tax obligations in return for, for example, commitments to finance and build new roads and ports or understandings that they will help finance the current power-holders in future elections. Taxation arrangements may be specified in agreements between investors and presidents, with little reference either to national tax law and practice, or to the national revenue authority. Those agreements are not always (fully) public. It seems highly likely that the purpose and result of this mode of negotiating the regulation of mining is to advantage both parties – power-holders and companies – at a cost to the public treasury.

## How should mining be taxed?

Mining is different from most economic activities in that it can generate a substantial *rent* – an income that exceeds the cost of extraction (plus a reasonable profit) – because of the potential inherent value of the pre-existing subsoil asset. There is a consensus that in principle the *rent* belongs to the country in which extraction takes place, as a compensation for the loss of a non-renewable resource. In principle, a high proportion of this rent could and perhaps should be taxed away by the host government, as the representative of the country and its people. In principle, that would not discourage private investment in exploration and mining production, provided only that investors are rewarded for the high levels of economic and political risk associated with mining. By contrast, various estimates suggest that the revenues that (African) governments obtain from mining far below the *rents* derived from it.[3] However, the estimates of the size of *rents* are very approximate. Accurate information on the economics of many individual mining operations

> “Accurate information on the economics of many individual mining operations is held privately by the operating companies and is largely unavailable to governments or the public.”

[3] The IMF also believes that great recovery by governments is appreciably higher in respect of oil and gas extraction. Some of the reasons are mentioned earlier in this paper.

is held privately by the operating companies and is largely unavailable to governments or the public. And world market prices for most mined commodities are subject to 'super-cycles' (long swings) of a decade or two. The length and dimensions of these super-cycles is unpredictable. Any aggregate estimates made about the distribution of *rent* from mining that cover any recent period are dependent on the assumptions made about the periodicity of super-cycles.

From the perspective of mining investors in Africa, this 'failure' of governments to tax away fully mining *rents* is neither a failure nor unexpected. Investors face very high risks, for a range of reasons listed above, notably commodity price uncertainty, the high upfront investment costs that leave them vulnerable to policy changes, and political risk generally. A share of the mining rent is the reward they need to motivate them to take these risks. Host governments do indeed routinely seek to renegotiate agreements about mining taxation when commodity prices are high. And politicians, both in and out of office, talk of tearing up mining agreements or nationalising mines. Although power-holders and companies often appear to collude for mutual advantage in agreeing how mining activities will be regulated, the stability of those agreements is often in question.

The real disagreements about taxation are not about abstract issues like the division of the *rent* from mining activities, but around much more practical issues. It is worrying that we have very limited knowledge about what tax regimes work best for mining. When it comes to fiscal regimes and regulatory practice in the extractives sector, there is: 'no literature today comparing the administrative success of different kinds of fiscal regimes in practice'.[4] All taxation, however, generates differences of opinion. There are four tax policy issues that emerge particularly frequently in respect of mining. Only in relation to the first does there seem to be a substantial degree of expert consensus:

- It typically makes sense to exempt mining projects from import VAT.[5] Mine operators in Africa typically import a large share of their production inputs (notably capital equipment) and export almost all their product. They would ultimately be required to pay little VAT on this; because the value of their exports would be offset against the VAT they pay on imports. Many African revenue authorities find it difficult to give VAT refunds that are legally due. Exemption can be expected to give investors security at little cost.
- There is less agreement on the basic formula for taxing the income from mining operations. The IMF favours a combination of a relatively low basic royalty (on production/export value) and the basic corporate income tax (CIT). The argument for keeping the royalty low (2-5 per cent) – and capped at perhaps 10 per cent – is that, because it is a levy on the gross value of output, not on profit, a higher rate would tend to render production unprofitable when world market prices were low. High royalties could therefore lead to unduly low levels of investment or production. The problem with that argument is that it implies assumptions about the context that may not be valid. In

[4] Clausing, K. and Durst, M. (2015) *A Price-based Royalty Tax*, ICTD Working Paper 41

[5] One major issue, however, has been raised linked to the local content discussion in oil, gas and mining, since exempting imports while at the same time introducing ambitious local content policies and requirements might be somewhat contradictory. This could be the case especially in middle-income extractive countries, but also in low-income countries concerning items with a lower technology and capital requirement.

particular, it assumes that the host revenue authorities have the capacity to scrutinise the accounts of mining companies to ensure that they state their profits accurately. This assumption is often invalid. A major reason is that mining operating companies are typically members of large transnational corporations. Most of the cross-border economic transactions in which they engage are with 'related parties' – other members of the same transnational parent. They buy their capital equipment, their financing, their managerial staff, their technical expertise and other inputs from related parties. They sell their product to related parties. This provides them with considerable scope to engage in 'transfer mispricing' – to overvalue their imports and undervalue their exports – in order to shift profits to some other location in the world. In practice, therefore, the formula of a low basic royalty plus CIT might enable mining companies to evade CIT largely or completely. It is for this reason that some experts argue for a greater use of variable rate royalties and/or windfall taxes, i.e. levies on gross production or gross sales that increase as world market prices for the product increase. This, it is argued, provides some protection against the use of transfer mispricing to minimise the reported profit of mine operating companies. The argument does not stop here. We also cannot assume that government institutions are capable of assessing royalty dues by effectively monitoring the volume, quality and timing of reported mineral exports, or that the organisations with these responsibilities coordinate effectively with revenue agencies. In respect of both tax collection and export monitoring, there may be major performance problems that stem from combinations of (a) poor resourcing of public institutions, (b) the high levels of expertise at the command of companies, and (c) illicit collusion of various kinds. The overall conclusions are that: (a) there is no one best formula for taxing the incomes of mining companies; and (b) country-specific factors, including the capacities of the tax and other regulatory agencies, are relevant to the choices made.

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- Mining and extractive projects in general frequently undergo a change of ownership at a relatively early stage. A 'junior' company with a low public profile and a limited concern for its corporate reputation organises the exploration and the securing of land and extraction rights. The operation is then sold to one of the larger transnational mine operators that are more concerned about reputational issues. The sale typically takes place 'offshore', between two subsidiary companies domiciled in tax havens. The question of whether or not the company making the sale should be liable to capital gains tax in the

host country has been disputed – and is the subject of high profile law cases. Host country tax law is sometimes sufficiently silent or ambiguous on the issue that attempts to levy the capital gains tax would not survive a legal challenge. There is a solution: governments should examine and revise their tax laws, regulations and documentation requirements such that capital gains taxes are payable and enforced in such cases.[6]

- Individual mining companies often operate more than one mining project and licence in a single country, as well as many producing sites or pits within one licence area. Indeed, the definition of what constitutes the fiscal boundaries of a registered company, its licences and projects is often made more according to administrative rather than 'natural' or optimal criteria from a fiscal point of view. For example, a large new investment to extend an existing operation might be defined as a separate project, principally for the purpose of seeking and granting tax exemptions, even if the operations are contiguous and to a large degree integrated. The existence of more than one project, owned by the same company, creates scope for the abuse of tax exemptions granted to the newer project. For example, duty exemptions on the import of capital equipment for the older project might have expired, while they are still available for the new project. It is tempting for operating companies to label capital equipment imports to be used in the older project as destined for the new project. Similarly, expansion projects within a very large licence in geographical terms may effectively erode the tax base for pre-existing mining pits-sites within the same licence for long periods, and thereby render effective taxation difficult. To complicate even further, mining companies are often integrated in the value chain such that they own refineries and smelters that can be different business units with separate fiscal regimes. The risks of spillover and mispricing are high. The solution in principle is some sort of effective 'ring fencing' – having separate accounting and terms for each identifiable segment, unit or project. Companies often tend to resist this, on the grounds that it complicates their own accounting operations. As in the case of royalties (above), the more obvious solution will only work if the regulatory authorities have the capacity to monitor the physical operations of the mining companies as well as their accounts. The same conclusions apply: general principles need to be adapted to local regulatory capacity.

## Conclusions

1. Taxing mining is not intrinsically different to taxing other economic enterprises. It is, however, especially challenging for African governments because various economic, political, physical and organisational features of the industry interact to produce adverse consequences, notably high levels of information asymmetry, rent-seeking, conflict and policy instability; and incentives for powerholders and mining companies to deal with one another in ways that undermine revenue collection for the public treasury.

[6] The counter-argument is that such capital gains taxes will simply be factored into (i.e. deducted from) the revenues that mining companies will otherwise be willing to negotiate with the government, and the host country will receive the same revenue levels as before. This argument assumes a relatively high level of perfection in the functioning of markets. It also takes no account of the fact that capital gains levies are transparent and likely to reach the public treasury. By contrast, other forms of revenue collection from the early stages of mining projects, notably signature bonuses paid by companies, are more vulnerable to misappropriation.

2. There is a broad consensus today, supported by the IMF, that it is better to legislate than to contract in extractives when it comes to main terms, in particular considering the challenges listed above. Overall, fiscal, labour, environmental and social terms should be set in legislation and be subject to regular legislative and electoral scrutiny and control. It is possible to define and establish fairly efficient and robust mining fiscal regimes that can deal effectively with wide variations in product prices and in the costs of production among different mines. So far in mining, however, as well as in oil, such fiscal regimes are rare in Africa.

3. Most governments continue to issue licences for both exploration and production as a result of negotiations with individual companies on a 'first come, first served' basis. This may perhaps be because, for a long period in the later c20th century, world market prices for mined commodities were low and there was little competition to undertake new mining activities. It became a habit. But it is not justified. As Paul Collier and others have been arguing, it is high time for governments (a) to become more active in geological survey work, and (b) to use competition and auctions in the allocation of exploration and production rights. This can increase the flow of information, give governments more leverage, and allow them to strike deals that are more advantageous to public treasuries.

4. While there is scope to tax mining more effectively through policy reforms, it is also important to: (a) improve the operational capacity of ministries of finance, ministries of mines, tax agencies and supportive regulatory agencies; and (b) persuade government leaders to uphold and respect the mandates and expertise of these institutions, and not to assert personal control.

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5. If African governments could formally agree to a set of principles on the taxation of the extractive sector, this could both strengthen the hand of the tax and other regulatory agencies and reduce the intensity of inter-governmental competition for mining investment. Transparency and accountability loom large here. There are already positive moves toward more disclosure of mining contracts and adoption of the EITI ++ standard[7] (e.g. Liberia and Ghana). The recent OECD-brokered global agreement to introduce country-by-country reporting (i.e. disaggregation of financial accounts by country) for large transnational corporate groups is similarly positive.

6. There is considerable scope to lessen the problem of information asymmetry between host governments and mining companies – and indeed all companies in the extractive sector, including oil and gas. A great deal of information on actual or potential extractives projects exists in the private domain. It is produced by companies and consultants at various stages of the project cycle. Much of it is

available from commercially-available datasets. African governments typically lack access to these databases and, more importantly, reliable professional specialists who can use and interpret it on their behalf. Over a period of several years, and with adequate funding, this information could be accessed from a variety of sources, including commercial purchase, analysed, and put in the public domain as a global public good. This would enable independent applied global research to provide us with some more robust answers to the question of how different fiscal regimes and their main elements have worked across different administrations in time and place, thereby moving closer to evidence-based policy in the taxation of extractive industries. It could also fundamentally further empower organisations willing to advise actual/ potential host governments in their negotiations with mining companies.

[7] EITI is the Extractive Industries Transparency Initiative.

## Further reading


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## Credits


This ICTD Summary Briefing was written by **Mick Moore**, Professorial Fellow at the Institute of Development Studies and founding Chief Executive Officer of the International Centre for Tax and Development; and **Olav Lundstøl**, economist, Norwegian diplomat and PhD candidate in Tax Policy at the African Tax Institute of the University in Pretoria. It was produced as one of six research synthesis pieces at the end of the ICTD's first five-year funding period, supported with UK aid from the UK Government and by the Norwegian Government; however the views expressed do not necessarily reflect the UK and Norwegian Governments' official policies. Readers are encouraged to quote and reproduce material from the series. In return, ICTD requests due acknowledgment and quotes to be referenced as above.

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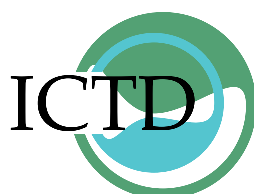



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