



TAXATION AND MINING INVESTMENT IN ZAMBIA

by
Zambia Chamber of Mines
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A NEW BEGINNING

In July 2016, the government of Zambia announced a new Mineral Royalty Tax based on a sliding scale that varies between 4% and 6%, depending on the copper price.

We in the industry warmly welcomed this development, which we believe marked a shift away from the harmful mining tax policy proposals of recent years, towards a more pragmatic and realistic tax policy that views the mining industry as partners in development.

Zambia's new Finance Minister, Hon. Felix Mutati MP, in the budget address to Parliament on 11th November 2016, made clear that "we cannot spend what we do not have"; a reference to the urgent need to deal with the country's growing budget deficit, and government indebtedness, caused by past expansionary spending.

Fiscal restraint is necessary, but it need not have an adverse effect on economic growth and development, if the right climate can be created for increased levels of private investment into Zambia. The 'multiplier' effect of investment is well documented, and recent research has shown a historic correlation in Zambia between investment levels, mining output and GDP growth, particularly in the decade following privatisation.

What is the right climate? Let us be clear, it does not mean ultra-low tax rates, and light regulation. It means being internationally competitive, in every sense.

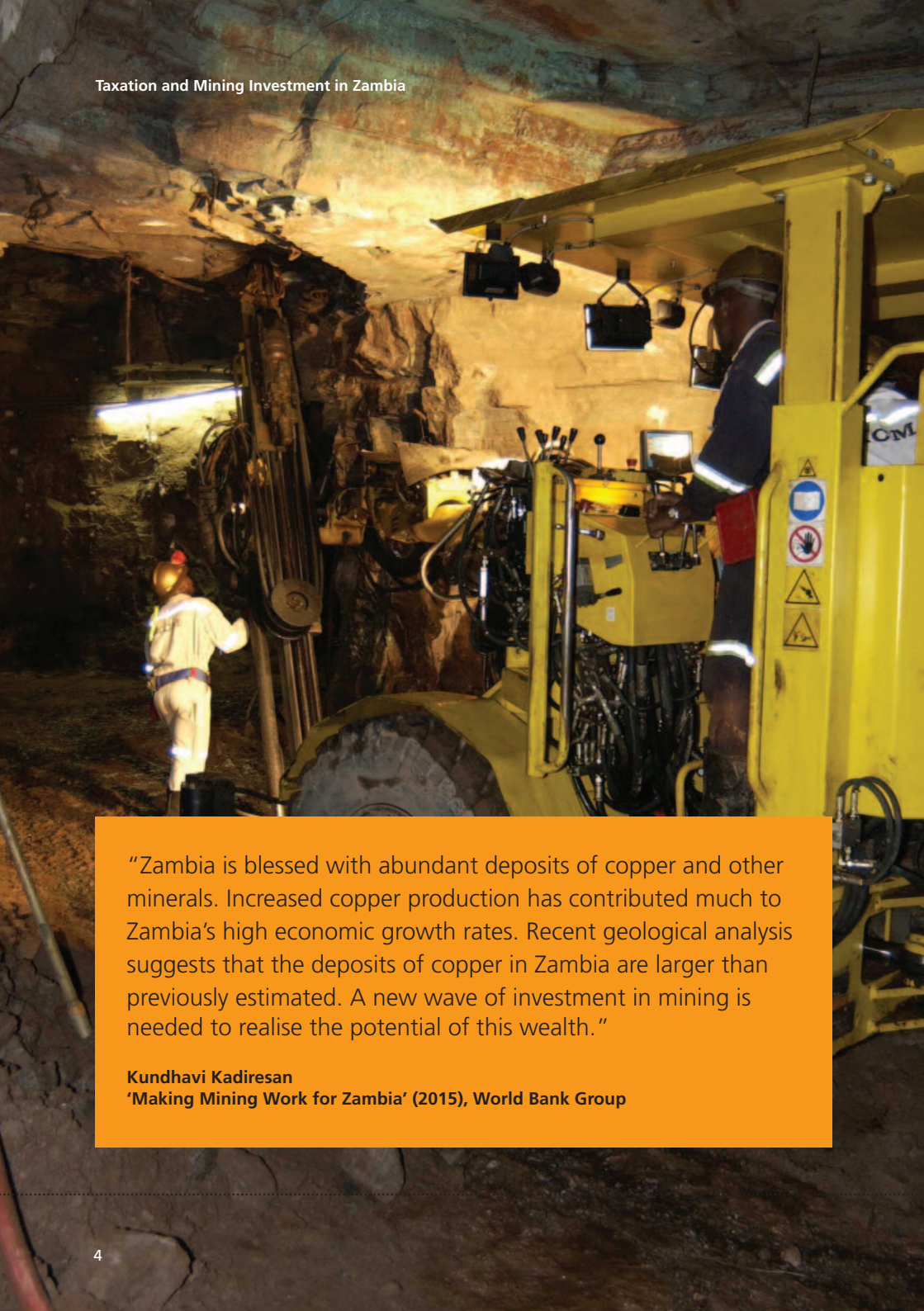
Whilst there have been significant improvements, Zambia remains an outlier. It still has one of the highest effective tax rates compared to other copper producing countries, and a terrible recent history of policy instability. This deters badly needed investment.

With the renewed spirit of dialogue and cooperation which now exists with government, we believe that it is possible to devise a more competitive mining tax regime that could provide the economic stimulus that will help to grow industry, the wider economy and employment, and ultimately deliver more tax over the long run.

With this objective in mind, we are publishing this freely available booklet *Taxation and mining investment in Zambia*. It explains, in layman's terms, the challenges of designing a mining tax regime that benefits both the mines which pay tax, and the governments which receive it.

Nathan Chishimba

President: Zambia Chamber of Mines



“Zambia is blessed with abundant deposits of copper and other minerals. Increased copper production has contributed much to Zambia’s high economic growth rates. Recent geological analysis suggests that the deposits of copper in Zambia are larger than previously estimated. A new wave of investment in mining is needed to realise the potential of this wealth.”

Kundhavi Kadiresan

‘Making Mining Work for Zambia’ (2015), World Bank Group

MINING AND INVESTMENT – WHERE ARE WE NOW?

Copper production is rising, but is not sustainable without a massive and immediate wave of new investment

The good news is Zambia's copper production continues to increase, albeit slowly. In his budget address to Parliament in November 2016, Finance Minister Felix Mutati revealed that production in the first nine months of 2016 had reached 576 000 tonnes, which was 8% up on the first nine months of the previous year.

However, that finding comes with two caveats. The first is that because of the lower average copper price in 2016 compared to 2015, the value of that increased production was worth only \$3.2 billion, or 20% less. The second caveat is that a big slice of the 2016 production – 98, 815 tonnes – came from a single new mine: First Quantum Mineral's Sentinel Mine in North-Western province.

These two caveats lead to one inescapable conclusion: Zambia is not producing nearly as much copper as it could be. Production levels are currently far lower than those predicted only a few years ago. Furthermore, according to a 2015 report on Zambian mining by the World Bank, "growth in production will begin to slow after around 2019. Along with the decline in production, there will be a decline in government revenue, mining industry jobs and foreign exchange. However, production levels can increase over the long run if there is a new wave of investment."

Continued copper production can only come from two sources: existing mines expanding their current production, and new mines starting up new production – as FQM's Sentinel Mine did, with dramatic effect, in

2015, boosting not just production but industry employment too.

Increased copper production doesn't happen overnight. It takes several years between the decision to invest and the start of production. It is a sobering thought that the increased production so far in 2016 was actually the result of investment decisions taken 5-10 years earlier. So the higher copper production Zambia wants to see in the next 5 to 10 years will result from investment decisions taken today.

Will those decisions be taken? There is only so much investment capital to go around, so the environment must be conducive. Mining competes with more immediately attractive sectors, such as the digital economy, where returns are higher, are realised in far less time, and with less uncertainty. The situation is so serious that in its 2015/16 report on the major risks facing the global mining industry, Ernst & Young called access to investor capital "a survival issue" for the entire industry.

The conclusion seems inescapable: for Zambia to continue as a major copper-producing country, a new wave of investment is necessary, and the conditions to attract that investment must be created now.

WHY MINING INVESTMENT MATTERS

Zambia's history shows that mining investment drives economic development, boosts employment and lifts disposable income

The history of modern Zambia is the history of investment. Although copper had been mined by the local population for a long time, it was only in the 1920s, after exploration identified lucrative copper deposits, that sustained commercial mining began and investor capital poured in.

"Post-1924 saw the beginning of massive investments in mine developments, led mainly by American and South African companies," according to a paper³ *Copper Mining in Zambia – history and future*, by Jackson Sikamo, Alex Mwanza and Cade Mweemba.



The population of both native Zambians and white settlers rocketed. Mining settlements grew into fully developed towns, support industries emerged, and infrastructure such as roads, hospitals and schools were built.

"Thus, by 1964, when Zambia was born, it had a strong economy driven by the mining sector," the paper says. Zambia produced over 12% of global copper output.

The average wealth of Zambian citizens, measured by GDP per capita, was nearly three times that of South Korea. Mining drove the growth of other sectors, such as transport, construction and manufacturing.

By 1969, Zambia was officially a middle-income country with one of the highest GDPs in Africa.

The critical role of investment was once again evident from 1997, when the mines were re-privatised after decades of under-investment. For more than a decade, investors collectively poured around \$12 billion into modernisation, expansion and new greenfield ventures.

"There was a sudden economic upturn, not only on the Copperbelt but in the country as a whole, with the mining industry as a pivotal contributor," the paper says.

Statistics show how both copper production and national GDP (a measure of economic growth) recovered in 2000 and accelerated in the years thereafter.



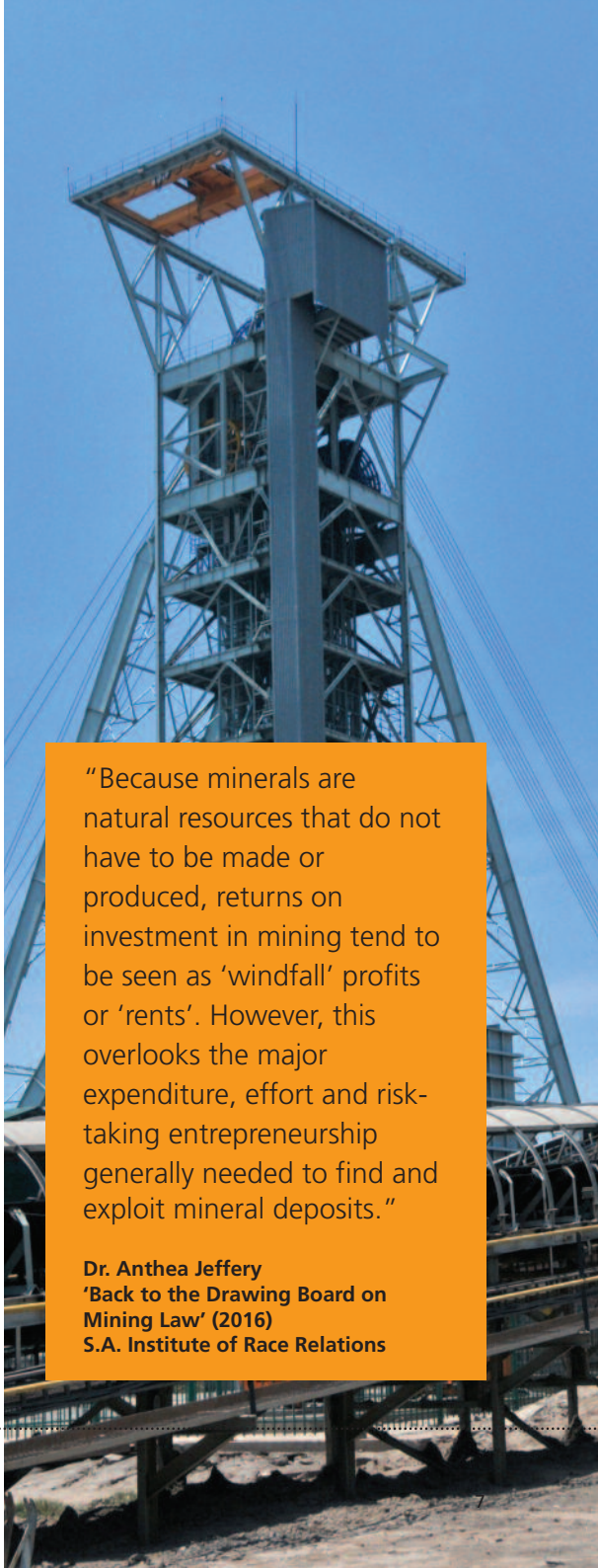
Importantly, this was some years before the price of copper started to recover from around 2004, proving that it was the surge in investment which turned around the fortunes of Zambia's industry and economy; the rise in the copper price merely lent force to an existing trend.

World Bank figures show that from 2000 to 2013, Zambia's GDP per capita – which measures the average income of the population – grew more than fivefold, from \$340 to \$1,840 – the biggest and fastest increase in average incomes since independence.

All key indicators of economic growth went up over this period – employment, new business growth, domestic and industrial electricity consumption, and income tax paid by people in employment.

The causal link between investment and economic prosperity is not limited to Zambia, nor indeed even to mining. It flows from what economists call the multiplier effect: an injection of spending (e.g. investment) into the economy creates indirect effects as the investing company procures supplies from local businesses, and employees spend their wages in the economy, stimulating more business creation and more employment.

A World Bank study⁴ on FQM's Kansanshi Mine in Solwezi found an employment multiplier of five – i.e. every job created by the mine resulted in five further jobs in the local economy.



“Because minerals are natural resources that do not have to be made or produced, returns on investment in mining tend to be seen as ‘windfall’ profits or ‘rents’. However, this overlooks the major expenditure, effort and risk-taking entrepreneurship generally needed to find and exploit mineral deposits.”

Dr. Anthea Jeffery
‘Back to the Drawing Board on Mining Law’ (2016)
S.A. Institute of Race Relations

DESIGNING A MINING TAX REGIME

A forward-looking tax regime encourages continued investment – or at least does not discourage it

Mining companies want to make the best possible return on their investment over the life of the mine, whilst governments want to get as much tax revenue as possible over the life of the mine.

A well-constructed mining tax regime will balance these competing interests, and turn potential adversaries into partners.

A typical life-of-mine is 15-25 years or more, and will outlive several changes of government. A mining tax regime therefore encourages continuing mining investment over the longer term, for it is the continuity in production that is largely responsible for a stable stream of tax revenue, rather than the actual tax rate.

Admittedly, this long-term perspective can clash with the very real and immediate revenue needs of governments, particularly in developing countries; but this does not make it any less true.

A 'good' mining tax regime encourages investment – or at the very least is neutral and does not discourage it. Designing one requires a sound understanding of mining, because it is unlike other business sectors: it is capital-intensive, risk-intensive and has very long lead times to profitability.

There are four key stages of a mine's life cycle, from exploration to closure, and each requires a certain kind of tax treatment.

■ EXPLORATION

This is a high-risk phase that doesn't generate any income, and can lead to nothing more than an expensive hole in the ground. Ideally, tax authorities would allow losses to be carried forward and offset against profits in the production phase, to encourage firms to move to the next phase when payable minerals have been found, from exploration to mine development.

■ MINE DEVELOPMENT

This is a high-cost phase where mines purchase expensive capital equipment (usually imported), and incur steep development costs. Ideally, tax authorities would keep import duties and VAT low, and allow mines to write off capital costs fully and as quickly as possible once production begins.





■ PRODUCTION

This is the only phase during which revenue is generated and profits can be earned, though these can fluctuate considerably over time. It is during this production phase that tax authorities are able to capture reliable revenue streams from profit tax, and when certain governments (e.g. Chile) choose to invest some of it in a sovereign wealth fund as a cushion against future price downturns.

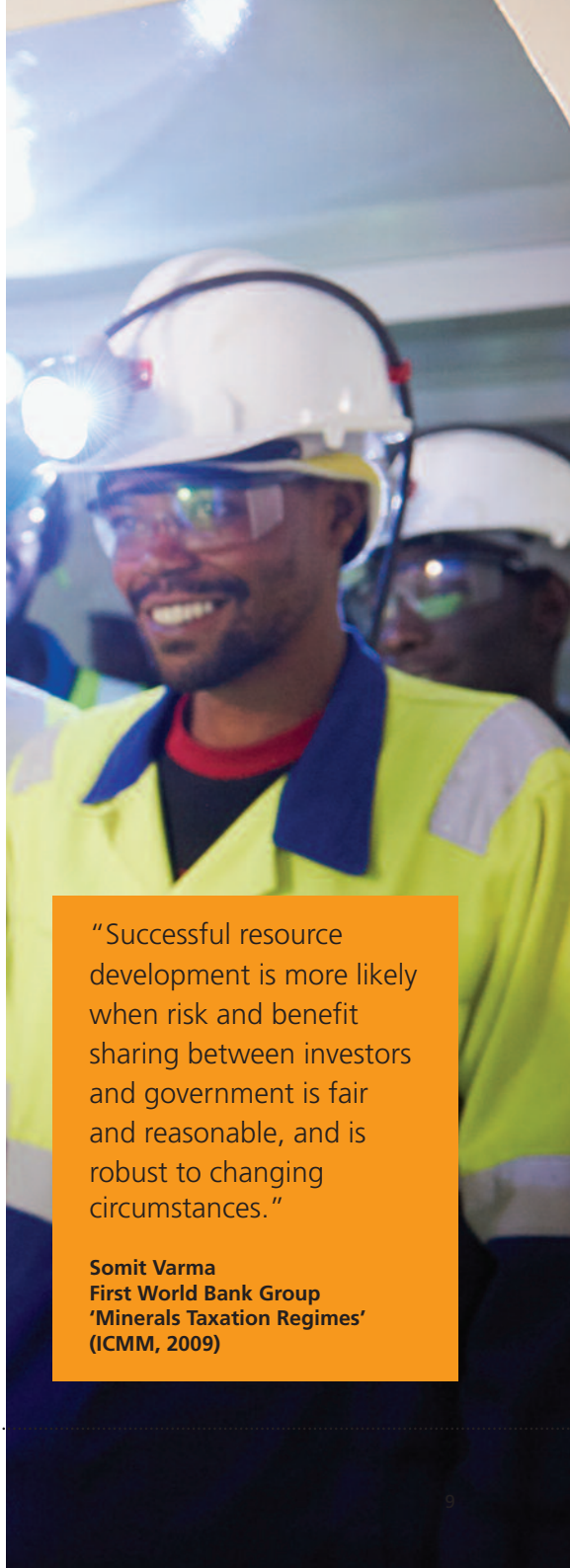
■ CLOSURE AND REHABILITATION

The mine no longer earns any income, but incurs substantial costs to rehabilitate the area and return it as far as possible to its original state. Ideally, tax authorities would provide tax-deductibility for these costs, to encourage mines to set aside funds progressively during the production phase.

When taking business decisions, mines will respond to the nature of the tax treatment in place.

For example, allowing losses to be carried forward in the exploration phase encourages further exploration and the discovery of new mineral deposits.

Allowing rapid tax-deductibility for expensive capital equipment encourages modernisation, the expansion of existing mines and the construction of new mines.



“Successful resource development is more likely when risk and benefit sharing between investors and government is fair and reasonable, and is robust to changing circumstances.”

Somit Varma
First World Bank Group
‘Minerals Taxation Regimes’
(ICMM, 2009)

“For companies, the overall level of tax, including royalties, influences incentives to explore and develop. Higher taxation levels are likely to reduce incentives to invest, and in marginal cases, even to keep some mines operating.”

Paul Mitchell
Taxation and Investment Issues in Mining
‘Advancing EITI in the Mining Sector’ (EITI, 2009)



ROYALTIES, PROFIT TAX, DUTIES AND ALLOWANCES

Understanding the most commonly used components of mining tax

Taxing mines requires a broad, long-term perspective. One mine might be at production stage and paying tax; another might be at production stage and not paying much tax because it is in the middle of a billion-dollar expansion; yet another might be several years away from its first tax payment because it has only just started mine construction.

For this reason, tax authorities in the world's major mining jurisdictions typically rely on a mix of instruments to ensure a smooth stream of tax revenue throughout the life of the mine.

Mineral Royalty Tax (MRT)

Mineral royalty taxes are typically low – between 1% and 6% – and are levied on production. They capture tax revenue immediately, even though the mine may still be several years from profitability – or may even be making a loss. Royalties are acknowledged to be a blunt instrument, in that they are not sensitive to market conditions, the cost profile, profitability or distinct circumstances of different mines. Royalties are regarded as a 'regressive' tax, as they fall hardest on those who are worse off. For example, two mines producing the same amount of copper will pay the same royalty, even though one may be producing at a loss, while the other is profitable.

Tax on profits

A tax on profits – also referred to as company income tax or corporate tax – is typically set at a higher rate than MRT: around 25% to 35%. It captures tax revenue when the mine is in its production phase and doing well. It is during this phase that tax revenues are highest, especially given that MRT continues to be paid as well. Profit tax is regarded as a 'progressive' form of taxation, as it

extracts the most from those who are better off – the more you earn, the more tax you pay.

Duties and VAT

During both the construction and production phases, mines purchase hundreds of millions of dollars' worth of expensive machinery, equipment, vehicles, spares and other capital equipment – most of which has to be imported. Import duties and VAT are usually levied on these purchases, and can be as high as 25% or more.

In addition to these direct taxes, the tax authorities have the discretion to grant tax relief to mines, in the form of various allowances, deductions and write-offs. These have the effect of deferring taxation to later years, when the mine is in a better position to pay it. There are two common forms of tax relief:

- **Capital allowances:** When a mine spends money on expensive capital equipment, whether during construction or production, tax authorities commonly allow the mine to deduct the expense against their tax bill during the year of investment. This is known as a capital allowance.
- **Tax losses:** If a mine makes a loss during the year, tax authorities may allow the loss to be carried over to a future year and be offset against that future year's financial results.

When taking business decisions, mines will respond to the kind of tax treatment in place. For example, low royalty taxes may encourage mines to increase production, especially in depressed markets; on the other hand, partial or no tax relief on the purchase of expensive capital equipment could discourage mines from purchasing such equipment and upgrading their operations.

THE MINING INVESTOR'S PERSPECTIVE

Above all else, mines seek a tax regime that is simple, predictable and stable

It easily costs a billion dollars to set up a new mine, a couple of million dollars a day to operate it and take a decade to recoup the initial investment before any profits are realised. So, even small changes in tax rates not factored into the original investment decision can have a disproportionate impact on cashflows and profitability, and push payback out by several .

Investors are therefore unlikely to commit their capital unless they feel the mining tax is sound. A sound mining tax is not necessarily one with the lowest rate; it is one that is simple, predictable, stable and consistently applied over the life of the mine.

"The key factor determining investment decisions is the geological potential of a site, but it is strongly offset by fiscal and socio-political considerations, with the former including tax rates and the latter the stability of the tax system," says Australian environment and planning consultant Paul Mitchell, in a report *Taxation and Investment issues in Mining*. He adds that of the ten most important criteria mining companies consider before deciding to invest, "more than a third relate to taxation".

A survey⁵ by Ernst & Young of the tax directors from the top 40 global mining and metals houses, found that "tax or royalties are one of the largest components of cash costs, and feed directly into the determination of cut-off grades and mine plans." The survey found that nearly two-thirds of tax directors are consulted on tax issues before a company invests in exploration, or expands an existing mine.


What features do investors look for in a mining tax regime? A report by the International Council on Mining and Metals (ICMM), *Minerals Taxation Regimes*, notes the following:



- “In particular, companies highlight *stability* and *predictability* as the most important aspect of taxation regimes.”
- “A minerals tax regime that is simple and clearly set out in the legislative system is generally preferred. This makes it easier for companies to assess fiscal liabilities. It also reduces administrative costs and the scope for misinterpretation.”
- “Companies generally prefer *profits-based taxes*. Such taxes serve to delay their tax payments until upfront costs have been partly or fully recovered, and so they also reduce companies’ financial risks.”
- “Companies are particularly concerned about changes applied to royalties, because of their tendency to be regressive [i.e. they hit low-income mines harder than high-income mines].”
- “Accelerated depreciation rates and the ability to carry forward losses have the effect of postponing taxes to later years, and for companies to recover costs more quickly.” (On this point, the Ernst & Young survey found that accelerated depreciation can lessen the risk of an investment, and in some instances may even be preferred to a lower tax rate.)
- “Where low tax rates are offered to attract investment, it tends to be more likely that subsequent political pressure will result in a realignment of fiscal regimes in later years. This has led to many companies emphasising that from their perspective, the *optimal* level of taxes does not equate to the *minimum* level.”

“[The issue of maximising tax revenue] in effect addresses the questions: What should the magnitude of the total mining tax impost on industry be? How high can the total fiscal take be before it becomes a serious disincentive for industry to invest in the country?”

Pietro Guj
‘Mineral Royalties and Other Specific Taxes’
(2013)



“While mineral potential is obviously a very important consideration in encouraging or dissuading investment, the impact of government policies can be significant.”

‘Survey of Mining Companies’ (2015)
Fraser Institute Annual



CONCLUSION

Zambia's mining future 10 years from now will depend on tax and investment policies implemented today

Zambia has known copper reserves of some 20 million tonnes, according to the 2016 annual US Geological Survey; that's worth \$95 billion at current market prices. Zambia also boasts the third-largest reserves of cobalt in the world.

However, mineral wealth has value in the real world only to the extent that it can be mined and brought to market on a profitable basis. Otherwise it stays in the ground, with no benefit to the citizens of the host country.

Legal and policy regimes – which includes taxation – are critical in deciding how profitably a mineral deposit can be brought to market. It is what tips the balance between competing mining projects.

The Fraser Institute, a Canadian think-tank which publishes an annual report on the relative attractiveness of different mining destinations, has found that decisions on where to undertake mining exploration are guided 60% by geological attractiveness (the likelihood of finding viable mineral deposits) and 40% by the content of mining policies.

Independent studies by various international mining consultancies, the World Bank and the IMF show that Zambia's overall effective tax rate (when all the various taxes, royalties, duties and allowances are taken into account) is still among the highest in the world.

The most recent change in mineral royalty tax in 2016, albeit a positive one, was the eighth change in the country's mining tax in the last eight years, making Zambia's mining tax regime one of the least stable in the world.

From a longer historical perspective, the current situation is actually an anomaly; for most of the past 100 years, the country's tax regime has encouraged investment – it can do so again.

Comparison with other national mining taxation regimes

COUNTRY	CORPORATE INCOME TAX	ROYALTY
Australia	30%	2.5% – 5% *
Canada	31%	1% – 17% *
Chile	24%	5% – 14% *
DRC	30%	2%
Ghana	35%	5%
Russia	20%	8%
South Africa	28%	0.5% – 7%
Tanzania	30%	4%
Zambia	35%	4% – 6%

Source: PriceWaterhouseCoopers
Compare Mining Taxes www.pwc.com (2016)

* Maximum rate depends on factors such as where the mineral is mined, the methodology of calculation and the availability of discounts. In Chile, for example, mines on a stability regime may only pay a maximum of 5%.

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Image: photosmith2011 (flickr.com)



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Image: gman1981 (flickr.com)