

# Investment basics – XI

## An introduction to gold mining taxation

### Part 1

To discuss all aspects of gold mining taxation in one article would require considerably more space than space allows, so this discussion of gold mining tax is to be split into three parts. In this first part we look at the formulae used to assess a gold mine's liability for lease and taxation payments and work through a simple example. In part two we will look at a more complicated example and examine the position of small mines and state assisted mines, and in the final part we will illustrate a few shortcuts and examine some of the implications of the formula method of taxation which is unique to gold mines.

Before we get involved in the mechanics of lease and taxation calculations let us look briefly at the background to the granting of mining leases. In return for the right to mine, companies have to apply for permission to carry out these operations and pay for their rights in one form or another. Certain old gold mines make this payment in the form of claim licences, but all gold mines established since 1932 (with the single exception of Venterspost) make payment in the form of a lease consideration. This consideration is normally on a sliding scale determined by a formula of the type

$$y = a - \frac{ab}{x}$$

where "y" is the percentage of profits (after deducting certain allowances) payable to the State, "x" is the ratio of profit to revenue expressed as a percentage, and "a" and "b" are constants for a particular lease.

In determining the magnitude of "a", cognisance is taken of the indicated return on capital invested in the light of estimated grade, costs, etc. In general the value of "a" ranges between about 10 and 30. The constant "b" is usually 6 or 8. A typical formula (and the one used in the examples below) would then be:

$$y = 15 - \frac{120}{x} \text{ i.e. } a = 15, b = 8.$$

The liability of a gold mine for taxation on mining profits is also on a sliding scale and is determined using one of two formulae. These formulae are again of the type

$$y = a - \frac{ab}{x} \text{ and are:}$$

$$y = 60 - \frac{360}{x} \text{ for mines granted leases before 17.8.1966}$$

or

$$y = 60 - \frac{480}{x} \text{ for mines granted leases after 17.8.1966.}$$

In both formulae "a" has a value of 60, and "b" has a value of 6 for pre-66 mines and 8 for post-66 mines.

Mines classified as "assisted mines" under the Gold Mines Assistance Act use a different formula which will be discussed in part two.

Before getting involved in a calculation it is necessary to define some terms.

*Mining income:* includes revenue from the sale of all

precious metals and minerals, waste rock and materials, sulphuric acid and rents on mine dwellings.

*Non-mining income:* which is taxed at the corporate rate includes interest on monies deposited, rents from surface rights and grazing fees and royalties received, unless the royalties are substantial in which case the Receiver of Revenue may class them as mining income.

*Capital expenditure:* allowed for redemption against profits includes all expenditure on developing the mine (including interest on loans) prior to the start of production but specifically excludes expenditure on mineral and surface rights, legal and transfer fees and flotation and underwriting the company.

We can now look at some examples but let us commence with the simplest case which is a mine which is in production and has been paying lease and tax.

Assuming:

Revenue	= R100 m
Costs	= R50 m
Therefore profit	= R50 m
Capex	= R10 m

$$\text{Lease formula} = y = 15 - \frac{120}{x}$$

$$\text{Tax formula} = y = 60 - \frac{480}{x}$$

### Lease payment

Remembering that "x" is the ratio of profit to revenue expressed as a percentage and that capital expenditure can be redeemed against profit in the year in which it is incurred, "x" becomes

$\frac{50 - 10}{100}$  or 40%. Inserting this value into the formula we get:

$$\begin{aligned} y &= 15 - \frac{120}{40} \\ &= 15 - 3 \\ &= 12 \end{aligned}$$

which is the percentage of the profits payable as lease consideration. However, the profit to which this 12% is applied is not the profit used in calculating "x", because the capital expenditure redemption allowance must first be deducted. This capital allowance for lease is calculated at the rate of 6% compound interest for mines granted leases after 1st October 1967 and 5% simple interest for mines granted leases before that date. The allowance applies to any unredeemed balance of capital expenditure (and capital allowance in the case of the compound interest calculation) and to current capital expenditure from the last day of the month in which it is incurred throughout the life of the mine. Therefore, on current capital expenditure the amount spent in the first month of the mine's financial year receives the allowance for 11 months of the year, that spent in the second month for 10 months and so on until the end of the financial year with expenditure incurred in the last month re-

ceiving no allowance. In general the monthly capital expenditure pattern of the mine is not available so one has to assume that the expenditure takes place in equal monthly amounts. Making this assumption it is fairly easy to prove that the effective rates corresponding to the 6% and 5% are 2,75% and 2,292% respectively.

So getting back to our example and assuming that the capital allowance rate is 6% the amount to be deducted from the profit of R40m before calculating the lease payment is 2,75% of R10m (capex) or R0,275m. The lease payment is then determined as:

$$(40 - 0,275) \times 0,12 = R4,767m$$

We are almost there. Because no stamp and transfer duties are payable on mining leases an additional amount equal to 1,25% of the lease consideration is payable to the State. Therefore our final lease consideration is:

$$R4,767m \times 1,0125 = R4,827m$$

That concludes the lease consideration and by comparison the tax calculation is simple. Firstly, the capital allowance for tax falls away at the end of the year preceding that in which the mine first has a taxable profit. We will see that better in the second example but because we assumed earlier that the mine in our example had already paid tax we can ignore capital allowance here. For the record, all gold mines with leases granted after 1st January 1974 receive a capital allowance for tax of 10% per annum calculated on a compound interest basis. The only other point to remember is that the lease payment is deductible from profit in determining the profit for tax. Our profit for tax therefore becomes:

$$R50m - R10m - R4,827m = R35,173m$$

To calculate the tax rate we divide R35,173m by the revenue of R100m and express it as a percentage to give 35,173%. Dividing this into 480 and deducting the result from 60 gives the tax rate of 46,353%. The tax payment is then:

$$R35,173m \times 0,46353 = R16,304m$$

At this point we must remember the surcharge which is presently 15%, so the total tax payment becomes R16,304m × 1,15 equal to R18,749m. At present there is no loan levy charged on gold mines but if there was this is calculated by applying the percentage payable to the calculated tax figure before the addition of the surcharge.

So let us look at the final result and what remains for the shareholder.

Revenue	R100,000m	
Less: Costs	50,000m	
Profit	50,000m	
Less: Lease	4,827	
Tax	18,749	23,576m
Profit after tax		26,424m
Less: Capex		10m
Available for distribution		<u>R16,424m</u>

By now we should understand how the lease and tax formulae work and in the next issue we will work through an example of a new mine and look at the taxation of small mines and state assisted mines.