

## **RESEARCH METHODOLOGY**

Euroz Hartleys Research is an equity market research house. Consequently, we generally use valuation techniques to help us determine equity market price targets (as opposed to valuations for corporate transactions).

### **Discounted Cash Flow (DCF)**

Euroz Hartleys research will complete a DCF valuation for producing mines, mines in development and industrial companies. Analyst will often complete a DCF for even very early stage developers in order to test the merits of the project, areas of risk and potential funding requirements.

Analysts will generally first perform a preliminary “base case” DCF model. This valuation is based on the analyst’s assessment of the most likely production profile and normally is based on consensus commodity price forecasts (sourced from a third party). The analyst then carries out sensitivities by changing variables such as production, commodity prices and funding sources.

Our DCF equity discount rates are based on the stage of development. Generally we apply the following real rates

- No applicable study: 14%
- Applicable and recent study completed: 12%
- Mine is very close to commissioning: 10%
- Mine is in steady state production: 8%

With early stage companies, the level of dilution for funding can have a large impact on per share equity valuations. For simplicity, we run four scenarios for funding sources

- 1) 100% debt;
- 2) 100% equity at the prevailing share price;
- 3) 50% equity at the prevailing share price & 50% debt;
- 4) 100% equity at a 20% discount to the maximum diluted NPV.

### **Call options on commodity prices**

We believe that resource equities often trade like call options on the underlying commodity prices. As such, our analyst will often test valuations using a Black-Scholes model.

### **Comparative Analysis**

In addition to fundamental analysis, Euroz Hartleys Research will also complete a comparative analysis of peers based on items such as deposit size and grade, cash costs, dividend yield, implied probabilities of success (POS) and growth prospects. The purpose of the comparison is to check that DCF assumptions are reasonable and also to identify whether a company is unique and could attract a premium.

### **Probability of success**

Euroz Hartleys Research often covers highly speculative companies that may have a low chance of success, but provide very large returns if success were to occur (for example, wildcat offshore oil & gas exploration). The analyst determines an unrisks DCF, estimated working interest at the time of the potential discovery (ie predicts potential farm-outs) and then risks the valuation subjectively with a probability of success (POS). The analyst takes into account any independent expert reports and historical rates of success, but more importantly takes a subjective view of the market’s likely attributed POS at the time of drilling. Implicit in the POS approach is the assumption that the market will attribute value for something is expected, on balance, to fail.

## **Earnings multiples**

Analysts compare earnings multiples (P/E, EV/EBIT etc) to identify potentially cheap or expensive companies. The analysis is generally used as a cross check with the other forms of valuation.

## **Industrial Companies**

As well as completing a DCF for industrial companies, analysts also consider the dividend yield, NTA and peer earnings multiples to derive a price target.

## **Qualitative factors**

Analysts consider qualitative factors such as management track record, management incentives, capital structure, shareholders & JV partners, leadership capabilities, strategic planning abilities, Board composition etc. As mid/small/micro cap specialists, we have found that these qualitative factors are usually very important determinants of medium term success. Based in Perth and being a resource specialist, Euroz Hartleys Research has built a strong network of industry relationships that helps analysts complete their qualitative assumptions.

## **Recommendations**

Recommendations are based on a subjective assessment by the analyst after calculating a valuation and considering

- the potential upside or downside return to the base case valuation;
- the risk of achieving the base case valuation (for example, the reliance on new mining methods);
- the likely cost and type of funding requirements (for example debt or equity);
- a consideration of the potential return in the case that alternative outcomes are achieved instead (for example, if commodity prices stay at spot prices, rather than move to the consensus expected price);
- an assessment of management premiums/discounts (for example has management achieved good outcomes in the past);
- qualitative factors; and
- an assessment of equity market interest (for example a comparison peer discount/premiums to assessed valuation).