## ABSTRACT

Mining operations are by nature capital intensive. Historically mining companies have in general been poor at capital allocation decision making, which translated in poor returns on capital invested and impairments. Better capital allocation strategies are required for mining companies to unlock more value from invested capital.

This research focussed on identifying factors to consider during the capital allocation decision-making process that can potentially unlock value in mineral projects. The research included a review of capital allocation decisions and performance of five mining companies from 2001 to 2017. This period covers one full commodity price cycle to determine the impact of the prevailing commodity price on capital allocation decisions. Through analysis of the historical capital allocation of the five mining companies the research aimed to test if it is possible to unlock value by allocating capital in a counter cyclical approach compared to the prevailing commodity prices.

From the analysis of the historical capital allocation decisions made by five mining companies a number of common trends were identified. The research found that during a period of higher commodity prices, mining companies focussed primarily on volume growth. This is confirmed by a strong correlation between the value of capital approvals and the average commodity prices of the basket of minerals produced. The higher allocation of capital towards growth initiatives, such as expansionary capital and acquisitions, have in a number of instances resulted in significant capital over-expenditures in projects. The over-expenditures have directly contributed to a number of impairment charges made by the diversified mining companies during a declining commodity price cycle.

Conversely, during periods of declining commodity prices mining companies focused on rationalisation of mining projects and operations and disposal of assets that do not meet minimum investment criteria. During these periods capital allocation towards growth projects were reduced, with most capital allocated to reduction of net debt on the balance sheet. The research found a common trend of higher capital allocation towards growth projects during historical high commodity prices, and during subsequent lower commodity prices capital allocation was directed towards reduction of net debt and disposal of loss making assets.

Results from the research conducted on the five mining companies indicated that there may be correlation between return on investment and the timing of the capital investment in relation to the position on the commodity price cycle at the time of the investment. However, the results obtained for the five mining companies were influenced by operational returns from existing operations, which makes it difficult to determine returns realised on incremental capital expenditures.

From the results obtained from the analysis the following recommendations are made for a capital allocation strategy to increase the probability of unlocking value over the long term. Firstly, a company should have a clear capital allocation framework that is guided by the mining company's strategic objectives. The framework should clearly indicate the hierarchy of importance when allocating capital to different areas. Secondly the company should clearly identify the minimum investment criteria to be met before capital is allocated to an investment. Lastly the mining company should aim to consistently invest capital throughout the commodity price cycle, and be cautious of over allocating capital towards growth projects during periods of high commodity prices.