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Krzysztof Kozieł, Analyst, Haitong Bank

Haitong Bank in a report from 18th April reinitiates coverage of KGHM with a SELL rating and FV of PLN 79.30 (15% downside) stemming from the negative outlook for 1H-3Q18 results at KGHM Poland, which is suffering from an accumulation of ongoing unfavourable circumstances regarding smelting operations.

Valuation Methodology

Haitong Bank's valuation approach for KGHM uses two methods: sum-of-the-parts method and peer valuation. Analysts calculate the final FV as the weighted average of the two results with 90% and 10% weights for the DCF-based SOTP and relative valuation, respectively. Analysts stress that the latter may not cover the full commodity cycle since it is based on 2019-2020 results which they believe bears the hallmarks of the-end-of-cycle. Haitong Bank also believes the peer group consists of not quite comparable stocks as the majority of those companies are global conglomerates with diversified portfolios exposed to diverse commodities such as coal, coking coal, zinc, iron ore, coal and many others. Moreover, KGHM is in most part an integrated copper producer with smelting and refining capacity. The processing business model differs from the production of primary metal.

Risks to Fair Value

Commodity risk

KGHM Poland is exposed to the risk of changes in the prices of the metals it sells: copper, silver, gold and lead. Furthermore, the KGHM INTERNATIONAL LTD. Group is exposed to the risk of changes in the prices of copper, gold, nickel, molybdenum, platinum and palladium. In KGHM Poland and the KGHM INTERNATIONAL LTD. Group, the price formulas used in physical delivery contracts are mainly based on the average monthly quotations from the London Metal Exchange for copper and other common metals and from the London Bullion Market for precious metals. Within the commercial policy, the Parent Entity and KGHM INTERNATIONAL LTD. set the price base for physical delivery contracts as the average price of the appropriate future month. The Group has a so-called long position, which means it has higher sales than purchases of a metal. The notional amount of copper price hedging strategies settled in 2017 represented approx. 23% (in 2016: 10%) of the total sales of this metal realised by the Parent Entity (it represented approx. 32% of net sales in 2017 and 14% in 2016). Moreover, the notional amount of silver price hedging strategies settled in 2017 represented approx. 7% of the total sales of this metal realised by the Parent Entity in this period (in 2016: approximately 3%).

Risk of changes in foreign exchange rates

Regarding the risk of changes in foreign exchange rates within the KGHM Polska Miedź S.A. Group, the following types of exposures were identified:

- transaction exposure related to the volatility of cash flows in the base currency;
- exposure related to the volatility of selected items of the statement of financial position in the base (functional) currency;
- the exposure to net investments in foreign operations concerning volatility of consolidated equity in the Group's base currency

With respect to managing risk in 2017, the Parent Entity implemented copper price hedging transactions with a total notional amount of 126 thousand tonnes and a hedging horizon from April 2017 to December 2019 (where 84 thousand tones were in respect of the period from January 2018 to December 2019). Put options were purchased (Asian options) and seagull options structures were

implemented (Asian options). In 2017 the Parent Entity did not implement derivatives transactions on the silver market.
As at 31 December 2017 the Parent Entity held open derivatives transactions on the copper market for 126 thousand tones and did not hold open derivatives transactions on the silver market.

<u>Risk related to operations and technology</u>
Operations are subject to a number of risks out of the Group's control including technological and geological problems, natural weather phenomena, failure of equipment and infrastructure, loss of key inputs and feedstock. Any unplanned disruption on the production process both in mining and smelting activity may entail losing production and sales as well as incurring unplanned expenditures.

<u>Risk related to resources and reserves</u>
It's a risk related to insufficient knowledge of the parameters and characteristics of a deposit, both for exploration projects (estimated input data for orebody evaluation models), as well as for on-going mining operations. Resources and reserves are always estimates based on samples examination.

<u>Risk related to community, labour relations and employees</u>
In 2017, the domestic companies of the Group engaged in negotiations with the trade unions regarding questions of remuneration, employment conditions and social matters. In most cases they concluded with the signing of additional protocols to the collective labour agreements and other agreements. In entities engaged in therapeutic and spa activities, agreements were concluded involving assuring employees of higher basic wages, pursuant to the "act dated 8 June 2017 on setting the lowest basic wage of employees practicing medicine employed in therapeutic entities".
In 2017, two of the Group's companies remained in collective disputes initiated and suspended in prior years: "MCZ" S.A. and PeBeKa S.A., of which during the year one of them, PeBeKa S.A., concluded its dispute. In one of the companies – PMT Linie Kolejowe 2 Sp. z o.o. – a collective dispute was initiated in 2017 over wages.

<u>Risk related to new project construction and commissioning</u>
New projects may fail to achieve expected returns due to capital or operating costs being higher than planned. New operations are also exposed to the risk of lower grade of ore or long-winded ramp-up process. Although Sierra Gorda is operational now, there are also Victoria and Afton Ajax projects in the pipeline hence we see this risk as material.

<u>Risk related to environmental compliance</u>
Mining operations involves storage of large volumes of waste materials in tailings ponds which could result in spillages and cause damage to environment.

<u>Risk related to politics</u>
The Group could be affected (to the upside and downside) by political decisions, especially the granting and renewal of permits as well as increasing or decreasing tax extraction rates. For instance, the company is currently struggling to obtain a permit for the Afton Ajax project. Moreover, during the political campaign in the run-up to previous parliamentary elections the winning party (PiS) pledged to decrease the copper tax rate. The Group is controlled by the Polish State which may lead Management to participate in NPV-negative projects such as the Polish Nuclear Programme.

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