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Haitong Bank in a report from 21<sup>st</sup> February (08:00) initiates coverage of Famur and updates recommendations for the next industry companies:

- BUY on LW Bogdanka (FV PLN 64.19)
- NEUTRAL on JSW (FV PLN 62.39)
- BUY on Famur (FV PLN 5.82) – initiation of coverage

**Valuation Methodology**

**LW Bogdanka**

Our valuation approach for LW Bogdanka uses two methods, discounted cash flow (DCF) and peer valuation models. We calculate the final share valuation as the weighted average of the two results with 90% and 10% weights for DCF and relative valuation, respectively. Given the long-term character of Bogdanka's price contracts covering the vast majority of the company's production, its exposure to spot or even one-month forward international price indices such as ARA is limited. Hence comparing Bogdanka to other thermal coal miners may be difficult.

We stress that the latter valuation method may not cover the full commodity cycle as it is calculated on 2018-2020 results forecasts, hence we believe it is not appropriate to treat the abovementioned methods as equal. On the flipside we believe that including a peer valuation is essential even for cyclical businesses since investors tend to extrapolate current prices on long-term profit estimates. All in all, business cyclicality is mostly accounted for in a lower than market average multiples level.

**JSW**

Our valuation approach for JSW uses two methods: a discounted cash flow (DCF) and a peer valuation. We calculate the final FV as the weighted average of the two results with 90% and 10% weights for DCF and relative valuation, respectively. We stress that the latter may not cover the full commodity cycle since it is made on 2018-2020 results forecasts hence we believe it is not appropriate to treat the abovementioned methods as equal. On the flipside we believe that including the peer valuation is essential even for cyclical businesses since investors tend to extrapolate current prices on long-term profit estimates. All in all, business cyclicality is mostly accounted for by lower multiples.

**Famur**

Our valuation approach for Famur uses two methods, discounted cash flow (DCF) and peer valuation models. We calculate the final share valuation as the weighted average of the two results with equal weights for each route. For each method we assume that PBSz is going to be sold in the next couple of months. Up until now the biggest setback towards reaching a deal was the lack of JSW's Supervisory Board approval and as this was granted on February 16 (JSW official filing) we see the transaction as very likely. We also believe that PBSz has been fairly priced so if the transaction does not go ahead, our valuation does not change at all.

**Risks to Fair Value**

**LW Bogdanka**

Risk associated with the economic policy of the State regarding the hard coal mining sector

The plans of the Ministry of Economy and the Ministry of State Treasury concerning enterprises operating in the hard coal mining and power sector have a significant influence on the market position of the LW Bogdanka Group. If politicians favour Silesian mines at the expense of other mines in the country, Bogdanka's coal sales might decrease, making room for sales of PGG, however we do not see this risk as notably viable.

Risk associated with fuels prices

The level of prices of fuels for power production are mainly affected by:

- the price of thermal coal; and
- raw material alternatives to thermal coal (crude oil, natural gas, renewable sources) in global markets and, consequently, in the domestic market.

Nonetheless, the correlation between global and Polish coal prices is rather weak and thus we do not see it as a major key risk for Bogdanka's activities.

Risk associated with the specific nature of mining sector operations and the possibility of unforeseen events

Extracting coal from underground seams is a complex process which is subject to strict technical and technological requirements. During such operations, various stoppages can occur due to planned and unplanned technical interruptions (e.g. malfunctions). In this group of risks, there is also a risk of unexpected, usually local, deterioration of the quality of the deposit. The operating activities of the LW Bogdanka Group are exposed to risks and dangers resulting from the specific nature of conducting activities in the mining industry. These include:

- events associated with the environment (e.g. industrial and technological malfunctions);
- extraordinary events, e.g. geotechnical phenomena, mining disasters, fires or flooding of excavations with mine waters; and
- mining damage.
- The consequences may include:
  - temporary suspension of operating activities, losses relating to property or financial assets;
  - work accidents, including fatal accidents; and
  - potential of the company being held legally liable for mining events' countermeasures.

In previous years the company has not witnessed severe unexpected events that have led to stoppages and a considerable drop in planned output. Unlike mines located in the Silesian Basin, Bogdanka operates in relatively shallow mining pits which are generally safer due to lower methane concentrations.

Risk associated with the launch of the extraction of new deposits at Parent company

A material aspect of the operations conducted by the Group is the need to secure future extraction possibilities by providing access to new coal resources. Restriction of mining capacity may:

- shorten the life of the mining plant and/or;
- reduce the assumed level of extraction of hard coal; and therefore
- decrease future financial results of LW Bogdanka S.A.

At the moment the company is undertaking activities with the aim of obtaining new licences in order to double its resources and secure a raw material base for a further 50 years of activity.

## **JSW**

Upside risk – Primary upside risk we identify for JSW is a sentiment change toward cyclical names i.e. so called risk-on stemming from global risk relaxing. In case a deal is signed between China and USA we may face increased inflow to risky asset classes, especially commodity-based funds or ETFs. Another upside risk is related to weather phenomena such as monsoons and cyclones hampering production and cargo of coking coal, especially in Australia and Asia. Also monetary and fiscal stimuli introduced by the China, USA or Europe may lead to increased demand for cycle-exposed materials such as steel and by extension coking coal.

Risk associated with the health of the global economy and steel industry – The slowdown in global economic activity, especially in the steel industry, along with a decline in demand for coking coal and coke might have an adverse impact on the Group's results. In particular we turn our attention to the Chinese real-estate market and fixed asset investment. In tandem with iron ore coking, coal is an essential ingredient for primary steel production. Assuming that around 20% of global steel consumption comes from the Chinese construction market, its prosperity is vital for coking coal demand.

Risk associated with regulations – There is a risk that European steel capacity might experience further capacity closures as a result of environmental issues. The BF-BOF method produces up to two tonnes of CO<sub>2</sub> for every tonne of steel, twice as much as power plants emit with one MWh of production. Currently, the European power industry is on the verge of passing a Market Stability Reserve Reform to lend support to stagnant CO<sub>2</sub> prices.

Without deductions or allowances for CO<sub>2</sub> and with prices soaring fuelled by measures introduced by the abovementioned reform, BF-BOF might turn out to be unviable and replaced by the environmentally-friendly EAF. Demand for coke and coking coal may also be affected by planned overhauls of blast furnaces as well as sudden and unplanned outages resulting from failures or accidents.

Risk of volatility of coal and coke prices - in the past coal prices experienced significant volatility due to supply constraints, i.e. insufficient coal extraction, decline in inventories as well as abnormal weather phenomena especially cyclones and heavy rains in Australia. Historically prices changed by as much as several dozen percent qoq.

Operational risks that may contribute to lower output or higher costs – The Group’s coal production volume is subject to operational factors and events beyond its control, which may disrupt its operations and affect production volumes in the various mines at different times. The Group’s mining activity is above all subject to the influence exerted by mining factors, which include, among others:

- difficult geological conditions such as disruptions to the continuity of deposits characterized by volatility and irregularity that may curtail the effectiveness of mining longwall parcels to a greater extent than anticipated;
- a higher than forecast level of natural hazards which may lessen the ability to mine individual longwalls;
- mine accidents, fires, explosions and methane combustion, coal dust explosions, methane and rock outbursts and rock falls and collapses;
- failure of machinery and equipment used in mining and processing.

Even though the Group has taken a large number of measures to enhance safety, these risks may grow, in particular in conjunction with mining at deeper levels in the Group’s mines. Moreover, the events and factors that may affect production volumes and in particular cost growth include changes to the legal regulations governing the coal industry.

Risk that the performance of a mining front may be worse than expected – In the process of planning the mining of a longwall, it is impossible to ascertain the actual mining or geological conditions – such conditions are eventually discovered in the course of mining operations and have a significant impact on the performance of the mining front.

Risk associated with relations with trade unions and collective labour disputes – In the bituminous coal sector, trade unions play an important role in shaping the remuneration policy. The position held by trade unions is particularly strong on account of the headcount in the sector and its strategic influence on the functioning of the economy. The Group’s failure to maintain proper employee relations may exert a material and adverse impact on the Group’s operational outlook, results and financial position. There are 125 trade union organizations operating in the Group. The total number of trade union members, since an employee may be affiliated to several unions, exceeds the number of the Group’s employees and as at 31 December 2016 was 34,908, which means that the union membership ratio in the Group is 127.6% (compared to 147.5% in the Parent Company).

## **Famur**

Risk of share overhang – According to the strategy of TDJ Equity, Famur’s main shareholder, depending on the market situation and its investment needs, TDJ Equity may consider selling its stake to between 20% and 40%. After the January 2019 transaction (ABB, 10% of stake sold) TDJ owns roughly 47% of Famur’s equity.

Risk of non-divestment of PBSz – We believe that the PBSz price laid out in the letter of intent (PLN 205m) is fair so in the event of failing to strike a deal, our valuation does not change.

Risk of inadequate diversification of revenue sources – In the short term we see the risk of revenues concentration in a few state-owned companies operating in Polish coal industry. In the long term, due to the potentially lower demand from the Polish hard coal mining sector, the Group may find it difficult to quickly find new customers for mining equipment.



Risk of macroeconomic volatility – In mid to long-term volatile commodity prices, geopolitical and economic turmoil in many regions across the world, as well as exchange rate fluctuations, may result in revenue and profit erosion. The company based its strategy on international expansion so change in macro environment thereby may be detrimental to profitability.

Risk of changes in the global energy market – As coal is one of the major energy commodities, its prices, production volumes and usage are shaped by global trends. Key risks are related to:

- electricity prices, affecting the selling prices of coal and coal substitutes such as natural gas
- long-term shifts in the energy mix – growing share of fuels other than coal

Also we note that steel constitute the biggest part of COGS in the mining machinery industry. Growing prices may be difficult to transfer onto prices, especially in the period between signing a contract and delivery of equipment.

Risk of growing pressure on labour-related cost inflation – Due to relative rising pressure on wages in the Polish economy, the cost of qualified employees (welders) may grow in the very near future, reducing Famur's profitability.

#### **IMPORTANT DISCLOSURES**

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