

This Commodity Play is Different

Outperform, TP down to PLN61.3

Bogdanka's geological force majeure affecting 2H2022 volumes (1.2mt downside vs original guidance) should trigger negative EBITDA reading in 2H2022E, we assume, reducing company's EBITDA to PLN0.6bn, PLN0.2bn below consensus. However, the frenzy over European coal availability and prices continues, the Eastern conflict seems nowhere closer to amicable settlement, and in our view high inflation environment actually improves Bogdanka's price-opex spread in contrast to PGG. If Bogdanka could sell its coal at PLN600/t in 2023E, it would deliver post-tax EBITDA at PLN2.5bn and PLN1.5bn FCF (more than its Market Cap) in one year, an excellent proof of company's operational excellence and valuation upside, we reckon. Heavy and long-lasting subsidies to PGG (or its contracts with State buyers) could pose downside risk to LWB, but we should keep in mind that Bogdanka might become first-choice coal supplier to the neighbouring Ukraine, should the conflict extinguish. PSCMI1 Index (LWB benchmark) was 45% y/y higher this July, and high PGG coal price offers for 2H2022 / 2023 should warrant Bogdanka's blossoming at EBITDA level in 2023/24E, we assume. Short-term news flow (weak 3Q22E results, potential EBITDA loss in 4Q22E) should not come in supportive, we assume, but in our view, Bogdanka, unlike any other commodity, still remains a play on the European energy crunch. ESG issues and renewable transformation will always keep the company's investability and financing subdued, and the letter of intent concerning Enea's stake disposal to the State adds to the uncertainty, but very strong 2023/24E results (two-year FCF at PLN0.8bn) and 64% TP upside warrant Outperform recommendation.

Force majeure in 2H2022. In September, the company announced geology-driven force majeure, trimming its FY2022 coal production guidance to 8.3mt from 9.5mt. 1.2mt volume downside represents a 30% of its 2H22E volumes implied by FY2022 guidance. Therefore, as we expect the company to incur extra costs related to idled longwall repairs, we expect Bogdanka to post minor EBITDA loss in 2H2022E, thus depressing FY22E EBITDA to PLN595mn, PLN0.2bn below consensus.

Market developments. The price of thermal coal remains elevated in Europe, and the Russian plans (partial mobilization, referendums on the occupied Ukrainian territories) do not suggest the conflict is set to extinguish anytime soon, as we see it. In Poland, July 2022 PSCMI1 Index is up 45% y/y, and high coal prices requested by PGG for 2H2022 and 2023 suggest substantial upside there. PGG investments could pose risk to LWB, but capex on new shaft would bring in coal in 10 years, capex on underground infrastructure would offer new coal in three years, we believe, and PGG would be struggling with aggravating workforce problems. At coal-replacing generation capacities, growth at PV stalled substantially, and delayed 10H easing likely resulted in expiration of all on-shore environmental / building permits, hence new capacities may be built in several years, we assume. Gas offers an alternative, but Enea might apply for potential capacity market support for only one gas unit as of 2028.

Risks vs Upsides. The EU pro-renewable policy and continued investors' ESG approach to asset allocation represent the key risks, yet their impact may be delayed by several years, we believe. Expansion of the Polish renewables should add new capacity in 3-4 years, we believe. Carve-out of LWB from Enea might take place via a call for all LWB shares, direct transfer of Enea's stake in LWB to State entity (neutral), or public placement (strong negative). Current gas/coal prices pose upside risk, just as PGG new coal price offers (impacting PSCMI1 index, benchmark for LWB). Strong reduction of Polish electricity consumption could pose downside risk to coal-fired generation volumes. PGG's heavy and lasting investments into coal production capacity, or EU's support to State-run miner would pose risks to LWB's mid- to long-term demand outlook. Potential legal claims from Enea for 2H2022 coal under-deliverance may pose downside risk.

Forecasts, Target Price, Recommendation. We cut 2022 volumes to 8.3mt, cautiously reducing 2023E volume to 9.0mt from 9.5mt. In 2022E it depresses EBITDA despite stellar 1H2022, but rallying coal prices result in high EBITDA upsides in 2023/24E, both above PLN1bn mark despite adjustment for windfall tax. The latter trims our valuation by PLN8/share, and minor increase to long-term maintenance capex assumptions trim our DCF valuation to PLN64.7. With comparative valuation sliding 25% (chiefly due to very low JSW ratios), our blended TP falls 18% to PLN61.3, and 64% upside warrants Outperform recommendation.

Bogdanka: Financial summary

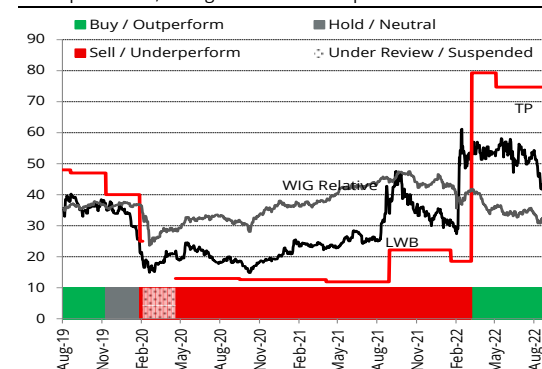
Year to Dec, PLNmn	2019	2020	2021	2022E	2023E	2024E
Sales	2,158	1,822	2,371	2,264	3,355	3,317
EBITDA	767	466	798	595	1,059	1,120
EBIT	375	95	367	174	619	672
Net profit	309	73	288	132	491	537
P/E (x)	4.5	9.7	3.4	9.6	2.6	2.4
EV/EBITDA* (x)	1.9	2.0	1.0	2.2	0.9	0.4
DY	1.8%	0.0%	0.0%	4.6%	0.0%	0.0%

Source: Company data, Santander Brokerage Poland estimates, * includes provisions

Recommendation	Outperform
Target Price [Dec2023, PLN]	61.3
Price (PLN, September 20, 2022)	37.36
Market cap. (PLNmn)	1,271
Free float (%)	34.0
Number of shares (mn)	34.0

What has changed

- TP trimmed 18% to PLN61.3 from PLN74.7, recommendation Outperform maintained
- Geological force majeure trims company's 2022 output to 8.3mt from 9.5mt, we expect it may result in negative 2H2022E EBITDA
- Coal frenzy continues in line with the Eastern conflict, Polish coal price-setter PGG requires high prices for 2H2022 and 2023, posing upside to PSCMI1 index, which was 45% higher y/y in July 2022
- We cautiously see LWB volume at 9.0mt in 2023E (prolonged impact of idle longwall), we also include windfall tax in 2023/24E forecasts, yet coal price 40-50% higher vs 2022 should warrant +PLN1bn EBITDA p.a. and two-year cash generation at PLN0.8bn
- Warring environment remains supportive, but after the war Bogdanka may become Ukraine's first-choice coal supplier, regardless of Polish likely coal deficit...
- ...and Polish coal-replacing generation capacity may emerge in several years (on-shore) or at late 2020s (off-shore, SMR) at best
- The State signed intention letter for acquisition of LWB's 65% stake from Enea (effective in late 2023), its conditions and State's policy pose risks to Bogdanka, we believe
- Key risks: very strong and quick increase in LNG gas imports to Europe, de-regulation of PGG prices (benchmark to LWB), rapid expansion of Polish renewables, strong expansion in Asian coal production, strong recession in Europe



The chart measures performance against the WIG index

Main shareholders	% of votes
Enea	64.9

Source: stooq.pl

Company description

Bogdanka is the second largest and the most efficient thermal coal producer in Poland, with 2021 annual output at 10.0mt.

Analyst

Pawel Puchalski, CFA
Senior Analyst

+48 22 586 80 95 pawel.puchalski@santander.pl

Key Stories

[-] Geology hurts at Bogdanka

[excerpts from Flash note published on September 14, 2022]

Today morning Bogdanka announced that due to geological problems at one of operating longwalls the company put coal production on hold there. It resulted in official FY2022 coal volume guidance cut to 8.3mt from 9.2mt previously. Please keep in mind that on September 2, 2022 Bogdanka trimmed its volume outlook to 9.2mt from original 9.5mt (also driven by geological issues).

Comment: Cut to LWB's production guidance is very substantial, total 1.2mt volume cut represents 30% of the original 2H2022 guidance. Strong negative to miner's EBITDA and FCF. The worst-case scenario (longwall idle in 2023) poses downside risk to 2023 volumes, we believe.

Bogdanka: Negative. 2022 volume guidance cut should depress FY22E EBITDA to some PLN0.6bn, below consensus. Moreover, the worst-case scenario (the longwall remaining idle in 2023) would depress 2023 volumes by 0.2mt per month, hypothetically substantial downside risk to 2023E volumes and results.

Following early-September guidance cut to 9.2mt, we trimmed our estimates for 3Q2022E coal production to 1.6mt, implying 4Q2022E volume at 2.0mt, with implied quarterly EBITDAs respectively at PLN72mn and PLN139mn. New substantial guidance cut makes us cut volumes further, respectively to 1.45mt in 3Q2022E and mere 1.28mt in 4Q2022E, which would imply 3Q2022E EBITDA at PLN32mn and 4Q2022E EBITDA potentially at neg. PLN58mn. If our forecasts are correct, and repairs of the new longwall prove unsuccessful till year-end 2022, Bogdanka's FY2022E EBITDA would fall to PLN590mn, substantially below consensus.

LWB: Worst-case scenario. Please note that the worst-case scenario would imply longwall inactivity prolonging till 2023. In such scenario, 0.9mt 2022 volume downside resulting from four-month inactivity could potentially depress 2023 volumes, with every month of idle longwall trimming 2023 volume outlook by 0.225mt, we calculate.

[-] Geology trims FY22 mining production to 9.2mt

[Flash note published on September 02, 2022]

Today morning Bogdanka announced that geological difficulties that occurred in 3Q2022 resulted in below-expectation mining production. The management has decided to accelerate mining production at other longwall, which might potentially compensate volume shortfall that occurred in 3Q2022. However, management cuts official FY2022 coal production guidance to 9.2mt (+/- 2%, acc. to official communique), vs 9.5mt previously.

Comment: Negative. FY22 volume cut is negative to the miner's EBITDA and FCF outlook, it also weakens a bit 2023E volume outlook, we believe. We are almost certain LWB's FY22E EBITDA will beat market consensus, yet likely 3Q2022E coal production

at 1.6mt in 3Q2022E (down 40% q/q) should depress company's EBITDA to PLN72mn, the weakest quarterly reading since 4Q2018.

FY2022/2023E implications. FY2022 mining production cut is obviously negative to fixed-cost business profitability, thus depressing LWB's expected 2022E EBITDA and FCF. Moreover, company admits it accelerates mining production at different longwall – it might potentially result in LWB volumes coming in at 9.5mt, we believe, but such acceleration reduces volume outlook for 2023E, as we conclude. Additionally, guidance cut to 9.2mt turns scenario "LWB delivers 10.0mt in 2022, flat y/y" (offering high upside to EBITDA and FCF) totally unrealistic, we believe.

3Q2022E early outlook. The geological problems have taken place in 3Q2022, hence we believe the entire FY2022 guidance cut will materialize at 3Q2022 volumes. We see these at 1.6mt, 1.2mt lower q/q and 0.9mt lower y/y. LWB was selling its excess volumes in 1H2022 at market (high) prices, hence low volume implies no extra volumes sellable at extra prices (entire volume consumed by Enea), implying LWB prices 12% higher y/y at PLN257/t, we assume, down PLN25/t q/q. Finally, the miner's opex remains fixed to large extent, hence a 40% production cut would not be reflected in same-scale opex reduction, not to mention ongoing growth in energy and steel costs. Overall, with 3Q2022E volume at 1.6mt, coal price at PLN257/t and unit cost at PLN217/t, we expect Bogdanka's 3Q2022E EBITDA at PLN72mn (down 65% y/y), totalling PLN687mn in 1-3Q2022E.

Fig. 1. Bogdanka: 3Q2022E results' preview

PLNmn	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22P	3Q22E	y/y	q/q
Sales	504.4	468.7	543.7	502.9	621.9	702.8	731.8	730.8	419.0	-32.6%	-42.7%
EBITDA	96.6	144.3	170.2	160.4	207.7	258.7	276.5	338.9	72.0	-65.3%	-78.8%
EBITDA margin	19.2%	30.8%	31.3%	31.9%	33.4%	36.8%	37.8%	46.4%	17.2%	-16.2	-29.2
EBIT	0.8	40.3	64.5	52.4	95.9	154.0	179.7	232.3	-34.6	n.m.	n.m.
EBIT margin	0.2%	8.6%	11.9%	10.4%	15.4%	21.9%	24.6%	31.8%	-8.3%	-23.7	-40.0
Net profit	-1.9	31.7	50.3	41.7	72.8	123.5	143.2	192.8	-27.7	n.m.	n.m.
Net margin	-0.4%	6.8%	9.3%	8.3%	11.7%	17.6%	19.6%	26.4%	-6.6%	-18.3	-33.0

Source: Company data, Santander Brokerage Poland estimates

Fig. 2. Bogdanka: KPIs

PLNmn	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22P	3Q22E	y/y	q/q
Production [kt]	1,631	1,841	2,074	2,612	2,335	2,556	2,397	2,800	2,770	1,600	-37.4%	-42.2%
Sales [kt]	1,604	2,178	1,970	2,383	2,207	2,654	2,776	2,700	2,540	1,600	-39.7%	-37.0%
Inventory [kt]	354	17	122	350	479	381	12	112	n.m.	n.m.	n.m.	n.m.
Total Sales	384.9	504.5	468.6	543.7	502.9	621.9	702.8	731.8	730.8	418.9	-32.6%	-42.7%
Assumed Coal Sales	375.7	494.0	455.4	528.7	489.9	608.4	688.8	718.1	717.9	410.8	-32.5%	-42.8%
Implied Coal Price [PLN/tonne]	234.2	226.8	231.1	221.9	222.0	229.3	248.1	266.0	282.6	256.8	12.0%	-9.2%
Total opex*	299.0	407.8	346.2	373.5	343.3	413.4	461.2	455.3	391.9	347.4	-16.0%	-11.4%
Total opex per tonne [PLN/t]	186.4	187.2	175.8	156.7	155.5	155.8	166.1	168.6	154.3	217.1	39.4%	40.7%
Inventory-adjusted opex**	301	385	352	385	350	408	435	462	410	n.m.	n.m.	n.m.

Adjusted opex per tonne [PLN/t]	185	209	170	147	150	160	181	165	148	n.m.	n.m.	n.m.
Price-to-MCC spread*** [PLN/t]	50	18	62	75	72	70	67	101	135	n.m.	n.m.	n.m.

Source: Company data, Santander Brokerage Poland estimates, * Sales less EBITDA, ** adjusted for change in inventories, based on own calculations, *** realized coal price less inventory-adjusted opex per tonne

[+] Strong volumes, ATH prices and low opex drive all-time high 2Q22P EBITDA at PLN339mn

[Flash note published on July 19, 2022]

Yesterday the company presented its 2Q2022 preliminary KPIs and results. Below we list key takeaways from these:

- Guidance. Company maintains its FY2022 volume guidance at 9.5mt unchanged, suggesting that it has to use up all its longwalls above 1.2m height;
- Volumes. Bogdanka produced 2.8mt thermal coal in 2Q2022P, up 19% y/y and down 1% q/q. Sales volume stood at 2.54mt, up 15% y/y and down 6% q/q;
- Coal prices (own calculations). We estimate Bogdanka coal price settled at PLN283/t in 2Q2022P, all-time high realized coal price in company's history, up 6% q/q and up 27% y/y;
- Coal Inventory. We calculate the company's thermal coal inventory grew to some 0.35mt.

Comment: Positive. Company's coal production come in flattish q/q (vs exceptionally strong 1Q2022 volumes) at 2.8mt in 2Q2022P, summing up to 5.6mt in 1H2022P. Also, high volume let Bogdanka take advantage of very favourable coal prices, and we calculate realized coal price at ATH PLN283/t, 6% higher q/q and 27% higher y/y. Finally, production from geologically most favourable longwalls let Bogdanka keep its opex surprisingly low, at PLN410/t (adjusted for inventory, acc. to our calculations), 10% lower q/q. Additionally, with coal production at its technical maximum (we believe), Bogdanka had once again no room for high capex, hence we expect its cash generation could settle at some PLN190mn in 2Q2022P (10.2% of company's Market Cap).

The company still underlines official guidance at 9.5mt remains in force (implying some 4.0mt coal production in 2H2022E), as concession requirements make the miner extract all longwalls with height above 1.2m. However, we would not be totally surprised to see government letting Polish miners extract only higher-height longwalls and omit low-height ones, as presently Poland struggles to maximize coal production this and potentially next year. Hence, while official guidance implies weak

2H2022E results (volume at 2.0mt per quarter, substantially higher opex due to different grade of longwalls), we believe Bogdanka might be allowed to omit concession obligations this and next year due to global coal shortages in Poland (potentially supportive to 2H22E / 2023E results).

Fig. 3. Bogdanka: 2Q2022P results' review

PLNmnn	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22P	y/y	q/q	SANe
Sales	384.9	504.4	468.7	543.7	502.9	621.9	702.8	731.8	730.8	45.3%	-0.1%	728.0
EBITDA	86.3	96.6	144.3	170.2	160.4	207.7	258.7	276.5	338.9	111.3%	22.6%	261.0
EBITDA margin	22.4%	19.2%	30.8%	31.3%	31.9%	33.4%	36.8%	37.8%	46.4%	14.5	8.6	35.9%
EBIT	5.0	0.8	40.3	64.5	52.4	95.9	154.0	179.7	232.3	343.3%	29.3%	164.2
EBIT margin	1.3%	0.2%	8.6%	11.9%	10.4%	15.4%	21.9%	24.6%	31.8%	21.4	7.2	22.6%
Net profit	3.0	-1.9	31.7	50.3	41.7	72.8	123.5	143.2	192.8	362.4%	34.6%	134.6
Net margin	0.8%	-0.4%	6.8%	9.3%	8.3%	11.7%	17.6%	19.6%	26.4%	18.1	6.8	18.5%

Source: Company data, Santander Brokerage Poland estimates

Fig. 4. Bogdanka: KPIs

PLNmnn	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22P	y/y	q/q
Production [kt]	1,631	1,841	2,074	2,612	2,335	2,556	2,397	2,800	2,770	18.6%	-1.1%
Sales [kt]	1,604	2,178	1,970	2,383	2,207	2,654	2,776	2,700	2,540	15.1%	-5.9%
Inventory [kt]	354	17	122	350	479	381	12	112	112	-76.6%	0.0%
Total Sales	384.9	504.5	468.6	543.7	502.9	621.9	702.8	731.8	730.8	45.3%	-0.1%
Assumed Coal Sales	375.7	494.0	455.4	528.7	489.9	608.4	688.8	718.1	717.9	46.6%	0.0%
Implied Coal Price [PLN/tonne]	234.2	226.8	231.1	221.9	222.0	229.3	248.1	266.0	282.6	27.3%	6.3%
Total opex*	299.0	407.8	346.2	373.5	343.3	413.4	461.2	455.3	391.9	14.2%	-13.9%
Total opex per tonne [PLN/t]	186.4	187.2	175.8	156.7	155.5	155.8	166.1	168.6	154.3	-0.8%	-8.5%
Inventory-adjusted opex**	301	385	352	385	350	408	435	462	410	17.1%	-11.4%
Adjusted opex per tonne [PLN/t]	185	209	170	147	150	160	181	165	148	-1.3%	-10.4%
Price-to-MCC spread***	50	18	62	75	72	70	67	101	135	86.7%	33.6%

Source: Company data, Santander Brokerage Poland estimates, * Sales less EBITDA, ** adjusted for change in inventories, based on own calculations, *** realized coal price less inventory-adjusted opex per tonne

Risks (delayed shareholding changes / regulated coal price) vs contract re-pricing upside?

[Flash note published on June 20, 2022]

Comment: Re-pricing of two key Bogdanka's long-term contracts should offer +20% upside to Market Cap, we calculate. However, deadline of State-Enea intention letter was set at December 2023 (highlighting risk of slow-motion takeover process), and implementation of 'regulated thermal coal price' (even though the impact on LWB

should not be material) should come in negative to the sector's perception and instability, we believe.

Today's proposal of the regulated price thermal coal for individuals comes in negative to sector, especially as sellers of coal 1) would have to wait for subsidies until 2023 and 2) could not estimate precisely total subsidies received (depending on total Polish coal sales). We calculate that the potential impact on Bogdanka should remain negligible, but uncertainty concerning hypothetical future coal-related regulations is on, and "regulated coal price" slogan represents very negative info for any thermal coal producer in Poland, we believe.

Additionally, while the idea of the State taking over Bogdanka from Enea should reduce the uncertainty concerning the fate of Bogdanka, the deadline of the letter of intent (concerning acquisition of 65% Bogdanka stake) was surprisingly set for December 2023. We believe the takeover of Bogdanka could potentially displease Upper Silesian miners / voters (investments into Lublin coal basin could put Upper Silesian mines' continuity at risk), which might hypothetically stall the takeover of LWB by the State prior to 2023 elections. This scenario would be negative both to Bogdanka and Enea, we believe.

In the meantime, re-pricing of Bogdanka-Kozienice contract adds PLN881mn of undiscounted revenue upside to Bogdanka, implying post-tax LWB gain at PLN376mn, representing some 20% upside to company's Market Cap. Additionally, late-May renegotiation of another l-t contract offered PLN120mn of undiscounted top line upside in 2022-27.

[+] Key L-T contract revised upwards...

Last week Bogdanka and Kozienice generation complex renegotiated their long-term coal delivery agreements. Contract length (until 2036) remained unchanged, while the value of 2022-36 coal deliveries was upped to PLN14.2bn, PLN881mn or 6.6% higher vs previous value.

Please note that Bogdanka's other large contract with Polaniec generation complex was renegotiated in late May. The contract was extended by one year, till 2027, and full value of coal to be delivered increased from PLN2.4bn (years 2022-26) to PLN3.0bn (years 2022-27).

[-] December 2023 (?), deadline of State-Enea letter of intent...

Last Saturday the State Assets Ministry and Enea signed a letter of intent according to which the State would take over Enea's 65% stake in Bogdanka. Acc. to Minister Sasin, this letter initiates accelerated works on the agreement concerning this takeover. The letter of intent is valid till December 31, 2023.

The minister said that profitable Bogdanka should invest in the company's expansion. He added that new investments should eye both thermal and coking coal.

[-] Regulated price of coal to individuals at PLN997/t?

Acc. to the government's draft act on coal subsidies to individuals, sellers of coal in Poland (both produced domestically and imported) could receive up to PLN750/t

subsidy if they pledged to sell thermal coal in 2022 at price not higher than the proposed regulated price at PLN997/t. Sellers could apply for subsidy in January 1-20, 2023, and subsidies would be paid in 2023. Additionally, the maximum value of Polish coal subsidies was set by the government at PLN3bn, and Polish coal sellers would have to take the risk of higher-than-expected coal sales volumes, actually limiting subsidy per tonne below PLN750/t.

The State, Bogdanka's new shareholder?

[Flash note published on June 14, 2022]

"Activities related to the acquisition of shares in Lubelski Węgiel "Bogdanka" by the State Treasury" surprisingly appeared as part of today's agenda of Council of Ministers (scheduled for 2 p.m. CET). The applicant is Jacek Sasin, Deputy Prime Minister and Minister of State Assets. According to lublin.naszemiasto.pl internet portal, if nothing unpredictable happens, the next step will be for the State Treasury to propose that the current owner of Bogdanka - Enea - signs a letter of intent. Once this letter is signed, Enea would initiate valuation process of Bogdanka, acc. to portal.

According to the leader of Bogdanka trade unions, there was a meeting with Minister Sasin on ownership alternatives.

Comment: The risk of LWB's SPO seems gone if such a transaction is completed, with the key question being whether State would be willing to take over 100% stake. We believe recent SPOs at PGE / ENA suggest it might do so, but alternative (State holding 65% stake of LWB, and inducing heavy new investments) cannot be ruled out. The State seems cleaning utilities of coal assets, hence the cross-read of LWB transaction would be going long Tauron, prior to carve-out of its mining segment, we calculate.

The takeover of Enea's 65% stake of LWB by the State would solve a long-term riddle concerning the future of Bogdanka's majority stake. Additionally, the key short-term risk to the share price of Bogdanka, hypothetical SPO for 65% stake, would no longer seem an issue.

Call for 100% stake or not? Recent State actions (SPOs at PGE and Enea) suggest State acts like a rational investor (buying inexpensive assets), which would come in supportive of a call for a 100% stake of Bogdanka. It would also untie government hands as far as potential re-negotiation of LWB long-term coal contracts (lowering electricity price in Poland) is concerned. On the opposite, investments into LWB could make Silesian miners cautious and angry, potentially.

Recently, the State has participated in SPOs of PGE and Enea, potentially acting like a typical investor – buying inexpensive assets ahead of value-supportive carve-out. If it was applied in Bogdanka case, the State's call for 100% stake could come in very rational, as Bogdanka has become strategic asset, it offers Poland-unique opex control, volume stability and multi-year strong cash flow outlook, and it is priced at very undemanding EV/EBITDA ratio. Additionally, if the government wanted to trim

coal / electricity prices, hypothetical renegotiation of Bogdanka's coal contracts would require minority shareholders' approval, which would not be problem if State held 100% stake.

On the other hand, the State is doing fine with numerous State-controlled companies remaining listed at the WSE, and one more should not represent a problem, we believe. Moreover, the takeover of 100% stake in Bogdanka (+PLN0.7bn cash outflow, turning it into coal producing centre) could make Upper Silesian miners cautious of their future, not an ideal starting point prior to 2023 elections, we believe.

What will change at LWB? Until now we believe Enea kept Bogdanka as skinny as possible, as any increase in capex of the miner would negatively affect Group's consolidated results and ratios. The new owner may offer more capex flexibility to Bogdanka, we believe, potentially securing the other (other than Upper Silesian mines) thermal coal alternative for Poland. We disbelieve the State would be willing to merge Bogdanka with Silesian mines, as it could represent too cumbersome process, and Upper Silesia and Bogdanka enjoy very different business outlooks. We do not expect the State to oppose Bogdanka's dividends: the State is not focused on dividends, but JSW example highlights it is also not opposing dividend payments. Finally, in light of potential Polish coal shortages, we would not be surprised to see Bogdanka returning to its past plan to build brand new shaft as to boost annual coal production volume above 10mt. Such a plan could represent extra PLN1.5bn capex for next several years, trimming company's FCF.

Valuation

DCF valuation

Fig. 5. Bogdanka: WACC calculation

	Years 2022-24E	Years 2025E onwards
Risk-free rate	6.0%	4.0%
Unlevered beta	1.2	1.2
Levered beta	1.2	1.2
Equity risk premium	5.0%	5.0%
Cost of equity	12.0%	10.0%
Risk-free rate	6.0%	4.0%
Debt risk premium	1.0%	1.0%
Tax rate	19%	19%
After tax cost of debt	5.7%	4.1%
%D	0%	0%
%E	100%	100%
WACC	12.0%	10.0%

Source: Company data, Santander Brokerage Poland estimates

Fig. 6. Bogdanka: DCF valuation

PLNm	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
Revenues	2,264	3,355	3,317	2,884	2,746	2,631	2,519	2,407	2,298	2,190
EBIT	174	619	672	512	444	361	245	128	33	-61
Cash taxes on EBIT	33	118	128	97	84	69	46	24	6	-12
NOPAT	141	502	545	415	359	293	198	104	27	-49
Depreciation	421	440	447	451	454	457	476	496	496	496
Change in operating WC	20	-1	-9	-2	-1	4	4	4	4	3
Capital expenditure*	700	550	500	500	500	734	780	500	500	500
Free cash flow	-158	393	501	368	314	12	-110	96	19	-57
WACC	12.0%	12.0%	12.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
PV FCF 2022-2031E	934									
Terminal growth	-2.0%									
Terminal Value (TV)	-368									
PV TV	-151									
Total EV	783									
Net debt **	-1,035									
Equity value	1,818									
Number of shares (mn)	34.0									
Value per share (PLN, Jan 2022)	53.4									
12M target price (Dec23, PLN)	64.7									

Source: Santander Brokerage Poland estimates, * assumed cancellation of the official plan to expand into new shaft, with total outlays at PLN2.1bn, no terminal value for miner, PV TV based on expected discounted value of 2031-2040E cash flows, ** included 50% of discounted value of company's official plan to extract 1.8mt semi-soft coking coal as of 2026E, supporting total valuation by PLN453mn or PLN13.3 per share

Comparable valuation

Fig. 7. Bogdanka: Comparable valuation

Company	Market Cap (EURmn)	P/E			EV/EBITDA			P/CE		
		2022E	2023E	2024E	2021E	2022E	2023E	2021E	2022E	2023E
JSW	946	0.6	1.6	3.5	0.3	0.5	0.8	0.6	1.2	2.1
Developed countries										
Alliance Resource Partners LP	3,102	5.3	4.6	8.3	n.a.	n.a.	n.a.	2.7	3.1	4.3
Peabody Energy Corp	3,046	3.7	5.8	22.8	1.7	2.3	1.6	2.1	3.2	5.4
CNX Resources Corp	3,175	7.7	7.5	7.6	4.1	3.4	2.7	3.9	3.5	4.0
New Hope Corp Ltd	3,313	3.5	3.6	6.0	1.9	1.6	1.9	3.2	3.2	4.2
Whitehaven Coal Ltd	5,527	3.5	3.2	5.7	2.1	1.9	2.2	3.1	3.0	4.3
Median		3.7	4.6	7.6	2.0	2.1	2.0	3.1	3.2	4.3
Emerging Markets										
Guizhou Panjiang Refined Coal	2,664	8.1	7.3	6.9	n.a.	n.a.	n.a.	7.7	6.9	6.7
China Coal Energy	17,219	3.7	4.0	4.3	3.0	2.7	2.4	3.5	3.8	4.0
Datong Coal Industry	4,343	6.4	6.2	5.8	2.5	1.9	1.2	5.6	5.6	5.4
Yang Quan Coal Industry Group	6,066	7.6	6.9	6.0	n.a.	n.a.	n.a.	4.6	4.0	3.6
Bukit Asam	3,220	4.2	5.0	6.4	2.5	3.0	3.6	3.7	4.6	5.5
Banpu	2,446	2.5	3.8	5.7	2.4	3.4	2.5	1.4	1.5	1.8
Coal India	17,793	8.8	5.2	6.2	5.5	3.0	3.5	7.2	4.8	5.3
Median		6.4	5.2	6.0	2.5	3.0	2.5	4.6	4.6	5.3

Source: Bloomberg, Santander Brokerage Poland estimates, share prices as of September 20, 2022

Fig. 8. Bogdanka: Multiple-based valuation implications (PLN/share)

		P/E	EV/EBITDA	P/CE	Average
	Weight	2022-24E	2022-24E	2022-24E	2022-24E
JSW	50%	26.9	26.8	34.2	29.3
Developed Markets	25%	52.3	67.2	79.5	66.3
Emerging Markets	25%	64.8	85.2	118.3	89.4
Weighted valuation		42.7	51.5	66.5	53.6

Source: Bloomberg, Santander Brokerage Poland estimates, values rounded

DDM valuation

Taking into account State Minister's statements on low dividends from the State-controlled companies and likely tough outlook for Polish coal segment, we keep the company's DPS and DDM at nil.

Valuation summary

Fig. 9. Bogdanka: Valuation changes **

PLN per share	New	Previous	Change
DCF valuation	64.7	76.2	-15%
Comparable valuation (based on 2022-2024E)	53.6	71.0	-25%
Blended valuation *	61.3	74.7	-18%

Source: Company data, Santander Brokerage Poland estimates, * 70% DCF / 30% comparable valuation, ** rounded figures

DCF remains our preferred valuation tool, as it relies more on the company's long-term outlook. As changes in financial results or changes in investors' preferences drive the comparable valuation, which we see as supportive to the DCF valuation methodology.

We include in our DCF approach the discounted NPV of potential upside resulting from semi-soft coking coal production as of 2026E (based on the company's official strategy). If Bogdanka delivered on its semi-soft coking coal promises in years 2026-2040, its valuation could receive PLN906mn of discounted upside, we believe. However, as this upside remains distant and less-than-certain, we include 50% of its potential impact, implying PLN13.3 per share upside on its own.

Fig. 10. Bogdanka: Forecasts changes

PLNmn	2022E			2023E			2024E		
	New	Previous	Change	New	Previous	Change	New	Previous	Change
Sales	2,264	2,519	-10%	3,355	2,986	12%	3,317	2,986	11%
EBITDA	595	693	-14%	1,059	917	15%	1,120	914	23%
EBIT	174	272	-36%	619	477	30%	672	467	44%
Net profit	132	211	-37%	491	378	30%	537	372	44%

Source: Santander Brokerage Poland estimates

Fig. 11. Bogdanka: Santander forecasts vs. market consensus

PLNmn	2022E			2023E			2024E		
	Santander	Consensus	Diff.	Santander	Consensus	Diff.	Santander	Consensus	Diff.
Sales	2,264	2,548	-11%	3,355	2,873	17%	3,317	2,977	11%
EBITDA	595	799	-26%	1,059	891	19%	1,120	922	21%
EBIT	174	348	-50%	619	420	47%	672	435	55%
Net profit	132	277	-52%	491	336	46%	537	349	54%

Source: Bloomberg, Santander Brokerage Poland estimates

Financials

Fig. 12. Bogdanka: Income statement forecasts

PLNmn	2019	2020	2021	2022E	2023E	2024E
Net sales	2,158	1,822	2,371	2,264	3,355	3,317
COGS, ex. depreciation	1,254	1,209	1,399	1,497	2,116	2,011
Depreciation	393	371	431	421	440	447
Gross profit	512	242	542	346	799	859
SG&A	153	152	175	172	180	187
Other operating income, net	16	5	0	0	0	0
EBITDA	767	466	798	595	1,059	1,120
Operating profit	375	95	367	174	619	672
Net financial income (costs)	4	-2	-8	-9	-5	-1
Profit before tax	379	93	359	165	614	672
Income tax	70	20	71	33	123	134
Net profit	309	73	288	132	491	537
Gross margin	23.7%	13.3%	22.8%	15.3%	23.8%	25.9%
EBITDA margin	35.5%	25.6%	33.6%	26.3%	31.6%	33.8%
Operating margin	17.4%	5.2%	15.5%	7.7%	18.5%	20.3%
Net profit margin	14.3%	4.0%	12.2%	5.8%	14.6%	16.2%

Source: Company data, Santander Brokerage Poland estimates

Fig. 13. Bogdanka: Per share calculations, operating data, market ratios

per share	2019	2020	2021	2022E	2023E	2024E
EPS	9.0	2.1	8.4	3.9	14.4	15.7
CEPS	20.6	13.0	21.1	16.2	27.3	28.9
BVPS	94.4	96.5	105.1	106.5	120.9	136.6
DPS	0.7	-	-	2.5	-	-
Operating CF [PLNmn]	641	478	709	534	932	993
OpCF Yield	45.8%	67.3%	72.6%	42.0%	73.4%	78.2%
FCF [PLNmn]	245	-136	356	-160	397	499
FCF Yield	17.5%	-19.2%	36.5%	-12.6%	31.2%	39.3%
Capex to Market Cap	28.3%	86.6%	36.2%	54.6%	42.2%	38.9%
Dividend Yield	1.8%	0.0%	0.0%	4.6%	0.0%	0.0%
Net debt [PLNmn]	-358	-220	-582	-337	-734	-1,233
Net debt/EBITDA [x]	-0.5	-0.5	-0.7	-0.6	-0.7	-1.1
P/E [x]	4.5	9.7	3.4	9.6	2.6	2.4
P/CE [x]	2.0	1.6	1.4	2.3	1.4	1.3
EV/EBITDA* [x]	1.9	2.0	1.0	2.2	0.9	0.4
EV/EBIT* [x]	3.8	9.7	2.1	7.5	1.5	0.6

Source: Company data, Santander Brokerage Poland estimates, * includes provisions

Fig. 14. Bogdanka: Balance sheet forecasts

PLNmn	2019	2020	2021	2022E	2023E	2024E
Current assets	743	611	1,025	782	1,372	1,856
cash and equivalents	383	242	600	356	752	1,252
other short term investments	0	0	0	0	0	0
accounts receivable	239	268	326	311	461	456
inventories	104	91	100	115	159	148
other	17	10	0	0	0	0
Fixed assets	3,510	3,764	3,676	3,947	4,053	4,099
PPE	3,282	3,532	3,440	3,719	3,829	3,882
long-term investments	0	0	0	0	0	0
intangibles	82	84	82	82	82	82
goodwill	0	0	0	0	0	0
other	12	6	6	6	9	9
deferred taxes	134	142	148	140	133	127
Total assets	4,252	4,375	4,702	4,729	5,425	5,955
Current liabilities	374	360	516	495	700	693
bank debt	3	3	3	3	3	3
accounts payable	312	309	423	404	599	592
other current liabilities	2	5	22	21	32	31
Provisions	57	44	67	67	67	67
Long-term liabilities	650	715	593	593	593	593
bank debt	11	8	5	5	5	5
other long-term liabilities	308	316	289	289	289	289
Provisions	331	391	299	299	299	299
Equity	3,218	3,289	3,583	3,631	4,121	4,658
share capital	301	301	301	301	301	301
capital reserves	2,608	2,915	2,994	3,197	3,329	3,820
net income	309	73	288	132	491	537
Minority Interest	10	10	10	10	10	11
Total liabilities and equity	4,252	4,375	4,702	4,729	5,425	5,955
Net debt	-358	-220	-582	-337	-734	-1,233

Source: Company data, Santander Brokerage Poland estimates

Fig. 15. Bogdanka: Cash flow statement forecasts

PLNmn	2019	2020	2021	2022E	2023E	2024E
Cash flow from operations	641	478	709	534	932	993
Net profit	309	73	288	132	491	537
Provisions	74	60	-92	0	0	0
Depreciation and amortization	393	371	431	421	440	447
Changes in WC, o/w	-75	-19	48	-20	1	9
inventories	-21	13	-9	-15	-43	10
receivables	-36	-29	-57	15	-150	5
payables	-19	-3	115	-19	195	-7
Other, net	-60	-7	33	0	0	0
Cash flow from investment	-396	-615	-353	-693	-536	-494
Additions to PPE and intangibles	-428	-623	-337	-700	-550	-500
Change in long-term investments	0	0	0	0	0	0
Other, net	32	8	-16	7	14	6
Cash flow from financing	-33	-5	3	-85	0	0
Change in long-term borrowing	-3	-3	-3	0	0	0
Change in short-term borrowing	0	0	0	0	0	0
Change in equity and profit distribution	-5	-2	6	0	0	0
Dividends paid	-26	0	0	-85	0	0
Other, net	0	0	0	0	0	0
Net change in cash and equivalents	212	-141	358	-245	397	499
Beginning cash and equivalents	171	383	242	600	356	752
Ending cash and equivalents	383	242	600	356	752	1,252

Source: Santander Brokerage Poland estimates

Santander Brokerage Poland

Jana Pawła II Avenue 17
00-854 Warszawa
fax. (+48) 22 586 81 09

Equity Research

Kamil Stolarski, CFA, <i>Head of Equity Research Banks, Insurers, Strategy</i>	tel. (+48) 22 586 81 00	kamil.stolarski@santander.pl
Paweł Puchalski, CFA, <i>Equity Analyst Telecommunications, Metals & Mining, Power</i>	tel. (+48) 22 586 80 95	pawel.puchalski@santander.pl
Tomasz Krukowski, CFA, <i>Equity Analyst Oil&Gas, Pharma & Biotech, CEE Non-Financials</i>	tel. (+48) 22 586 81 55	tomasz.krukowski@santander.pl
Adrian Kyrzcz, <i>Equity Analyst Construction, Real Estate, IT</i>	tel. (+48) 22 586 81 59	adrian.kyrzcz@santander.pl
Tomasz Sokołowski, <i>Equity Analyst Consumer, E-commerce</i>	tel. (+48) 22 586 82 36	tomasz.sokolowski@santander.pl
Michał Sopieli, <i>Equity Analyst Industrials, Chemicals, Quantitative Analysis</i>	tel. (+48) 22 586 82 33	michal.sopiel@santander.pl
Piotr Zielonka, CFA, <i>Equity Analyst Gaming, Strategy</i>	tel. (+48) 22 534 16 10	piotr.zielonka@santander.pl
Marcin Działek, <i>Analyst Technical Analysis</i>	tel. (+48) 22 782 93 09	marcin.dzialek@santander.pl

Sales & Trading

Kamil Kalembe, <i>Head of Institutional Equities</i>	tel. (+48) 22 586 80 84	kamil.kalembe@santander.pl
Mateusz Choromański, CFA, <i>Head of Sales Securities Broker, Investment Advisor</i>	tel. (+48) 22 586 80 82	mateusz.choromanski@santander.pl
Alex Kamiński	tel. (+48) 22 586 80 63	alex.kaminski@santander.pl
Błażej Leśków, <i>Securities Broker</i>	tel. (+48) 22 586 80 83	blazej.leskow@santander.pl
Michał Stępkowski, <i>Securities Broker</i>	tel. (+48) 22 586 85 15	michal.stepkowski@santander.pl
Marek Wardzyński, <i>Securities Broker</i>	tel. (+48) 22 586 80 87	marek.wardzynski@santander.pl
Adam Mizera, <i>Securities Broker</i>	tel. (+48) 22 586 85 14	adam.mizera@santander.pl

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In preparing this report Santander Brokerage Poland applied at least one of the following valuation methods: discounted cash flows (DCF), comparative, mid-cycle, dividend discount model (DDM), residual income, warranted equity method (WEV), SOTP valuation, liquidation value.

The discounted cash flows (DCF) valuation method is based on expected future discounted cash flows. One advantage of the DCF valuation method is that it takes into account all cash streams reaching Issuer and the cost of money over time. Some disadvantages of the DCF valuation method are that a large number of parameters and assumptions need to be estimated; and the valuation is sensitive to changes in those parameters.

The comparative valuation method is based on the economic rule of "one price". Some advantages of the comparative valuation method are that the analyst need only estimate a small number of parameters; the valuation is based on current market conditions; the relatively large accessibility of indicators for companies being compared; and that there is an extensive knowledge of the comparative method among investors. Some disadvantages of valuation by the comparative method are the considerable sensitivity of the results of the valuation on the choice of companies to the comparative group; the method can lead to a simplification of the picture of the company which in turn can lead to omitting certain important factors (e.g. growth dynamics, extra-operational assets, corporate governance, the repeatability of results, differences in applied accounting standards); and the uncertainty of the effectiveness of a market valuation of companies being compared.

The mid-cycle multiple valuation is based on long-term average valuation multiples of a sector or a peer group. The methodology aims to calculate a fair, through the cycle value of the company. Among its shortfalls is that at peaks and/or troughs of the cycle, the implied fair value may deviate substantially from the market's value of an analysed stock as well as the methods' reliance on the quality of external data (we usually use Bloomberg or Damodaran databases). Simplicity and average through-cycle value allowing to capture over- as well as under-valuation of a given stock are the main advantages of this methodology.

The dividend discount model (DDM) valuation is based on the net present value of the future dividends that are expected to be paid out by the company. Some advantages of the DDM valuation method are that it takes into account real cash flows to equity-owners and that the methodology is used in respect to companies with long dividend payout history. Main disadvantage of the DDM valuation method is that dividend payouts are based on a large number of parameters and assumptions, including dividend payout ratio.

Residual income method is conceptually close to the discounted cash flows method (DCF) for non-financial stocks, the difference being that it is based on expected residual income (returns over COE) rather than expected future cash flows. One advantage of this valuation method is that it captures the excess of profit potentially available to shareholders and the cost of money over time. Main disadvantage of the valuation method is that a large number of parameters and assumptions need to be estimated; and the valuation is sensitive to changes in those parameters.

The warranted equity method (WEV) is based on the formula $P/BV = (\text{two year forward ROE less sustainable growth rate}) / (\text{Cost of equity less sustainable growth rate})$ which allows estimating a fair value (FV) of a given stock in two years' time. Subsequently the FV is discounted back to today. The main advantage of the WEV method is that it is a transparent one and based on relatively short term forecasts, hence substantially reducing the margin of forecasting error. The main disadvantage in our view is that the model is based on the principle that stock price should converge towards its fair value implied by company's ROE and COE.

SOTP valuation - different assets of a company are being valued according to different valuation methods, and the sum of these valuations represents the final valuation of the company. SOTP valuation advantages / disadvantages are identical to advantages and disadvantages of the specific valuation methods used.

Liquidation value method - liquidation value is the estimated amount of money that an asset or company could be quickly sold for, such as if it were to go out of business. Then, the estimated assets value is adjusted for liabilities and liquidation expenses. One advantage of this valuation method is its simplicity. This method does not account for intangible assets as goodwill, which is the main disadvantage.

In the opinion of Santander Brokerage Poland, this report has been prepared with all due diligence and excludes any conflict of interests which could influence its content. In Santander Bank Polska there are implemented internal regulations, which are designed to prevent conflicts of interest concerning recommendations. Physical and logic barriers are established, and the principles of documentation adequate to the type of Santander Bank Polska operations are implemented. Additionally, Santander Bank Polska introduced a number of obligations and restrictions relating to the protection of confidential information flow between organizational units.

The date and time on the first page of this report indicates the date of the production of the recommendation, and the dissemination of the recommendation takes place on the same day before the start of the session.

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