

11/2023/GPW (36) April 28, 2023

This report is prepared for the Warsaw Stock Exchange SA within the framework of the Analytical Coverage Support Program 3.0.

Ferro

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Analyst: Sylwia Jaśkiewicz, CFA

Sector: Construction materials

Fundamental rating: Hold (→)

Market relative: Underweight (→)

Price: PLN 27.40

12M EFV: PLN 28.7 (→)

Market Cap: US\$ 140 m

Bloomberg code: FRO PW

Av. daily turnover: US\$ 0.05 m

12M range: PLN 20.00-31.00

Free float: 100%

Ferro

Recommended action

We uphold our recommendations for the Company: ST relative Underweight and LT fundamental Hold. We expect 1Q23 operating results to slide yoy which we signaled in our previous research report.

We believe the market conditions have remained unfavorable and clients look for cheaper products from the low market segment which coupled with a smaller number of housing investments and uncertainty related to heat sources may lead, in our view, to the Group's 1Q23 revenues yoy decline. From the perspective of raw materials (their prices fell in 2022), freight (material drop of costs), and FX rates (PLN strengthening vs US\$) the situation should support the profitability, however we assume that the Company has been selling - at least some - goods purchased in a less favorable environment. We expect some pressure on sales in a few upcoming quarters, albeit we hope for the cost side to support margins.

The launch of a new logistic center in Romania in 2Q23 implies higher, albeit temporary, both OPEX and inventories in 2Q, and we believe that some material savings will surface on the transportation front, the accessibility of goods will improve and finally the sales expansion will intensify in the segment of heat sources.

1Q23 financial results preview

In 4Q22 the Group's sales in Poland/ Czechia/ Slovakia/ Romania/ Hungary/ other countries changed by -14%/ +6%/ +11%/ +8%/ +19%/ -24%. The sales in Poland showed a decline last year (PLN 120/ 99/ 98/ 89 million in 1Q/ 2Q/ 3Q/ 4Q22) with the similar trend observed on the majority of important markets, albeit Poland's market was clearly the weakest. In 1Q/ 2Q/ 3Q/ 4Q22 revenues in Czechia reached PLN 43/ 38/ 36/ 36 million, in Hungary PLN 12/ 10/ 10/ 10 million, in Romania

Guide to adjusted profits

No factors necessitating adjustments.

Key data

IFRS consolidated		2022	2023E	2024E	2025E
Sales	PLN m	914.9	924.0	1,034.9	1,169.5
EBITDA	PLN m	120.7	109.0	140.3	156.2
EBIT	PLN m	105.6	91.6	120.8	133.8
Net income	PLN m	65.4	58.8	86.1	99.0
EPS	PLN	3.08	2.77	4.05	4.66
EPS yoy chg	%	-11	-10	46	15
Net debt	PLN m	181.6	179.4	179.0	181.4
P/E	x	8.9	9.9	6.8	5.9
EV/EBITDA	x	6.3	7.0	5.4	4.9
EV/EBIT	x	7.2	8.3	6.3	5.7
DPS	PLN	1.51	1.54	1.39	2.03
Gross dividend yield	%	5.5	5.6	5.1	7.4
Number of shares (eop)	m	21.2	21.2	21.2	21.2

Source: Company, DM BOŚ SA estimates

Stock performance



Source: Bloomberg

Recent events

1. Release of 1H22 consolidated results: September 20, 2022
2. Release of consolidated 3Q22 results: November 18, 2022
3. Release of FY22 consolidated financial results: March 30, 2023

Upcoming events

1. Release of 1Q23 consolidated financial results: May 29
2. Release of 1H23 consolidated results: September 27
3. Release of consolidated 3Q23 results: November 28
4. Logistic center launch in Romania: 1H23

Fig. 1. Ferro; 1Q23 financial results preview

IFRS consolidated (PLN m)	1Q22	2Q22	3Q22	4Q22	1Q23E	yoy chg
Sales	255.7	224.2	226.0	209.0	211.7	-17%
EBITDA	36.1	30.4	31.5	22.8	26.8	-26%
EBITDA margin	14.1%	13.6%	13.9%	10.9%	12.6%	-
EBIT	32.2	26.6	27.6	19.3	22.9	-29%
EBIT margin	12.6%	11.8%	12.2%	9.2%	10.8%	-
Pre-tax profit	26.4	20.8	17.8	13.8	18.6	-29%
Pre-tax profit margin	10.3%	9.3%	7.9%	6.6%	8.8%	-
Net profit	21.4	18.6	13.7	11.7	15.1	-29%
Net profit margin	8.3%	8.3%	6.1%	5.6%	7.1%	-

Source: Company, DM BOŚ SA estimates

PLN 43/ 43/ 46/ 39 million, in Slovakia PLN 15/ 14/ 14/ 14 million, and PLN 22/ 20/ 23/ 21 million on the remaining markets. 4Q22 sales in the segments of batteries and accessories/ installation fittings grew 0.1%/ 2% yoy while the heating systems witnessed a 26% sales decline.

We expect the trends (like the domestic market as the weakest link) observed in the 2022-end to prevail in 1Q23. We forecast a sales drop of 18%/ 5%/ 26% yoy in the segments of batteries and accessories/ installation fittings/ heating systems and ultimately we expect a 17% fall of the Group's 1Q23 revenues with the EBIT margin sliding to 10.8% vs 12.6% a year ago. The currency environment and commodities market seem more favorable now, but Ferro is selling inventory purchased earlier. Moreover, there is some pressure on prices visible from clients. All these mentioned above elements should lower the margin.

Given the FX rates level we forecast positive FX differences at PLN 1 million vs PLN 1 million loss in 1Q22 and expect lower financial costs than in the base quarter. Thus we forecast PLN 15 million of 1Q23 NI (down 29% yoy).

Financial forecasts

We update our FY financial forecasts incorporating 1Q23 expectations. Capex is slightly lowered. It looks like the Company is more cautious with expenses considering the still feeble economic situation visible already last year. We expect this year's capex to reach PLN 25 million and then to increase in the following years.

Valuation

A risk free rate revision, peer valuation update, and valuation horizon forward shift in time offset small changes introduced in our financial forecasts. Our 12M EFV constituting a 50%-50% mix of DCF FCFF method and peer-relative valuation, stays at PLN 28.7 per share. The DCF FCF/peer-relative valuation yields PLN 31/ 26 per share (previously PLN 32/ 25 per share).

Strategy

In 2022 Poland/ Czechia/ Slovakia/ Romania/ Hungary/ other countries contributed 44%/ 19%/ 17%/ 6%/ 5%/ 9% of the Group's revenues vs 46%/ 18%/ 16%/ 6%/ 4%/ 10% in 2021. Last year the best performing market was Hungarian (sales grew 32% yoy) with Slovakia (up 19% yoy)/ Romania (up 16% yoy)/ Czechia (up 13% yoy)/ other countries (up 1% yoy) following. In Poland sales grew 6% yoy.

In 2022 the segments of batteries and accessories/ installation fittings/ heating systems (Termet & Tester) had a 46%/ 33%/ 19% share in the Company's consolidated sales vs 47%/ 31%/ 20% in 2021; FY22 sales in the segments of batteries and accessories/ installation fittings/ heating systems grew 8%/ 19%/ 4% yoy.

Ferro plans an intense development in Southern Europe, also in the heating segment which should be possible thanks to the launch of a new distribution center in Romania housing training and exhibition facilities as well (its opening expected within a few weeks).

According to the Company's management's estimations the implementation of the F1R2 strategy (without acquisitions) will allow Ferro's FY26 revenues and EBITDA to reach PLN 1,400 million and PLN 193 million, respectively, with annual capex not exceeding PLN 30 million.

The Strategy F1R2 assumes a dividend payout in the amount not less than 50% of the Company's NI in

the stable market and financial situation including, among other things, the consolidated ND/ EBITDA ratio staying $\leq 2.5x$.

In our opinion, targets included in the new strategy are realistic and our FY26 revenues and EBITDA forecasts at PLN 1,322 million and PLN 174 million, respectively, are only slightly lower.

Risk factors

1. Economic slowdown in Europe
2. Falling demand for new flats
3. Falling frequency of renovations
4. Qualified workforce shortage
5. Pressure on salaries
6. Energy/ heat price increase
7. Volatile raw materials prices (of copper and zinc, in particular)
8. Unfavorable/ volatile FX rates (currency risk when PLN and CZK weaken against US\$ and EUR)
9. Lack of stability in the region
10. Temporary higher inventories
11. High interest rates

Catalysts

1. Expansion in European markets
2. Strengthening position on the existing markets
3. Launching a new logistic center in the southern Europe
4. New products (expanding the product offer)
5. Own brands repositioning
6. Favorable FX rates and raw materials prices
7. Acquisitions in attractive segments
8. Implementation of the adopted strategy F1R2

BASIC DEFINITIONS

A/R turnover (in days) = $365/(\text{sales}/\text{average A/R})$
Inventory turnover (in days) = $365/(\text{COGS}/\text{average inventory})$
A/P turnover (in days) = $365/(\text{COGS}/\text{average A/P})$
Current ratio = $(\text{current assets} - \text{ST deferred assets})/\text{current liabilities}$
Quick ratio = $(\text{current assets} - \text{ST deferred assets} - \text{inventory})/\text{current liabilities}$
Interest coverage = $(\text{pre-tax profit before extraordinary items} + \text{interest payable})/\text{interest payable}$
Gross margin = $\text{gross profit on sales}/\text{sales}$
EBITDA margin = $\text{EBITDA}/\text{sales}$
EBIT margin = EBIT/sales
Pre-tax margin = $\text{pre-tax profit}/\text{sales}$
Net margin = $\text{net profit}/\text{sales}$
ROE = $\text{net profit}/\text{average equity}$
ROA = $(\text{net income} + \text{interest payable})/\text{average assets}$
EV = $\text{market capitalization} + \text{interest bearing debt} - \text{cash and equivalents}$
EPS = $\text{net profit}/\text{no. of shares outstanding}$
CE = $\text{net profit} + \text{depreciation}$
Dividend yield (gross) = $\text{pre-tax DPS}/\text{stock market price}$
Cash sales = $\text{accrual sales corrected for the change in A/R}$
Cash operating expenses = $\text{accrual operating expenses corrected for the changes in inventories and A/P, depreciation, cash taxes and changes in the deferred taxes}$

DM BOŚ S.A. generally values the covered non bank companies via two methods: comparative method and DCF method (discounted cash flows). The advantage of the former is the fact that it incorporates the current market assessment of the value of the company's peers. The weakness of the comparative method is the risk that the valuation benchmark may be mispriced. The advantage of the DCF method is its independence from the current market valuation of the comparable companies. The weakness of this method is its high sensitivity to undertaken assumptions, especially those related to the residual value calculation. Please note that we also resort to other valuation techniques (e.g. NAV-, DDM- or SOTP-based), should it prove appropriate in a given case.

KEY TO INVESTMENT RANKINGS

This is a guide to expected price performance in absolute terms over the next 12 months:

Buy – fundamentally undervalued (upside to 12M EFV in excess of the cost of equity) + catalysts which should close the valuation gap identified;
Hold – either (i) fairly priced, or (ii) fundamentally undervalued/overvalued but lacks catalysts which could close the valuation gap;
Sell – fundamentally overvalued (12M EFV < current share price + 1-year cost of equity) + catalysts which should close the valuation gap identified.

This is a guide to expected relative price performance:

Overweight – expected to perform better than the benchmark (WIG) over the next quarter in relative terms
Neutral – expected to perform in line with the benchmark (WIG) over the next quarter in relative terms
Underweight – expected to perform worse than the benchmark (WIG) over the next quarter in relative terms

The recommendation tracker presents the performance of DM BOŚ S.A.'s recommendations. A recommendation expires on the day it is altered or on the day 12 months after its issuance, whichever comes first.

Relative performance compares the rate of return on a given recommended stock in the period of the recommendation's validity (i.e. from the date of issuance to the date of alteration or – in case of maintained recommendations – from the date of issuance to the current date) in a relation to the rate of return on the benchmark in this time period. The WIG index constitutes the benchmark. For recommendations that expire by an alteration or are maintained, the ending values used to calculate their absolute and relative performance are: the stock closing price on the day the recommendation expires/ is maintained and the closing value of the benchmark on that date. For recommendations that expire via a passage of time, the ending values used to calculate their absolute and relative performance are: the average of the stock closing prices for the day the recommendation elapses and four directly preceding sessions and the average of the benchmark's closing values for the day the recommendation expires and four directly preceding sessions.

Distribution of DM BOŚ's current recommendations

	Buy	Hold	Sell	Suspended	Under revision	Not rated
Numbers	40	32	7	9	0	2
Percentage	44%	36%	8%	10%	0%	2%

Distribution of DM BOŚ's current market relative recommended weightings

	Overweight	Neutral	Underweight	Suspended	Under revision	Not rated
Numbers	34	32	13	9	0	2
Percentage	38%	36%	14%	10%	0%	2%

Banks

Net Interest Margin (NIM) = $\text{net interest income}/\text{average assets}$
Non interest income = $\text{fees\&commissions} + \text{result on financial operations (trading gains)} + \text{FX gains}$
Interest Spread = $(\text{interest income}/\text{average interest earning assets})/(\text{interest cost}/\text{average interest bearing liabilities})$
Cost/Income = $(\text{general costs} + \text{depreciation})/(\text{profit on banking activity} + \text{other net operating income})$
ROE = $\text{net profit}/\text{average equity}$
ROA = $\text{net income}/\text{average assets}$
Non performing loans (NPL) = loans in 'basket 3' category
NPL coverage ratio = $\text{loan loss provisions}/\text{NPL}$
Net provision charge = $\text{provisions created} - \text{provisions released}$

DM BOŚ S.A. generally values the covered banks via two methods: comparative method and fundamental target fair P/E and target fair P/BV multiples method. The advantage of the former is the fact that it incorporates the current market assessment of the value of the company's peers. The weakness of the comparative method is the risk that the valuation benchmark may be mispriced. The advantage of the fundamental target fair P/E and target fair P/BV multiples method is its independence of the current market valuation of the comparable companies. The weakness of this method is its high sensitivity to undertaken assumptions, especially those related to the residual value calculation. Assumptions used in valuation can change, influencing thereby the level of the valuation. Among the most important assumptions are: GDP growth, forecasted level of inflation, changes in interest rates and currency prices, employment level and change in wages, demand on the analysed company products, raw material prices, competition, standing of the main customers and suppliers, legislation changes, etc. Changes in the environment of the analysed company are monitored by analysts involved in the preparation of the recommendation, estimated, incorporated in valuation and published in the recommendation whenever needed.

Distribution of DM BOŚ's current recommendations for the companies which DM BOŚ has supplied with material investment services within the last 12 months

	Buy	Hold	Sell	Suspended	Under revision	Not rated
Numbers	6	6	1	1	0	2
Percentage	38%	38%	6%	6%	0%	13%

Distribution of DM BOŚ's current market relative recommended weightings for the companies which DM BOŚ has supplied with material investment services within the last 12 months

	Overweight	Neutral	Underweight	Suspended	Under revision	Not rated
Numbers	6	3	4	1	0	2
Percentage	38%	19%	25%	6%	0%	13%

LT fundamental recommendation tracker

Analyst	Recommendation	Report date	Reiteration date	Distribution date	Expiry date	Performance	Relative performance	Price at issue/reiteration*	EFV (12 months)	
Ferro										
Sylwia Jaśkiewicz	Hold	-	21.07.2019	-	22.07.2019	04.12.2019	11%	20%	13.70	17.10 -
Sylwia Jaśkiewicz	-	→	-	30.07.2019	31.07.2019	-	-	-	13.50	17.10 →
Sylwia Jaśkiewicz	-	→	-	01.09.2019	02.09.2019	-	-	-	12.05	17.10 →
Sylwia Jaśkiewicz	-	→	-	10.09.2019	11.09.2019	-	-	-	12.10	17.10 →
Sylwia Jaśkiewicz	-	→	-	15.09.2019	16.09.2019	-	-	-	12.65	17.10 →
Sylwia Jaśkiewicz	-	→	-	13.10.2019	14.10.2019	-	-	-	13.40	17.10 →
Sylwia Jaśkiewicz	-	→	-	24.10.2019	25.10.2019	-	-	-	13.00	17.10 →
Sylwia Jaśkiewicz	-	→	-	17.11.2019	18.11.2019	-	-	-	13.00	17.10 →
Sylwia Jaśkiewicz	-	→	-	18.11.2019	19.11.2019	-	-	-	13.00	17.10 →
Sylwia Jaśkiewicz	Buy	↑	04.12.2019	-	05.12.2019	28.01.2020	17%	15%	15.20	17.80 ↑
Sylwia Jaśkiewicz	-	→	-	08.12.2019	09.12.2019	-	-	-	15.00	17.80 →
Sylwia Jaśkiewicz	-	→	-	09.01.2020	10.01.2020	-	-	-	16.30	17.80 →
Sylwia Jaśkiewicz	Hold	↓	28.01.2020	-	29.01.2020	22.07.2020	-4%	5%	17.80	18.50 ↑
Sylwia Jaśkiewicz	-	→	-	04.02.2020	05.02.2020	-	-	-	17.90	18.50 →
Sylwia Jaśkiewicz	-	→	-	06.02.2020	07.02.2020	-	-	-	17.50	18.50 →
Sylwia Jaśkiewicz	-	→	-	03.03.2020	04.03.2020	-	-	-	15.20	18.50 →
Sylwia Jaśkiewicz	-	→	-	30.03.2020	31.03.2020	-	-	-	12.25	18.50 →
Sylwia Jaśkiewicz	-	→	-	22.04.2020	23.04.2020	-	-	-	14.00	18.50 →
Sylwia Jaśkiewicz	-	→	-	23.04.2020	24.04.2020	-	-	-	14.00	18.50 →
Sylwia Jaśkiewicz	-	→	-	19.05.2020	20.05.2020	-	-	-	13.65	18.50 →
Sylwia Jaśkiewicz	-	→	-	15.06.2020	16.06.2020	-	-	-	16.60	18.50 →
Sylwia Jaśkiewicz	-	→	-	13.07.2020	14.07.2020	-	-	-	17.90	18.50 →
Sylwia Jaśkiewicz	Buy	↑	22.07.2020	-	23.07.2020	16.04.2021	75%	51%	17.00	20.30 ↑
Sylwia Jaśkiewicz	-	→	-	01.09.2020	02.09.2020	-	-	-	18.60	20.30 →
Sylwia Jaśkiewicz	-	→	-	17.09.2020	18.09.2020	-	-	-	18.90	20.30 →
Sylwia Jaśkiewicz	-	→	-	29.09.2020	30.09.2020	-	-	-	18.70	19.90 ↓
Sylwia Jaśkiewicz	-	→	-	08.10.2020	09.10.2020	-	-	-	19.00	19.90 →
Sylwia Jaśkiewicz	-	→	-	03.11.2020	04.11.2020	-	-	-	17.30	22.00 ↑
Sylwia Jaśkiewicz	-	→	-	08.11.2020	09.11.2020	-	-	-	17.25	22.00 →
Sylwia Jaśkiewicz	-	→	-	19.11.2020	20.11.2020	-	-	-	18.40	23.40 ↑
Sylwia Jaśkiewicz	-	→	-	26.11.2020	27.11.2020	-	-	-	20.00	23.40 →
Sylwia Jaśkiewicz	-	→	-	06.12.2020	07.12.2020	-	-	-	24.80	25.70 ↑
Sylwia Jaśkiewicz	-	→	-	05.01.2021	05.01.2021	-	-	-	25.50	25.70 →
Sylwia Jaśkiewicz	-	→	-	28.01.2021	29.01.2021	-	-	-	26.50	25.70 →
Sylwia Jaśkiewicz	-	→	-	09.02.2021	10.02.2021	-	-	-	25.70	30.80 ↑
Sylwia Jaśkiewicz	-	→	-	28.02.2021	01.03.2021	-	-	-	26.10	30.80 →
Sylwia Jaśkiewicz	-	→	-	31.03.2021	01.04.2021	-	-	-	27.00	30.80 →
Sylwia Jaśkiewicz	Buy	→	16.04.2021	-	16.04.2021	14.04.2022	16%	9%	29.30	30.80 →
Sylwia Jaśkiewicz	-	→	-	10.05.2021	11.05.2021	-	-	-	29.80	34.10 ↑
Sylwia Jaśkiewicz	-	→	-	27.05.2021	28.05.2021	-	-	-	32.50	34.10 →
Sylwia Jaśkiewicz	-	→	-	30.05.2021	31.05.2021	-	-	-	33.00	34.10 →
Sylwia Jaśkiewicz	-	→	-	09.07.2021	09.07.2021	-	-	-	35.30	34.10 →
Sylwia Jaśkiewicz	-	→	-	12.08.2021	13.08.2021	-	-	-	38.00	41.70 ↑
Sylwia Jaśkiewicz	-	→	-	31.08.2021	31.08.2021	-	-	-	40.50	41.70 →
Sylwia Jaśkiewicz	-	→	-	30.09.2021	01.10.2021	-	-	-	35.60	41.70 →
Sylwia Jaśkiewicz	-	→	-	07.10.2021	07.10.2021	-	-	-	38.90	41.70 →
Sylwia Jaśkiewicz	-	→	-	02.11.2021	03.11.2021	-	-	-	37.50	41.70 →
Sylwia Jaśkiewicz	-	→	-	04.11.2021	04.11.2021	-	-	-	37.20	41.70 →
Sylwia Jaśkiewicz	-	→	-	29.11.2021	30.11.2021	-	-	-	34.60	41.70 →
Sylwia Jaśkiewicz	-	→	-	05.12.2021	06.12.2021	-	-	-	33.00	39.60 ↓
Sylwia Jaśkiewicz	-	→	-	16.01.2022	17.01.2022	-	-	-	34.80	39.60 →
Sylwia Jaśkiewicz	-	→	-	01.02.2022	02.02.2022	-	-	-	32.00	39.60 →
Sylwia Jaśkiewicz	-	→	-	07.02.2022	07.02.2022	-	-	-	32.50	39.60 →
Sylwia Jaśkiewicz	-	→	-	28.02.2022	28.02.2022	-	-	-	29.00	39.60 →
Sylwia Jaśkiewicz	-	→	-	30.03.2022	31.03.2022	-	-	-	30.90	39.60 →
Sylwia Jaśkiewicz	Buy	→	14.04.2022	-	14.04.2022	03.10.2022	-21%	9%	31.70	39.60 →
Sylwia Jaśkiewicz	-	→	-	20.04.2022	21.04.2022	-	-	-	31.30	37.10 ↓
Sylwia Jaśkiewicz	-	→	-	25.05.2022	26.05.2022	-	-	-	27.20	37.10 →
Sylwia Jaśkiewicz	-	→	-	26.05.2022	26.05.2022	-	-	-	28.20	37.10 →
Sylwia Jaśkiewicz	-	→	-	15.07.2022	15.07.2022	-	-	-	25.50	37.10 →
Sylwia Jaśkiewicz	-	→	-	24.07.2022	25.07.2022	-	-	-	24.30	37.10 →
Sylwia Jaśkiewicz	-	→	-	16.08.2022	16.08.2022	-	-	-	26.60	37.10 →
Sylwia Jaśkiewicz	-	→	-	02.09.2022	02.09.2022	-	-	-	25.20	37.10 →
Sylwia Jaśkiewicz	-	→	-	20.09.2022	21.09.2022	-	-	-	25.50	37.10 →
Sylwia Jaśkiewicz	-	→	-	26.09.2022	27.09.2022	-	-	-	23.10	37.10 →
Sylwia Jaśkiewicz	Hold	↓	03.10.2022	-	04.10.2022	Not later than 03.10.2023	17%	-14%	23.50	28.70 ↓
Sylwia Jaśkiewicz	-	→	-	07.10.2022	07.10.2022	-	-	-	23.30	28.70 →
Sylwia Jaśkiewicz	-	→	-	28.10.2022	28.10.2022	-	-	-	22.80	28.70 →
Sylwia Jaśkiewicz	-	→	-	20.11.2022	21.11.2022	-	-	-	24.00	28.70 →
Sylwia Jaśkiewicz	-	→	-	01.12.2022	02.12.2022	-	-	-	22.60	28.70 →
Sylwia Jaśkiewicz	-	→	-	04.12.2022	05.12.2022	-	-	-	23.00	28.70 →
Sylwia Jaśkiewicz	-	→	-	13.01.2023	13.01.2023	-	-	-	23.50	28.70 →
Sylwia Jaśkiewicz	-	→	-	03.02.2023	03.02.2023	-	-	-	25.00	28.70 →
Sylwia Jaśkiewicz	-	→	-	16.02.2023	17.02.2023	-	-	-	24.50	28.70 →
Sylwia Jaśkiewicz	-	→	-	10.03.2023	10.03.2023	-	-	-	24.10	28.70 →
Sylwia Jaśkiewicz	-	→	-	30.03.2023	31.03.2023	-	-	-	25.50	28.70 →
Sylwia Jaśkiewicz	-	→	-	13.04.2023	13.04.2023	-	-	-	26.70	28.70 →
Sylwia Jaśkiewicz	-	→	-	28.04.2023	28.04.2023	-	-	-	27.40	28.70 →

* prices at issue/reiteration are the closing prices at the report or reiteration date

Market-relative recommendation tracker

Analyst	Relative Recommendation	Report date	Reiteration date	Distribution date	Expiry date	Price at issue/reiteration*	Relative performance	
Ferro								
Sylwia Jaśkiewicz	Neutral	→	21.07.2019	-	22.07.2019	18.11.2019	13.70	-2%
Sylwia Jaśkiewicz	-	→	-	30.07.2019	31.07.2019	-	13.50	-
Sylwia Jaśkiewicz	-	→	-	01.09.2019	02.09.2019	-	12.05	-
Sylwia Jaśkiewicz	-	→	-	10.09.2019	11.09.2019	-	12.10	-
Sylwia Jaśkiewicz	-	→	-	15.09.2019	16.09.2019	-	12.65	-
Sylwia Jaśkiewicz	-	→	-	13.10.2019	14.10.2019	-	13.40	-
Sylwia Jaśkiewicz	-	→	-	24.10.2019	25.10.2019	-	13.00	-
Sylwia Jaśkiewicz	-	→	-	17.11.2019	18.11.2019	-	13.00	-
Sylwia Jaśkiewicz	Overweight	↑	18.11.2019	-	19.11.2019	28.01.2020	13.00	41%
Sylwia Jaśkiewicz	-	→	-	04.12.2019	05.12.2019	-	15.20	-
Sylwia Jaśkiewicz	-	→	-	08.12.2019	09.12.2019	-	15.00	-
Sylwia Jaśkiewicz	-	→	-	09.01.2020	10.01.2020	-	16.30	-
Sylwia Jaśkiewicz	Neutral	↓	28.01.2020	-	29.01.2020	23.04.2020	17.80	-1%
Sylwia Jaśkiewicz	-	→	-	04.02.2020	05.02.2020	-	17.90	-
Sylwia Jaśkiewicz	-	→	-	06.02.2020	07.02.2020	-	17.50	-
Sylwia Jaśkiewicz	-	→	-	03.03.2020	04.03.2020	-	15.20	-
Sylwia Jaśkiewicz	-	→	-	30.03.2020	31.03.2020	-	12.25	-
Sylwia Jaśkiewicz	-	→	-	22.04.2020	23.04.2020	-	14.00	-
Sylwia Jaśkiewicz	Overweight	↑	23.04.2020	-	24.04.2020	16.04.2021	14.00	60%
Sylwia Jaśkiewicz	-	→	-	19.05.2020	20.05.2020	-	13.65	-
Sylwia Jaśkiewicz	-	→	-	15.06.2020	16.06.2020	-	16.60	-
Sylwia Jaśkiewicz	-	→	-	13.07.2020	14.07.2020	-	17.90	-
Sylwia Jaśkiewicz	-	→	-	22.07.2020	23.07.2020	-	17.00	-
Sylwia Jaśkiewicz	-	→	-	01.09.2020	02.09.2020	-	18.60	-
Sylwia Jaśkiewicz	-	→	-	17.09.2020	18.09.2020	-	18.90	-
Sylwia Jaśkiewicz	-	→	-	29.09.2020	30.09.2020	-	18.70	-
Sylwia Jaśkiewicz	-	→	-	08.10.2020	09.10.2020	-	19.00	-
Sylwia Jaśkiewicz	-	→	-	03.11.2020	04.11.2020	-	17.30	-
Sylwia Jaśkiewicz	-	→	-	08.11.2020	09.11.2020	-	17.25	-
Sylwia Jaśkiewicz	-	→	-	19.11.2020	20.11.2020	-	18.40	-
Sylwia Jaśkiewicz	-	→	-	26.11.2020	27.11.2020	-	20.00	-
Sylwia Jaśkiewicz	-	→	-	06.12.2020	07.12.2020	-	24.80	-
Sylwia Jaśkiewicz	-	→	-	05.01.2021	05.01.2021	-	25.50	-
Sylwia Jaśkiewicz	-	→	-	28.01.2021	29.01.2021	-	26.50	-
Sylwia Jaśkiewicz	-	→	-	09.02.2021	10.02.2021	-	25.70	-
Sylwia Jaśkiewicz	-	→	-	28.02.2021	01.03.2021	-	26.10	-
Sylwia Jaśkiewicz	-	→	-	31.03.2021	01.04.2021	-	27.00	-
Sylwia Jaśkiewicz	Overweight	→	16.04.2021	-	16.04.2021	05.12.2021	29.30	7%
Sylwia Jaśkiewicz	-	→	-	10.05.2021	11.05.2021	-	29.80	-
Sylwia Jaśkiewicz	-	→	-	27.05.2021	28.05.2021	-	32.50	-
Sylwia Jaśkiewicz	-	→	-	30.05.2021	31.05.2021	-	33.00	-
Sylwia Jaśkiewicz	-	→	-	09.07.2021	09.07.2021	-	35.30	-
Sylwia Jaśkiewicz	-	→	-	12.08.2021	13.08.2021	-	38.00	-
Sylwia Jaśkiewicz	-	→	-	31.08.2021	31.08.2021	-	40.50	-
Sylwia Jaśkiewicz	-	→	-	30.09.2021	01.10.2021	-	35.60	-
Sylwia Jaśkiewicz	-	→	-	07.10.2021	07.10.2021	-	38.90	-
Sylwia Jaśkiewicz	-	→	-	02.11.2021	03.11.2021	-	37.50	-
Sylwia Jaśkiewicz	-	→	-	04.11.2021	04.11.2021	-	37.20	-
Sylwia Jaśkiewicz	-	→	-	29.11.2021	30.11.2021	-	34.60	-
Sylwia Jaśkiewicz	Neutral	↓	05.12.2021	-	06.12.2021	03.10.2022	33.00	11%
Sylwia Jaśkiewicz	-	→	-	16.01.2022	17.01.2022	-	34.80	-
Sylwia Jaśkiewicz	-	→	-	01.02.2022	02.02.2022	-	32.00	-
Sylwia Jaśkiewicz	-	→	-	07.02.2022	07.02.2022	-	32.50	-
Sylwia Jaśkiewicz	-	→	-	28.02.2022	28.02.2022	-	29.00	-
Sylwia Jaśkiewicz	-	→	-	30.03.2022	31.03.2022	-	30.90	-
Sylwia Jaśkiewicz	-	→	-	14.04.2022	14.04.2022	-	31.70	-
Sylwia Jaśkiewicz	-	→	-	20.04.2022	21.04.2022	-	31.30	-
Sylwia Jaśkiewicz	-	→	-	25.05.2022	26.05.2022	-	27.20	-
Sylwia Jaśkiewicz	-	→	-	26.05.2022	26.05.2022	-	28.20	-
Sylwia Jaśkiewicz	-	→	-	15.07.2022	15.07.2022	-	25.50	-
Sylwia Jaśkiewicz	-	→	-	24.07.2022	25.07.2022	-	24.30	-
Sylwia Jaśkiewicz	-	→	-	16.08.2022	16.08.2022	-	26.60	-
Sylwia Jaśkiewicz	-	→	-	02.09.2022	02.09.2022	-	25.20	-
Sylwia Jaśkiewicz	-	→	-	20.09.2022	21.09.2022	-	25.50	-
Sylwia Jaśkiewicz	-	→	-	26.09.2022	27.09.2022	-	23.10	-
Sylwia Jaśkiewicz	Underweight	→	03.10.2022	-	04.10.2022	20.11.2022	23.50	-14%
Sylwia Jaśkiewicz	-	→	-	07.10.2022	07.10.2022	-	23.30	-
Sylwia Jaśkiewicz	-	→	-	28.10.2022	28.10.2022	-	22.80	-
Sylwia Jaśkiewicz	Neutral	↑	20.11.2022	-	21.11.2022	16.02.2023	24.00	-8%
Sylwia Jaśkiewicz	-	→	-	01.12.2022	02.12.2022	-	22.60	-
Sylwia Jaśkiewicz	-	→	-	04.12.2022	05.12.2022	-	23.00	-
Sylwia Jaśkiewicz	-	→	-	13.01.2023	13.01.2023	-	23.50	-
Sylwia Jaśkiewicz	-	→	-	03.02.2023	03.02.2023	-	25.00	-
Sylwia Jaśkiewicz	Underweight	↓	16.02.2023	-	17.02.2023	Not later than 16.02.2024	24.50	8%
Sylwia Jaśkiewicz	-	→	-	10.03.2023	10.03.2023	-	24.10	-
Sylwia Jaśkiewicz	-	→	-	30.03.2023	31.03.2023	-	25.50	-
Sylwia Jaśkiewicz	-	→	-	13.04.2023	13.04.2023	-	26.70	-
Sylwia Jaśkiewicz	-	→	-	28.04.2023	28.04.2023	-	27.40	-

* prices at issue/reiteration are the closing prices at the report or reiteration date

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