

27/2023/GPW (63) July 31, 2023

This report is prepared for the Warsaw Stock Exchange SA within the framework of the Analytical Coverage Support Program 4.0.

Ferro

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Analyst: Sylwia Jaśkiewicz, CFA

Ferro

Sector: Construction materials

Fundamental rating: Hold (→)

Market relative: Underweight (→)

Price: PLN 30.00

12M EFV: PLN 30.1 (↑)

Market Cap: US\$ 159 m

Bloomberg code: FRO PW

Av. daily turnover: US\$ 0.07 m

12M range: PLN 20.00-31.40

Free float: 100%

Recommended action

We uphold our recommendations for the Company: ST relative Underweight and LT fundamental Hold. We expect a deterioration of operating figures in 2Q23 in a yoy terms resulting presumably from the lower top line.

The stifled demand prevails in Poland while in the neighboring countries the sentiment has weakened. Thus, in 2Q23 the Group's profitability might have been under pressure albeit the prices of freight and commodities fell with the strengthening of PLN vs US\$ and Ferro is selling the increasing volumes of goods purchased under more favorable terms. We expect positive FX differences in the discussed quarter.

We assume the pressure on sales to continue in 3Q23 and even with the cost side supporting the Company's margins the pressure on the results may still be present. Given the lower than we expected revenues we cut our operating forecasts for Ferro and thus expect FY23 EBITDA to reach PLN 102 million (down 15% yoy), which is actually 6% below our previous forecast.

2Q23 financial results preview

In 1Q23 the Group's sales in Poland/ Czechia/ Slovakia/ Romania/ Hungary/ other countries fell 30%/ 6%/ 7%/ 5%/ 31%/ 10% yoy with Poland as the weakest market that showed a declining trend in several quarters (PLN 120/ 99/ 98/ 89 million in 1Q/ 2Q/ 3Q/ 4Q22 and PLN 83 million in 1Q23). We expect an acceleration of declines in the neighboring countries with the negative sentiment in Poland to settle down. We assume the Group's sales in Poland/ Czechia/ Slovakia/ Romania/ Hungary/ other countries decreased 26%/ 10%/ 12%/ 7%/ 27%/ 13% yoy to PLN 74/ 34/ 12/ 40/ 8/ 17 million.

Guide to adjusted profits

Income tax.

Key data

IFRS consolidated		2022	2023E	2024E	2025E
Sales	PLN m	914.9	773.7	889.7	1,005.4
EBITDA	PLN m	120.7	102.3	127.9	142.3
EBIT	PLN m	105.6	85.2	108.4	119.9
Net income	PLN m	65.4	57.0	72.9	84.7
EPS	PLN	3.08	2.68	3.43	3.99
Adj EPS yoy chg	%	-11	-13	28	16
Net debt	PLN m	181.6	162.4	152.4	139.5
P/E	x	9.7	11.2	8.7	7.5
EV/EBITDA	x	6.8	7.8	6.2	5.5
EV/EBIT	x	7.8	9.4	7.3	6.5
DPS	PLN	1.51	1.50	1.34	1.72
Gross dividend yield	%	5.0	5.0	4.5	5.7
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 FY22 consolidated financial results: March 30
2. Release of 1Q23 consolidated financial results: May 29
3. Logistic center launch in Romania: 1H23

Upcoming events

1. Release of 1H23 consolidated results: September 27
2. Release of consolidated 3Q23 results: November 28

We expect 2Q23 sales in the segment of batteries and accessories/ installation fittings/ heating systems to shrink by 14%/11%/30% yoy vs -16%/-11%/-36% yoy in 1Q23.

Fig. 1. Ferro; 2Q23 financial results preview

IFRS consolidated (PLN m)	2Q22				2Q23E		yoy chg	Realisation of the FY figures in 2Q:		Realisation of the FY figures in 1H:	
	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23E		2022	2023E	2022	2023E
Sales	255.7	224.2	226.0	209.0	207.4	185.0	-17%	25%	24%	52%	51%
EBITDA	36.1	30.4	31.5	22.8	28.9	24.3	-20%	25%	24%	55%	52%
EBITDA margin	14.1%	13.6%	13.9%	10.9%	13.9%	13.1%	-	-	-	-	-
EBIT	32.2	26.6	27.6	19.3	24.9	19.9	-25%	25%	23%	56%	53%
EBIT margin	12.6%	11.8%	12.2%	9.2%	12.0%	10.7%	-	-	-	-	-
Pre-tax profit	26.4	20.8	17.8	13.8	22.0	18.3	-12%	26%	26%	60%	57%
Pre-tax profit margin	10.3%	9.3%	7.9%	6.6%	10.6%	9.9%	-	-	-	-	-
Net profit	21.4	18.6	13.7	11.7	17.5	15.1	-19%	28%	26%	61%	57%
Net profit margin	8.3%	8.3%	6.1%	5.6%	8.4%	8.2%	-	-	-	-	-

Source: Company, DM BOŚ SA

We expect the Group's 2Q23 revenues to fall 17% yoy leading to a lower yoy EBIT margin at 10.7% vs 11.8% in 2Q22. The launch of a new logistic center in Romania may imply slightly higher OPEX and higher inventories in the very 2Q23, albeit this should be temporary and we believe that some material savings will be seen on the transport front, the accessibility of goods will improve and finally in the segment of heat sources the sales expansion will intensify starting from 3Q23. Still, the pressure on demand may linger.

Given the FX rates level, we forecast positive FX differences at PLN 3 million in 2Q23 and expect lower financial costs than in the base quarter. We also expect the Company to report NI at PLN 15 million (down 19% yoy).

Financial forecast

We update our FY financial forecasts incorporating 2Q23 expectations. We lower FY23 revenues by 16% to PLN 774 million. It seems that in Poland the weak demand settled in while in the neighboring countries the pressure on demand intensified. High interest rates and poor demand may trigger a visible pressure on prices which – in spite of favorable prices of commodities and transport and supporting FX rates may hamper the profitability improvement. We forecast FY23 EBITDA margin to reach 13% (flat yoy).

It is worth noting than in 1H23 in Poland 2% yoy more dwellings were delivered (vs +2% yoy in 2022), 28% yoy less dwellings were started (vs -28% yoy in 2022), and a number of building permits fell 35% yoy (vs -13% yoy in 2022). The market for finishing materials may enjoy a positive impact of

cheap financing availability (2% loan government program, c. 12,000 applications filed till the end of July), though this will be visible after a few months. Another demand driver may materialize along with the implementation of the government social programs (supporting the heating systems which suffered most) such as Mój Prąd 5.0 (stimulating the thermal upgrading of buildings addressing the users of photovoltaic installations; with the budget at PLN 955 million), Czyste Powietrze (upgrading the heat sources, with the budget over PLN 100 billion) or Moje Ciepło (support for purchase and assembly of heat pumps for new single-family buildings with the budget up to PLN 600 million).

Valuation

Our valuation for Ferro falls under the impact of (i) the risk free rate revision (at 5.4%, previously 5.9%), (ii) the capital risk premium lowering to 6.3% from 7.0%, (iii) valuation horizon forward shift in time, (iv) peer valuation update, and (v) lower financial forecasts. Our 12M EFV constituting a 50%–50% mix of DCF FCF method and peer-relative valuation, increases by 5% to PLN 30.1 per share. The DCF FCF/peer-relative valuation yields PLN 35/ 26 per share (previously PLN 31/ 26 per share).

Strategy

In FY22, the Group generated 44%/ 19%/ 17%/ 6%/ 5%/ 9% of revenues in Poland/ Romania/ Czechia/ Slovakia/ Hungary/ other countries; we expect this proportion in 1H23 will be 40%/ 21%/ 19%/ 7%/ 4%/ 10%. Last year the best performing market was Hungarian (sales grew 32% yoy) followed by Slovakia (up 19% yoy), Romania (up 16% yoy), Czechia (up 13% yoy), and other countries (up 1%

yoy). Domestic sales grew 6% yoy (changes in the consolidation of Termet/Tester). This year has witnessed declines on all the Company's markets; we expect the deepest ones in Poland and Hungary and softer in Czechia, Slovakia, and Romania.

We forecast the segment of batteries and accessories/ installation fittings/ heating systems (Termet/Tester) generated 48%/35%/16% of 1H23 consolidated revenues vs 46%/33%/19% in 2022. In FY22 a sales growth in the segment of batteries and accessories/ installation fittings/ heating systems hit 8%/19%/4% yoy (mainly thanks to 1Q22 results), while in 1H23 we assume a 15%/11%/34% yoy decline.

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 the training and exhibition facilities as well (in 2Q23).

According to the Company's management estimations the implementation of the FIR2 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. Our forecasts for FY26 assume lower top line and EBITDA (at PLN 1,136 million and PLN 158 million, respectively).

The Strategy FIR2 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 $\leq 2.5x$.

Market environment

The situation on housing markets in the region is rather feeble.

According to the CSO,

- in 2022 (i) 200,000 dwellings were started, down 28% yoy, (ii) 239,000 dwellings were delivered, up 2% yoy, and (iii) 297,000 building permits were issued, down 13% yoy;
- in 1H23, (i) 86,000 dwellings were started, down 28% yoy, (ii) 112,000 dwellings were delivered, up 2% yoy, and (iii) 112,000 building permits were issued, down 35% yoy.

According to the Czech Statistical Office,

- in 2022 (i) 42,000 dwellings were started, down 6% yoy, (ii) 39,000 dwellings were delivered, up 14% yoy, and (iii) 86,000 building permits were issued, down 5% yoy;
- in 1Q23 (i) 9,000 dwellings were started, down 12% yoy, (ii) 8,000 dwellings were delivered, down 10% yoy, and (iii) 19,000 building permits were issued, down 11% yoy.

According to CEIC data,

- in Romania, 105,000 building permits were issued, down 7% yoy, in 2022;
- in 1Q23, 21,000 building permits were issued, down 9% yoy.

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. Volatile raw materials prices (of copper and zinc, in particular)
7. Unfavorable/ volatile FX rates (currency risk when PLN and CZK weaken against US\$ and EUR)
8. Lack of stability in the region
9. Temporary higher inventories
10. 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. Favorable FX rates and raw materials prices
6. Acquisitions in attractive segments
7. 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	39	31	9	9	0	2
Percentage	43%	34%	10%	10%	0%	2%

Distribution of DM BOŚ's current market relative recommended weightings

	Overweight	Neutral	Underweight	Suspended	Under revision	Not rated
Numbers	33	33	13	9	0	2
Percentage	37%	37%	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	7	3	3	1	0	2
Percentage	44%	19%	19%	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	28%	-18%	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 →
Sylwia Jaśkiewicz	-	→	-	29.05.2023	29.05.2023	-	-	-	30.50	28.70 →
Sylwia Jaśkiewicz	-	→	-	29.05.2023	29.05.2023	-	-	-	30.50	28.70 →
Sylwia Jaśkiewicz	-	→	-	14.07.2023	14.07.2023	-	-	-	30.90	28.70 →
Sylwia Jaśkiewicz	-	→	-	31.07.2023	01.08.2023	-	-	-	30.00	30.10 ↑

* 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	3%
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	-
Sylwia Jaśkiewicz	-	→	-	29.05.2023	29.05.2023	-	30.50	-
Sylwia Jaśkiewicz	-	→	-	29.05.2023	29.05.2023	-	30.50	-
Sylwia Jaśkiewicz	-	→	-	14.07.2023	14.07.2023	-	30.90	-
Sylwia Jaśkiewicz	-	→	-	31.07.2023	01.08.2023	-	30.00	-

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

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