

**48/2024/GPW (111)** December 1, 2024

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

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# Ferro

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**Analyst:** Sylwia Jaśkiewicz, CFA

**Sector:** Construction materials  
**Fundamental rating:** Hold (→)  
**Market relative:** Neutral (→)  
**Price:** PLN 34.50  
**12M EFV:** PLN 41.0 (↑)

**Market Cap:** US\$ 180.1 m  
**Bloomberg code:** FRO PW  
**Av. daily turnover:** US\$ 0.04 m  
**12M range:** PLN 26.50-40.00  
**Free float:** 100%

# Ferro

## Key points

■ **Business model.** Ferro's business is highly diversified, both geographically and in terms of the product offer. In 1-3Q24 (i) products and goods constituted 33% and 67% of the Group's sales, (ii) the contribution of the segment of batteries and accessories/ the installation fittings segment/ the heating systems segment to sales stood at 48%/ 33%/ 16%, (iii) 73%/ 27% of sales were realized in the traditional/modern channel, (iv) 41%/ 21%/ 17%/ 6%/ 5%/ 1%/ 9% of the Group's sales came from Poland/ Romania/ Czechia/ Slovakia/ Hungary/ Lithuania/ other countries.

■ **Drivers.** The demand for Ferro's goods and products is driven by the development of the residential market in the region. In the installation fittings segment the replacement demand constitutes 55% with 45% stemming from new investments. In the segment of batteries and accessories, 80% of demand results from renovations and 20% from new housing investments. The acquisition of heating assets increased the Group's dependence on the primary market.

■ **The strategy.** The Company's F1R2 strategy (without acquisitions) assumes generating PLN 1,400 million of revenues and PLN 193 million of EBITDA in 2026, with annual capex below PLN 30 million, dividend payout in the amount of not less than 50% of the Company's NI and the consolidated ND/ EBITDA ratio below 2.5x. Given the current economic situation we forecast lower revenues and EBITDA in 2026; should the situation improve, we would expect higher sales with lower margins realized, as the Company would probably find it more difficult to negotiate such favorable purchase prices while costs – currently seriously reduced – would have to rise.

## Guide to adjusted profits

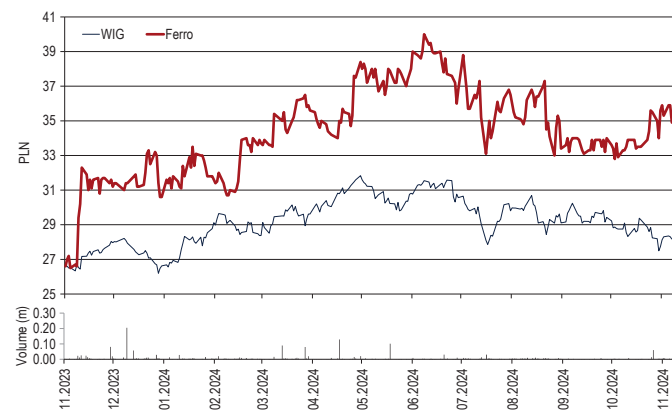
No factors necessitating adjustments.

## Key data

IFRS consolidated		2023	2024E	2025E	2026E
Sales	PLN m	803.2	778.8	856.7	968.0
EBITDA	PLN m	117.8	123.7	134.3	149.8
EBIT	PLN m	100.1	106.5	116.5	131.1
Net income	PLN m	67.0	77.5	83.5	96.0
EPS	PLN	3.16	3.65	3.93	4.52
Adj EPS yoy chg	%	2	16	8	15
Net debt	PLN m	96.2	122.7	126.1	133.7
P/E	x	11.1	9.6	8.9	7.7
EV/EBITDA	x	7.1	7.0	6.5	5.8
EV/EBIT	x	8.4	8.1	7.4	6.7
DPS	PLN	1.50	3.16	2.74	2.95
Gross dividend yield	%	4.4	9.1	7.8	8.4
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 consolidated 1Q24 financial results: May 22
2. Release of consolidated 1H24 results: September 17
3. Release of 3Q24 consolidated results: November 13

## Upcoming events

1. FY24 consolidated results release: March 2025

■ **4Q24E.** We assume the trends visible in the previous quarters will prevail in 4Q24 and thus expect lower yoy revenues with higher yoy profitability. This year's volumes are flat yoy and clients refrain from bigger expenses.

Poland seems to be a more demanding market than the rest of countries where Ferro operates. A decline of sales of installation fittings in 3Q24 stemmed from limited availability of goods which has already been addressed. Usually, in 4Q the Company books costs of bonuses, clears marketing expenses and other costs, therefore other operating costs should grow in this quarter. At the end of 3Q24 the Group’s inventories stood at PLN 264 million, down 7% yoy, and their level may grow by c. PLN 30 million due to New Year’s celebration in China, shift of responsibility to stock from wholesalers to producers, and necessity to maintain high availability of products to be able to respond to demand fluctuations. ND may also grow due to a dividend payout in October (PLN 67 million).

- **FY financial forecasts.** We updated our financial forecasts and assume this year’s capex at PLN 10 million (including PLN 5 million in 1-3Q24). The Company started modernizing the production plant and building a new production line to increase capacities in Czechia.
- **2025 outlook.** The situation may remain challenging, we believe, but some hopes are associated with the consumer sentiment improvement in South-Eastern Europe and increasing number of started constructions and construction permits issued in Poland. The Group intends to grow in Southern and Western Europe supported by improved availability due to a launch of a new warehouse in Romania in the first case, and the second case due to acquired certificates. An implementation of new systemic solutions in the heating systems segment should positively affect revenues. For 1H25 purchase prices of goods seem favorable which should support the profitability, though some negative

FX differences and higher interest costs cannot be precluded. From 4Q24 on, the sales support costs (promotion campaigns) and average wages may rise. Costs of the sales support, advertising, transport, and external services seem to be highly optimized and growing sales may require their increase. In 1H25 a level of inventories should be higher yoy, we believe.

- **Risk to financial forecasts.** Moderate (both ways). Higher demand means growing costs and falling margins.
- **Valuation.** Our valuation for Ferro falls under the impact of (i) the risk free rate revision in the definite forecast period, (ii) forward peer multiples update, and (iii) modification of our financial forecasts. Our 12M EFV constituting a 50%–50% mix of the DCF FCF method and peer-relative exercise, stands at PLN 41.0 (prev. PLN 40.0) per share. The DCF FCF/ peer-relative valuation yields PLN 49/ 33 per share (prev. PLN 48/ 32 per share).
- **Recommended action.** We maintain our neutral approach towards the Company’s equities. There’s no doubt that Ferro copes well with the challenging market environment, mostly due to the sales strategy, purchasing capacities and raw material prices.

The new warehouse in Romania that had a positively impact on the product availability in the south of Europe supports the Company’s results, albeit the market seems to be still weak, the way we see it. The management maintained the strategic targets, though signaled that they may be subject to some revision as the European markets are under a lot of pressure. Our FY26 forecasts are below the Company’s targets.

Ferro; Changes in DM BOŚ SA forecast

IFRS consolidated (PLN m)	2024E			2025E			2026E		
	current	previous	change	current	previous	change	current	previous	change
Sales	778.8	780.4	0%	856.7	881.9	-3%	968.0	996.5	-3%
EBITDA	123.7	121.7	2%	134.3	134.7	0%	149.8	152.2	-2%
EBIT	106.5	103.8	3%	116.5	115.4	1%	131.1	131.6	0%
NP	77.5	75.8	2%	83.5	83.0	1%	96.0	96.8	-1%
Net debt	122.7	96.8	27%	126.1	106.3	19%	133.7	111.6	20%

Source: DM BOŚ SA estimates

**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. High interest rates
10. F1R2 strategy revision

**Catalysts**

1. Higher demand in Poland and neighboring countries
2. Expansion in European countries
3. Strengthening position on the existing markets
4. New logistic center in Romania
5. New systemic solutions in the offer
6. Product certification for West European markets
7. Favorable FX rates and raw materials prices
8. Acquisitions in attractive segments

## 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** =  $\text{EBIT}/\text{sales}$   
**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	44	28	5	5	0	5
Percentage	51%	32%	6%	6%	0%	6%

### Distribution of DM BOŚ's current market relative recommended weightings

	Overweight	Neutral	Underweight	Suspended	Under revision	Not rated
Numbers	27	41	9	5	0	5
Percentage	31%	47%	10%	6%	0%	6%

## 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	4	5	0	1	0	2
Percentage	33%	42%	0%	8%	0%	17%

### 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	3	5	1	1	0	2
Percentage	25%	42%	8%	8%	0%	17%

LT fundamental recommendation tracker

Analyst	Recommendation	Report date	Reiteration date	Distribution date	Expiry date	Performance	Relative performance	Price at issue/reiteration*	EFV (12 months)	
<b>Ferro</b>										
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	27.09.2023	25%	-11%	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 ↑
Sylwia Jaśkiewicz	-	→	-	02.08.2023	03.08.2023	-	-	-	30.70	30.10 →

LT fundamental recommendation tracker

Analyst	Recommendation	Report date	Reiteration date	Distribution date	Expiry date	Performance	Relative performance	Price at issue/reiteration*	EFV (12 months)
Sylwia Jaškiewicz	-	-	31.08.2023	31.08.2023	-	-	-	29.40	30.10 →
Sylwia Jaškiewicz	-	-	12.09.2023	13.09.2023	-	-	-	28.60	30.10 →
Sylwia Jaškiewicz	Hold	27.09.2023	-	28.09.2023	28.11.2023	-5%	-18%	27.90	30.10 →
Sylwia Jaškiewicz	-	-	12.10.2023	12.10.2023	-	-	-	28.80	30.10 →
Sylwia Jaškiewicz	-	-	25.10.2023	25.10.2023	-	-	-	27.10	30.10 →
Sylwia Jaškiewicz	-	-	06.11.2023	06.11.2023	-	-	-	27.40	30.10 →
Sylwia Jaškiewicz	Buy	28.11.2023	-	29.11.2023	17.07.2024	40%	23%	26.60	33.30 ↑
Sylwia Jaškiewicz	-	-	10.12.2023	11.12.2023	-	-	-	31.60	34.70 ↑
Sylwia Jaškiewicz	-	-	09.01.2024	09.01.2024	-	-	-	32.00	34.70 →
Sylwia Jaškiewicz	-	-	01.02.2024	01.02.2024	-	-	-	32.40	34.70 →
Sylwia Jaškiewicz	-	-	06.02.2024	07.02.2024	-	-	-	32.30	36.60 ↑
Sylwia Jaškiewicz	-	-	29.02.2024	29.02.2024	-	-	-	30.70	36.60 →
Sylwia Jaškiewicz	-	-	27.03.2024	27.03.2024	-	-	-	33.50	39.30 ↑
Sylwia Jaškiewicz	-	-	04.04.2024	04.04.2024	-	-	-	34.50	39.30 →
Sylwia Jaškiewicz	-	-	24.04.2024	25.04.2024	-	-	-	34.80	39.30 →
Sylwia Jaškiewicz	-	-	06.05.2024	06.05.2024	-	-	-	34.00	39.30 →
Sylwia Jaškiewicz	-	-	22.05.2024	23.05.2024	-	-	-	38.30	41.80 ↑
Sylwia Jaškiewicz	-	-	29.05.2024	29.05.2024	-	-	-	38.00	41.80 →
Sylwia Jaškiewicz	-	-	12.07.2024	12.07.2024	-	-	-	37.70	41.80 →
Sylwia Jaškiewicz	Hold	17.07.2024	-	17.07.2024	Not later than 17.07.2025	-7%	-1%	37.20	40.00 ↓
Sylwia Jaškiewicz	-	-	12.08.2024	12.08.2024	-	-	-	36.10	40.00 →
Sylwia Jaškiewicz	-	-	17.09.2024	17.09.2024	-	-	-	34.60	40.00 →
Sylwia Jaškiewicz	-	-	24.09.2024	24.09.2024	-	-	-	34.00	40.00 →
Sylwia Jaškiewicz	-	-	11.10.2024	11.10.2024	-	-	-	33.90	40.00 →
Sylwia Jaškiewicz	-	-	22.10.2024	22.10.2024	-	-	-	33.40	40.00 →
Sylwia Jaškiewicz	-	-	04.11.2024	04.11.2024	-	-	-	33.90	40.00 →
Sylwia Jaškiewicz	-	-	13.11.2024	13.11.2024	-	-	-	34.40	40.00 →
Sylwia Jaškiewicz	-	-	01.12.2024	02.12.2024	-	-	-	34.50	41.00 ↑

\* 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	
<b>Ferro</b>								
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	25.10.2023	24.50	1%
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	-
Sylwia Jaśkiewicz	-	→	-	02.08.2023	03.08.2023	-	30.70	-



**Market-relative recommendation tracker**

Analyst	Relative Recommendation	Report date	Reiteration date	Distribution date	Expiry date	Price at issue/reiteration*	Relative performance	
Sylwia Jaškiewicz	-	→	-	31.08.2023	31.08.2023	-	29.40	-
Sylwia Jaškiewicz	-	→	-	12.09.2023	13.09.2023	-	28.60	-
Sylwia Jaškiewicz	-	→	-	27.09.2023	28.09.2023	-	27.90	-
Sylwia Jaškiewicz	-	→	-	12.10.2023	12.10.2023	-	28.80	-
Sylwia Jaškiewicz	Neutral	↑	25.10.2023	-	25.10.2023	28.11.2023	27.10	-8%
Sylwia Jaškiewicz	-	→	-	06.11.2023	06.11.2023	-	27.40	-
Sylwia Jaškiewicz	Overweight	↑	28.11.2023	-	29.11.2023	24.04.2024	26.60	17%
Sylwia Jaškiewicz	-	→	-	10.12.2023	11.12.2023	-	31.60	-
Sylwia Jaškiewicz	-	→	-	09.01.2024	09.01.2024	-	32.00	-
Sylwia Jaškiewicz	-	→	-	01.02.2024	01.02.2024	-	32.40	-
Sylwia Jaškiewicz	-	→	-	06.02.2024	07.02.2024	-	32.30	-
Sylwia Jaškiewicz	-	→	-	29.02.2024	29.02.2024	-	30.70	-
Sylwia Jaškiewicz	-	→	-	27.03.2024	27.03.2024	-	33.50	-
Sylwia Jaškiewicz	-	→	-	04.04.2024	04.04.2024	-	34.50	-
Sylwia Jaškiewicz	Neutral	↓	24.04.2024	-	25.04.2024	Not later than 24.04.2025	34.80	5%
Sylwia Jaškiewicz	-	→	-	06.05.2024	06.05.2024	-	34.00	-
Sylwia Jaškiewicz	-	→	-	22.05.2024	23.05.2024	-	38.30	-
Sylwia Jaškiewicz	-	→	-	29.05.2024	29.05.2024	-	38.00	-
Sylwia Jaškiewicz	-	→	-	12.07.2024	12.07.2024	-	37.70	-
Sylwia Jaškiewicz	-	→	-	17.07.2024	17.07.2024	-	37.20	-
Sylwia Jaškiewicz	-	→	-	12.08.2024	12.08.2024	-	36.10	-
Sylwia Jaškiewicz	-	→	-	17.09.2024	17.09.2024	-	34.60	-
Sylwia Jaškiewicz	-	→	-	24.09.2024	24.09.2024	-	34.00	-
Sylwia Jaškiewicz	-	→	-	11.10.2024	11.10.2024	-	33.90	-
Sylwia Jaškiewicz	-	→	-	22.10.2024	22.10.2024	-	33.40	-
Sylwia Jaškiewicz	-	→	-	04.11.2024	04.11.2024	-	33.90	-
Sylwia Jaškiewicz	-	→	-	13.11.2024	13.11.2024	-	34.40	-
Sylwia Jaškiewicz	-	→	-	01.12.2024	02.12.2024	-	34.50	-

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

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