

12/2024/GPW (36) April 24, 2024

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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12/2024/GPW (36) April 24, 2024

This report is prepared for the Warsaw Stock Exchange SA within the framework of the Analytical Coverage Support Program 4.0. This is an excerpt from the Polish version of DM BOŚ SA's research report.

Analyst: Sylwia Jaśkiewicz, CFA

Sector: Construction materials
Fundamental rating: Buy (→)
Market relative: Neutral (↓)
Price: PLN 34.80
12M EFV: PLN 39.3 (→)

Market Cap: US\$ 182.5 m
Bloomberg code: FRO PW
Av. daily turnover: US\$ 0.06 m
12M range: PLN 26.40-36.50
Free float: 100%

Ferro

Recommended action

We reiterate our LT Buy recommendation for the Company's shares, but downgrade ST relative rating from Overweight to Neutral. We expect a slight yoy improvement of the Company's 1Q24 EBIT. The market environment is still challenging and the demand shaky. In April the raw material prices – so far supporting the Company's profitability – have grown and the effects should be visible in financial results and inventories level in the autumn.

Currently, a number of dwellings handed over in the CEE region is not impressive, but there are some signs which may positively affect the demand for the Company's products in a few months' time. In Poland a number of dwellings started and building permits issued has risen (up 56% and 33% yoy, respectively, in 1Q24). In 2H24 we expect increased interest in heating pumps.

1Q24 financial results preview

4Q23 Group's sales in Poland/ Czechia/ Slovakia/ Hungary/ other countries fell 4%/ 11%/ 11%/ 16%/ 7% yoy, the only exception was Romania with a 10% yoy growth. We expect rather flat sales qoq in 1Q24 and forecast revenues at PLN 81/ 37/ 12/ 43/ 8/ 19 million (-3%/ -9%/ -15%/ +5%/ -2%/ -7% yoy) in Poland/ Czechia/ Slovakia/ Hungary/ other countries.

4Q23 sales in the segments of batteries and accessories and of the heating systems fell 4% and 11% yoy, respectively while the installation fittings segment witnessed a 0.4% sales growth; we assume 1Q24 sales of the segments of batteries and accessories/ installation fittings/ heating systems to change -5%/ 0%/ -9% yoy. In the heating systems clients buy mostly boilers with the demand for heating pumps strongly subdued, albeit this may change in June. NFOŚiGW (National Fund for Environmental Protection and Water Management)

Guide to adjusted profits

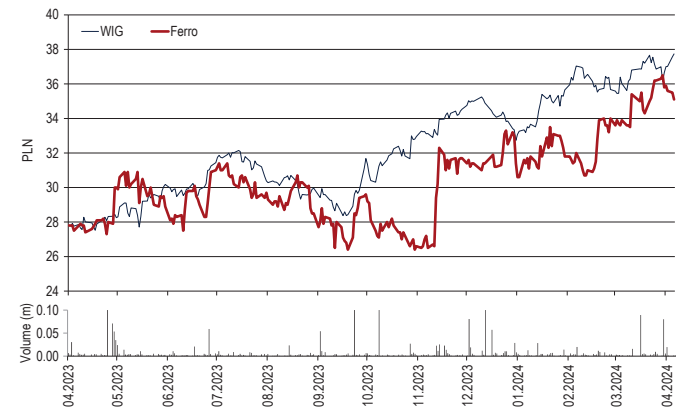
Income tax.

Key data

| IFRS consolidated | | 2023 | 2024E | 2025E | 2026E |
|------------------------|-------|-------|-------|---------|---------|
| Sales | PLN m | 803.2 | 891.6 | 1,007.5 | 1,138.4 |
| EBITDA | PLN m | 117.8 | 127.0 | 144.9 | 163.8 |
| EBIT | PLN m | 100.1 | 106.6 | 123.8 | 140.7 |
| Net income | PLN m | 67.0 | 73.4 | 89.3 | 103.8 |
| EPS | PLN | 3.16 | 3.46 | 4.21 | 4.88 |
| Adj EPS yoy chg | % | 2 | 9 | 22 | 16 |
| Net debt | PLN m | 96.2 | 96.9 | 95.0 | 92.2 |
| P/E | x | 11.0 | 10.1 | 8.3 | 7.1 |
| EV/EBITDA | x | 7.1 | 6.6 | 5.8 | 5.1 |
| EV/EBIT | x | 8.3 | 7.8 | 6.7 | 5.9 |
| DPS | PLN | 1.50 | 1.89 | 2.07 | 2.52 |
| Gross dividend yield | % | 4.4 | 5.4 | 6.0 | 7.3 |
| 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 1Q23 financial results: May 29, 2023
2. Release of consolidated 1H23 financial results: September 27, 2023
3. Release of 3Q23 consolidated results: November 28, 2023
4. Release of FY23 consolidated financial results: March 27, 2024

Upcoming events

1. Release of consolidated 1Q24 financial results: May 22, 2024
2. Release of consolidated 1H24 financial results: September 17, 2024
3. Release of 3Q24 consolidated results: November 13, 2024

advises caution with regard to purchases of heating pumps until the program Clean Air is not modified as planned. After June 15 only a purchase of devices put on the special list would be subsidized as some Asian-manufactured heating pumps flooding the market do not comply with the technical requirements in Poland.

Ultimately, we assume a 4% yoy decline of the Group's revenues in 1Q24. We expect the EBIT margin to rise yoy to 12.9% vs 12.0% in 1Q23. In 1Q24 raw materials prices and FX rates were favorable for Ferro. A pressure on salaries softened, albeit a minimum wage increase should be kept in mind. It looks like the Company had strongly lowered spending on the sales support and marketing earlier and in 1Q24 they must have risen.

Given the FX rates level we forecast negative FX differences at c. PLN 1 million and net financial costs at c. PLN 3 million (flat yoy, in spite of positive FX differences in the base quarter). All in all, we expect the Company to report 1Q24 NI at PLN 19 million (up 7% yoy).

According to our estimates, ND should be flattish qoq. At the 2023-end the net debt/ EBITDA ratio reached 0.8 which may encourage shareholders to opt for a higher dividend unless the Company makes an acquisition, in line with the strategy.

Financial forecast

Incorporating our explicit 1Q24 forecasts and updated raw materials prices we slightly modify our financial assumptions and project lower profitability, albeit a higher dividend payout this year.

Valuation

Our valuation for Ferro falls under the impact of (i) the risk free rate revision (at 5.7% currently vs 5.5% in the definite forecast period previously), (ii) valuation horizon forward shift in time, (iii) peer valuation multiples update, and (iv) slight modification of our financial forecasts. Our 12M EFV constituting a 50%-50% mix of DCF FCFF method and peer-relative valuation, stays at PLN 39.3 per share intact. The DCF FCF/peer-relative valuation yields PLN 47/ 31 per share (previously PLN 47/ 32 per share).

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

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 southern Europe
5. Simplifying the offer
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 | 45 | 22 | 10 | 9 | 1 | 4 |
| Percentage | 49% | 24% | 11% | 10% | 1% | 4% |

Distribution of DM BOŚ's current market relative recommended weightings

| | Overweight | Neutral | Underweight | Suspended | Under revision | Not rated |
|------------|------------|---------|-------------|-----------|----------------|-----------|
| Numbers | 27 | 36 | 14 | 9 | 1 | 4 |
| Percentage | 30% | 40% | 15% | 10% | 1% | 4% |

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 | 8 | 4 | 1 | 1 | 0 | 3 |
| Percentage | 47% | 24% | 6% | 6% | 0% | 18% |

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 | 5 | 6 | 2 | 1 | 0 | 3 |
| Percentage | 29% | 35% | 12% | 6% | 0% | 18% |

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 | 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 | Not later than 28.11.2024 | 31% | 17% | 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 → | |

* 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 | 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 | - |

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

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Stockbrokers

Piotr Kalbarczyk
tel.: +48 (22) 504 32 43
p.kalbarczyk@bossa.pl

Research

Sobiesław Pająk, CFA
(Equity strategy, TMT)

Sylwia Jaśkiewicz, CFA
(Construction materials,
Consumer discretionary,
Health care & biotechnology)

Tomasz Rodak, CFA
(Consumer discretionary, Video games)

Łukasz Prokopiuk, CFA
(Commodities (Chemicals, Energy, Mining))

Michał Sobolewski, CFA, FRM
(Financials)

Jakub Viscardi
(Telco, Consumer staples & discretionary,
IT – hardware distribution, Utilities)

Maciej Wewiórski
(Residential construction,
Construction, Real estate)

Mikołaj Stepien
Junior Analyst

Michał Zamel
Junior Analyst

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**Dom Maklerski Banku Ochrony
Środowiska Spółka Akcyjna**
ul. Marszałkowska 78/80
00-517 Warszawa
www.bossa.pl
Information: (+48) 0 801 104 104