

**25/2020/GPW (99) August 10, 2020**

This report is prepared for the Warsaw Stock Exchange SA within the framework of the Analytical Coverage Support Pilot Program. This is a translation of the Polish analytical report.

**Analyst: Maciej Wewiórski**

**Sector:** Construction  
**Fundamental rating:** Sell (→)  
**Market relative:** Underweight (→)  
**Price:** PLN 1.13  
**12M EFV:** PLN 0.66 (→)

**Market Cap:** US\$ 38 m  
**Bloomberg code:** RFK PW  
**Av. daily turnover:** US\$ 0.66 m  
**12M range:** PLN 0.37-1.79  
**Free float:** 57%

# Rafako

## 2Q20E forecasts

On September 30 Rafako will release its 2Q20 financial results. The Company's backlog for 2020 stands at PLN 1.488 billion but we expect sales at c. PLN 350 million. Our forecast could have been higher if it were not for the burners breakdown during launching the power unit in Jaworzno which led to the change of the works schedule and one of the consequences is a payment delay from 1Q20 to 4Q20 after reaching the milestones. Rafako claims that the remaining contracts are realized with a positive margin. We assume 1Q20 gross margin on sales to arrive at 5.1%.

We forecast 2Q20 GA costs at PLN 17.5 million (flat qoq) vs PLN 20.9 million in 2Q19.

We expect Rafako's 2Q20 EBIT at PLN 5 million with NI at PLN 3.7 million.

**Fig. 1. Rafako; 2Q20 results' forecast**

IFRS consolidated (PLN m)	2Q20E	1Q20	2Q20	qoq	yoy
Sales	350,0	296,2	206,5	18%	69%
Gross profit on sales	18,0	12,6	-158,9	43%	n.m.
Gross profit on sales margin	5,1%	4,3%	6,0%	-	-
EBITDA	8,6	1,7	-180,6	406%	n.m.
EBITDA margin	2,5%	0,6%	-87,5%	-	-
EBIT	5,0	-1,9	-185,1	n.m.	n.m.
EBIT margin	1,4%	-0,6%	-89,6%	-	-
Pre-tax profit	4,6	-1,6	-185,3	n.m.	n.m.
Pre-tax margin	1,3%	-0,6%	-89,7%	-	-
Net profit	3,7	-1,7	-175,5	n.m.	n.m.
Net margin	1,1%	-0,6%	-85,0%	-	-

Source: Company, DM BOŚ SA estimates

### Guide to adjusted profits

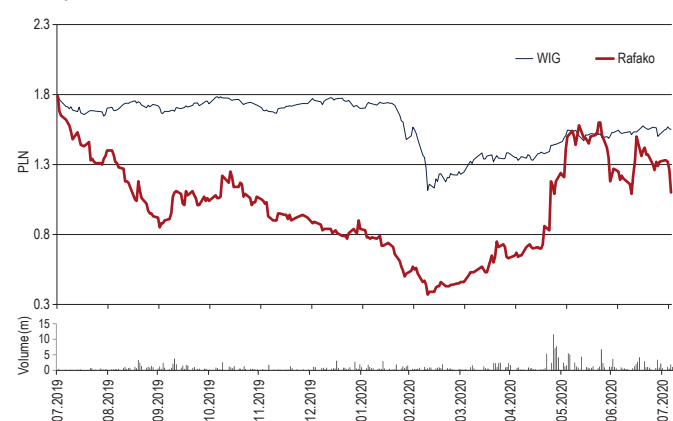
Profits adjusted for the Voluntary Leave program provision release of PLN 5.9 million

### Key data

IFRS consolidated		2018	2019	2020E	2021E
Sales	PLN m	1,244.9	2,318.9	1,192.7	1,252.5
EBITDA	PLN m	-420.0	37.9	25.4	28.9
Adj EBITDA	PLN m	-425.9	37.9	25.4	28.9
EBIT	PLN m	-437.6	24.4	12.7	16.7
Adj EBIT	PLN m	-443.5	24.4	12.7	16.7
Net profit	PLN m	-473.1	16.2	6.6	8.8
Adj net profit	PLN m	-477.9	16.2	6.6	8.8
Adj EPS	PLN	-3.75	0.13	0.05	0.07
EPS yoy chg	%	b.z.	b.z.	-59	32
Net debt	PLN m	60.1	176.1	196.5	193.9
P/E	x	neg.	8.9	21.7	16.4
P/CE	x	neg.	4.9	7.4	6.9
EV/EBITDA	x	neg.	8.5	13.4	11.7
EV/EBIT	x	neg.	13.1	26.9	20.2
DPS	PLN	0.00	0.00	0.00	0.00
Gross dividend yield	%	0.0	0.0	0.0	0.0
No. of shares (eop)	m	127.4	127.4	127.4	127.4

Source: Company, DM BOŚ SA estimates

### Stock performance



Source: Bloomberg

### Upcoming events

- 1H20 consolidated financial results release: September 30
- 1-3Q20 consolidated financial results release: November 27

## Rating and valuation

We keep our ratings and 12M EFV intact. According to the Group's 1Q20 quarterly report, the key issue for the Group is finishing the construction of a 910 MW power unit for supercritical parameters in Jaworzno III, maintenance of financial liquidity through finding new funding sources, continuing the projects started in line with financial plans, and securing an adequate backlog. What is equally important is the implementation of effective restructuring and signing a composition agreement with creditors. At the end of March Rafako's backlog amounted to PLN 2.324 billion vs PLN 2.811 billion a year ago.

## 1Q20 overview

1Q20 financial results turned slightly better than we expected. 1Q20 sales nearing PLN 300 million were 18% higher than our forecast. Gross profit on sales fell slightly behind our expectations but EBIT and EBITDA surpassed our forecasts thanks to other operating revenues. We like the positive cash flow on the operating activities.

## Revenues

1Q20 sales stood at PLN 296.2 million (PLN 16.5 million less than in 1Q19). As we expected, a drop of total sales stemmed from lower sales generated on the Jaworzno contract.

On the other hand, there was some positive impact from the increased involvement in the remaining projects pending such as the construction of a cogeneration unit for Lithuanian UAB VILNIAUS KOGENERACINE JEGAINE and construction of 2 steam units on Indonesian Lombok Island and crucial contracts for the gas & oil sector.

## Costs

1Q20 cost of sales reached PLN 283.6 million. Given the Company's revenues and cost of sales level 1Q20 gross profit on sales reached PLN 12.6 million. Cost of sales includes expenses of offer preparations and PR & marketing costs in the amount of PLN 4.2 million. In 1Q20 penalties and fines at PLN 4.5 million and compensations received at PLN 1.6 million had the biggest impact on other operating revenues. Additionally, some impact came from PLN 0.9 million on the disposal of non-financial fixed assets.

In 1Q20 other operating costs were mostly affected by (i) impairment write-offs related to trade receivables at PLN 1.3 million, (ii) other receivables at PLN 0.2 million, and (iii) cost of materials scrapping at PLN 0.5 million. FX gains at PLN 2.5 million and interest on financial instruments played a crucial role in 1Q20 financial revenues while financial costs were affected mostly by costs of interest on financial instruments (PLN 1.3 million) and discount on LT settlements (PLN 0.8 million).

Fig. 2. Rafako; 1Q20 results compared to expectations

IFRS consolidated (PLN m)	1Q20A	1Q20E DM BOŚ	4Q19A	1Q19A	qoq chg	yoy chg	1Q20 vs. DM BOŚ expectations
Sales	296,2	250,2	427,2	312,7	-31%	-5%	↑
Gross profit on sales	12,6	15,0	-140,2	21,7	b.z.	-42%	→
Gross profit on sales margin	4,3%	6,0%	-32,8%	6,9%	-	-	↓
EBITDA	1,7	-3,7	-219,3	5,8	b.z.	-71%	↑
EBITDA margin	0,6%	-1,5%	-51,3%	1,9%	-	-	↑
EBIT	-1,9	-8,0	-223,5	1,3	b.z.	b.z.	↑
EBIT margin	-0,6%	-3,2%	-52,3%	0,4%	-	-	↑
Pre-tax profit	-1,6	-8,8	-261,5	1,7	b.z.	b.z.	↑
Pre-tax margin	-0,6%	-3,5%	-61,2%	0,6%	-	-	↑
Net profit	-1,7	-10,5	-273,9	1,3	b.z.	b.z.	↑
Net margin	-0,6%	-4,2%	-64,1%	0,4%	-	-	↑

Source: Company, PAP, DM BOŚ estimates

## 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 BOŠ 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 BOŠ 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 BOŠ's current recommendations

	Buy	Hold	Sell	Suspended	Under revision
Numbers	32	36	8	9	0
Percentage	38%	42%	9%	11%	0%

## 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 BOŠ 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 BOŠ's current recommendations for the companies which DM BOŠ has supplied with material investment services within the last 12 months

	Buy	Hold	Sell	Suspended	Under revision
Numbers	4	7	1	2	0
Percentage	29%	50%	7%	14%	0%

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

	Overweight	Neutral	Underweight	Suspended	Under revision
Numbers	28	34	14	9	0
Percentage	33%	40%	16%	11%	0%

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

	Overweight	Neutral	Underweight	Suspended	Under revision
Numbers	4	6	2	2	0
Percentage	29%	43%	14%	14%	0%

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>Rafako</b>									
Michał Stalmach	Buy	10.12.2015	-	10.12.2015	04.12.2016	-16%	-22%	6.70	10.10 →
Michał Stalmach	-	-	13.12.2015	14.12.2015	-	-	-	6.99	10.10 →
Michał Stalmach	-	-	17.01.2016	18.01.2016	-	-	-	7.15	10.10 →
Michał Stalmach	-	-	15.02.2016	16.02.2016	-	-	-	7.29	10.10 →
Michał Stalmach	-	-	18.02.2016	19.02.2016	-	-	-	7.39	10.10 →
Michał Stalmach	-	-	21.03.2016	22.03.2016	-	-	-	8.10	10.10 →
Michał Stalmach	-	-	13.04.2016	14.04.2016	-	-	-	8.42	10.10 →
Michał Stalmach	-	-	16.05.2016	17.05.2016	-	-	-	7.95	10.10 →
Michał Stalmach	-	-	27.06.2016	28.06.2016	-	-	-	5.89	10.10 →
Michał Stalmach	-	-	24.07.2016	25.07.2016	-	-	-	6.50	10.10 →
Wojciech Romanowski	-	-	11.08.2016	12.08.2016	-	-	-	6.59	9.30 ↓
Wojciech Romanowski	-	-	31.08.2016	01.09.2016	-	-	-	6.78	9.30 →
Wojciech Romanowski	-	-	12.10.2016	13.10.2016	-	-	-	6.36	9.30 →
Wojciech Romanowski	-	-	01.11.2016	02.11.2016	-	-	-	6.02	7.30 ↓
Wojciech Romanowski	-	-	02.11.2016	03.11.2016	-	-	-	6.02	7.30 →
Wojciech Romanowski	-	-	14.11.2016	15.11.2016	-	-	-	5.98	7.30 →
Wojciech Romanowski	Buy	04.12.2016	-	05.12.2016	09.05.2017	36%	6%	5.61	7.30 →
Wojciech Romanowski	-	-	12.01.2017	13.01.2017	-	-	-	6.24	7.30 →
Wojciech Romanowski	-	-	08.02.2017	09.02.2017	-	-	-	7.22	7.30 →
Wojciech Romanowski	-	-	21.02.2017	22.02.2017	-	-	-	7.13	7.30 →
Wojciech Romanowski	-	-	07.03.2017	08.03.2017	-	-	-	8.80	7.30 →
Wojciech Romanowski	-	-	11.04.2017	12.04.2017	-	-	-	8.05	7.30 →
Wojciech Romanowski	Hold	09.05.2017	-	10.05.2017	25.03.2018	-34%	-31%	7.62	7.30 →
Wojciech Romanowski	-	-	30.05.2017	31.05.2017	-	-	-	8.07	7.30 →
Wojciech Romanowski	-	-	12.07.2017	13.07.2017	-	-	-	8.05	7.30 →
Wojciech Romanowski	-	-	26.07.2017	27.07.2017	-	-	-	7.70	7.30 →
Wojciech Romanowski	-	-	03.09.2017	04.09.2017	-	-	-	5.90	7.30 →
Wojciech Romanowski	-	-	15.10.2017	16.10.2017	-	-	-	4.75	7.30 →
Wojciech Romanowski	-	-	05.11.2017	06.11.2017	-	-	-	4.49	7.10 ↓
Wojciech Romanowski	-	-	09.11.2017	10.11.2017	-	-	-	4.24	4.70 ↓
Wojciech Romanowski	-	-	15.11.2017	16.11.2017	-	-	-	4.09	4.70 →
Wojciech Romanowski	-	-	10.12.2017	11.12.2017	-	-	-	4.18	4.70 →
Wojciech Romanowski	-	-	10.01.2018	11.01.2018	-	-	-	4.80	4.70 →
Wojciech Romanowski	-	-	13.02.2018	14.02.2018	-	-	-	4.89	4.70 →
Wojciech Romanowski	-	-	12.03.2018	13.03.2018	-	-	-	4.83	4.70 →
Wojciech Romanowski	Under revision	25.03.2018	-	26.03.2018	22.05.2018	-18%	-17%	4.80	Under revision
Wojciech Romanowski	-	-	16.04.2018	17.04.2018	-	-	-	4.20	Under revision
Wojciech Romanowski	Sell	22.05.2018	-	23.05.2018	09.12.2018	-50%	-49%	3.94	2.90 →
Wojciech Romanowski	-	-	29.05.2018	30.05.2018	-	-	-	3.74	2.90 →
Wojciech Romanowski	-	-	16.07.2018	17.07.2018	-	-	-	3.46	2.90 →
Wojciech Romanowski	-	-	02.08.2018	03.08.2018	-	-	-	3.54	2.90 →
Wojciech Romanowski	-	-	30.08.2018	31.08.2018	-	-	-	3.38	2.90 →
Wojciech Romanowski	-	-	11.10.2018	12.10.2018	-	-	-	2.02	2.90 →
Wojciech Romanowski	-	-	23.10.2018	24.10.2018	-	-	-	2.03	2.90 →
Wojciech Romanowski	-	-	14.11.2018	15.11.2018	-	-	-	1.45	2.90 →
Wojciech Romanowski	Hold	09.12.2018	-	10.12.2018	05.12.2019	-48%	-46%	1.970	2.80 ↓
Wojciech Romanowski	-	-	10.01.2019	11.01.2019	-	-	-	1.740	2.80 →
Wojciech Romanowski	-	-	04.02.2019	05.02.2019	-	-	-	1.800	2.80 →
Wojciech Romanowski	-	-	26.02.2019	27.02.2019	-	-	-	1.800	2.80 →
Wojciech Romanowski	-	-	26.03.2019	27.03.2019	-	-	-	2.170	2.80 →
Wojciech Romanowski	-	-	22.04.2019	23.04.2019	-	-	-	2.155	2.80 →
Wojciech Romanowski	-	-	24.04.2019	25.04.2019	-	-	-	2.045	2.80 →
Wojciech Romanowski	-	-	30.05.2019	31.05.2019	-	-	-	1.980	2.80 →
Wojciech Romanowski	-	-	17.07.2019	18.07.2019	-	-	-	1.934	2.80 →
Wojciech Romanowski	-	-	23.07.2019	23.07.2019	-	-	-	1.868	2.40 ↓
Wojciech Romanowski	-	-	30.07.2019	31.07.2019	-	-	-	1.830	2.40 →
Wojciech Romanowski	-	-	20.08.2019	21.08.2019	-	-	-	1.330	2.40 →
Wojciech Romanowski	-	-	25.08.2019	26.08.2019	-	-	-	1.310	2.30 ↓
Wojciech Romanowski	-	-	01.09.2019	02.09.2019	-	-	-	1.400	2.30 →
Wojciech Romanowski	-	-	02.09.2019	03.09.2019	-	-	-	1.400	2.30 →
Wojciech Romanowski	-	-	05.09.2019	06.09.2019	-	-	-	1.312	2.30 →
Wojciech Romanowski	-	-	30.09.2019	01.10.2019	-	-	-	0.918	2.30 →
Wojciech Romanowski	-	-	13.10.2019	14.10.2019	-	-	-	1.110	2.30 →
Wojciech Romanowski	-	-	24.10.2019	25.10.2019	-	-	-	1.008	1.80 ↓
Wojciech Romanowski	-	-	17.11.2019	18.11.2019	-	-	-	1.140	1.80 →
Wojciech Romanowski	-	-	25.11.2019	26.11.2019	-	-	-	1.058	1.80 →
Wojciech Romanowski	-	-	27.11.2019	28.11.2019	-	-	-	1.028	1.80 →
Wojciech Romanowski	-	-	01.12.2019	02.12.2019	-	-	-	1.068	1.80 →
Wojciech Romanowski	Sell	05.12.2019	-	06.12.2019	Not later than 05.12.2020	9%	19%	1.034	0.75 ↓
Wojciech Romanowski	-	-	08.12.2019	09.12.2019	-	-	-	0.925	0.75 →
Wojciech Romanowski	-	-	17.12.2019	18.12.2019	-	-	-	0.935	0.75 →
Wojciech Romanowski	-	-	09.01.2020	10.01.2020	-	-	-	0.839	0.75 →
Wojciech Romanowski	-	-	16.01.2020	17.01.2020	-	-	-	0.830	0.75 →
Wojciech Romanowski	-	-	30.01.2020	31.01.2020	-	-	-	0.900	0.75 →
Wojciech Romanowski	-	-	04.02.2020	05.02.2020	-	-	-	0.784	0.75 →
Wojciech Romanowski	-	-	05.02.2020	06.02.2020	-	-	-	0.777	0.66 ↓
Wojciech Romanowski	-	-	06.02.2020	07.02.2020	-	-	-	0.770	0.66 →
Wojciech Romanowski	-	-	03.03.2020	04.03.2020	-	-	-	0.568	0.66 →
Wojciech Romanowski	-	-	30.03.2020	31.03.2020	-	-	-	0.445	0.66 →
Wojciech Romanowski	-	-	22.04.2020	23.04.2020	-	-	-	0.642	0.66 →
Wojciech Romanowski	-	-	28.04.2020	29.04.2020	-	-	-	0.706	0.66 →
Wojciech Romanowski	-	-	19.05.2020	20.05.2020	-	-	-	0.700	0.66 →
Wojciech Romanowski	-	-	20.05.2020	21.05.2020	-	-	-	0.700	0.66 →

LT fundamental recommendation tracker (continued)

Analyst	Recommendation	Report date	Reiteration date	Distribution date	Expiry date	Performance	Relative performance	Price at issue/reiteration*	EFV (12 months)
Wojciech Romanowski	- →	-	25.05.2020	26.05.2020	-	-	-	0.828	0.66 →
Wojciech Romanowski	- →	-	28.05.2020	29.05.2020	-	-	-	1.090	0.66 →
Wojciech Romanowski	- →	-	11.06.2020	12.06.2020	-	-	-	1.436	0.66 →
Wojciech Romanowski	- →	-	15.06.2020	16.06.2020	-	-	-	1.494	0.66 →
Wojciech Romanowski	- →	-	30.06.2020	01.07.2020	-	-	-	1.350	0.66 →
Wojciech Romanowski	- →	-	13.07.2020	14.07.2020	-	-	-	1.160	0.66 →
Wojciech Romanowski/ Maciej Wewiórski	- →	-	20.07.2020	21.07.2020	-	-	-	1.364	0.66 →
Maciej Wewiórski	- →	-	10.08.2020	11.08.2020	-	-	-	1.130	0.66 →

\* 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>Rafako</b>								
Michał Stalmach	Overweight	-	10.12.2015	-	10.12.2015	31.08.2016	6.70	-5%
Michał Stalmach	-	→	-	13.12.2015	14.12.2015	-	6.99	-
Michał Stalmach	-	→	-	17.01.2016	18.01.2016	-	7.15	-
Michał Stalmach	-	→	-	15.02.2016	16.02.2016	-	7.29	-
Michał Stalmach	-	→	-	18.02.2016	19.02.2016	-	7.39	-
Michał Stalmach	-	→	-	21.03.2016	22.03.2016	-	8.10	-
Michał Stalmach	-	→	-	13.04.2016	14.04.2016	-	8.42	-
Michał Stalmach	-	→	-	16.05.2016	17.05.2016	-	7.95	-
Michał Stalmach	-	→	-	27.06.2016	28.06.2016	-	5.89	-
Michał Stalmach	-	→	-	24.07.2016	25.07.2016	-	6.50	-
Wojciech Romanowski	-	→	-	11.08.2016	12.08.2016	-	6.59	-
Wojciech Romanowski	Neutral	↓	31.08.2016	-	01.09.2016	14.11.2016	6.78	-11%
Wojciech Romanowski	-	→	-	12.10.2016	13.10.2016	-	6.36	-
Wojciech Romanowski	-	→	-	01.11.2016	02.11.2016	-	6.02	-
Wojciech Romanowski	-	→	-	02.11.2016	03.11.2016	-	6.02	-
Wojciech Romanowski	Overweight	↑	14.11.2016	-	15.11.2016	21.02.2017	5.98	15%
Wojciech Romanowski	-	→	-	04.12.2016	05.12.2016	-	5.61	-
Wojciech Romanowski	-	→	-	12.01.2017	13.01.2017	-	6.24	-
Wojciech Romanowski	-	→	-	08.02.2017	09.02.2017	-	7.22	-
Wojciech Romanowski	Neutral	↓	21.02.2017	-	22.02.2017	09.05.2017	7.13	-15%
Wojciech Romanowski	-	→	-	07.03.2017	08.03.2017	-	8.80	-
Wojciech Romanowski	-	→	-	11.04.2017	12.04.2017	-	8.05	-
Wojciech Romanowski	Overweight	↑	09.05.2017	-	10.05.2017	26.07.2017	7.62	1%
Wojciech Romanowski	-	→	-	30.05.2017	31.05.2017	-	8.07	-
Wojciech Romanowski	-	→	-	12.07.2017	13.07.2017	-	8.05	-
Wojciech Romanowski	Underweight	↓	26.07.2017	-	27.07.2017	09.11.2017	7.70	-44%
Wojciech Romanowski	-	→	-	03.09.2017	04.09.2017	-	5.90	-
Wojciech Romanowski	-	→	-	15.10.2017	16.10.2017	-	4.75	-
Wojciech Romanowski	-	→	-	05.11.2017	06.11.2017	-	4.49	-
Wojciech Romanowski	Neutral	↑	09.11.2017	-	10.11.2017	25.03.2018	4.24	22%
Wojciech Romanowski	-	→	-	15.11.2017	16.11.2017	-	4.09	-
Wojciech Romanowski	-	→	-	10.12.2017	11.12.2017	-	4.18	-
Wojciech Romanowski	-	→	-	10.01.2018	11.01.2018	-	4.80	-
Wojciech Romanowski	-	→	-	13.02.2018	14.02.2018	-	4.89	-
Wojciech Romanowski	-	→	-	12.03.2018	13.03.2018	-	4.83	-
Wojciech Romanowski	Under revision	-	25.03.2018	-	26.03.2018	22.05.2018	4.80	-17%
Wojciech Romanowski	-	→	-	16.04.2018	17.04.2018	-	4.20	-
Wojciech Romanowski	Underweight	-	22.05.2018	-	23.05.2018	09.12.2018	3.94	-49%
Wojciech Romanowski	-	→	-	29.05.2018	30.05.2018	-	3.74	-
Wojciech Romanowski	-	→	-	16.07.2018	17.07.2018	-	3.46	-
Wojciech Romanowski	-	→	-	02.08.2018	03.08.2018	-	3.54	-
Wojciech Romanowski	-	→	-	30.08.2018	31.08.2018	-	3.38	-
Wojciech Romanowski	-	→	-	11.10.2018	12.10.2018	-	2.02	-
Wojciech Romanowski	-	→	-	23.10.2018	24.10.2018	-	2.03	-
Wojciech Romanowski	-	→	-	14.11.2018	15.11.2018	-	1.45	-
Wojciech Romanowski	Neutral	↑	09.12.2018	-	10.12.2018	30.09.2019	1.970	-53%
Wojciech Romanowski	-	→	-	10.01.2019	11.01.2019	-	1.740	-
Wojciech Romanowski	-	→	-	04.02.2019	05.02.2019	-	1.800	-
Wojciech Romanowski	-	→	-	26.02.2019	27.02.2019	-	1.800	-
Wojciech Romanowski	-	→	-	26.03.2019	27.03.2019	-	2.170	-
Wojciech Romanowski	-	→	-	22.04.2019	23.04.2019	-	2.155	-
Wojciech Romanowski	-	→	-	24.04.2019	25.04.2019	-	2.045	-
Wojciech Romanowski	-	→	-	30.05.2019	31.05.2019	-	1.980	-
Wojciech Romanowski	-	→	-	17.07.2019	18.07.2019	-	1.934	-
Wojciech Romanowski	-	→	-	23.07.2019	23.07.2019	-	1.868	-
Wojciech Romanowski	-	→	-	30.07.2019	31.07.2019	-	1.830	-
Wojciech Romanowski	-	→	-	20.08.2019	21.08.2019	-	1.330	-
Wojciech Romanowski	-	→	-	25.08.2019	26.08.2019	-	1.310	-
Wojciech Romanowski	-	→	-	01.09.2019	02.09.2019	-	1.400	-
Wojciech Romanowski	-	→	-	02.09.2019	03.09.2019	-	1.400	-
Wojciech Romanowski	-	→	-	05.09.2019	06.09.2019	-	1.312	-
Wojciech Romanowski	Underweight	↓	30.09.2019	-	01.10.2019	24.10.2019	0.918	8%
Wojciech Romanowski	-	→	-	13.10.2019	14.10.2019	-	1.110	-
Wojciech Romanowski	Neutral	↑	24.10.2019	-	25.10.2019	01.12.2019	1.008	7%
Wojciech Romanowski	-	→	-	17.11.2019	18.11.2019	-	1.140	-
Wojciech Romanowski	-	→	-	25.11.2019	26.11.2019	-	1.058	-
Wojciech Romanowski	-	→	-	27.11.2019	28.11.2019	-	1.028	-
Wojciech Romanowski	Underweight	↓	01.12.2019	-	02.12.2019	Not later than 01.12.2020	1.068	17%
Wojciech Romanowski	-	→	-	05.12.2019	06.12.2019	-	1.034	-
Wojciech Romanowski	-	→	-	08.12.2019	09.12.2019	-	0.925	-
Wojciech Romanowski	-	→	-	17.12.2019	18.12.2019	-	0.935	-
Wojciech Romanowski	-	→	-	09.01.2020	10.01.2020	-	0.839	-
Wojciech Romanowski	-	→	-	16.01.2020	17.01.2020	-	0.830	-
Wojciech Romanowski	-	→	-	30.01.2020	31.01.2020	-	0.900	-
Wojciech Romanowski	-	→	-	04.02.2020	05.02.2020	-	0.784	-
Wojciech Romanowski	-	→	-	05.02.2020	06.02.2020	-	0.777	-
Wojciech Romanowski	-	→	-	06.02.2020	07.02.2020	-	0.770	-
Wojciech Romanowski	-	→	-	03.03.2020	04.03.2020	-	0.568	-
Wojciech Romanowski	-	→	-	30.03.2020	31.03.2020	-	0.445	-
Wojciech Romanowski	-	→	-	22.04.2020	23.04.2020	-	0.642	-
Wojciech Romanowski	-	→	-	28.04.2020	29.04.2020	-	0.706	-
Wojciech Romanowski	-	→	-	19.05.2020	20.05.2020	-	0.700	-
Wojciech Romanowski	-	→	-	20.05.2020	21.05.2020	-	0.700	-
Wojciech Romanowski	-	→	-	25.05.2020	26.05.2020	-	0.828	-

**Market-relative recommendation tracker (continued)**

<b>Analyst</b>	<b>Relative Recommendation</b>	<b>Report date</b>	<b>Reiteration date</b>	<b>Distribution date</b>	<b>Expiry date</b>	<b>Price at issue/ reiteration*</b>	<b>Relative performance</b>
Wojciech Romanowski	- →	-	28.05.2020	29.05.2020	-	1.090	-
Wojciech Romanowski	- →	-	11.06.2020	12.06.2020	-	1.436	-
Wojciech Romanowski	- →	-	15.06.2020	16.06.2020	-	1.494	-
Wojciech Romanowski	- →	-	30.06.2020	01.07.2020	-	1.350	-
Wojciech Romanowski	- →	-	13.07.2020	14.07.2020	-	1.160	-
Wojciech Romanowski/ Maciej Wewiórski	- →	-	20.07.2020	21.07.2020	-	1.364	-
Maciej Wewiórski	- →	-	10.08.2020	11.08.2020	-	1.130	-

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

This report has been prepared by Dom Maklerski Banku Ochrony Środowiska SA registered in Warsaw (hereinafter referred to as DM BOŚ SA) and commissioned by the Warsaw Stock Exchange SA (hereinafter referred to as WSE SA) pursuant to the agreement on the research report preparation between DM BOŚ SA and WSE SA within the framework of the Analytical Coverage Support Pilot Program described on the WSE SA website: <https://www.gpw.pl/gpwpa> (hereinafter referred to as the Agreement). DM BOŚ SA will receive a remuneration for the research report in accordance with the Agreement.

The production of the report was completed on August 11, 2020 at 7.40 a.m.  
The report was distributed on August 11, 2020 at 7.50 a.m.

The report is an investment research within the meaning of Commission Delegated Regulation (EU) 2017/565 of 25 April 2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council as regards organizational requirements and operating conditions for investment firms and defined terms for the purposes of that Directive. This report constitutes a recommendation within the meaning of Commission Delegated Regulation (EU) 2016/958 of 9 March 2016 supplementing Regulation (EU) No 596/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the technical arrangements for objective presentation of investment recommendations or other information recommending or suggesting an investment strategy and for disclosure of particular interests or indications of conflicts of interest. This report is for information purposes only.

This report constitutes neither investment advice nor provides investment service as referred to in Article 76 of the Act on Financial Instruments Trading as of 29 July 2005 (Journal of Laws, 2018, Item 2286 as amended), hereinafter referred to as the Act on Trading; it does not constitute any legal or tax advice, neither does it constitute an indication whether an investment is suitable or appropriate in an individual situation of an investor. In particular this report is not a personal recommendation based on any individual needs or situation of any investor. DM BOŚ SA informs that the investment advice services exclusively consist in the preparation of a personal recommendation based on individual needs and situation of a given client and transferring it to them. To receive this type of a recommendation an agreement on providing investment advice services must be signed with an investments company offering these services.

Neither the information nor the opinions expressed in the report constitute a solicitation or an offer to buy or sell any securities referred herein. The opinions expressed in the report reflect independent, current judgment of DM BOŚ.

This report was prepared with due diligence and scrutiny. The information used in the report is based on all public sources such as press and branch publications, company's financial statements, current and periodic reports, as well as meetings and telephone conversations with company's representatives prior to the date of report's release. We believe the above mentioned sources of information to be reliable, however we do not guarantee their accuracy and completeness. All estimates and opinions included herein represent our judgment as of the date of the issue. All opinions, forecasts, calculations and estimates herein constitute the author's subjective assessment as of the date of the issue and can be modified at any time without prior notice. DM BOŚ SA informs that this report will be updated in the manner as referred to in the Agreement, at least once a year.

DM BOŚ SA is an investment firm within the meaning of the Act on Financial Instruments Trading. The legal entity supervising DM BOŚ SA is Polish Financial Supervision Authority in Warsaw (Komisja Nadzoru Finansowego, KNF in Polish abbreviation).



DM BOŚ SA, its management and supervisory bodies and employees do not take any responsibility for decisions taken on the basis of this report and opinions stated herein. Investors bear all responsibility for investment decisions taken on the basis of the contents of this report. The report is intended solely for private use of investors. Copyrights to this report belong to the WSE. The rules for use of this report have been specified in the Agreement. This report mustn't be redistributed, reproduced or conveyed in any manner or form conflicting with the rules defined in the Agreement.

This report is made available on the day of its issue in the public domain on the website <https://bossa.pl/analizy-i-informacje/wsparcie-pokrycia-analitycznego-gpw#rafako>

DM BOŚ SA is entitled to conveying or translation of the report into foreign languages on behalf of their clients and this shall not be sooner than making the report available on its website <https://bossa.pl/analizy-i-informacje/wsparcie-pokrycia-analitycznego-gpw#rafako>.

DM BOŚ SA follows internal regulations for handling of conflicts of interest which include in particular internal organizational and administration arrangements as well as information barriers established for prevention and avoidance of conflicts of interest related to recommendations. A special organizational arrangement that constitutes an information barrier is so called Chinese walls prohibiting an uncontrolled flow of information among particular organizational units or employees of DM BOŚ SA. Where justified, DM BOŚ SA can create Chinese walls upon the realization of a particular project. Potential conflicts of interests referring to a specific recommendation which is made available to the public or to a wide range of persons are disclosed either in the recommendation or in the document attached.

The person(s) preparing this report receive(s) variable compensation indirectly based upon the financial results of DM BOŚ which in turn depend – among other factors – on the result on the brokerage activity.

DM BOŚ SA has not held any long or short position net exceeding 0.5% of the issuer's basic capital in total with respect to the company/companies indicated.

Apart from the mentioned above cases, there are neither ties of any kind between DM BOŚ SA, the analyst/ analysts involved in the preparation of the report and the issuer(s) of securities as referred to in the report nor circumstances that can justifiably be expected to have a negative impact on objectivity of the recommendation with regard to interests or conflicts of interests on their part or on the part of any natural person or legal entity which pertains to the financial instrument or the issuer.

The report was not shown to the analyzed company before the distribution of the report.

#### Institutional sales

**Bartosz Janczy**  
tel.: +48 (22) 504 32 46  
b.janczy@bossa.pl

**Tomasz Grabowski**  
tel.: +48 (22) 504 32 47  
t.grabowski@bossa.pl

**Grzegorz Kołodziejczyk**  
tel.: +48 (22) 504 33 34  
g.kolodziejczyk@bossa.pl

**Michał Zawada**  
tel.: +48 (22) 504 33 36  
m.zawada@bossa.pl

**Maciej Bąk**  
tel.: +48 (22) 504 33 78  
m.bak@bossa.pl

**Bartosz Zieliński**  
tel.: +48 (22) 504 33 35  
b.zielinski@bossa.pl

**Marcin Kozerski**  
tel.: +48 (22) 504 33 35  
m.kozerski@bossa.pl

**Marcin Stosio**  
tel.: +48 (22) 504 33 37  
m.stosio@bossa.pl

#### Research

**Sobiesław Pająk, CFA**  
(Equity strategy, TMT)  
s.pajak@bossa.pl

**Sylwia Jaśkiewicz, CFA**  
(Construction materials, Consumer staples & discretionary, Health care)  
s.jaskiewicz@bossa.pl

**Maciej Wewiórski**  
(Residential construction, Construction, Real estate)  
m.wewiorski@bossa.pl

**Michał Sobolewski, CFA, FRM**  
(Financials)  
m.sobolewski@bossa.pl

**Jakub Viscardi**  
(Telco, Consumer staples & discretionary, IT – hardware distribution, Utilities)  
j.viscardi@bossa.pl

**Łukasz Prokopiuk, CFA**  
(Chemicals, Mining, Mining – machinery, Oil & gas)  
l.prokopiuk@bossa.pl

**Tomasz Rodak, CFA**  
(Consumer discretionary, Video games)  
t.rodak@bossa.pl

---

Copyright © 2020 by DM BOŚ S.A.

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