

**20/2019/GPW (138)** October 24, 2019

This report is prepared for the Warsaw Stock Exchange SA within the framework of the Analytical Coverage Support Pilot Program. This is a selected fragment of DM BOŚ SA's research report.

**Analyst:** Wojciech Romanowski

# Rafako

**Sector:** Construction  
**Fundamental rating:** Hold (→)  
**Market relative:** Neutral (↑)  
**Price:** PLN 1.008  
**12M EFV:** PLN 1.8 (↓)

**Market Cap:** US\$ 33.4 m  
**Bloomberg code:** RFK PW  
**Av. daily turnover:** US\$ 0.22 m  
**12M range:** PLN 0.852-2.375  
**Free float:** 57%

## Investment summary and recommendations

In our opinion the majority of the risk factors that could hurt the Company have already materialized and we do not see any further strong negative catalysts in the ST.

A blowdown and wash-down process of the boiler ended in Jaworzno which contributed to cleaning of pressure surfaces of the unit from possible contaminant leftovers after the mechanical assembly. At the moment the hot start of the unit is underway and the first syncing of the unit with the electrical grid will be attempted.

Then any possible defects may be detected. Rafako and Tauron have agreed on a new date of the works completion so the Company has additional time to ensure the investment is buttoned up which provides a kind of a safety buffer.

Given no ST risk factors and vanishing of the negative sentiment after poor 2Q19 results we upgrade our ST relative rating to **Neutral** from Underweight. We believe the Jaworzno investment completion on time is still under the big question mark and that's why we maintain our LT fundamental recommendation at **Hold** despite a huge upside (c. 80%). Our 12M EFV drops to **PLN 1.8** per share from 2.3 previously.

### Guide to adjusted profits

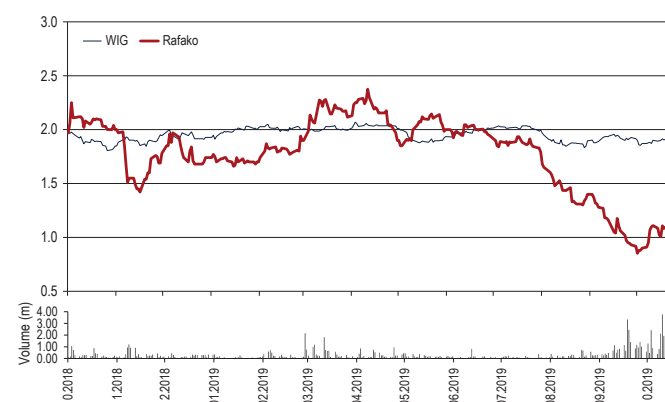
Profits adjusted for a release of provisions for the voluntary redundancy program (PLN 5.9 million)

### Key data

MSSF skonsolidowane		2018	2019E	2020E	2021E
Sales	PLN m	1,268.8	1,691.3	1,848.9	1,192.7
EBITDA	PLN m	55.4	24.2	66.0	38.2
Adj EBITDA	PLN m	49.5	24.2	66.0	38.2
EBIT	PLN m	40.5	9.7	52.3	25.2
Adj EBIT	PLN m	34.6	9.7	52.3	25.2
Net profit	PLN m	33.6	6.6	38.8	15.7
Adj net profit	PLN m	28.8	6.6	38.8	15.7
Adj EPS	PLN	0.23	0.05	0.30	0.12
EPS yoy chg	%	163	-77	487	-60
Net debt	PLN m	32.1	36.2	39.2	1.9
P/E	x	4.5	19.4	3.3	8.2
P/CE	x	2.9	6.1	2.4	4.5
EV/EBITDA	x	3.2	6.8	2.5	3.4
EV/EBIT	x	4.6	17.0	3.2	5.2
DPS	PLN	0.00	0.00	0.80	0.00
Gross dividend yield	%	0.0	0.0	79.4	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

1. Release of consolidated financial results for 3Q19: November 29

**Risk factors**

1. Failure of claims satisfaction – the Company's financial condition might deteriorate significantly with no compensations granted.
2. Failure in the Jaworzno III contract – the testing phase in Jaworzno III – the Company's biggest-ever contract – is underway and the most crucial moment will be synchronization of the completed power unit with electrical grid (planned in the second half of August); in the case of its failure the final delivery date (set at November 20, 2019) may be endangered. Any delay will most likely result in contractual penalties in the amount of 0.09% of the contract's net value per any commenced day of delay (e.g. about PLN 4 million a day).
3. Loss of liquidity – a payment of contractual penalties may result in insolvency.
4. Small scale of contracting – material slowdown of new contracts acquisition may translate into inferior financial results and weaker financial condition of the Company.
5. More difficult access to insurance/banking guarantees – limiting the access to funding makes a new contracts acquisition more difficult.
6. Increasing completion – no more room for a construction of new coal-fueled power units in Poland may result in increasing competition in the remaining market segments such as: construction of environmental protection installations or oil&gas construction. The enhanced market competition may have an adverse impact on the profitability of newly acquired contracts.
7. Contractual penalties - contractual penalties, usually in the amount of 10% of the contract value, can undermine the Company's financial condition.
8. Materials price hikes – though curbed by the cost provisions created by the Company at the stage of the offer calculation this risk will burden the financial result in case of strong cost increase exceeding the level of provisions created.
9. Rising PBG problems – the Company's main shareholder has been currently paying off its creditors; when PBG fails to do this, Rafako's shares serving as a collateral can be handed to creditors which in turn can result in the short-term share supply overhang.

**Catalysts**

1. Obtaining claims from clients - will allow the Company to maintain the profitability of contracts and a stable financial position.
2. Successful completion of the Jaworzno III power unit – this will bring about the payment cash-in, favorable references, banking guarantees release, dividend capacity and cessation of risk related to the contractual penalty payment.
3. Improvement of OCF – in the last 2 of 3 quarters Rafako generated positive cash flows nevertheless since 1Q16 the cumulative result has oscillated around PLN -200 million.
4. Backlog increase – new contracts acquisition will translate into a business scale-up.
5. Launch of new technologies – vital competitive edge
6. Access to new insurance/banking guarantees – improvement of access to funding will enable Rafako to enter a bigger number of tenders and scale up its business.

## Jaworzno contract renegotiation

Last week Rafako and Tauron reached an agreement on the extension of a scope of works in Jaworzno (which means additional tasks will be carried out). At the same time the contract's value was increased by PLN 52.3 million and a new due date of the works completion was set, at January 31, 2020, which implies that the final project settlement was moved to the next year.

## Financial forecasts

We update our financial forecasts for the Company because the new due date of the works completion was set. Hence we shift PLN 450 million to the next year's revenues and add another PLN 52 million stemming from additional works. We expect additional works to guarantee an 8% margin on the Jaworzno contract. We also lower our expectations of a potential dividend payout from PLN 191 million previously to PLN 102 million currently which implies a DPS of PLN 0.80.

With regard to the Kozenice contract claims we cut down a probability their acquisition to 35% (from 50% previously). We believe Rafako is more likely to be paid for additional works not covered by the agreement than be granted a compensation for a cost growth. Finally we expect the loss on this contract to stand PLN -29.2 million.

For the sake of financial forecasts we assume the agreements regarding all the claims will be secured by the 2019-end.

Other changes stem from our sales forecasts adjustments to the current backlog and they are related mainly to minor contracts.

We would like to emphasize the fact, as in our previous reports, that in our projections we assume the timely delivery of all the projects. Any delay may result in contractual penalties which can exert a significant impact on the Company's financial results.

## Quarterly forecasts

Rafako will release its 1-3Q19 financial report on November 29.

It is getting more and more difficult to make quarterly projections for the Company, mainly because of (i) growing volatility of their financial results, (ii) numerous time delays of contracts, and (iii) significant impact of one-offs. It is no different this time. 3Q19 results seem obscure to us.

Given the Company's backlog (with a new date of the Jaworzno contract settlement) we count on the revenues at PLN 551.9 million (+113% yoy). We hope for the works acceleration to have occurred in 3Q19 (characteristic of the summer season) so the Company caught up with some of 1H19 delays.

After the write-offs introduced in 2Q19 we expect that the result will not be lowered this time and the gross margin will stand at 7.3% like for the whole backlog. We forecast 3Q19 SG&A costs at PLN 19.6 million and thus expect EBIT and NP to reach PLN 16.4 million and roughly PLN 13 million, respectively.

Fig. 1. Rafako; Change in BOŚ forecast

IFRS consolidated (PLN m)	2019E			2020E			2021E		
	current	previous	change	current	previous	change	current	previous	change
Sales	1,691.3	2,021.4	-16%	1,848.9	1,464.2	26%	1,192.7	1,195.3	0%
EBITDA	24.2	65.9	-63%	66.0	33.9	95%	38.2	35.7	7%
EBIT	9.7	51.4	-81%	52.3	20.2	159%	25.2	22.7	11%
NP	6.6	39.3	-83%	38.8	13.9	179%	15.7	13.7	14%
Net debt	36.2	-237.6	-115%	39.2	24.4	61%	1.9	16.5	-89%

Source: DM BOŚ SA estimates

**Fig. 2. Rafako; 3Q19 results' forecast**

IFRS consolidated (PLN m)	3Q19E	2Q19A	3Q18A	qoq chg	yoy chg
Sales	551.9	206.5	259.1	167%	113%
Gross profit on sales	40.3	-158.9	22.7	-125%	77%
Gross profit on sales margin	7.3%	-77.0%	8.8%	-	-
EBITDA	20.9	-180.6	11.6	-112%	81%
EBITDA margin	3.8%	-87.5%	4.5%	-	-
EBIT	16.4	-185.1	7.8	-109%	110%
EBIT margin	3.0%	-89.6%	3.0%	-	-
Pre-tax profit	16.1	-185.3	6.8	-109%	138%
Pre-tax margin	2.9%	-89.7%	2.6%	-	-
Net profit	13.0	-175.9	7.0	-107%	85%
Net margin	2.4%	-85.2%	2.7%	-	-

Source: Company, DM BOŚ estimates

## Valuation

Due to the impairments that burden the Company's results in 2019 and the Jaworzno contract settlement shifted to 2020 we change our stance on the peer comparison. The next year looks like an extremely good period albeit incomparable and to offset its impact we include the 2019 indicators as well.

The financial forecasts adjustment results in a 22% drop of our 12M EFV representing a 75%-25% mix of the outcomes of the DCF and peer-relative exercises, respectively, to PLN 1.8 per share from PLN 2.3 previously.

**Fig. 3. Rafako; Peer-relative valuation**

	P/E			EV/EBITDA		
	2019E	2020E	2021E	2019E	2020E	2021E
ALSTOM	15.5	17.9	15.7	8.0	9.1	8.0
DOOSAN HEAVY INDUSTRIES	29.3	12.1	10.4	5.2	4.7	4.8
HITACHI LTD	21.2	9.1	8.2	4.0	3.8	3.8
mitsubishi heavy industries	15.9	13.1	11.3	6.1	5.8	5.1
SIEMENS AG-REG	16.6	15.5	13.6	11.1	9.9	8.4
FLUOR CORP	neg.	10.3	7.7	neg.	4.8	3.0
INDIKA ENERGY TBK PT	16.4	10.6	18.8	3.0	2.5	2.6
JGC CORP	23.6	33.2	14.3	8.2	9.8	5.7
SAMSUNG ENGINEERING CO LTD	10.8	10.3	9.4	7.1	6.4	5.5
MASTEC INC	13.5	12.9	12.6	7.6	6.5	6.2
QUANTA SERVICES INC	12.9	11.0	10.1	8.4	6.7	5.6
DYCOM INDUSTRIES INC	18.0	20.6	16.3	n.a.	7.0	5.9
<b>Median</b>	<b>16.4</b>	<b>12.5</b>	<b>11.9</b>	<b>7.3</b>	<b>6.4</b>	<b>5.5</b>
<b>Rafako</b>	<b>19.4</b>	<b>3.3</b>	<b>8.2</b>	<b>6.8</b>	<b>2.5</b>	<b>3.4</b>
<b>Equity value of Rafako &amp; minorities</b>	<b>102.5</b>	<b>504.6</b>	<b>221.2</b>	<b>140.7</b>	<b>386.0</b>	<b>209.4</b>
Weight	17%	17%	17%	17%	17%	17%
Wighted average equity value of Rafako & minorities	260.7					
Value of minorities	21.9					
Implied EFV of Rafako	238.8					
<b>Average implied EFV per share (PLN)</b>	<b>1.9</b>					

Peer multiples as a close of October 23

Source: Bloomberg, DM BOŚ estimates

Fig. 4. Rafako; DCF valuation

(mln zł)	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	>2028E
Sales	1,691.3	1,848.9	1,192.7	1,252.5	1,355.6	1,374.0	1,403.0	1,433.1	1,464.4	1,497.0	
chg yoy	33%	9%	-35%	5%	8%	1%	2%	2%	2%	2%	
EBIT	9.7	52.3	25.2	34.8	41.4	41.7	42.9	44.3	45.7	47.1	
chg yoy	-76%	441%	-52%	38%	19%	1%	3%	3%	3%	3%	
Effective cash tax rate (T)	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	
EBIT (1-T)	7.6	41.3	19.9	27.5	32.7	33.0	33.9	35.0	36.1	37.2	
chg yoy	-76%	441%	-52%	38%	19%	1%	3%	3%	3%	3%	
EBITDA	24.2	66.0	38.2	47.2	53.4	53.3	54.3	55.5	56.9	58.4	
chg yoy	-56%	173%	-42%	24%	13%	0%	2%	2%	2%	3%	
Depreciation	14.5	13.7	13.0	12.4	12.0	11.6	11.4	11.2	11.2	11.2	
EBIT (1-T) + D	22.1	55.0	32.9	39.9	44.7	44.6	45.3	46.2	47.3	48.5	
chg yoy	-52%	148%	-40%	21%	12%	0%	2%	2%	2%	3%	
Capex	-5.0	-5.5	-6.1	-6.7	-7.4	-8.1	-8.9	-9.8	-10.8	-11.4	
Change in NWC	-27.0	30.3	19.5	-26.1	-37.5	-38.5	-15.3	-15.9	-9.8	-10.2	
<b>FCFF</b>	<b>-9.8</b>	<b>79.7</b>	<b>46.3</b>	<b>7.1</b>	<b>-0.2</b>	<b>-2.1</b>	<b>21.1</b>	<b>20.5</b>	<b>26.6</b>	<b>26.8</b>	
chg yoy	n.m.	n.m.	-42%	-85%	n.m.	n.m.	n.m.	-3%	30%	1%	1%
<b>Cost of equity</b>											
Risk free rate (nominal)	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Equity risk premium	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Unlevered beta	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
Leveraged beta	1.42	1.46	1.31	1.30	1.30	1.30	1.30	1.30	1.30	1.30	1.30
<b>Required rate of return</b>	<b>11.6%</b>	<b>11.8%</b>	<b>11.1%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>
<b>Cost of debt</b>											
Cost of debt (pre-tax)	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Effective tax rate	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%	21.0%
<b>After-tax cost of debt</b>	<b>4.7%</b>	<b>4.7%</b>	<b>4.7%</b>	<b>4.7%</b>	<b>4.7%</b>	<b>4.7%</b>	<b>4.7%</b>	<b>4.7%</b>	<b>4.7%</b>	<b>4.7%</b>	<b>4.7%</b>
<b>WACC</b>											
Weight of equity	88.8%	84.4%	99.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of equity	11.6%	11.8%	11.1%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%
Weight of debt	11.2%	15.6%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
After-tax cost of debt	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%
<b>WACC</b>	<b>10.8%</b>	<b>10.7%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>	<b>11.0%</b>
Discount multiple	1.00	1.02	1.13	1.26	1.39	1.55	1.72	1.91	2.12	2.35	
Discount factor	1.00	0.98	0.88	0.80	0.72	0.65	0.58	0.52	0.47	0.43	
<b>PV of free cash flow</b>	<b>-</b>	<b>78.2</b>	<b>40.9</b>	<b>5.7</b>	<b>-0.2</b>	<b>-1.3</b>	<b>12.3</b>	<b>10.8</b>	<b>12.6</b>	<b>11.4</b>	
Sum of FCFFs PVs											170.3
Weight of debt in the residual period											0%
Weight of equity in the residual period											100%
Average cost of equity in the definite period											11.1%
Average WACC in the definite period											11.0%
WACC in the residual period											11.0%
<b>Residual growth of FCFFs</b>											<b>1.0%</b>
Residual value											271.2
Present value of the residual value											115.4
<b>Value of Rafako's operations</b>											<b>285.8</b>
Cash and equivalents, eop 2019E											35.4
Interest-bearing debt, eop 2019E											71.6
Minority interest, eop 2019E											21.9
<b>Equity value</b>											<b>227.6</b>
No. of shares (m)											127.4
<b>12M EFV Rafako's share (PLN)</b>											<b>1.8</b>

Source: Company, DM BOS estimates

Fig. 5. Rafako; Valuation summary

DCF (75%)	1.8
Peer companies (25%)	1.9
<b>Final valuation</b>	<b>1.8</b>
Current share market price	1.008
Upside (downside) to the current market price	79%

Source: DM BOS estimates

## Financial statements (IFRS consolidated)

Fig. 6. Rafako; Income Statement

(PLN m)	2016	2017	2018	2019P	2020P	2021P
<b>Sales</b>	<b>1,875.3</b>	<b>1,782.6</b>	<b>1,268.8</b>	<b>1,691.3</b>	<b>1,848.9</b>	<b>1,192.7</b>
COGS	-1,751.0	-1,623.3	-1,150.1	-1,576.8	-1,716.4	-1,090.1
<b>Gross profit on sales</b>	<b>124.3</b>	<b>159.3</b>	<b>118.7</b>	<b>114.5</b>	<b>132.5</b>	<b>102.5</b>
Selling costs	-32.0	-32.6	-24.4	-17.8	-18.1	-18.5
General administraton costs	-57.8	-61.1	-51.9	-50.6	-50.6	-51.6
R&D costs	0.0	-6.9	-6.2	-7.4	-8.1	-5.2
<b>Net profit on sales</b>	<b>34.6</b>	<b>58.6</b>	<b>36.2</b>	<b>38.7</b>	<b>55.7</b>	<b>27.2</b>
Other operating income	3.6	10.3	12.7	9.8	9.2	6.0
Other operating costs	-13.5	-20.2	-8.4	-38.9	-12.6	-8.0
<b>EBIT</b>	<b>24.7</b>	<b>48.8</b>	<b>40.5</b>	<b>9.7</b>	<b>52.3</b>	<b>25.2</b>
Financial income	5.0	2.1	8.5	1.3	0.6	0.1
Financial costs	-7.2	-11.6	-5.8	-3.0	-2.0	-1.8
<b>Pre-tax income</b>	<b>22.5</b>	<b>39.3</b>	<b>43.2</b>	<b>7.9</b>	<b>50.9</b>	<b>23.5</b>
Income tax	-11.6	-34.2	-9.7	-1.7	-10.7	-4.9
<b>Net profit (loss) from continuing operation</b>	<b>10.9</b>	<b>5.1</b>	<b>33.5</b>	<b>6.3</b>	<b>40.2</b>	<b>18.6</b>
Minority interest in net profit	0.4	1.0	-0.1	-0.4	1.4	2.9
<b>Net profit</b>	<b>10.5</b>	<b>4.2</b>	<b>33.6</b>	<b>6.6</b>	<b>38.8</b>	<b>15.7</b>
<b>EBITDA</b>	<b>39.1</b>	<b>63.0</b>	<b>55.4</b>	<b>24.2</b>	<b>66.0</b>	<b>38.2</b>

Source: The Company, DM BOŚ SA estimates

Fig. 7. Rafako; Balance Sheet

PLN m	2016	2017	2018E	2019E	2020E	2021E
<b>LT assets</b>	<b>310.5</b>	<b>290.6</b>	<b>294.7</b>	<b>263.1</b>	<b>271.5</b>	<b>230.9</b>
Fixed assets	178.6	170.9	146.6	135.6	126.3	118.3
Goodwill	9.2	9.2	9.2	9.2	9.2	9.2
Intangible assets	9.6	8.9	8.0	9.5	10.5	11.7
Public ground lease	0.0	0.0	29.0	29.0	29.0	29.0
LT other receivables	34.0	39.4	40.4	16.9	27.7	17.9
Shares in other units	0.8	0.2	1.4	1.5	1.5	1.5
LT financial assets	24.1	17.7	14.1	0.0	0.0	0.0
Deferred tax	54.2	42.5	42.0	56.0	61.2	39.5
Accruals	0.0	1.7	4.1	5.5	6.0	3.9
<b>ST assets</b>	<b>1,118.5</b>	<b>990.6</b>	<b>1,075.3</b>	<b>916.8</b>	<b>970.4</b>	<b>810.7</b>
Inventories	14.0	28.8	34.2	13.5	8.5	10.2
ST trade receivables	728.3	485.9	532.5	372.1	503.5	454.0
Construction contracts assets	218.2	251.3	381.4	439.7	406.7	262.4
Tax receivables	19.6	0.1	0.2	0.2	0.3	0.2
Derivatives	0.0	0.5	0.0	0.0	0.0	0.0
Other ST financial assets	11.2	4.7	7.6	18.6	0.0	0.0
ST loans granted	0.0	10.0	11.4	11.4	11.4	11.4
Cash & equivalents	107.5	180.3	88.7	35.4	11.7	54.3
Accruals	19.6	28.9	19.4	25.9	28.3	18.3
Assets available for sale	0.9	0.1	0.2	0.0	0.0	0.0
<b>Total assets</b>	<b>1,429.9</b>	<b>1,281.3</b>	<b>1,370.2</b>	<b>1,179.9</b>	<b>1,241.9</b>	<b>1,041.7</b>
<b>Equity</b>	<b>423.0</b>	<b>558.3</b>	<b>589.1</b>	<b>595.8</b>	<b>532.6</b>	<b>548.3</b>
<b>Minorities</b>	<b>9.0</b>	<b>8.6</b>	<b>8.5</b>	<b>8.2</b>	<b>9.5</b>	<b>12.5</b>
<b>Liabilities</b>	<b>997.9</b>	<b>714.3</b>	<b>772.6</b>	<b>576.0</b>	<b>699.7</b>	<b>480.9</b>
LT liabilities	73.8	91.6	75.3	62.0	74.8	49.7
Interest-bearing	3.5	2.1	8.3	7.7	7.1	6.7
Non-interest-bearing	64.2	60.0	36.5	33.5	45.1	28.6
Reserves	6.1	29.6	30.4	20.8	22.6	14.4
ST liabilities	924.1	622.7	697.3	514.0	624.9	431.2
Trade payables	513.5	390.0	342.5	283.8	343.3	218.0
Interest-bearing	149.2	101.2	112.5	63.9	43.8	49.5
Construction contracts	156.6	42.8	173.5	84.6	151.6	97.8
Non-interest-bearing	43.0	36.9	31.6	32.0	32.2	31.5
Reserves	51.2	35.8	15.2	20.8	22.6	14.4
Accruals	10.1	15.6	21.1	28.9	31.4	20.0
Others	0.5	0.3	1.0	0.0	0.0	0.0
<b>Total liabilities and equity</b>	<b>1,429.9</b>	<b>1,281.3</b>	<b>1,370.2</b>	<b>1,179.9</b>	<b>1,241.9</b>	<b>1,041.7</b>

Source: The Company, DM BOŚ SA estimates

**Fig. 8. Rafako; Cash Flow**

PLN m	2016	2017	2018E	2019E	2020E	2021E
<b>Gross income (loss)</b>	<b>22.5</b>	<b>39.3</b>	<b>43.2</b>	<b>7.9</b>	<b>50.9</b>	<b>23.5</b>
Depreciation and amortization	14.4	14.2	14.8	14.5	13.7	13.0
NWC change:	-131.6	-78.2	-140.5	-27.0	30.3	19.5
Change in receivables	-268.7	225.0	-47.3	183.9	-142.2	59.4
Change in inventories	4.8	-0.6	-5.3	20.7	4.9	-1.7
Change in payables	125.6	-136.0	-79.3	-66.3	69.4	-134.6
Change in reserves	0.0	-10.6	-9.1	-18.0	-1.9	6.0
Change in construction contracts	6.6	-156.0	0.6	-147.3	100.0	90.6
Tax paid	-22.4	-5.4	-9.3	-1.7	-10.7	-4.9
Others	4.4	0.5	0.6	5.9	3.1	-6.0
<b>Operating cash flow</b>	<b>-112.7</b>	<b>-29.5</b>	<b>-91.2</b>	<b>-0.3</b>	<b>87.3</b>	<b>45.1</b>
Capital expenditures	-6.8	-2.4	0.0	-5.0	-5.5	-6.1
Others	-0.6	-4.5	1.9	4.2	19.2	0.1
<b>Investing cash flow</b>	<b>-7.4</b>	<b>-6.9</b>	<b>1.9</b>	<b>-0.7</b>	<b>13.6</b>	<b>-6.0</b>
Equity issue	0.0	163.4	0.0	0.0	0.0	0.0
Change in interest-bearing debt	34.6	-51.0	0.9	-49.2	-20.7	5.3
Dividends payment	0.0	0.0	0.0	0.0	-101.9	0.0
Interest	-3.9	-3.7	-4.3	-3.0	-2.0	-1.8
Others	-0.3	0.8	0.8	0.0	0.0	0.0
<b>Financing cash flow</b>	<b>30.4</b>	<b>109.5</b>	<b>-2.6</b>	<b>-52.2</b>	<b>-124.6</b>	<b>3.6</b>
<b>Total cash flow</b>	<b>-89.6</b>	<b>73.1</b>	<b>-91.9</b>	<b>-53.3</b>	<b>-23.7</b>	<b>42.7</b>

Source: The Company, DM BOŚ SA estimates

**Fig. 9. Rafako; Ratios**

	2016	2017	2018E	2019E	2020E	2021E
Sales growth (yoy)	21%	-5%	-29%	33%	9%	-35%
Gross profit growth (yoy)	-2%	28%	-25%	-4%	16%	-23%
EBITDA growth (yoy)	-27%	61%	-12%	-56%	173%	-42%
EBIT growth (yoy)	-39%	98%	-17%	-76%	441%	-52%
Net profit growth (yoy)	-69%	-60%	707%	-80%	487%	-60%
A/R turnover days	118	124	146	98	86	147
Inventory turnover days	3	5	10	6	2	3
A/P turnover days	95	102	116	72	67	94
Cash cycle	26	28	40	31	22	56
NWC/Sales	4%	17%	32%	25%	21%	32%
Gross margin	6,6%	8,9%	9,4%	6,8%	7,2%	8,6%
EBITDA margin	2,1%	3,5%	4,4%	1,4%	3,6%	3,2%
EBIT margin	1,3%	2,7%	3,2%	0,6%	2,8%	2,1%
Pretax margin	1,2%	2,2%	3,4%	0,5%	2,8%	2,0%
Net margin	0,6%	0,2%	2,6%	0,4%	2,1%	1,3%
ROE	2,5%	0,8%	5,9%	1,1%	6,9%	2,9%
ROA	0,8%	1,2%	3,0%	0,8%	3,4%	1,5%
Current Ratio	1,2	1,5	1,5	1,7	1,5	1,8
Quick Ratio	1,2	1,5	1,5	1,7	1,5	1,8
Net debt/EBITDA	1,2	gotówka netto	0,6	1,5	0,6	0,0

Source: Company, DM BOŚ SA 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** =  $\text{gross profit} / \text{sales}$   
**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	36	38	7	8	0
Percentage	40%	43%	8%	9%	0%

### 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	1	2	0	0	0
Percentage	33%	67%	0%	0%	0%

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

	Overweight	Neutral	Underweight	Suspended	Under revision
Numbers	33	40	8	8	0
Percentage	37%	45%	9%	9%	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	0	3	0	0	0
Percentage	0%	100%	0%	0%	0%

## Banks

**Net Interest Margin (NIM)** =  $\text{net interest income} / \text{average assets}$   
**Non interest income** =  $\text{fees} + \text{commissions} + \text{result on financial operations (trading gains)} + \text{FX gains}$   
**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.

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	Not later than 09.12.2019	-49%	-49%	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	↓

\* 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	Not later than 24.10.2020	1.008	-

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

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The production of the report was completed on October 25, 2019 at 8.30 a.m.

The report was distributed on October 25, 2019 at 8.40 a.m.

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