



639R/2023/AR

November 2, 2023

Company	LT fundamental recommendation	12M EFV (PLN)	ST market-relative bias	Analyst
Asseco SEE	Buy (from Hold)	50.0	Overweight (from Neutral)	Sobiesław Pająk, CFA +48 506 142 766

We raise our ratings for the Company's shares **to a Buy** (from Hold; LT fundamental) **and an Overweight** (from Neutral; ST market-relative).

Regarding the potential sources of conflict of interest, please refer to the disclaimer section of the attached research report.

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	38	32	9	9	0	4
Percentage	41%	35%	10%	10%	0%	4%

Distribution of DM BOŚ's current market relative recommended weightings

	Overweight	Neutral	Underweight	Suspended	Under revision	Not rated
Numbers	32	34	13	9	0	4
Percentage	35%	37%	14%	10%	0%	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	5	7	1	1	0	3
Percentage	29%	41%	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	7	3	3	1	0	3
Percentage	41%	18%	18%	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)	
Asseco South Eastern Europe										
-	Hold	→	10.08.2011	-	-	19.07.2012	14%	5%	7.30	8.90 →
-	-	→	-	31.08.2011	-	-	-	-	7.90	8.90 →
-	-	→	-	03.10.2011	-	-	-	-	8.00	8.90 →
-	-	→	-	06.10.2011	-	-	-	-	7.96	8.90 →
-	-	→	-	24.10.2011	-	-	-	-	9.05	8.90 →
-	-	→	-	14.11.2011	-	-	-	-	8.75	8.90 →
-	-	→	-	11.12.2011	-	-	-	-	7.60	8.90 →
-	-	→	-	01.01.2012	-	-	-	-	8.50	8.30 ↓
-	-	→	-	17.01.2012	-	-	-	-	8.59	8.30 →
-	-	→	-	25.01.2012	-	-	-	-	8.12	8.30 →
-	-	→	-	29.02.2012	-	-	-	-	7.80	8.30 →
-	-	→	-	20.03.2012	-	-	-	-	8.50	8.30 →
-	-	→	-	03.04.2012	-	-	-	-	9.00	9.40 ↑
-	-	→	-	15.04.2012	-	-	-	-	8.51	9.40 →
-	-	→	-	15.05.2012	-	-	-	-	8.50	9.40 →
-	-	→	-	21.06.2012	-	-	-	-	7.74	9.40 →
-	-	→	-	27.06.2012	-	-	-	-	7.71	9.04 ↓
-	Hold	→	19.07.2012	-	-	24.02.2013	50%	33%	7.99	9.04 →
-	-	→	-	02.09.2012	-	-	-	-	7.50	9.04 →
-	-	→	-	10.10.2012	-	-	-	-	8.01	9.00 ↓
-	-	→	-	14.11.2012	-	-	-	-	8.78	9.00 →
-	-	→	-	13.12.2012	-	-	-	-	9.00	9.00 →
-	-	→	-	23.01.2013	-	-	-	-	9.02	9.00 →
-	-	→	-	18.02.2013	-	-	-	-	10.60	9.00 →
-	Sell	↓	24.02.2013	-	-	15.05.2013	-17%	-17%	12.00	10.00 ↑
-	-	→	-	21.03.2013	-	-	-	-	11.04	10.00 →
-	-	→	-	08.04.2013	-	-	-	-	11.45	10.00 →
-	-	→	-	17.04.2013	-	-	-	-	10.88	10.00 →
-	Hold	↑	15.05.2013	-	-	10.10.2013	6%	-6%	10.00	10.00 →
-	-	→	-	17.06.2013	-	-	-	-	9.50	10.00 →
-	-	→	-	09.07.2013	-	-	-	-	9.36	9.20 ↓
-	-	→	-	25.07.2013	-	-	-	-	9.08	9.20 →
-	-	→	-	01.09.2013	-	-	-	-	8.81	9.20 →
-	Sell	↓	10.10.2013	-	-	12.12.2013	-3%	-3%	9.77	8.20 ↓
-	-	→	-	20.10.2013	-	-	-	-	9.49	8.20 →
-	-	→	-	14.11.2013	-	-	-	-	9.89	8.20 →
-	Hold	↑	12.12.2013	-	-	07.10.2014	-19%	-22%	9.48	9.50 ↑
-	-	→	-	21.01.2014	-	-	-	-	9.02	9.50 →
-	-	→	-	17.02.2014	-	-	-	-	9.40	9.50 →
-	-	→	-	23.03.2014	-	-	-	-	8.89	9.50 →
-	-	→	-	08.04.2014	-	-	-	-	8.90	9.50 →
-	-	→	-	13.04.2014	-	-	-	-	8.85	9.50 →
-	-	→	-	05.05.2014	-	-	-	-	9.27	9.50 →
-	-	→	-	15.05.2014	-	-	-	-	8.10	9.50 →
-	-	→	-	16.06.2014	-	-	-	-	7.80	9.50 →
-	-	→	-	09.07.2015	-	-	-	-	7.76	9.18 ↓
-	-	→	-	20.07.2014	-	-	-	-	7.15	9.18 →
-	-	→	-	01.09.2014	-	-	-	-	7.61	9.18 →
Sobiesław Pająk	Buy	↑	07.10.2014	-	08.10.2014	31.08.2015	30%	36%	7.70	9.50 ↑
Sobiesław Pająk	-	→	-	14.10.2014	15.10.2014	-	-	-	7.75	9.50 →
Sobiesław Pająk	-	→	-	16.11.2014	17.11.2014	-	-	-	7.85	9.50 →
Sobiesław Pająk	-	→	-	14.12.2014	15.12.2014	-	-	-	7.60	9.90 ↑
Sobiesław Pająk	-	→	-	18.01.2015	19.01.2015	-	-	-	8.30	9.90 →
Sobiesław Pająk	-	→	-	10.02.2015	11.01.2015	-	-	-	8.54	9.90 →
Sobiesław Pająk	-	→	-	23.03.2015	24.03.2015	-	-	-	8.96	9.90 →
Sobiesław Pająk	-	→	-	31.03.2015	01.04.2015	-	-	-	8.70	10.80 ↑
Sobiesław Pająk	-	→	-	19.04.2015	20.04.2015	-	-	-	9.35	10.80 →
Sobiesław Pająk	-	→	-	17.05.2015	18.05.2015	-	-	-	9.80	10.80 →
Sobiesław Pająk	-	→	-	21.06.2015	22.06.2015	-	-	-	9.39	10.80 →
Sobiesław Pająk	-	→	-	29.06.2015	29.06.2015	-	-	-	8.73	10.40 ↓
Sobiesław Pająk	-	→	-	02.07.2015	03.07.2015	-	-	-	9.00	11.60 ↑
Sobiesław Pająk	-	→	-	16.07.2015	17.07.2015	-	-	-	9.19	11.60 →
Sobiesław Pająk	Buy	→	31.08.2015	-	01.09.2015	13.12.2015	4%	20%	9.60	11.60 →
Sobiesław Pająk	-	→	-	15.10.2015	16.10.2015	-	-	-	9.87	11.60 →
Sobiesław Pająk	-	→	-	16.11.2015	17.11.2015	-	-	-	9.68	11.60 →
Sobiesław Pająk	Hold	↓	13.12.2015	-	14.12.2015	04.12.2016	-7%	-15%	9.96	11.00 ↓
Sobiesław Pająk	-	→	-	17.01.2016	18.01.2016	-	-	-	9.72	11.00 →
Sobiesław Pająk	-	→	-	15.02.2016	16.02.2016	-	-	-	8.95	11.00 →
Sobiesław Pająk	-	→	-	21.03.2016	22.03.2016	-	-	-	9.56	11.00 →
Sobiesław Pająk	-	→	-	13.04.2016	14.04.2016	-	-	-	9.30	11.00 →
Sobiesław Pająk	-	→	-	16.05.2016	17.05.2016	-	-	-	9.48	11.00 →
Sobiesław Pająk	-	→	-	27.06.2016	28.06.2016	-	-	-	9.56	11.00 →
Sobiesław Pająk	-	→	-	28.06.2016	29.06.2016	-	-	-	9.54	10.60 ↓
Sobiesław Pająk	-	→	-	24.07.2016	25.07.2016	-	-	-	9.49	10.60 →
Sobiesław Pająk	-	→	-	31.08.2016	01.09.2016	-	-	-	9.30	10.60 →
Sobiesław Pająk	-	→	-	09.10.2016	10.09.2016	-	-	-	9.45	10.60 →
Sobiesław Pająk	-	→	-	12.10.2016	13.10.2016	-	-	-	9.60	10.60 →
Sobiesław Pająk	-	→	-	02.11.2016	03.11.2016	-	-	-	9.37	10.60 →
Sobiesław Pająk	Buy	↑	04.12.2016	-	05.12.2016	15.11.2017	32%	3%	8.86	12.10 ↑
Sobiesław Pająk	-	→	-	12.01.2017	13.01.2017	-	-	-	9.11	12.10 →
Sobiesław Pająk	-	→	-	15.01.2017	16.01.2017	-	-	-	9.33	13.40 ↑
Sobiesław Pająk	-	→	-	08.02.2017	09.02.2017	-	-	-	11.08	13.40 →
Sobiesław Pająk	-	→	-	21.02.2017	22.02.2017	-	-	-	11.70	14.00 ↑

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)	
Sobiestaw Pająk	-	→	-	07.03.2017	08.03.2017	-	-	11.50	14.00 →	
Sobiestaw Pająk	-	→	-	11.04.2017	12.04.2017	-	-	12.30	14.00 →	
Sobiestaw Pająk	-	→	-	30.05.2017	31.05.2017	-	-	13.00	14.00 →	
Sobiestaw Pająk	-	→	-	28.06.2017	29.06.2017	-	-	12.30	13.50 ↓	
Sobiestaw Pająk	-	→	-	12.07.2017	13.07.2017	-	-	12.12	13.50 →	
Sobiestaw Pająk	-	→	-	10.08.2017	11.08.2017	-	-	12.20	15.70 ↑	
Sobiestaw Pająk	-	→	-	03.09.2017	04.09.2017	-	-	12.62	15.70 →	
Sobiestaw Pająk	-	→	-	15.10.2017	16.10.2017	-	-	12.13	15.70 →	
Sobiestaw Pająk	Buy	→	15.11.2017	-	16.11.2017	14.11.2018	5%	12%	11.22	15.70 →
Sobiestaw Pająk	-	→	-	10.12.2017	11.12.2017	-	-	11.26	16.00 ↑	
Sobiestaw Pająk	-	→	-	10.01.2018	11.01.2018	-	-	12.65	16.00 →	
Sobiestaw Pająk	-	→	-	15.01.2018	16.01.2018	-	-	13.40	16.60 ↑	
Sobiestaw Pająk	-	→	-	13.02.2018	14.02.2018	-	-	12.55	16.60 →	
Sobiestaw Pająk	-	→	-	01.03.2018	01.03.2018	-	-	12.65	17.30 ↑	
Sobiestaw Pająk	-	→	-	12.03.2018	13.03.2018	-	-	13.00	17.30 →	
Sobiestaw Pająk	-	→	-	09.04.2018	10.04.2018	-	-	13.00	17.30 →	
Sobiestaw Pająk	-	→	-	16.04.2018	17.04.2018	-	-	12.80	17.30 →	
Sobiestaw Pająk	-	→	-	29.05.2018	30.05.2018	-	-	11.70	17.30 →	
Sobiestaw Pająk	-	→	-	27.06.2018	28.06.2018	-	-	10.50	16.80 ↓	
Sobiestaw Pająk	-	→	-	16.07.2018	17.07.2018	-	-	11.65	16.80 →	
Sobiestaw Pająk	-	→	-	02.08.2018	03.08.2018	-	-	11.35	16.80 →	
Sobiestaw Pająk	-	→	-	30.08.2018	31.08.2018	-	-	11.10	16.80 →	
Sobiestaw Pająk	-	→	-	11.10.2018	12.10.2018	-	-	11.60	16.80 →	
Sobiestaw Pająk	-	→	-	23.10.2018	24.10.2018	-	-	11.60	16.80 →	
Sobiestaw Pająk	Buy	→	14.11.2018	-	15.11.2018	24.10.2019	90%	86%	11.35	16.80 →
Sobiestaw Pająk	-	→	-	09.12.2018	10.12.2018	-	-	11.25	17.50 ↑	
Sobiestaw Pająk	-	→	-	10.01.2019	11.01.2019	-	-	12.35	17.50 →	
Sobiestaw Pająk	-	→	-	17.01.2019	18.01.2019	-	-	12.30	17.90 ↑	
Sobiestaw Pająk	-	→	-	04.02.2019	05.02.2019	-	-	13.35	17.90 →	
Sobiestaw Pająk	-	→	-	26.02.2019	27.02.2019	-	-	13.40	17.90 →	
Sobiestaw Pająk	-	→	-	26.03.2019	27.03.2019	-	-	13.70	17.90 →	
Sobiestaw Pająk	-	→	-	27.03.2019	28.03.2019	-	-	13.80	19.60 ↑	
Sobiestaw Pająk	-	→	-	22.04.2019	23.04.2019	-	-	14.40	19.60 →	
Sobiestaw Pająk	-	→	-	24.04.2019	25.04.2019	-	-	14.30	19.60 →	
Sobiestaw Pająk	-	→	-	30.05.2019	31.05.2019	-	-	14.90	19.60 →	
Sobiestaw Pająk	-	→	-	26.06.2019	27.06.2019	-	-	15.70	19.10 ↓	
Sobiestaw Pająk	-	→	-	02.07.2019	03.07.2019	-	-	16.20	22.00 ↑	
Sobiestaw Pająk	-	→	-	17.07.2019	18.07.2019	-	-	16.90	22.00 →	
Sobiestaw Pająk	-	→	-	30.07.2019	31.07.2019	-	-	17.20	22.00 →	
Sobiestaw Pająk	-	→	-	01.09.2019	02.09.2019	-	-	18.00	22.00 →	
Sobiestaw Pająk	-	→	-	30.09.2019	01.10.2019	-	-	19.90	24.20 ↑	
Sobiestaw Pająk	-	→	-	13.10.2019	14.10.2019	-	-	19.60	24.20 →	
Sobiestaw Pająk	Buy	→	24.10.2019	-	25.10.2019	08.12.2019	21%	25%	21.00	24.20 →
Sobiestaw Pająk	-	→	-	17.11.2019	18.11.2019	-	-	24.00	24.20 →	
Sobiestaw Pająk	Hold	↓	08.12.2019	-	09.12.2019	06.12.2020	62%	64%	25.40	28.20 ↑
Sobiestaw Pająk	-	→	-	09.01.2020	10.01.2020	-	-	24.40	28.20 →	
Sobiestaw Pająk	-	→	-	04.02.2020	05.02.2020	-	-	25.60	28.20 →	
Sobiestaw Pająk	-	→	-	06.02.2020	07.02.2020	-	-	27.40	28.20 →	
Sobiestaw Pająk	-	→	-	03.03.2020	04.03.2020	-	-	28.00	28.20 →	
Sobiestaw Pająk	-	→	-	30.03.2020	31.03.2020	-	-	27.80	28.20 →	
Sobiestaw Pająk	-	→	-	22.04.2020	23.04.2020	-	-	29.00	28.20 →	
Sobiestaw Pająk	-	→	-	19.05.2020	20.05.2020	-	-	37.20	28.20 →	
Sobiestaw Pająk	-	→	-	15.06.2020	16.06.2020	-	-	37.00	28.20 →	
Sobiestaw Pająk	-	→	-	23.06.2020	24.06.2020	-	-	38.46	27.50 ↓	
Sobiestaw Pająk	-	→	-	28.06.2020	29.06.2020	-	-	38.00	39.60 ↑	
Sobiestaw Pająk	-	→	-	13.07.2020	14.07.2020	-	-	40.70	39.60 →	
Sobiestaw Pająk	-	→	-	01.09.2020	02.09.2020	-	-	47.50	39.60 →	
Sobiestaw Pająk	-	→	-	24.09.2020	24.09.2020	-	-	45.70	43.40 ↑	
Sobiestaw Pająk	-	→	-	08.10.2020	09.10.2020	-	-	46.30	43.40 →	
Sobiestaw Pająk	-	→	-	08.11.2020	09.11.2020	-	-	41.50	43.40 →	
Sobiestaw Pająk	-	→	-	08.11.2020	09.11.2020	-	-	41.50	43.40 →	
Sobiestaw Pająk	Hold	→	06.12.2020	-	07.12.2020	22.09.2021	3%	-20%	40.40	43.40 →
Sobiestaw Pająk	-	→	-	05.01.2021	05.01.2021	-	-	42.40	43.40 →	
Sobiestaw Pająk	-	→	-	19.01.2021	19.01.2021	-	-	40.00	44.00 ↑	
Sobiestaw Pająk	-	→	-	28.01.2021	29.01.2021	-	-	39.00	44.00 →	
Sobiestaw Pająk	-	→	-	28.02.2021	01.03.2021	-	-	39.00	44.00 →	
Sobiestaw Pająk	-	→	-	26.03.2021	26.03.2021	-	-	40.30	44.00 →	
Sobiestaw Pająk	-	→	-	16.04.2021	16.04.2021	-	-	42.50	44.00 →	
Sobiestaw Pająk	-	→	-	28.05.2021	28.05.2021	-	-	39.80	44.00 →	
Sobiestaw Pająk	-	→	-	30.05.2021	31.05.2021	-	-	39.80	44.00 →	
Sobiestaw Pająk	-	→	-	22.06.2021	23.06.2021	-	-	38.60	43.00 ↓	
Sobiestaw Pająk	-	→	-	09.07.2021	09.07.2021	-	-	39.60	43.00 →	
Sobiestaw Pająk	-	→	-	31.08.2021	31.08.2021	-	-	40.50	43.00 →	
Sobiestaw Pająk	Buy	↑	22.09.2021	-	22.09.2021	05.12.2021	21%	27%	40.50	45.40 ↑
Sobiestaw Pająk	-	→	-	07.10.2021	07.10.2021	-	-	43.80	45.40 →	
Sobiestaw Pająk	-	→	-	04.11.2021	04.11.2021	-	-	48.00	45.40 →	
Sobiestaw Pająk	Hold	↓	05.12.2021	-	06.12.2021	28.10.2022	-12%	21%	49.00	50.10 ↑
Sobiestaw Pająk	-	→	-	16.01.2022	17.01.2022	-	-	54.00	54.60 ↑	
Sobiestaw Pająk	-	→	-	07.02.2022	07.02.2022	-	-	49.90	54.60 →	
Sobiestaw Pająk	-	→	-	28.02.2022	28.02.2022	-	-	46.80	54.60 →	
Sobiestaw Pająk	-	→	-	27.03.2022	28.03.2022	-	-	52.20	50.00 ↓	
Sobiestaw Pająk	-	→	-	14.04.2022	14.04.2022	-	-	49.80	50.00 →	
Sobiestaw Pająk	-	→	-	26.05.2022	26.05.2022	-	-	47.50	50.00 →	
Sobiestaw Pająk	-	→	-	27.06.2022	28.06.2022	-	-	39.42	48.70 ↓	

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)	
Sobiestaw Pająk	-	→	-	29.06.2022	30.06.2022	-	-	38.70	42.80 ↓	
Sobiestaw Pająk	-	→	-	15.07.2022	15.07.2022	-	-	39.90	42.80 →	
Sobiestaw Pająk	-	→	-	16.08.2022	16.08.2022	-	-	48.00	42.80 →	
Sobiestaw Pająk	-	→	-	02.09.2022	02.09.2022	-	-	45.90	42.80 →	
Sobiestaw Pająk	-	→	-	07.10.2022	07.10.2022	-	-	42.60	42.80 →	
Sobiestaw Pająk	Hold	→	28.10.2022	-	28.10.2022	25.10.2023	7%	-25%	42.00	42.80 →
Sobiestaw Pająk	-	→	-	04.12.2022	05.12.2022	-	-	45.70	47.00 ↑	
Sobiestaw Pająk	-	→	-	13.01.2023	13.01.2023	-	-	49.40	47.00 →	
Sobiestaw Pająk	-	→	-	03.02.2023	03.02.2023	-	-	44.80	47.00 →	
Sobiestaw Pająk	-	→	-	10.03.2023	10.03.2023	-	-	47.20	47.00 →	
Sobiestaw Pająk	-	→	-	23.03.2023	23.03.2023	-	-	49.50	51.50 ↑	
Sobiestaw Pająk	-	→	-	13.04.2023	13.04.2023	-	-	49.80	51.50 →	
Sobiestaw Pająk	-	→	-	29.05.2023	29.05.2023	-	-	49.90	51.50 →	
Sobiestaw Pająk	-	→	-	16.06.2023	16.06.2023	-	-	46.70	50.00 ↓	
Sobiestaw Pająk	-	→	-	14.07.2023	14.07.2023	-	-	51.40	50.00 →	
Sobiestaw Pająk	-	→	-	31.08.2023	31.08.2023	-	-	47.00	50.00 →	
Sobiestaw Pająk	-	→	-	12.10.2023	12.10.2023	-	-	44.90	50.00 →	
Sobiestaw Pająk	Buy	↑	25.10.2023	-	25.10.2023	Not later than 25.10.2024	-	44.80	50.00 →	

* prices at issue/reiteration are the closing prices at the report or reiteration date
pre-June 2014 recommendations issued at DM IDMSA

Market-relative recommendation tracker

Analyst	Relative Recommendation		Report date	Reiteration date	Distribution date	Expiry date	Price at issue/ reiteration*	Relative performance
Asseco South Eastern Europe								
-	Underweight	-	10.08.2011	-	-	06.10.2011	7.30	7%
-	-	→	-	31.08.2011	-	-	7.90	-
-	-	→	-	03.10.2011	-	-	8.00	-
-	Neutral	↑	06.10.2011	-	-	11.12.2011	7.96	-6%
-	-	→	-	24.10.2011	-	-	9.05	-
-	-	→	-	14.11.2011	-	-	8.75	-
-	Underweight	↓	11.12.2011	-	-	17.01.2012	7.60	13%
-	-	→	-	01.01.2012	-	-	8.50	-
-	Neutral	↑	17.01.2012	-	-	10.10.2012	8.59	-15%
-	-	→	-	25.01.2012	-	-	8.12	-
-	-	→	-	29.02.2012	-	-	7.80	-
-	-	→	-	20.03.2012	-	-	8.50	-
-	-	→	-	03.04.2012	-	-	9.00	-
-	-	→	-	15.04.2012	-	-	8.51	-
-	-	→	-	15.05.2012	-	-	8.50	-
-	-	→	-	21.06.2012	-	-	7.74	-
-	-	→	-	27.06.2012	-	-	7.71	-
-	-	→	-	19.07.2012	-	-	7.99	-
-	-	→	-	02.09.2012	-	-	7.50	-
-	Underweight	↓	10.10.2012	-	-	14.11.2012	8.01	11%
-	Neutral	↑	14.11.2012	-	-	08.04.2013	8.78	28%
-	-	→	-	13.12.2012	-	-	9.00	-
-	-	→	-	23.01.2013	-	-	9.02	-
-	-	→	-	18.02.2013	-	-	10.60	-
-	-	→	-	24.02.2013	-	-	12.00	-
-	-	→	-	21.03.2013	-	-	11.04	-
-	Underweight	↓	08.04.2013	-	-	15.05.2013	11.45	-16%
-	-	→	-	17.04.2013	-	-	10.88	-
-	Neutral	↑	15.05.2013	-	-	10.10.2013	10.00	-6%
-	-	→	-	17.06.2013	-	-	9.50	-
-	-	→	-	09.07.2013	-	-	9.36	-
-	-	→	-	25.07.2013	-	-	9.08	-
-	-	→	-	01.09.2013	-	-	8.81	-
-	Underweight	↓	10.10.2013	-	-	12.12.2013	9.77	-3%
-	-	→	-	20.10.2013	-	-	9.49	-
-	-	→	-	14.11.2013	-	-	9.89	-
-	Neutral	↑	12.12.2013	-	-	08.04.2014	9.48	-7%
-	-	→	-	21.01.2014	-	-	9.02	-
-	-	→	-	17.02.2014	-	-	9.40	-
-	-	→	-	23.03.2014	-	-	8.89	-
-	Underweight	↓	08.04.2014	-	-	05.05.2014	8.90	7%
-	-	→	-	13.04.2014	-	-	8.85	-
-	Neutral	↑	05.05.2014	-	-	16.06.2014	9.27	-18%
-	-	→	-	15.05.2014	-	-	8.10	-
-	Overweight	↑	16.06.2014	-	-	20.07.2014	7.80	-6%
-	-	→	-	09.07.2015	-	-	7.76	-
-	Neutral	↓	20.07.2014	-	-	07.10.2014	7.15	3%
-	-	→	-	01.09.2014	-	-	7.61	-
Sobiestaw Pająk	Overweight	↑	07.10.2014	-	08.10.2014	31.08.2015	7.70	36%
Sobiestaw Pająk	-	→	-	14.10.2014	15.10.2014	-	7.75	-
Sobiestaw Pająk	-	→	-	16.11.2014	17.11.2014	-	7.85	-
Sobiestaw Pająk	-	→	-	14.12.2014	15.12.2014	-	7.60	-
Sobiestaw Pająk	-	→	-	18.01.2015	19.01.2015	-	8.30	-
Sobiestaw Pająk	-	→	-	10.02.2015	11.01.2015	-	8.54	-
Sobiestaw Pająk	-	→	-	23.03.2015	24.03.2015	-	8.96	-
Sobiestaw Pająk	-	→	-	31.03.2015	01.04.2015	-	8.70	-
Sobiestaw Pająk	-	→	-	19.04.2015	20.04.2015	-	9.35	-
Sobiestaw Pająk	-	→	-	17.05.2015	18.05.2015	-	9.80	-
Sobiestaw Pająk	-	→	-	21.06.2015	22.06.2015	-	9.39	-
Sobiestaw Pająk	-	→	-	29.06.2015	29.06.2015	-	8.73	-
Sobiestaw Pająk	-	→	-	02.07.2015	03.07.2015	-	9.00	-
Sobiestaw Pająk	-	→	-	16.07.2015	17.07.2015	-	9.19	-
Sobiestaw Pająk	Overweight	→	31.08.2015	-	01.09.2015	13.12.2015	9.60	20%
Sobiestaw Pająk	-	→	-	15.10.2015	16.10.2015	-	9.87	-
Sobiestaw Pająk	-	→	-	16.11.2015	17.11.2015	-	9.68	-
Sobiestaw Pająk	Neutral	↓	13.12.2015	-	14.12.2015	09.10.2016	9.96	-8%
Sobiestaw Pająk	-	→	-	17.01.2016	18.01.2016	-	9.72	-
Sobiestaw Pająk	-	→	-	15.02.2016	16.02.2016	-	8.95	-
Sobiestaw Pająk	-	→	-	21.03.2016	22.03.2016	-	9.56	-
Sobiestaw Pająk	-	→	-	13.04.2016	14.04.2016	-	9.30	-
Sobiestaw Pająk	-	→	-	16.05.2016	17.05.2016	-	9.48	-
Sobiestaw Pająk	-	→	-	27.06.2016	28.06.2016	-	9.56	-
Sobiestaw Pająk	-	→	-	28.06.2016	29.06.2016	-	9.54	-
Sobiestaw Pająk	-	→	-	24.07.2016	25.07.2016	-	9.49	-
Sobiestaw Pająk	-	→	-	31.08.2016	01.09.2016	-	9.30	-
Sobiestaw Pająk	Underweight	↓	09.10.2016	-	10.09.2016	02.11.2016	9.45	-1%
Sobiestaw Pająk	-	→	-	12.10.2016	13.10.2016	-	9.60	-
Sobiestaw Pająk	Neutral	↑	02.11.2016	-	03.11.2016	04.12.2016	9.37	-7%
Sobiestaw Pająk	Overweight	↑	04.12.2016	-	05.12.2016	15.11.2017	8.86	3%
Sobiestaw Pająk	-	→	-	12.01.2017	13.01.2017	-	9.11	-
Sobiestaw Pająk	-	→	-	15.01.2017	16.01.2017	-	9.33	-
Sobiestaw Pająk	-	→	-	08.02.2017	09.02.2017	-	11.08	-
Sobiestaw Pająk	-	→	-	21.02.2017	22.02.2017	-	11.70	-

Market-relative recommendation tracker (continued)

Analyst	Relative Recommendation	Report date	Reiteration date	Distribution date	Expiry date	Price at issue/reiteration*	Relative performance
Sobiesław Pająk	-	-	07.03.2017	08.03.2017	-	11.50	-
Sobiesław Pająk	-	-	11.04.2017	12.04.2018	-	12.30	-
Sobiesław Pająk	-	-	30.05.2017	31.05.2017	-	13.00	-
Sobiesław Pająk	-	-	28.06.2017	29.06.2017	-	12.30	-
Sobiesław Pająk	-	-	12.07.2017	13.07.2017	-	12.12	-
Sobiesław Pająk	-	-	10.08.2017	11.08.2017	-	12.20	-
Sobiesław Pająk	-	-	03.09.2017	04.09.2017	-	12.62	-
Sobiesław Pająk	-	-	15.10.2017	16.10.2017	-	12.13	-
Sobiesław Pająk	Overweight	15.11.2017	-	16.11.2017	09.04.2018	11.22	21%
Sobiesław Pająk	-	-	10.12.2017	11.12.2017	-	11.26	-
Sobiesław Pająk	-	-	10.01.2018	11.01.2018	-	12.65	-
Sobiesław Pająk	-	-	15.01.2018	16.01.2018	-	13.40	-
Sobiesław Pająk	-	-	13.02.2018	14.02.2018	-	12.55	-
Sobiesław Pająk	-	-	01.03.2018	01.03.2018	-	12.65	-
Sobiesław Pająk	-	-	12.03.2018	13.03.2018	-	13.00	-
Sobiesław Pająk	Neutral	09.04.2018	-	10.04.2018	30.08.2018	13.00	-12%
Sobiesław Pająk	-	-	16.04.2018	17.04.2018	-	12.80	-
Sobiesław Pająk	-	-	29.05.2018	30.05.2018	-	11.70	-
Sobiesław Pająk	-	-	27.06.2018	28.06.2018	-	10.50	-
Sobiesław Pająk	-	-	16.07.2018	17.07.2018	-	11.65	-
Sobiesław Pająk	-	-	02.08.2018	03.08.2018	-	11.35	-
Sobiesław Pająk	Overweight	30.08.2018	-	31.08.2018	30.07.2019	11.10	63%
Sobiesław Pająk	-	-	11.10.2018	12.10.2018	-	11.60	-
Sobiesław Pająk	-	-	23.10.2018	24.10.2018	-	11.60	-
Sobiesław Pająk	-	-	14.11.2018	15.11.2018	-	11.35	-
Sobiesław Pająk	-	-	09.12.2018	10.12.2018	-	11.25	-
Sobiesław Pająk	-	-	10.01.2019	11.01.2019	-	12.35	-
Sobiesław Pająk	-	-	17.01.2019	18.01.2019	-	12.30	-
Sobiesław Pająk	-	-	04.02.2019	05.02.2019	-	13.35	-
Sobiesław Pająk	-	-	26.02.2019	27.02.2019	-	13.40	-
Sobiesław Pająk	-	-	26.03.2019	27.03.2019	-	13.70	-
Sobiesław Pająk	-	-	27.03.2019	28.03.2019	-	13.80	-
Sobiesław Pająk	-	-	22.04.2019	23.04.2019	-	14.40	-
Sobiesław Pająk	-	-	24.04.2019	25.04.2019	-	14.30	-
Sobiesław Pająk	-	-	30.05.2019	31.05.2019	-	14.90	-
Sobiesław Pająk	-	-	26.06.2019	27.06.2019	-	15.70	-
Sobiesław Pająk	-	-	02.07.2019	03.07.2019	-	16.20	-
Sobiesław Pająk	-	-	17.07.2019	18.07.2019	-	16.90	-
Sobiesław Pająk	Overweight	30.07.2019	-	31.07.2019	13.07.2020	17.20	199%
Sobiesław Pająk	-	-	01.09.2019	02.09.2019	-	18.00	-
Sobiesław Pająk	-	-	30.09.2019	01.10.2019	-	19.90	-
Sobiesław Pająk	-	-	13.10.2019	14.10.2019	-	19.60	-
Sobiesław Pająk	-	-	24.10.2019	25.10.2019	-	21.00	-
Sobiesław Pająk	-	-	17.11.2019	18.11.2019	-	24.00	-
Sobiesław Pająk	-	-	08.12.2019	09.12.2019	-	25.40	-
Sobiesław Pająk	-	-	09.01.2020	10.01.2020	-	24.40	-
Sobiesław Pająk	-	-	04.02.2020	05.02.2020	-	25.60	-
Sobiesław Pająk	-	-	06.02.2020	07.02.2020	-	27.40	-
Sobiesław Pająk	-	-	03.03.2020	04.03.2020	-	28.00	-
Sobiesław Pająk	-	-	30.03.2020	31.03.2020	-	27.80	-
Sobiesław Pająk	-	-	22.04.2020	23.04.2020	-	29.00	-
Sobiesław Pająk	-	-	19.05.2020	20.05.2020	-	37.20	-
Sobiesław Pająk	-	-	15.06.2020	16.06.2020	-	37.00	-
Sobiesław Pająk	-	-	23.06.2020	24.06.2020	-	38.46	-
Sobiesław Pająk	-	-	28.06.2020	29.06.2020	-	38.00	-
Sobiesław Pająk	Overweight	13.07.2020	-	14.07.2020	08.11.2020	40.70	17%
Sobiesław Pająk	-	-	01.09.2020	02.09.2020	-	47.50	-
Sobiesław Pająk	-	-	24.09.2020	24.09.2020	-	45.70	-
Sobiesław Pająk	-	-	08.10.2020	09.10.2020	-	46.30	-
Sobiesław Pająk	Neutral	08.11.2020	-	09.11.2020	19.01.2021	41.50	-19%
Sobiesław Pająk	-	-	08.11.2020	09.11.2020	-	41.50	-
Sobiesław Pająk	-	-	06.12.2020	07.12.2020	-	40.40	-
Sobiesław Pająk	-	-	05.01.2021	05.01.2021	-	42.40	-
Sobiesław Pająk	Overweight	19.01.2021	-	19.01.2021	28.02.2021	40.00	-1%
Sobiesław Pająk	-	-	28.01.2021	29.01.2021	-	39.00	-
Sobiesław Pająk	Neutral	28.02.2021	-	01.03.2021	26.03.2021	39.00	2%
Sobiesław Pająk	Overweight	26.03.2021	-	26.03.2021	28.05.2021	40.30	-14%
Sobiesław Pająk	-	-	16.04.2021	16.04.2021	-	42.50	-
Sobiesław Pająk	Neutral	28.05.2021	-	28.05.2021	16.01.2022	39.80	26%
Sobiesław Pająk	-	-	30.05.2021	31.05.2021	-	39.80	-
Sobiesław Pająk	-	-	22.06.2021	23.06.2021	-	38.60	-
Sobiesław Pająk	-	-	09.07.2021	09.07.2021	-	39.60	-
Sobiesław Pająk	-	-	31.08.2021	31.08.2021	-	40.50	-
Sobiesław Pająk	-	-	22.09.2021	22.09.2021	-	40.50	-
Sobiesław Pająk	-	-	07.10.2021	07.10.2021	-	43.80	-
Sobiesław Pająk	-	-	04.11.2021	04.11.2021	-	48.00	-
Sobiesław Pająk	-	-	05.12.2021	06.12.2021	-	49.00	-
Sobiesław Pająk	Overweight	16.01.2022	-	17.01.2022	16.08.2022	54.00	18%
Sobiesław Pająk	-	-	07.02.2022	07.02.2022	-	49.90	-
Sobiesław Pająk	-	-	28.02.2022	28.02.2022	-	46.80	-
Sobiesław Pająk	-	-	27.03.2022	28.03.2022	-	52.20	-
Sobiesław Pająk	-	-	14.04.2022	14.04.2022	-	49.80	-
Sobiesław Pająk	-	-	26.05.2022	26.05.2022	-	47.50	-
Sobiesław Pająk	-	-	27.06.2022	28.06.2022	-	39.42	-

Market-relative recommendation tracker (continued)

Analyst	Relative Recommendation	Report date	Reiteration date	Distribution date	Expiry date	Price at issue/reiteration*	Relative performance	
Sobiesław Pająk	-	→	-	29.06.2022	30.06.2022	-	38.70	-
Sobiesław Pająk	-	→	-	15.07.2022	15.07.2022	-	39.90	-
Sobiesław Pająk	Neutral	↓	16.08.2022	-	16.08.2022	14.07.2023	48.00	-14%
Sobiesław Pająk	-	→	-	02.09.2022	02.09.2022	-	45.90	-
Sobiesław Pająk	-	→	-	07.10.2022	07.10.2022	-	42.60	-
Sobiesław Pająk	-	→	-	28.10.2022	28.10.2022	-	42.00	-
Sobiesław Pająk	-	→	-	04.12.2022	05.12.2022	-	45.70	-
Sobiesław Pająk	-	→	-	13.01.2023	13.01.2023	-	49.40	-
Sobiesław Pająk	-	→	-	03.02.2023	03.02.2023	-	44.80	-
Sobiesław Pająk	-	→	-	10.03.2023	10.03.2023	-	47.20	-
Sobiesław Pająk	-	→	-	23.03.2023	23.03.2023	-	49.50	-
Sobiesław Pająk	-	→	-	13.04.2023	13.04.2023	-	49.80	-
Sobiesław Pająk	-	→	-	29.05.2023	29.05.2023	-	49.90	-
Sobiesław Pająk	-	→	-	16.06.2023	16.06.2023	-	46.70	-
Sobiesław Pająk	Neutral	→	14.07.2023	-	14.07.2023	25.10.2023	51.40	-13%
Sobiesław Pająk	-	→	-	31.08.2023	31.08.2023	-	47.00	-
Sobiesław Pająk	-	→	-	12.10.2023	12.10.2023	-	44.90	-
Sobiesław Pająk	Overweight	↑	25.10.2023	-	25.10.2023	Not later than 25.10.2024	44.80	-

*prices at issue/reiteration are the closing prices at the report or reiteration date
pre-June 2014 recommendations issued at DM IDMSA

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