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Morning Comments

Equity Market, Poland

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DJIA	29,423.3	-0.43% FTSE 100	7,452.0	-1.09%	Copper (LME)	5,790.0	+0.45%
S&P 500	3,373.9	-0.16% WIG20	2,120.1	-0.29%	Crude Oil (Brent)	56.38	+0.32%
NA SDA Q	9,712.0	-0.14% BUX	44,629.5	+0.33%	USD/PLN	3.9167	+0.17%
DAX	13,745.4	-0.03% PX	1,104.1	+0.11%	EUR/PLN	4.2461	-0.13%
CA C 40	6,093.1	-0.19% PLBonds10	2.231	+0.068	EUR/USD	1.0841	-0.30%

Company & Sector News

Debt collection companies

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Enea

Buy - 2019-11-06 Target price: PLN 11.53 **Energa**

Buy - 2019-11-06 Target price: PLN 11.67

Orange Polska

Accumulate - 2019-11-29 Target price: PLN 7.40

Marshall Wace reduced short position in Hoist Finance

Marshall Wace decreased its net short position in Hoist finance by 13.39% to 866k shares (0.97% of total shares). According to regulator, two short positions in Hoist are disclosed. Disclosed short position cover 1.90% of company's stocks. Marshall Wace has the largest position (M. Konarski, M. Lemańczyk)

Enea, Energa suspended financing of the Ostrołeka C project

Enea and Energa decided to suspend financing of the Ostrołęka C investment due to analyses to be carried out by the sponsors regarding further actions in the project, and its further financing. The detailed scope, schedule and method of conducting the analyses will be agreed on within 10 days. In particular, technical, process, economic and organizational parameters of the project will be analyzed. According to the companies' statement, "recently, a number of circumstances have occurred which may impact the project": planned further changes in EU's policy on the electricity sector, new policy of the EIB and PKN's bid on Energa shares. **Decision is in line with recent government representatives' declaration and of course should be perceived positively by the market, despite the fact that still a lot of details have to be clarified. (K. Kliszcz)**

2019 Q4 Earnings Conference Highlights

- Orange Polska is planning further cost reductions from 2021, focused primarily on employment costs
- The company sees room for more price increases after the last hike, which was very well received by customers, and it hopes to stem declines in mobile-only ARPU from Q4 2020.
- Bluesoft added about PLN 6m to EBITDA in Q4'19.
- The net impact of one-time events on the quarterly profits can be estimated at PLN 20-30m.
- Financing costs in 2020 might approximate 3%.
- Orange still has more than PLN 1bn-worth of real estate held for sale, and it hopes to finalize deals in the PLN 200m-400m range in 2020.
- The size of dividends depends on actual 5G investment and, more importantly, on sustainable turnaround of the business.
- Orange Polska might release a 2021-2023 strategy plan in mid-2020 which will most likely include continued investment in fiber.
- In order to avoid having to increase capital spend, the company will be forming a "FiberCo" SPV jointly with another investor, but will retain control over the assets.
- Asked about mast spin-off plans, the CEO pointed out the high level of network optimization in connection with the T-Mobile agreement. The FiberCo is the main priority for 2020.
- Orange Polska is a proponent of the one-block-per-telco rule proposed as part of the 5G frequency auction, and any suggestions to the contrary constitute a reporting error.
- Working capital changes in 2020 might be neutral after the sale of a much smaller past-due bills batch than last year.
- Orange has a >20% FTTx penetration rate in >16 Polish cities (vs. >8 last year). (P. Szpigiel)

The company faces supply delays due to coronavirus outbreak

Mariusz Gaca, board member of Orange Polska, announced that the company is facing mobile phones supply delays due to the coronavirus outbreak in China, although the company does not expect to see problems resulting from the delay in the short-term. **Gaca said that Orange already took some preemptive measures to mitigate the shortages, but if the situation goes on for another two quarters the entire market will have problems with the mobile phone availability. Equipment sales is substantial and growing part of carriers revenue. Lack of phones supply will adversely affect the sector results. (P. Szpigiel)**



Copper London copper eases as virus toll continues to rise

Copper prices on the London Metal Exchange (LME) fell on Friday, as the rising death toll from the coronavirus in China dented the demand outlook for the metal. The death toll in China's Hubei province, the epicentre of the epidemic, has risen by 116, with the total number of cases up by nearly 5,000, health officials said on Friday. For more information please visit https://

tinyurl.com/s74dwtt (J. Szkopek)

More News

Allegro Allegro will hike investments to PLN 1 bln in 2020 from last year's over PLN 700 mln, CEO

Francois Nuyts told a press conference.

Coal Polish coal imports shrank by ca. 2.6 mln tons in 2019 to 16.7 mln tons, including 13.2 mln tons

of steam coal and 3.5 mln tons of coking coal, deputy State Assets Minister Adam Gaweda said in

the lower house.

Construction Polish construction sector is benefiting from mild winter and the declining trend visible in key

segments of the construction sector has been stopped in Q1, researcher IRG SGH said in a report.

Inter Cars Inter Cars should enjoy 7-9% revenue growth in 2020 and pay a PLN 0.71 DPS from 2019 profits,

same as in the prior years, lead shareholder Krzysztof Oleksowicz suggested in an interview for

PAP.

JSW wants to deliver an average EBITDA margin of at least 25% in years 2020-2030 with

production rising gradually to ca. 18 mln tons in 2030 from ca. 14.8 mln in 2019, the company

said in a market filing with a strategy approved by the supervisory board.

Mabion Mabion mulls two ways of registering its medicine MabionCD20 and plans to place it on the

market in Q1 2022, the company announced.

PBG Regional court in Poznan opened sanation proceedings against listed construction firm PBG, the

company said in a market filing.

PGG plans to achieve a profit in 2020, likely at last-year's level, with capex reduced to over PLN

2.5 bln, CEO Tomasz Rogala told reporters.

PLL LOT extended the suspension of flights from Warsaw to Beijing to March 28, LOT acting

spokesperson Michal Czernicki told PAP.

Power Polish electricity consumption shrank by 4.3% y/y in January to 15,195 GWh, while domestic

production fell by 7.9% y/y to 14,457 GWh, according to the national grid operator PSE.

Poland recorded a drop in share of electricity produced from coal in total output to 46.5% in

January from 49.6% in the prior year period, according to grid operator PSE data. Wind farm

output grew to 12.4% of the total from 9.4% a year ago.

Stalexport Autostrady Stalexport Autostrady likely suffered a slide in attributable net profit to PLN 75.5 mln in 2019

from PLN 181 mln in 2018, the company said of own estimates.

Tauron Listed power utility Tauron is facing further delay in launching Jaworzno power block due to

unexpected problems with the boiler in the final round of the block's tests, according to a market

filing from contractor Rafako.

Work Service Work Service secured a PLN 48.7 mln or 44.1% haircut under an agreement with banks crediting

the company, Work Service said in a filing.

Corporate Action Calendar

Date	Time	Company	Event
14-Feb		Millennium	Q4'19 earnings announcement
14-Feb		Skarbiec	Q4'19 earnings announcement
20-Feb		Jeronimo Martins	Q4'19 earnings announcement (after market close)
20-Feb		Santander	Q4'19 earnings announcement
21-Feb		MOL	Q4'19 earnings announcement

Econ	omic Ca	alendar			
Friday	, 14 Febru	arv 2020			
Time	Region	Data	Period	Forecast	Previous
00:50	Japan	Foreigners Buying Japan Bonds (F)		1010000	1023.70bn
00:50	Japan	Foreigners Buying Japan Stocks (F)			-295.60bn
00:50	Japan	Japan Buying Foreign Bonds (F)			150.20bn
00:50	Japan	Japan Buying Foreign Stocks (F)			-32.60bn
08:00	Germany	GDP	Q4	-0.10% q/q; 0.25% y/y	0.10% q/q; 0.50% y/y
10:00	Poland	CPI	January	0.10 % 4, 4, 0.20 % ,, ,	0.80% m/m; 3.40% y/y
10:00	Poland	GDP (P)	Q4		1.30% q/q; 3.90% y/y
11:00	EU	Exports	December December		194.60bn
11:00	EU	GDP	Q4	0.08% g/g; 0.95% y/y	0.20% q/q; 1.20% y/y
11:00	EU	Imports	December	0.00 % 4/4/ 0.55 % 4//	175.40bn
11:00	EU	Trade Balance	December		19.20bn
14:30	USA	Exports	January		-0.20% m/m; -1.30% y/y
14:30	USA	Import Price Index	January		0.30% m/m; 0.50% y/y
14:30	USA	Retail Sales	January	0.45% m/m;	0.30% m/m; 5.80% y/y
14:30	USA	Retail Sales Less Autos	January	0.35% m/m;	0.70% m/m; 6.30% y/y
15:15	USA	Capacity Utilization	January	76.85% m/m	77.00% m/m
15:15	USA	Industrial Production	January	-0.27% m/m;	-0.30% m/m; -1.00% y/y
16:00	USA	Business Inventories	December	0.10% m/m;	-0.20% m/m; 2.80% y/y
		ruary 2020	December	0.10 70 111/111,	-0.20 % III/III, 2.80 % y/ y
Time	Region	Data	Period	Forecast	Previous
00:50	Japan	GDP (P)	04	Forecast	0.40% g/g; 1.80% y/y
11:00	EU	Construction Orders	Q4 December		1. 1
					0.70% m/m; 1.40% y/y
12:00	UK	CBI Industrial Trends	February December		-22
Tuesd	Japan	Industrial Production (F) ruary 2020	December		-1.00% m/m; -8.20% y/y
Time	Region	Data	Period	Forecast	Previous
10:00	USA	TIC Net Long-term Flows	December	rorcease	22.90bn
10:30	UK	Unemployment Rate	December		3.80%
11:00	Germany	ZEW Current Situation	February		-9.50
11:00	EU	ZEW Current Situation	February		-9.90
11:00	Germany	ZEW Economic Sentiment	February		26.70
11:00	EU	ZEW Economic Sentiment	February		25.60
14:30			,		4.80
	USA	Empire State Manufacturing Index	February		4.80
16:00	USA	NAHB Housing Market Index	February		73.10bn
22:00	USA	TIC Net Flows	December		/3.10bh
_		February 2020	Devied	Foregot	Dravious
Time	Region	Data Whalasala Dries Index	Period	Forecast	Previous
08:00	Germany	Wholesale Price Index	January		0.00% m/m; -1.30% y/y
10:00	EU	Current Account Balance	December		34bn
10:00	Poland	Wages	January		7.20% m/m; 6.20% y/y
10:30	UK	Core CPI	January -		1.40% y/y
10:30	UK	CPI	January		0.00% m/m; 1.30% y/y
10:30	UK	PPI Input	January		0.10% m/m; -0.10% y/y
10:30	UK	PPI Output	January – .		0.00% m/m; 0.90% y/y
12:00	UK	CBI Distributive Trades Report	February		0%
13:45	EU	Interest Rate			0.00%
14:30	USA	Building Permits	January		1,416,000 m/m
14:30	USA	Housing Starts	January		1,608,000 m/m
14:30	USA	PPI	January		0.10% m/m; 1.30% y/y



Thurso	lay, 20 Fel	oruary 2020			
Time	Region	Data	Period	Forecast	Previous
00:50	Japan	Exports	January		-6.30%
00:50	Japan	Imports	January		-4.90%
00:50	Japan	Trade Balance	January		-152.50bn
08:00	Germany	GfK Consumer Confidence	February		9.90
08:00	Germany	PPI	January	0.10% m	/m; -0.20% y/y
08:45	France	CPI Harmonized	January	0.50% n	n/m; 1.60% y/y
08:45	France	CPI	January	0.30% n	n/m; 1.50% y/y
10:00	Poland	Industrial Production	January	-9.40% n	n/m; 3.80% y/y
10:00	Poland	Manufacturing Production	January	-10.70% n	n/m; 3.80% y/y
10:00	Poland	PPI	January	-0.10% n	n/m; 1.00% y/y
10:30	UK	Retail Sales	January	-0.30% n	n/m; 1.50% y/y
10:30	UK	Retail Sales Less Autos	January	-0.80% n	n/m; 1.10% y/y
12:30	Japan	Core CPI	January	0.10% n	n/m; 0.90% y/y
12:30	Japan	CPI	January		0.80% y/y
14:30	USA	Philadelphia Fed Index	February		17.00
16:00	EU	Consumer Confidence Index (P)	February		-8.10
16:00	USA	Leading Indicators Index	January		0.10%
17:30	Japan	Industry Activity Index	December		0.90% m/m

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Current Recommendations by mBank

Company	Recommendation	Issued On	Price At	Target	Current	Upside/	P/E	:	EV/EBI	TDA
Company	Recommendation	Issued Oil	Reco.	Price	Price	Downside	2019	2020	2019	2020
Financial Sector						+4.2%	10.6	10.5		
Alior Bank	hold	2019-11-06	29.34	31.00	27.60	+12.3%	8.7	8.0		
Handlowy	accumulate	2019-12-05	51.70	57.44	57.20	+0.4%	16.6	12.0		
ING BSK	sell	2020-02-04	202.00	170.00	197.60	-14.0%	15.4	14.6		
Millennium	reduce	2020-02-05	5.91	5.47	5.88	-6.9%	10.2	12.8		
Pekao	buy	2019-12-05	96.34	115.20	102.95	+11.9%	12.0	10.9		
PKO BP	accumulate	2020-02-05	36.00	39.69	35.86	+10.7%	10.9	10.4		
Santander Bank Polska	hold	2020-02-05	304.00	287.90	306.20	-6.0%	14.6	12.8		
Komercni Banka	buy	2019-12-05	792.00	928.20 CZK	797.00	+16.5%	9.9	10.5		
Moneta Money Bank	buy	2019-08-28	75.95	94.33 CZK	85.80	+9.9%	11.5	10.7		
Erste Group	accumulate	2019-12-05	32.20	36.61 EUR	35.35	+3.6%	9.8	9.4		
RBI OTP Bank	accumulate	2019-12-05 2019-12-05	21.24	23.05 EUR 14,681 HUF	22.46	+2.6%	6.4	6.1 9.4		
PZU	hold hold		14,870 40.54	,	14,990 39.70	-2.1% +5.6%	10.3 10.8	10.3		
Kruk	buy	2020-02-05 2019-12-05	150.90	41.91 210.31	155.10	+35.6%	8.8	8.7		
Skarbiec Holding	buy	2019-12-05	17.20	29.34	21.80	+34.6%	6.8	6.5		
GPW	buy	2020-01-16	40.85	47.82	41.40	+15.5%	13.6	15.6		
Chemicals	buy	2020-01-10	40.03	47.02	41.40	+13.8%	11.4	10.9	5.5	5.7
Ciech	buy	2020-02-13	39.40	47.46	38.55	+23.1%	15.6	8.9	6.6	5.6
Grupa Azoty	buy	2020-02-06	27.50	30.31	28.60	+6.0%	7.1	13.0	4.4	5.8
Oil & Gas	buy	2020 02 00	27.30	30.31	20.00	+1.5%	10.3	10.4	4.4	5.0
Lotos	reduce	2020-02-05	76.78	68.47	77.08	-11.2%	12.2	9.8	5.9	5.2
MOL	accumulate	2020-02-05	2,618	2,816 HUF	2,560	+10.0%	8.4	9.0	4.0	4.9
PGNiG	hold	2020-01-28	3.86	4.06	3.64	+11.5%	12.1	14.1	4.5	4.5
PKN Orlen	reduce	2020-02-03	75.66	68.03	74.58	-8.8%	7.1	11.0	4.2	5.1
Power Utilities						+45.5%	4.2	5.4	3.7	3.7
CEZ	buy	2019-12-05	502.00	597.80 CZK	496.20	+20.5%	14.8	12.9	7.2	6.7
Enea	buy	2019-11-06	8.59	11.53	7.22	+59.7%	3.0	3.0	3.1	3.0
Energa	buy	2019-11-06	6.37	11.67	7.40	+57.7%	5.8	5.6	3.7	4.3
PGE	buy	2019-10-24	8.42	12.20	6.23	+95.8%	4.2	5.4	2.9	3.3
Tauron	buy	2019-11-06	1.73	2.45	1.46	+67.9%	2.8	2.3	4.0	3.7
Telecoms, Media, IT						-4.3%	30.7	19.6	6.5	6.6
Netia	hold	2019-12-05	4.44	4.70	4.39	+7.1%	30.7	31.4	4.5	4.6
Orange Polska	accumulate	2019-11-29	6.46	7.40	7.11	+4.1%	33.5	36.7	5.4	5.6
Play	accumulate	2020-02-05	34.80	36.00	34.70	+3.7%	10.0	9.1	6.4	6.3
Agora	buy	2019-10-30	9.50	17.00	13.25	+28.3%	63.2	33.7	7.6	7.2
Cyfrowy Polsat	reduce	2019-11-14	28.86	26.10	27.74	-5.9%	15.8	13.4	7.1	6.9
Wirtualna Polska	hold	2020-02-05	82.20	79.70	84.00	-5.1%	36.3	22.8	13.8	11.2
Asseco Poland	hold	2019-12-05	57.35	59.20	67.00	-11.6%	16.9	16.4	5.4	5.2
Comarch	buy	2019-11-25	189.50	250.00	207.00	+20.8%	15.0	14.4	6.5	6.3
11 bit studios	hold	2020-02-05	440.00	439.00	454.50	-3.4%	58.8	47.0	35.4	29.7
CD Projekt	hold	2020-02-05	305.00	284.20	318.70	-10.8%	-	13.6	-	11.9
Industrials, Mining						-0.4%	6.6	9.1	4.5	4.4
Cognor	hold	2019-12-06	1.20	1.25	1.22	+2.5%	6.6	37.9	4.4	6.0
Famur	buy	2019-12-05	2.98	5.18	3.18	+62.9%	4.9	7.5	3.9	4.0
Grupa Kęty	hold	2019-12-05	338.50	335.44	400.00	-16.1%	13.6	15.6	9.1	9.9
JSW	hold	2020-02-05	19.78	18.41	18.02	+2.2%	4.5	-	0.7	2.9
Kemel	hold	2020-02-05	47.20	47.25	47.70	-0.9%	5.3	7.8	4.9	6.5
KGHM	reduce	2020-02-05	96.44	86.33	94.68	-8.8%	8.5	8.4	4.7	4.6
PKP Cargo	reduce	2020-02-05	17.50	16.40	16.74	-2.0%	14.2	-	3.0	3.6
Stelmet	accumulate	2020-02-05	7.85	8.92	7.50	+18.9%	- 110	9.8	5.0	4.2
Property Developers Atal	accumulate	2020-02-05	20.00	44.29	40.20	-0.9%	11.9	8.3	10.9	7.5
Dom Development	hold	2020-02-03	39.80 93.00	44.28 88.92	40.30 98.00	+9.9% -9.3%	14.1 9.7	7.5 9.1	14.0 7.9	7.1 7.9
Retail	noid	2015-12-03	93.00	00.92	30.00	-9.5% + 4.9%	39.0	21.5	10.3	7.9 9.1
AmRest	hold	2019-12-05	46.35	47.00	47.80	-1.7%	39.0	37.6	12.8	11.9
CCC	buy	2019-12-05	108.10	157.00	102.30	+53.5%	96.4	21.5	5.8	4.5
Dino	reduce	2020-02-05	164.70	149.70	167.00	-10.4%	40.6	29.9	23.8	18.0
Eurocash	hold	2020-02-03	19.94	19.80	19.82	-0.1%	67.2	40.0	7.3	6.9
Jeronimo Martins	hold	2020-02-03	15.78	16.30 EUR	16.66	-2.2%	19.7	19.4	10.3	9.1
LPP	buy	2020-02-03	8,610.00	10,100.00	8,415.00	+20.0%	27.5	19.4	11.4	9.1
VRG	buy	2020-02-03	3.93	4.50	3.85	+16.9%	14.9	12.3	4.7	4.3
VICO	Duy	2020 02-03	الرورو	7.30	3.03	1 10.7 /0	エヤ・フ	14.0	7./	4.5



Current Calls by mBank

Company	Relative	Rated On	Price At	Current	Change	P/I	E	EV/EBI	TDA
Company	Positioning	Rateu On	Rating	Price	Change	2019	2020	2019	2020
IT						15.9	13.4	7.3	6.1
Ailleron	neutral	2019-10-31	7.16	8.92	+24.6%	16.1	12.2	6.3	5.0
Asseco BS	overweight	2020-01-30	32.60	32.00	-1.8%	15.8	14.7	10.2	9.5
Asseco SEE	overweight	2019-12-05	25.60	27.40	+7.0%	16.9	15.2	8.3	7.1
Atende	neutral	2019-12-05	3.06	3.48	+13.7%	12.3	11.5	5.1	4.9
Industrials						13.1	11.7	6.9	6.9
AC	neutral	2019-12-05	43.20	47.60	+10.2%	12.0	12.0	8.4	8.0
Alumetal	neutral	2020-01-30	42.80	43.80	+2.3%	13.7	14.2	7.9	8.1
Amica	neutral	2019-12-05	133.20	142.60	+7.1%	9.7	9.0	6.2	6.2
Apator	neutral	2020-01-30	20.70	21.40	+3.4%	13.4	12.3	7.3	7.2
Astarta	overweight	2020-01-30	15.90	18.05	+13.5%	-	3.3	7.3	3.1
Boryszew	underweight	2020-01-30	4.54	4.38	-3.5%	14.5	11.4	6.9	7.0
Forte	underweight	2020-01-30	32.30	37.40	+15.8%	22.8	16.1	10.2	9.1
Kruszwica	overweight	2020-01-30	52.20	59.20	+13.4%	13.0	12.4	6.9	6.8
Mangata	neutral	2019-12-05	72.00	75.00	+4.2%	9.1	10.7	6.4	6.9
Pozbud	neutral	2019-12-05	1.80	1.55	-13.9%	3.6	3.5	4.3	5.3
TIM	overweight	2019-12-05	10.90	11.75	+7.8%	13.2	11.7	6.9	6.3

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CEE bank valuations

			P/E			ROE			P/BV			DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Polish banks													
Alior Bank	27.60	8.7	8.0	7.6	6%	6%	6%	0.5	0.5	0.5	0.0%	0.0%	0.0%
Handlowy	57.20	16.6	12.0	11.5	6%	9%	9%	1.1	1.0	1.0	6.5%	6.7%	6.2%
ING BSK	197.60	15.4	14.6	13.4	12%	12%	12%	1.9	1.7	1.6	1.8%	1.9%	2.1%
Millennium	5.88	10.2	12.8	15.7	8%	6%	5%	0.8	0.8	0.7	0.0%	0.0%	0.0%
Pekao	102.95	12.0	10.9	10.2	10%	10%	11%	1.2	1.1	1.1	6.4%	6.3%	6.9%
PKO BP	35.86	10.9	10.4	9.8	10%	10%	10%	1.1	1.0	1.0	3.7%	8.3%	9.9%
Santander BP	306.20	14.6	12.8	11.8	9%	9%	9%	1.2	1.2	1.1	6.4%	1.7%	2.0%
Median		12.0	12.0	11.5	9%	9%	9%	1.1	1.0	1.0	3.7%	1.9%	2.1%
Investors in Polish ba	anks												
BCP	0.194	8.1	6.5	5.5	6%	7%	8%	0.5	0.5	0.4	1.0%	3.6%	5.7%
Citigroup	79.000	10.5	9.2	8.3	10%	10%	10%	1.0	0.9	0.8	2.4%	2.7%	3.1%
Commerzbank	6.450	11.1	12.0	10.5	2%	2%	3%	0.3	0.3	0.3	2.8%	2.9%	3.2%
ING	10.772	8.3	8.7	8.5	9%	9%	9%	0.8	0.7	0.7	6.4%	6.5%	6.6%
UCI	14.028	7.9	8.1	7.7	6%	6%	6%	0.6	0.6	0.5	4.6%	4.2%	4.3%
Median		8.3	8.7	8.3	6%	7%	8%	0.6	0.6	0.5	2.8%	3.6%	4.3%
Foreign banks													
Erste Group	35.35	9.8	9.4	9.3	11%	11%	10%	1.0	1.0	1.0	3.7%	4.3%	4.5%
Komercni Banka	797.00	9.9	10.5	10.1	15%	13%	13%	1.4	1.4	1.3	6.4%	6.4%	6.4%
Moneta Money	85.80	11.5	10.7	10.6	15%	16%	16%	1.7	1.7	1.6	7.2%	6.5%	7.0%
OTP Bank	14,990	10.3	9.4	9.2	20%	18%	17%	1.9	1.6	1.4	1.5%	1.6%	3.7%
RBI	22.46	6.4	6.1	6.0	10%	9%	9%	0.6	0.6	0.5	5.2%	4.7%	4.9%
Akbank	8.16	8.2	5.3	4.7	11%	16%	17%	0.8	0.7	0.6	2.1%	4.3%	5.6%
Alpha Bank	1.83	21.5	13.6	8.3	2%	2%	4%	0.3	0.4	0.4	0.0%	0.0%	0.4%
Banco Santander	3.94	8.4	8.3	7.9	7%	8%	8%	0.7	0.6	0.6	5.5%	5.8%	6.0%
Deutsche Bank	10.18	-	92.5	17.6	-8%	0%	1%	0.4	0.4	0.4	0.0%	0.0%	0.8%
Eurobank Ergasias	0.79	12.2	7.3	6.7	3%	7%	8%	0.6	0.5	0.5	0.0%	0.0%	0.0%
National Bank of Greece	2.89	7.7	11.8	9.3	7%	5%	5%	0.5	0.5	0.5	0.0%	0.0%	0.0%
Piraeus Bank	3.11	12.6	10.5	6.1	3%	2%	4%	0.2	0.3	0.2	0.0%	0.0%	0.0%
Sberbank	253.89	6.5	5.9	5.5	21%	20%	20%	1.3	1.1	1.0	7.4%	8.6%	9.3%
Turkiye Garanti Bank	11.68	7.8	5.2	4.8	13%	18%	18%	0.9	0.8	0.7	-	-	-
Turkiye Halk Bank	7.30	5.9	3.1	2.4	5%	7%	10%	0.3	0.3	0.2	0.8%	1.4%	1.8%
Turkiye Vakiflar Bankasi	6.42	5.7	3.3	2.8	9%	14%	14%	0.5	0.4	0.4	-	-	-
VTB Bank	0.05	3.7	3.7	3.4	12%	12%	12%	0.4	0.4	0.3	31.3%	8.3%	8.3%
Yapi ve Kredi Bankasi	2.85	5.8	4.2	3.4	10%	12%	12%	0.6	0.5	0.4	0.0%	0.0%	0.0%
Median		8.2	7.8	6.4	10%	11%	11%	0.6	0.5	0.5	1.8%	2.9%	4.1%

Insurance company valuations

	P/E				ROE			P/BV			DY		
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Insurers													
PZU	39.70	10.8	10.3	10.2	21%	22%	22%	2.3	2.2	2.2	7.5%	7.4%	7.7%
Aegon	3.77	5.7	5.6	5.3	6%	6%	7%	0.4	0.4	0.3	8.2%	8.6%	9.0%
Allianz	229.70	12.3	11.3	10.7	12%	12%	12%	1.3	1.3	1.2	4.1%	4.5%	4.5%
Assicurazioni Generali	18.60	10.7	10.8	10.3	11%	10%	10%	1.1	1.0	1.0	5.2%	5.5%	5.8%
Aviva	4.10	6.9	7.0	6.7	13%	13%	13%	0.9	0.9	0.9	7.6%	7.8%	8.1%
AXA	25.27	10.4	9.0	8.6	9%	10%	11%	1.0	0.9	0.9	5.7%	6.1%	6.5%
Baloise	179.50	13.0	13.3	12.4	10%	9%	9%	1.2	1.2	1.1	3.5%	3.7%	3.9%
Helvetia	144.30	13.6	13.9	13.4	10%	10%	10%	1.2	1.2	1.2	3.4%	3.5%	3.7%
Mapfre	2.42	11.7	9.2	8.8	8%	9%	10%	0.9	0.8	0.8	6.1%	6.4%	6.6%
RSA Insurance	5.80	14.8	12.6	11.7	10%	11%	12%	1.5	1.5	1.4	4.0%	33.4%	5.4%
Uniqa	9.84	13.5	12.7	12.1	7%	7%	7%	1.0	0.9	0.9	5.6%	5.9%	6.0%
Vienna Insurance G.	25.00	11.0	9.8	9.3	6%	7%	7%	0.6	0.6	0.6	4.2%	4.4%	4.7%
Zurich Financial	428.80	15.9	14.2	13.4	13%	13%	13%	1.9	1.8	1.8	4.8%	5.1%	5.4%
Median		11.7	10.8	10.3	10%	10%	10%	1.1	1.0	1.0	5.2%	5.9%	5.8%

Source: mBank (stocks marked with bold), Bloomberg

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Gas & Oil valuations

		ΕV	//EBITD	A		EV/S			P/E		EBIT	DA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Oil companies								10.0		10.0	100/	1101	1101			2 22/
Lotos	77.08	5.9	5.2	4.9	0.6	0.6	0.5	12.2	9.8	10.3	10%	11%	11%	3.9%	3.9%	3.9%
MOL	2560.00	4.0	4.9	4.3	0.5	0.6	0.6	8.4	9.0	7.6	13%	13%	15%	5.6%	5.8%	6.1%
PKN Orlen	74.58	4.2	5.1	5.3	0.3	0.4	0.4	7.1	11.0	11.3	8%	7%	7%	4.7%	4.7%	4.7%
Hellenic Petroleum	7.82	6.5	5.4	5.4	0.4	0.4	0.4	11.4	6.9	6.6	7%	8%	8%	5.9%	6.1%	6.4%
HollyFrontier	43.58	5.2	5.5	5.9	0.6	0.5	0.5	8.8	8.9	10.1	11%	10%	9%	3.1%	3.2%	3.4%
Marathon Petroleum	59.50	7.0	5.7	5.8	0.6	0.5	0.5	14.4	8.7	9.9	8%	9%	9%	3.6%	3.9%	4.3%
Motor Oil	18.98	5.1	4.3	4.6	0.3	0.3	0.3	8.5	6.4	7.1	5%	7%	6%	6.8%	7.1%	7.4%
Neste Oil	38.83	12.5	13.4	12.2	1.9	2.1	1.9	20.2	20.5	18.3	15%	15%	16%	2.4%	2.5%	2.8%
OMV	43.93	3.8	3.7	3.6	1.0	1.0	1.0	8.4	8.2	7.7	26%	26%	26%	4.4%	4.8%	5.2%
Phillips 66	90.34	7.4	6.5	6.4	0.5	0.5	0.4	11.1	9.4	9.1	7%	7%	7%	3.9%	4.3%	4.6%
Saras SpA	1.27	3.3	2.2	2.9	0.1	0.1	0.1	13.4	5.0	7.4	4%	6%	4%	5.2%	9.1%	7.1%
Tupras	112.00	9.0	5.3	5.0	0.4	0.4	0.4	22.1	6.6	5.9	5%	7%	7%	5.8%	13.1%	15.1%
Valero Energy	83.70	8.0	5.7	6.2	0.4	0.4	0.4	16.9	9.2	10.3	5%	7%	6%	4.3%	4.7%	5.0%
Median		5.9	5.3	5.3	0.5	0.5	0.4	11.4	8.9	9.1	8%	8%	8%	4.4%	4.7%	5.0%
Gas companies																
PGNiG	3.64	4.5	4.5	3.5	0.6	0.6	0.6	12.1	14.1	9.3	12%	13%	16%	3.0%	3.3%	2.8%
A2A SpA	1.84	7.8	7.6	7.2	1.5	1.4	1.4	16.7	16.3	15.3	19%	19%	19%	4.3%	4.3%	4.6%
BP	459.95	4.9	4.7	4.6	0.6	0.6	0.6	12.6	11.4	10.9	13%	13%	13%	0.0%	0.0%	0.0%
Centrica	71.82	4.0	3.9	4.2	0.3	0.3	0.3	10.0	7.6	7.3	7%	7%	7%	0.0%	0.0%	0.0%
Enagas	25.18	11.2	11.3	12.1	9.4	9.6	10.5	13.9	13.6	13.8	83%	85%	87%	6.4%	6.7%	6.7%
Endesa	24.98	9.0	8.7	8.5	1.7	1.6	1.6	17.1	16.1	15.6	19%	19%	19%	5.8%	6.1%	5.3%
Engie	15.91	7.1	6.8	6.5	1.1	1.1	1.0	15.4	13.9	12.5	16%	16%	16%	4.9%	5.2%	5.7%
Eni	12.99	3.7	3.5	3.3	0.9	0.9	0.8	14.5	11.3	10.1	24%	25%	26%	6.6%	6.8%	6.9%
Equinor	161.50	3.2	2.9	2.6	1.1	1.0	1.0	11.6	10.3	9.2	35%	36%	37%	0.1%	0.1%	0.1%
Gas Natural SDG	23.45	9.3	9.0	8.8	1.6	1.6	1.6	17.2	16.0	15.2	17%	18%	18%	5.8%	6.1%	6.4%
Gazprom	233.55	3.9	4.0	3.6	1.0	1.1	1.0	4.2	5.0	4.4	27%	27%	27%	6.5%	7.5%	10.9%
Hera SpA	4.36	9.0	8.6	8.4	1.5	1.3	1.3	20.0	20.5	19.8	16%	16%	15%	2.3%	2.5%	2.5%
NovaTek	1054.00	13.2	10.4	9.8	3.9	3.7	3.5	3.4	9.7	10.1	29%	36%	36%	2.7%	3.4%	3.7%
ROMGAZ	34.60	5.0	5.4	5.2	2.4	2.6	2.6	8.6	9.3	9.1	48%	48%	49%	9.6%	9.0%	9.7%
Shell	23.53	3.2	3.0	2.9	0.5	0.5	0.5	11.9	10.3	9.4	16%	17%	17%	8.7%	8.7%	8.9%
Snam SpA	5.00	13.3	13.1	12.7	10.8	10.6	10.3	15.4	15.1	14.5	81%	81%	81%	4.8%	5.1%	5.2%
Total	45.40	5.4	4.7	4.6	1.0	0.9	0.9	12.5	10.7	10.2	18%	19%	20%	6.4%	6.7%	7.1%
Median		5.4	5.4	5.2	1.1	1.1	1.0	12.6	11.4	10.2	19%	19%	19%	4.9%	5.2%	5.3%

Power generation company valuations

	EV/EBITDA EV/S P/E EBITDA margin DY															
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Power generation																
CEZ	496.20	7.2	6.7	6.6	2.1	1.9	1.8	14.8	12.9	13.0	29%	28%	27%	4.8%	6.1%	7.0%
Enea	7.22	3.1	3.0	2.7	0.6	0.5	0.6	3.0	3.0	2.3	20%	18%	21%	0.0%	0.0%	3.4%
Energa	7.40	3.7	4.3	4.5	0.7	0.7	0.8	5.8	5.6	5.0	19%	17%	17%	0.0%	0.0%	0.0%
PGE	6.23	2.9	3.3	2.6	0.6	0.6	0.5	4.2	5.4	3.6	21%	17%	21%	0.0%	6.0%	4.6%
Tauron	1.46	4.0	3.7	3.2	0.7	0.6	0.6	2.8	2.3	1.9	18%	17%	19%	0.0%	0.0%	0.0%
EDF	11.73	5.2	4.8	4.7	1.2	1.2	1.1	17.5	14.5	14.1	23%	24%	25%	2.7%	3.2%	3.3%
EDP	4.66	10.0	9.8	9.5	2.2	2.2	2.1	21.8	20.0	18.8	22%	22%	23%	4.1%	4.1%	4.3%
Endesa	24.98	9.0	8.7	8.5	1.7	1.6	1.6	17.1	16.1	15.6	19%	19%	19%	5.8%	6.1%	5.3%
Enel	8.21	8.2	7.8	7.5	1.8	1.8	1.8	17.2	15.7	14.7	22%	23%	24%	4.0%	4.5%	4.8%
EON	10.98	11.3	8.5	8.2	1.8	1.0	0.9	16.8	16.7	15.5	16%	12%	11%	4.2%	4.4%	4.6%
Fortum	21.94	14.8	13.8	13.8	4.6	4.5	4.4	12.8	14.1	14.0	31%	33%	32%	5.0%	5.0%	5.0%
Iberdola	10.59	11.0	10.3	9.8	2.9	2.8	2.7	20.0	18.7	17.8	27%	27%	28%	3.6%	3.8%	4.1%
National Grid	1019.40	12.5	11.9	11.3	4.1	4.1	3.9	17.5	17.4	16.6	32%	34%	35%	0.0%	0.0%	0.0%
Red Electrica	18.65	10.0	9.8	9.8	7.7	7.6	7.6	14.1	15.1	15.3	78%	78%	78%	5.6%	5.5%	5.5%
RWE	32.94	9.1	6.1	5.3	1.4	1.1	1.1	19.6	19.8	14.7	16%	19%	21%	2.4%	2.8%	3.3%
SSE	1639.00	13.3	13.1	12.0	0.9	2.9	2.9	24.4	19.2	16.7	7%	23%	24%	0.0%	0.0%	0.0%
Verbund	47.74	8.9	7.5	7.2	3.1	2.8	2.8	29.4	23.8	22.7	35%	37%	38%	1.5%	2.0%	2.2%
Median		9.0	7.8	7.5	1.8	1.8	1.8	17.1	15.7	14.7	22%	23%	24%	2.7%	3.8%	4.1%

Machine and equipment manufacturers

		EV/EBITDA				EV/S			P/E		EBI	TDA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Industrials																
Famur	3.18	3.9	4.0	4.3	1.0	1.1	1.1	4.9	7.5	8.6	25%	28%	26%	16.7%	12.4%	10.2%
Caterpillar	139.72	7.6	8.7	8.3	1.5	1.6	1.6	12.9	14.8	13.2	20%	19%	19%	2.7%	3.0%	3.3%
Epiroc	118.95	9.5	9.5	9.1	2.4	2.5	2.4	22.3	22.4	21.1	25%	26%	26%	2.1%	2.2%	2.4%
Komatsu	2329.50	5.5	6.8	6.8	1.1	1.2	1.1	8.8	11.7	11.3	19%	17%	17%	4.6%	4.7%	4.7%
Sandvig AG	186.00	10.2	10.1	9.6	2.4	2.4	2.3	17.5	16.5	15.3	23%	24%	24%	2.4%	2.6%	2.8%
Median		7.6	8.7	8.3	1.5	1.6	1.6	12.9	14.8	13.2	23%	21%	22%	2.7%	3.0%	3.3%

Fertilizer producers and chemical companies

	EV/EBITDA				EV/S			P/E		EBIT	DA mar	gin		DY		
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Fertilizer producers																
Grupa Azoty	28.60	4.4	5.8	7.8	0.6	0.7	0.8	7.1	13.0	54.5	13%	11%	10%	0.0%	0.0%	0.0%
Acron	4780.00	8.0	7.0	6.7	2.5	2.2	2.0	9.7	7.9	7.8	31%	32%	30%	6.8%	6.9%	7.2%
CF Industries	39.34	9.1	8.8	8.3	3.3	3.3	3.1	18.6	16.7	14.1	36%	37%	38%	3.1%	3.1%	3.1%
Israel Chemicals	1424.00	6.3	6.2	5.9	1.4	1.4	1.3	10.9	10.4	9.4	22%	22%	22%	0.0%	0.0%	0.0%
K+S	8.99	8.1	7.5	6.5	1.3	1.2	1.2	18.9	14.9	8.6	16%	16%	18%	2.7%	3.2%	4.2%
Phosagro	2418.00	5.8	6.1	5.7	1.8	1.9	1.8	8.0	10.3	10.3	31%	30%	31%	7.3%	4.9%	4.9%
The Mosaic Company	19.48	8.2	7.3	6.1	1.3	1.3	1.2	46.3	20.9	12.0	16%	18%	20%	1.0%	1.1%	1.3%
Yara International	380.00	51.5	46.7	43.1	8.2	7.8	7.4	-	-	-	16%	17%	17%	0.3%	0.5%	0.5%
ZCh Puławy	88.00	-	-	2.9	-	-	0.5	-	-	6.8	-	-	16%	-	-	5.7%
Median		8.1	7.1	6.5	1.6	1.6	1.3	10.9	13.0	9.8	19%	20%	20%	1.8%	2.1%	3.1%
Chemical companies																
Ciech	38.55	6.6	5.6	5.4	1.0	1.1	1.0	15.6	8.9	8.8	15%	20%	19%	0.0%	0.0%	5.6%
Akzo Nobel	88.53	13.7	11.9	11.2	1.9	1.9	1.9	29.2	21.2	19.1	14%	16%	17%	2.2%	2.5%	2.7%
BASF	62.68	9.2	8.7	8.0	1.2	1.2	1.2	16.4	14.9	13.2	14%	14%	15%	5.2%	5.3%	5.4%
Croda	5090.00	17.4	16.7	15.9	5.0	4.9	4.8	27.2	26.0	24.3	29%	30%	30%	0.0%	0.0%	0.0%
Sisecam	5.42	4.2	3.6	3.1	0.9	0.7	0.6	6.0	6.2	5.8	21%	20%	21%	4.1%	4.5%	4.7%
Soda Sanayii	6.32	6.5	5.6	4.8	1.5	1.3	1.2	5.3	-	-	24%	24%	25%	-	-	-
Solvay	98.12	5.3	5.3	5.1	1.2	1.2	1.1	10.9	12.3	11.1	22%	22%	22%	3.9%	4.0%	4.2%
Tata Chemicals	760.75	10.3	9.4	8.5	1.9	1.9	1.7	18.5	17.3	15.5	18%	20%	20%	1.6%	1.9%	1.6%
Tessenderlo Chemie	31.25	5.5	5.3	5.0	0.8	0.8	0.8	15.9	12.0	10.5	15%	15%	15%	-	-	-
Wacker Chemie	71.90	6.2	6.5	5.6	0.9	0.9	0.9	52.7	27.3	18.9	15%	14%	15%	2.2%	2.4%	3.1%
Median		6.6	6.1	5.5	1.2	1.2	1.2	16.1	14.9	13.2	17%	20%	20%	2.2%	2.4%	3.6%

Mining company valuations

		EV	/EBITD	4		EV/S			P/E		EBIT	DA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Metals																
КСНМ	94.68	4.7	4.6	5.5	1.1	1.1	1.1	8.5	8.4	12.1	24%	24%	20%	0.0%	1.6%	3.6%
Anglo American	2132.00	4.6	4.6	4.9	1.6	1.6	1.6	9.9	10.1	11.3	34%	34%	32%	0.0%	0.0%	0.0%
Antofagasta	864.00	5.8	5.8	5.3	2.8	2.8	2.7	21.3	20.6	17.8	49%	49%	50%	0.0%	0.0%	0.0%
BHP Group LTD	38.54	3.8	3.8	4.1	2.0	2.0	2.1	13.6	13.0	14.6	53%	53%	51%	3.9%	2.6%	2.3%
Boliden	224.40	5.2	4.7	4.8	1.3	1.2	1.2	10.4	9.5	9.8	25%	25%	25%	4.8%	5.6%	5.8%
First Quantum	11.87	9.4	6.0	5.8	3.6	2.6	2.6	35.5	22.4	13.6	39%	44%	44%	0.1%	0.1%	0.1%
Freeport-McMoRan	12.61	14.1	9.5	5.5	2.4	2.3	1.9	-	29.5	10.5	17%	24%	35%	1.6%	1.6%	1.7%
Fresnillo	674.00	9.4	7.6	6.4	3.2	3.1	2.9	37.7	28.5	21.6	34%	40%	45%	0.0%	0.0%	0.0%
Gold Fields	9362.00	5.1	4.0	3.7	2.3	2.0	1.9	33.7	14.4	11.8	46%	51%	52%	0.0%	0.0%	0.0%
Hudbay Min	4.23	4.1	3.7	3.0	1.2	1.2	1.1	-	-	15.3	29%	32%	37%	0.3%	0.3%	0.3%
KAZ Minerals	497.60	5.0	5.0	4.9	2.7	2.6	2.5	6.5	6.4	6.3	54%	53%	52%	0.0%	0.0%	0.0%
Lundin Min	7.36	7.0	4.6	3.8	2.5	1.9	1.8	26.2	11.9	9.1	36%	42%	47%	0.9%	1.1%	2.2%
MMC Norilsk Nickel	33.91	8.2	7.0	7.1	4.7	4.3	4.2	10.8	9.7	10.3	57%	61%	59%	6.8%	9.1%	9.8%
OZ Minerals	10.16	7.0	7.3	4.8	3.0	2.7	2.2	18.6	22.3	10.9	43%	37%	45%	1.9%	1.7%	2.5%
Polymetal Intl	1272.50	9.1	7.9	8.0	4.2	3.9	3.9	14.5	11.2	11.3	46%	50%	49%	0.0%	0.0%	0.0%
Polyus	7968.50	7.9	7.1	7.0	5.2	4.7	4.7	10.3	9.0	8.9	66%	67%	67%	4.3%	4.9%	4.9%
Sandfire Resources	5.18	2.3	2.0	1.8	1.2	1.1	1.0	7.3	7.1	5.1	51%	52%	56%	4.8%	4.6%	5.6%
Southern CC	39.46	9.9	9.4	9.1	4.9	4.7	4.6	19.5	17.9	17.1	50%	50%	50%	4.1%	4.1%	4.0%
Median		6.4	5.4	5.1	2.6	2.5	2.1	14.1	11.9	11.3	44%	46%	48%	0.6%	1.4%	2.0%
		EV	/EBITD	4		EV/S			P/E		EBIT	DA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Coal																
JSW	18.02	0.7	2.9	3.1	0.1	0.2	0.3	4.5	-	-	19%	8%	10%	9.5%	0.0%	0.0%
Alliance Res Partners	7.87	1.7	2.1	2.1	0.5	0.6	0.6	3.2	8.0	8.7	30%	28%	27%			-
Arch Coal						0.0	0.0	3.2					2//0	-	-	
	56.92	2.4	2.6	2.6	0.4	0.4	0.6	4.1	5.1	4.4	16%	16%	15%	3.2%	3.2%	3.2%
Banpu	56.92 10.10				0.4 2.0					4.4 11.0	16% 16%	16% 18%		3.2% 4.1%	3.2% 3.7%	3.2% 4.6%
Banpu BHP Group		2.4	2.6	2.6		0.4	0.4	4.1	5.1				15%			
•	10.10	2.4 12.3	2.6 12.0	2.6 10.2	2.0	0.4 2.1	0.4 2.1	4.1 14.2	5.1 15.0	11.0	16%	18%	15% 21%	4.1%	3.7%	4.6%
BHP Group	10.10 52.01	2.4 12.3 3.8	2.6 12.0 3.8	2.6 10.2 4.1	2.0 2.0	0.4 2.1 2.0	0.4 2.1 2.1	4.1 14.2 13.7	5.1 15.0 13.0	11.0 14.6	16% 53%	18% 53%	15% 21% 51%	4.1% 8.5%	3.7% 5.7%	4.6% 5.1%
BHP Group China Coal Energy	10.10 52.01 2.76	2.4 12.3 3.8 4.5	2.6 12.0 3.8 4.6	2.6 10.2 4.1 4.7	2.0 2.0 0.9	0.4 2.1 2.0 0.9	0.4 2.1 2.1 0.9	4.1 14.2 13.7 5.1	5.1 15.0 13.0 5.5	11.0 14.6 5.3	16% 53% 20%	18% 53% 20%	15% 21% 51% 19%	4.1% 8.5% 4.4%	3.7% 5.7% 4.0%	4.6% 5.1% 4.0%
BHP Group China Coal Energy LW Bogdanka	10.10 52.01 2.76 25.50	2.4 12.3 3.8 4.5 0.8	2.6 12.0 3.8 4.6 0.8	2.6 10.2 4.1 4.7 0.9	2.0 2.0 0.9 0.3	0.4 2.1 2.0 0.9 0.3	0.4 2.1 2.1 0.9 0.3	4.1 14.2 13.7 5.1	5.1 15.0 13.0 5.5 3.7	11.0 14.6 5.3 5.0	16% 53% 20% 36%	18% 53% 20% 34%	15% 21% 51% 19% 31%	4.1% 8.5% 4.4% 3.7%	3.7% 5.7% 4.0% 8.2%	4.6% 5.1% 4.0% 8.5%
BHP Group China Coal Energy LW Bogdanka Peabody Energy Corp	10.10 52.01 2.76 25.50 7.77	2.4 12.3 3.8 4.5 0.8 2.0	2.6 12.0 3.8 4.6 0.8 2.9	2.6 10.2 4.1 4.7 0.9 2.4	2.0 2.0 0.9 0.3 0.3	0.4 2.1 2.0 0.9 0.3 0.4	0.4 2.1 2.1 0.9 0.3 0.4	4.1 14.2 13.7 5.1 2.8	5.1 15.0 13.0 5.5 3.7	11.0 14.6 5.3 5.0	16% 53% 20% 36% 16%	18% 53% 20% 34% 13%	15% 21% 51% 19% 31% 15%	4.1% 8.5% 4.4% 3.7% 30.2%	3.7% 5.7% 4.0% 8.2% 7.5%	4.6% 5.1% 4.0% 8.5% 7.6%
BHP Group China Coal Energy LW Bogdanka Peabody Energy Corp PT Bukit Asam Tbk	10.10 52.01 2.76 25.50 7.77 2280.00	2.4 12.3 3.8 4.5 0.8 2.0 3.6	2.6 12.0 3.8 4.6 0.8 2.9 3.9	2.6 10.2 4.1 4.7 0.9 2.4 3.9	2.0 2.0 0.9 0.3 0.3	0.4 2.1 2.0 0.9 0.3 0.4 1.0	0.4 2.1 2.1 0.9 0.3 0.4 0.9	4.1 14.2 13.7 5.1 2.8	5.1 15.0 13.0 5.5 3.7 - 7.1	11.0 14.6 5.3 5.0 - 6.8	16% 53% 20% 36% 16% 27%	18% 53% 20% 34% 13% 24%	15% 21% 51% 19% 31% 15% 24%	4.1% 8.5% 4.4% 3.7% 30.2% 12.9%	3.7% 5.7% 4.0% 8.2% 7.5% 10.5%	4.6% 5.1% 4.0% 8.5% 7.6% 8.5%
BHP Group China Coal Energy LW Bogdanka Peabody Energy Corp PT Bukit Asam Tbk Rio Tinto	10.10 52.01 2.76 25.50 7.77 2280.00 4218.50	2.4 12.3 3.8 4.5 0.8 2.0 3.6 3.8	2.6 12.0 3.8 4.6 0.8 2.9 3.9 4.1	2.6 10.2 4.1 4.7 0.9 2.4 3.9 4.6	2.0 2.0 0.9 0.3 0.3 1.0	0.4 2.1 2.0 0.9 0.3 0.4 1.0	0.4 2.1 2.1 0.9 0.3 0.4 0.9 2.0	4.1 14.2 13.7 5.1 2.8 - 6.2 8.8	5.1 15.0 13.0 5.5 3.7 - 7.1 9.8	11.0 14.6 5.3 5.0 - 6.8 12.1	16% 53% 20% 36% 16% 27% 48%	18% 53% 20% 34% 13% 24% 46%	15% 21% 51% 19% 31% 15% 24% 44%	4.1% 8.5% 4.4% 3.7% 30.2% 12.9% 0.0%	3.7% 5.7% 4.0% 8.2% 7.5% 10.5% 0.0%	4.6% 5.1% 4.0% 8.5% 7.6% 8.5% 0.0%
BHP Group China Coal Energy LW Bogdanka Peabody Energy Corp PT Bukit Asam Tbk Rio Tinto Semirara Mining&Power	10.10 52.01 2.76 25.50 7.77 2280.00 4218.50 20.20	2.4 12.3 3.8 4.5 0.8 2.0 3.6 3.8 5.4	2.6 12.0 3.8 4.6 0.8 2.9 3.9 4.1 4.8	2.6 10.2 4.1 4.7 0.9 2.4 3.9 4.6 4.3	2.0 2.0 0.9 0.3 0.3 1.0 1.8 2.5	0.4 2.1 2.0 0.9 0.3 0.4 1.0 1.9 2.2	0.4 2.1 2.1 0.9 0.3 0.4 0.9 2.0	4.1 14.2 13.7 5.1 2.8 - 6.2 8.8 8.3	5.1 15.0 13.0 5.5 3.7 - 7.1 9.8 7.4	11.0 14.6 5.3 5.0 - 6.8 12.1 6.6	16% 53% 20% 36% 16% 27% 48% 45%	18% 53% 20% 34% 13% 24% 46%	15% 21% 51% 19% 31% 15% 24% 44%	4.1% 8.5% 4.4% 3.7% 30.2% 12.9% 0.0% 7.8%	3.7% 5.7% 4.0% 8.2% 7.5% 10.5% 0.0% 8.2%	4.6% 5.1% 4.0% 8.5% 7.6% 8.5% 0.0% 8.7%
BHP Group China Coal Energy LW Bogdanka Peabody Energy Corp PT Bukit Asam Tbk Rio Tinto Semirara Mining&Power Shanxi Xishan Coal&Ele	10.10 52.01 2.76 25.50 7.77 2280.00 4218.50 20.20 5.21	2.4 12.3 3.8 4.5 0.8 2.0 3.6 3.8 5.4 3.3	2.6 12.0 3.8 4.6 0.8 2.9 3.9 4.1 4.8 3.9	2.6 10.2 4.1 4.7 0.9 2.4 3.9 4.6 4.3 4.0	2.0 2.0 0.9 0.3 1.0 1.8 2.5 0.6	0.4 2.1 2.0 0.9 0.3 0.4 1.0 1.9 2.2	0.4 2.1 2.1 0.9 0.3 0.4 0.9 2.0 2.1	4.1 14.2 13.7 5.1 2.8 - 6.2 8.8 8.3	5.1 15.0 13.0 5.5 3.7 - 7.1 9.8 7.4	11.0 14.6 5.3 5.0 - 6.8 12.1 6.6	16% 53% 20% 36% 16% 27% 48% 45%	18% 53% 20% 34% 13% 24% 46% 46%	15% 21% 51% 19% 31% 15% 24% 44% 48% 15%	4.1% 8.5% 4.4% 3.7% 30.2% 12.9% 0.0% 7.8% 3.9%	3.7% 5.7% 4.0% 8.2% 7.5% 10.5% 0.0% 8.2% 3.9%	4.6% 5.1% 4.0% 8.5% 7.6% 8.5% 0.0% 8.7% 3.6%
BHP Group China Coal Energy LW Bogdanka Peabody Energy Corp PT Bukit Asam Tbk Rio Tinto Semirara Mining&Power Shanxi Xishan Coal&Ele Shougang Fushan Res	10.10 52.01 2.76 25.50 7.77 2280.00 4218.50 20.20 5.21 1.64	2.4 12.3 3.8 4.5 0.8 2.0 3.6 3.8 5.4 3.3 4.8	2.6 12.0 3.8 4.6 0.8 2.9 3.9 4.1 4.8 3.9 4.8	2.6 10.2 4.1 4.7 0.9 2.4 3.9 4.6 4.3 4.0 5.3	2.0 2.0 0.9 0.3 1.0 1.8 2.5 0.6 2.6	0.4 2.1 2.0 0.9 0.3 0.4 1.0 1.9 2.2 0.6 2.5	0.4 2.1 2.1 0.9 0.3 0.4 0.9 2.0 2.1 0.6 2.5	4.1 14.2 13.7 5.1 2.8 - 6.2 8.8 8.3 - 7.1	5.1 15.0 13.0 5.5 3.7 - 7.1 9.8 7.4 - 7.0	11.0 14.6 5.3 5.0 - 6.8 12.1 6.6	16% 53% 20% 36% 16% 27% 48% 45% 18% 54%	18% 53% 20% 34% 13% 24% 46% 46% 15% 52%	15% 21% 51% 19% 31% 15% 24% 44% 48% 15% 47%	4.1% 8.5% 4.4% 3.7% 30.2% 12.9% 0.0% 7.8% 3.9% 8.1%	3.7% 5.7% 4.0% 8.2% 7.5% 10.5% 0.0% 8.2% 3.9% 7.7%	4.6% 5.1% 4.0% 8.5% 7.6% 8.5% 0.0% 8.7% 3.6% 5.7%
BHP Group China Coal Energy LW Bogdanka Peabody Energy Corp PT Bukit Asam Tbk Rio Tinto Semirara Mining&Power Shanxi Xishan Coal&Ele Shougang Fushan Res Stanmore Coal	10.10 52.01 2.76 25.50 7.77 2280.00 4218.50 20.20 5.21 1.64 0.96	2.4 12.3 3.8 4.5 0.8 2.0 3.6 3.8 5.4 3.3 4.8	2.6 12.0 3.8 4.6 0.8 2.9 3.9 4.1 4.8 3.9 4.8	2.6 10.2 4.1 4.7 0.9 2.4 3.9 4.6 4.3 4.0 5.3 2.4	2.0 2.0 0.9 0.3 1.0 1.8 2.5 0.6 2.6 0.4	0.4 2.1 2.0 0.9 0.3 0.4 1.0 1.9 2.2 0.6 2.5	0.4 2.1 2.1 0.9 0.3 0.4 0.9 2.0 2.1 0.6 2.5	4.1 14.2 13.7 5.1 2.8 - 6.2 8.8 8.3 - 7.1 2.5	5.1 15.0 13.0 5.5 3.7 - 7.1 9.8 7.4 - 7.0 4.2	11.0 14.6 5.3 5.0 - 6.8 12.1 6.6 - 8.0 6.9	16% 53% 20% 36% 16% 27% 48% 45% 18% 54% 38%	18% 53% 20% 34% 13% 24% 46% 15% 52% 26%	15% 21% 51% 19% 31% 15% 24% 44% 48% 15% 47% 19%	4.1% 8.5% 4.4% 3.7% 30.2% 12.9% 0.0% 7.8% 3.9% 8.1% 9.2%	3.7% 5.7% 4.0% 8.2% 7.5% 10.5% 0.0% 8.2% 3.9% 7.7% 6.3%	4.6% 5.1% 4.0% 8.5% 7.6% 8.5% 0.0% 8.7% 3.6% 5.7% 6.0%
BHP Group China Coal Energy LW Bogdanka Peabody Energy Corp PT Bukit Asam Tbk Rio Tinto Semirara Mining&Power Shanxi Xishan Coal&Ele Shougang Fushan Res Stanmore Coal Teck Resources	10.10 52.01 2.76 25.50 7.77 2280.00 4218.50 20.20 5.21 1.64 0.96 14.01	2.4 12.3 3.8 4.5 0.8 2.0 3.6 3.8 5.4 3.3 4.8 1.0	2.6 12.0 3.8 4.6 0.8 2.9 3.9 4.1 4.8 3.9 4.8 1.6 3.3	2.6 10.2 4.1 4.7 0.9 2.4 3.9 4.6 4.3 4.0 5.3 2.4 3.1	2.0 0.9 0.3 1.0 1.8 2.5 0.6 2.6 0.4 1.1	0.4 2.1 2.0 0.9 0.3 0.4 1.0 1.9 2.2 0.6 2.5 0.4	0.4 2.1 2.1 0.9 0.3 0.4 0.9 2.0 2.1 0.6 2.5 0.5	4.1 14.2 13.7 5.1 2.8 - 6.2 8.8 8.3 - 7.1 2.5 6.5	5.1 15.0 13.0 5.5 3.7 - 7.1 9.8 7.4 - 7.0 4.2 7.3	11.0 14.6 5.3 5.0 - 6.8 12.1 6.6 - 8.0 6.9 6.7	16% 53% 20% 36% 16% 27% 48% 45% 18% 54% 38% 37%	18% 53% 20% 34% 13% 24% 46% 46% 15% 52% 26% 36%	15% 21% 51% 19% 31% 24% 44% 48% 15% 47% 19% 37%	4.1% 8.5% 4.4% 3.7% 30.2% 12.9% 0.0% 7.8% 3.9% 8.1% 9.2%	3.7% 5.7% 4.0% 8.2% 7.5% 10.5% 0.0% 8.2% 3.9% 7.7% 6.3% 2.5%	4.6% 5.1% 4.0% 8.5% 7.6% 8.5% 0.0% 8.7% 3.6% 5.7% 6.0% 4.5%
BHP Group China Coal Energy LW Bogdanka Peabody Energy Corp PT Bukit Asam Tbk Rio Tinto Semirara Mining&Power Shanxi Xishan Coal&Ele Shougang Fushan Res Stanmore Coal Teck Resources Terracom Warrior Met Coal	10.10 52.01 2.76 25.50 7.77 2280.00 4218.50 20.20 5.21 1.64 0.96 14.01 0.28	2.4 12.3 3.8 4.5 0.8 2.0 3.6 3.8 5.4 4.3 3.0 1.0	2.6 12.0 3.8 4.6 0.8 2.9 3.9 4.1 4.8 3.9 4.8 1.6 3.3	2.6 10.2 4.1 4.7 0.9 2.4 3.9 4.6 4.3 4.0 5.3 2.4 3.1	2.0 2.0 0.9 0.3 1.0 1.8 2.5 0.6 2.6 0.4 1.1 0.4	0.4 2.1 2.0 0.9 0.3 0.4 1.0 1.9 2.2 0.6 2.5 0.4 1.2	0.4 2.1 2.1 0.9 0.3 0.4 0.9 2.0 2.1 0.6 2.5 0.5 1.1	4.1 14.2 13.7 5.1 2.8 - 6.2 8.8 8.3 - 7.1 2.5 6.5 2.1	5.1 15.0 13.0 5.5 3.7 - 7.1 9.8 7.4 - 7.0 4.2 7.3 3.9	11.0 14.6 5.3 5.0 - 6.8 12.1 6.6 - 8.0 6.9 6.7 3.1	16% 53% 20% 36% 16% 27% 48% 45% 18% 54% 38% 37% 30%	18% 53% 20% 34% 13% 24% 46% 46% 15% 52% 26% 36% 24%	15% 21% 51% 19% 31% 15% 24% 48% 15% 47% 19% 37% 26%	4.1% 8.5% 4.4% 3.7% 30.2% 12.9% 0.0% 7.8% 3.9% 8.1% 9.2% 2.0%	3.7% 5.7% 4.0% 8.2% 7.5% 10.5% 0.0% 8.2% 3.9% 7.7% 6.3% 2.5% 7.3%	4.6% 5.1% 4.0% 8.5% 7.6% 8.5% 0.0% 8.7% 3.6% 5.7% 6.0% 4.5% 10.9%
BHP Group China Coal Energy LW Bogdanka Peabody Energy Corp PT Bukit Asam Tbk Rio Tinto Semirara Mining&Power Shanxi Xishan Coal&Ele Shougang Fushan Res Stanmore Coal Teck Resources	10.10 52.01 2.76 25.50 7.77 2280.00 4218.50 20.20 5.21 1.64 0.96 14.01 0.28 20.84	2.4 12.3 3.8 4.5 0.8 2.0 3.6 3.8 5.4 4.3 3.0 1.2 2.5	2.6 12.0 3.8 4.6 0.8 2.9 3.9 4.1 4.8 3.9 4.8 1.6 3.3 1.8	2.6 10.2 4.1 4.7 0.9 2.4 3.9 4.6 4.3 4.0 5.3 2.4 3.1 1.6 3.4	2.0 2.0 0.9 0.3 1.0 1.8 2.5 0.6 2.6 0.4 1.1 0.4 1.0	0.4 2.1 2.0 0.9 0.3 0.4 1.0 1.9 2.2 0.6 6 2.5 0.4 1.2	0.4 2.1 2.1 0.9 0.3 0.4 0.9 2.0 2.1 0.6 2.5 0.5 1.1	4.1 14.2 13.7 5.1 2.8 - 6.2 8.8 8.3 - 7.1 2.5 6.5 2.1	5.1 15.0 13.0 5.5 3.7 - 7.1 9.8 7.4 - 7.0 4.2 7.3 3.9 5.7	11.0 14.6 5.3 5.0 - 6.8 12.1 6.6 - 8.0 6.9 6.7 3.1 5.4	16% 53% 20% 36% 16% 27% 48% 45% 18% 54% 38% 37% 30% 38%	18% 53% 20% 34% 13% 24% 46% 46% 15% 52% 26% 36% 24% 32%	15% 21% 51% 19% 31% 15% 24% 44% 48% 15% 19% 37% 26% 33%	4.1% 8.5% 4.4% 3.7% 30.2% 12.9% 0.0% 7.8% 8.1% 9.2% 2.0%	3.7% 5.7% 4.0% 8.2% 7.5% 10.5% 0.0% 8.2% 3.9% 7.7% 6.3% 2.5% 7.3% 7.5%	4.6% 5.1% 4.0% 8.5% 7.6% 8.5% 0.0% 8.7% 3.6% 5.7% 6.0% 4.5% 10.9% 8.8%



European telecom valuations

		EV	/ EBITD	4		EV/S			P/E		EBIT	DA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Polish companies																
Netia	4.39	4.5	4.6	4.6	1.5	1.5	1.6	30.7	31.4	28.3	34%	34%	34%	0.0%	0.0%	9.1%
Orange Polska	7.11	5.4	5.6	5.1	1.5	1.5	1.5	33.5	36.7	20.2	29%	28%	29%	0.0%	0.0%	3.5%
Play	34.70	6.4	6.3	5.8	2.2	2.2	2.1	10.0	9.1	9.1	34%	36%	36%	4.2%	4.2%	4.2%
Median		5.4	5.6	5.1	1.5	1.5	1.6	30.7	31.4	20.2	34%	34%	34%	0%	0.0%	4.2%
Mid Caps																
Proximus	26.18	5.9	5.9	5.9	2.0	2.0	2.0	15.5	15.2	15.4	33%	34%	34%	5.7%	5.7%	5.8%
Telefonica CP	233.00	6.6	6.8	6.8	2.1	2.1	2.1	14.7	15.6	14.6	32%	31%	31%	8.9%	9.0%	9.0%
Hellenic Telekom	13.86	5.6	5.4	5.4	2.0	2.0	2.0	19.0	15.8	13.8	36%	36%	36%	4.0%	4.4%	5.1%
Matav	453.00	4.1	4.0	4.0	1.3	1.3	1.3	11.4	10.2	10.4	32%	32%	32%	5.8%	6.2%	6.5%
Telecom Austria	7.49	5.4	5.3	5.2	1.8	1.8	1.8	12.3	11.3	10.8	34%	34%	35%	2.8%	3.2%	3.5%
Median		5.6	5.4	5.4	2.0	2.0	2.0	14.7	15.2	13.8	33%	34%	34%	5.7%	5.7%	5.8%
Big Caps																
BT	153.00	3.5	3.3	3.3	1.1	1.1	1.1	5.9	6.5	6.5	32%	35%	35%	0.0%	0.0%	0.0%
DT	15.51	6.2	5.8	5.6	1.9	1.9	1.8	15.2	14.1	12.6	31%	32%	33%	4.2%	4.4%	4.7%
KPN	2.49	6.6	6.8	6.6	3.0	3.0	3.1	17.1	18.8	16.4	45%	45%	47%	5.3%	5.6%	5.9%
Orange France	13.27	4.9	4.9	4.8	1.5	1.5	1.5	13.3	12.5	11.8	31%	31%	31%	5.4%	5.5%	5.9%
Swisscom	569.00	8.8	8.8	8.7	3.3	3.3	3.4	18.9	19.8	19.9	38%	38%	39%	3.9%	3.9%	3.9%
Telefonica S.A.	6.23	5.4	5.1	5.0	1.7	1.8	1.8	11.6	9.3	8.6	32%	34%	35%	6.4%	6.5%	6.6%
Telia Company	41.00	8.4	8.3	8.1	3.0	2.8	2.8	18.8	17.2	16.0	36%	34%	35%	5.9%	6.0%	6.1%
TI	0.53	4.5	4.6	4.5	1.9	1.9	1.9	9.2	9.4	8.1	42%	42%	43%	0.0%	0.0%	0.4%
Median		5.8	5.5	5.3	1.9	1.9	1.9	14.2	13.3	12.2	34%	34%	35%	4.7%	5.0%	5.3%

Media company valuations

		EV	/ EBITD	A		EV/S			P/E		EBIT	DA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Polish companies																
Agora	13.25	7.6	7.2	6.8	1.0	1.0	1.0	63.2	33.7	22.3	14%	14%	15%	3.8%	3.8%	3.8%
Wirtualna Polska	84.00	13.8	11.2	10.0	3.9	3.3	2.9	36.3	22.8	19.8	28%	29%	29%	1.2%	1.2%	2.3%
Median		10.7	9.2	8.4	2.5	2.2	1.9	49.7	28.3	21.0	21%	22%	22%	2.5%	2.5%	3.0%
Daily Mail																
Arnolgo Mondadori	1.85	6.0	5.7	5.7	0.7	0.7	0.7	13.2	11.6	11.6	11%	12%	12%	3.2%	4.0%	3.0%
Axel Springer	62.95	12.2	12.2	11.2	2.6	2.6	2.5	26.0	25.4	22.0	21%	21%	22%	3.4%	3.5%	3.7%
Daily Mail	803.00	8.3	9.3	8.7	1.1	1.2	1.2	21.4	21.8	19.7	14%	13%	14%	0.0%	0.0%	0.0%
Gruppo Editorial	0.46	6.8	6.7	6.8	0.5	0.5	0.5	-	19.9	16.3	8%	8%	8%	0.0%	2.4%	2.6%
New York Times	39.27	27.4	26.3	22.7	3.6	3.4	3.2	50.4	48.3	40.2	13%	13%	14%	0.5%	0.5%	0.6%
Promotora de Inform	1.37	9.3	8.0	8.2	1.9	1.8	1.9	15.1	11.1	8.3	20%	23%	23%	0.0%	0.0%	-
Median		8.8	8.6	8.4	1.5	1.5	1.5	21.4	20.9	18.0	13%	13%	14%	0.3%	1.5%	2.6%
TV																
Atresmedia Corp	3.12	5.1	5.4	5.6	0.9	0.9	0.9	5.9	6.2	6.4	18%	17%	16%	13.1%	12.5%	12.1%
Gestevision Telecinco	5.06	5.8	6.3	6.7	1.6	1.6	1.7	8.2	8.6	9.1	28%	26%	25%	8.4%	8.4%	8.3%
ITV PLC	133.40	8.6	8.8	8.2	1.9	1.9	1.8	10.0	10.1	9.5	23%	22%	23%	0.0%	0.0%	0.0%
M6-Metropole Tel	15.17	5.2	5.1	5.0	1.3	1.3	1.3	10.9	10.5	10.0	25%	25%	25%	6.6%	6.7%	6.8%
Mediaset SPA	2.38	4.2	4.2	4.2	1.5	1.5	1.5	11.6	9.8	9.4	36%	35%	36%	4.7%	5.3%	6.1%
Prosieben	12.24	6.1	5.8	5.5	1.3	1.2	1.2	6.8	6.6	6.1	21%	21%	22%	7.4%	7.6%	7.5%
TF1-TV Francaise	6.96	3.1	3.1	2.9	0.6	0.6	0.6	8.6	8.3	7.2	19%	19%	20%	6.6%	6.7%	7.4%
Median		5.5	5.5	5.2	1.4	1.4	1.4	9.3	9.2	9.3	24%	23%	24%	6.6%	6.7%	7.1%
Pay TV																
Cogeco	107.24	5.8	5.8	5.6	2.9	2.8	2.8	15.4	14.5	13.9	50%	48%	49%	2.0%	1.9%	2.1%
Comcast	46.07	9.0	8.8	8.6	2.8	2.7	2.6	14.9	14.3	13.5	32%	31%	31%	1.8%	2.0%	2.2%
Dish Network	40.18	9.7	10.0	10.9	1.8	1.9	2.0	16.0	19.7	22.9	19%	19%	18%	0.0%	0.0%	0.0%
Liberty Global	21.11	4.6	4.7	4.7	1.9	1.9	1.9	-	-	-	41%	40%	40%	0.0%	0.0%	0.0%
Shaw Communications	19.54	7.8	7.1	6.8	3.2	3.1	3.0	18.7	19.8	18.0	41%	44%	44%	8.1%	8.1%	8.1%
Median		7.8	7.1	6.8	2.8	2.7	2.6	15.7	17.1	15.9	41%	40%	40%	1.8%	1.9%	2.1%

IT company valuations

		EV	/EBITD	Ą		EV/S			P/E		EBIT	DA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Polish companies																
Asseco Poland	67.00	5.4	5.2	4.9	0.8	0.8	0.7	16.9	16.4	16.0	15%	15%	15%	4.6%	4.6%	3.4%
Comarch	207.00	6.5	6.3	5.9	1.1	1.0	0.9	15.0	14.4	13.8	18%	16%	16%	0.7%	0.7%	0.7%
Median		6.0	5.7	5.4	1.0	0.9	0.8	15.9	15.4	14.9	16%	16%	15%	2.7%	2.7%	2.0%
Foreign companies																
Atos Origin	80.94	7.5	7.3	6.9	1.1	1.1	1.1	9.8	9.1	8.5	15%	15%	15%	2.0%	2.2%	2.4%
CapGemini	113.40	9.4	8.7	8.2	1.4	1.4	1.3	18.0	16.3	15.0	15%	16%	16%	1.7%	1.8%	1.9%
IBM	154.31	10.5	10.4	9.8	2.5	2.4	2.4	12.1	11.5	10.9	24%	23%	24%	4.2%	4.3%	4.6%
Indra Sistemas	10.93	6.9	6.5	6.2	0.8	0.7	0.7	14.5	12.5	11.4	11%	11%	11%	0.5%	1.2%	1.8%
Microsoft	183.71	25.0	20.7	18.7	10.7	9.4	8.4	40.1	32.5	29.2	43%	45%	45%	1.0%	1.1%	1.2%
Oracle	55.31	10.4	10.1	9.8	4.9	4.8	4.7	16.1	14.2	13.1	47%	47%	48%	1.5%	1.7%	1.8%
SAP	126.80	16.7	16.8	15.0	6.0	5.6	5.2	25.4	23.0	20.6	36%	33%	35%	1.2%	1.4%	1.5%
TietoEVRY	31.20	18.1	10.8	10.1	2.7	1.5	1.5	17.0	15.0	13.9	15%	14%	14%	4.5%	4.5%	4.7%
Median		10.5	10.2	9.8	2.6	2.0	1.9	16.5	14.6	13.5	19%	19%	20%	1.6%	1.7%	1.9%

Gaming company valuations

		EV	/EBITD	4		EV/S			P/E		EBIT	DA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Gaming																
11 bit studios	454.50	35.4	29.7	7.6	14.8	12.3	4.7	58.8	47.0	11.2	42%	41%	62%	0.0%	0.0%	0.0%
CD Projekt	318.70	-	11.9	13.3	64.0	9.1	10.7	-	13.6	15.2	29%	76%	81%	0.3%	0.0%	0.0%
PlayWay	369.50	28.3	23.3	21.2	18.9	15.6	14.1	39.3	34.3	31.0	67%	67%	67%	0.7%	2.3%	2.7%
Activision Blizzars	62.59	20.1	17.4	15.5	7.1	6.5	6.0	28.3	25.2	21.9	35%	38%	39%	0.6%	0.6%	0.7%
Capcom	3325.00	17.1	15.7	14.0	4.1	4.9	4.2	27.1	23.1	21.4	24%	31%	30%	1.1%	1.2%	1.4%
Take Two	112.21	15.1	15.7	15.4	3.6	3.7	3.8	23.7	23.3	24.0	24%	24%	25%	-	-	-
Ubisoft	74.60	9.0	14.9	8.4	4.5	5.6	3.7	25.2	-	21.4	50%	38%	43%	0.0%	0.0%	0.0%
Electronic Arts	108.84	18.4	16.0	15.0	5.9	5.4	5.2	27.8	23.2	22.1	32%	34%	35%	-	0.0%	0.0%
Paradox Interactive	142.00	20.3	15.0	13.1	11.4	8.8	7.9	40.9	29.9	26.1	56%	59%	60%	0.8%	1.5%	1.8%
Mediana		19.3	15.7	14.0	7.1	6.5	5.2	28.0	24.2	21.9	35%	38%	43%	0.6%	0.3%	0.4%

Source: mBank (stocks marked with bold), Bloomberg

Steam Global Top Sellers

2020-02-14	Company	Position	D/D change	W/W change	1-week average	Price (PLN)	D/D change	W/W change	1-week average
Frostpunk	11 bit studios	200+	-	-	152	-	-	-	110.00
Frostpunk: SP	11 bit studios	192	-21	-95	150	88	0%	0%	88.00
Frostpunk: GOTY	11 bit studios	200+	-	-	196	-	-	-	178.00
Blair Witch	Bloober Team	200+	-	-	-	-	-	-	-
Cyberpunk 2077	CD Projekt	56	+11	+0	77	199	0%	0%	199.00
The Witcher 3: WH	CD Projekt	164	-28	-40	133	100	0%	0%	100.00
The Witcher 3: WH (GOTY)	CD Projekt	84	-9	-27	70	150	0%	0%	150.00
Green Hell	Creepy Jar	200+	-	-	-	-	-	-	-
Chernobylite	The Farm 51	200+	-	-	-	-	-	-	-
Dying Light	Techland	169	-30	-67	128	100	0%	0%	100.00

Steam Wishlist

2020-02-14	Company	Position	D/D change	W/W change	1-week average	Release date
Cyberpunk 2077	CD Projekt	1	-	-	1	2020-09-17
Alaskan Truck Simulator	Movie Games	55	-1	-1	54	2020
Bum Simulator	PlayWay	42	-	-	42	2019
I am Your President	PlayWay	71	-	-3	70	TBA
Junkyard Simulator	PlayWay	53	-1	-2	51	2019
Ship Builder Simulator	PlayWay	90	-	-5	87	TBA
Tank Mechanic Simulator	PlayWay	60	+3	-	61	2019
Dying Light 2	Techland	4	-1	-1	3	Spring 2020

Source: Steam (Valve Corporation), Biuro maklerskie mBanku



Construction company valuations

		EV	//EBITD	A		EV/S			P/E		EBIT	TDA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Construction																
Acciona	109.00	8.9	8.7	8.4	1.5	1.5	1.4	21.1	20.7	19.3	17%	17%	17%	3.5%	3.7%	3.8%
Budimex	179.60	9.2	8.4	6.8	0.5	0.5	0.5	23.4	19.8	14.5	6%	6%	7%	3.5%	3.7%	3.9%
Ferrovial	29.49	-	44.8	37.8	4.5	4.5	4.4	-	51.6	42.7	3%	10%	12%	2.5%	2.6%	2.6%
Hochtief	112.00	3.9	3.9	3.6	0.3	0.3	0.3	22.7	11.5	11.1	7%	7%	7%	5.2%	5.6%	5.7%
Mota Engil	1.66	4.0	3.9	3.7	0.6	0.6	0.5	23.8	5.9	13.9	14%	14%	15%	3.6%	-	5.4%
NCC	193.00	9.2	7.1	6.7	0.4	0.4	0.4	20.8	14.0	12.6	4%	5%	6%	3.1%	3.7%	4.1%
Skanska	237.80	8.4	9.7	8.7	0.5	0.5	0.5	14.9	16.3	15.5	6%	5%	6%	2.8%	3.0%	3.4%
Strabag	31.10	2.9	3.0	2.8	0.2	0.2	0.2	10.0	10.2	9.7	6%	6%	7%	4.3%	4.3%	4.6%
Median		8.4	7.8	6.7	0.5	0.5	0.5	21.1	15.2	14.2	6%	7%	7%	3.5%	3.7%	4.0%

Real-estate developers

		EV	/EBITD	Ą		P/BV			P/E		EBIT	DA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
RE Developers																
Atal	40.30	14.0	7.1	6.7	2.0	1.7	1.7	14.1	7.5	6.9	23%	23%	23%	11.7%	6.5%	12.2%
Dom Development	98.00	7.9	7.9	7.8	2.3	2.2	2.2	9.7	9.1	8.6	19%	20%	20%	9.2%	10.3%	11.0%
Develia	2.75	6.1	11.5	7.5	0.8	0.9	0.8	7.5	18.3	8.3	28%	30%	24%	9.8%	14.9%	8.0%
Echo Investment	5.26	8.6	8.5	9.1	1.4	1.3	1.2	7.4	8.1	8.1	58%	57%	52%	9.5%	9.4%	5.8%
GTC	9.69	14.5	14.2	13.1	1.0	1.0	1.0	9.7	9.1	9.1	89%	83%	83%	0.2%	0.3%	0.3%
CA Immobilien Anlagen	41.40	31.0	27.0	23.9	1.4	1.3	1.3	33.0	29.1	26.3	66%	69%	-	2.3%	2.5%	2.7%
Deutsche Euroshop AG	24.80	15.1	15.9	15.9	0.7	0.7	0.7	13.0	12.3	12.0	88%	84%	84%	6.3%	6.4%	6.5%
Immofinanz AG	26.10	29.9	26.8	25.8	0.9	0.9	0.9	24.3	20.8	19.1	47%	49%	49%	3.5%	4.0%	4.3%
Klepierre	30.79	19.7	19.6	19.5	0.9	0.9	0.9	11.2	10.9	10.7	84%	85%	85%	7.1%	7.4%	7.5%
Segro	921.40	40.0	35.8	32.9	1.3	1.2	1.2	37.6	34.6	33.3	85%	86%	88%	0.0%	0.0%	0.0%
Median		14.8	15.0	14.5	1.2	1.1	1.1	12.1	11.6	9.9	62%	63%	52%	6.7%	6.5%	6.2%

Clothing and footwear company valuations

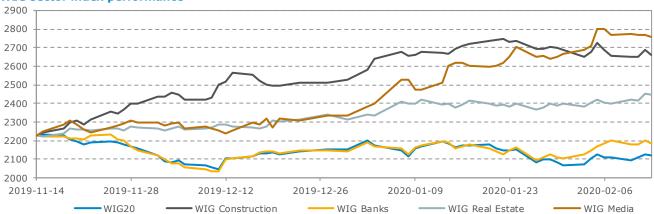
		ΕV	//EBITD	4		EV/S			P/E		EBIT	TDA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Polish companies																
CCC	102.30	5.8	4.5	3.8	0.9	0.8	0.7	-	21.5	14.2	15%	17%	17%	0.5%	2.0%	2.0%
LPP	8415.00	11.4	9.4	8.2	1.6	1.4	1.2	27.5	19.2	15.7	14%	15%	14%	0.7%	0.5%	0.8%
VRG	3.85	4.7	4.3	3.8	0.9	0.8	0.7	14.9	12.3	11.1	19%	19%	19%	0.0%	0.0%	0.0%
Median		5.8	4.5	3.8	0.9	0.8	0.7	21.2	19.2	14.2	15%	17%	17%	0.5%	0.5%	0.8%
Foreign companies																
ABC Mart	7060.00	9.4	9.2	8.8	1.7	1.7	1.6	19.1	18.8	18.0	18%	18%	18%	2.3%	2.4%	2.4%
Adidas	287.70	15.7	14.7	13.3	2.4	2.2	2.1	29.5	26.3	23.3	15%	15%	16%	1.3%	1.5%	1.7%
Assoc Brit Foods	2633.00	9.9	9.2	8.7	1.3	1.3	1.2	19.0	17.8	16.5	13%	14%	14%	0.0%	0.0%	0.0%
Caleries	17.94	4.0	3.9	3.6	0.3	0.3	0.3	7.9	7.6	7.0	7%	7%	7%	1.6%	1.6%	1.6%
Crocs	38.57	16.0	12.7	11.4	2.2	1.9	1.8	24.1	19.4	17.0	13%	15%	15%	-	-	-
Foot Locker	40.96	4.0	4.0	4.0	0.5	0.4	0.4	9.0	8.3	7.9	11%	11%	11%	3.3%	3.7%	4.1%
Geox	1.16	8.2	3.9	3.2	0.4	0.4	0.3	-	46.3	15.9	5%	9%	11%	2.4%	1.9%	2.8%
H&M	202.20	11.0	10.2	9.7	1.3	1.3	1.2	25.7	22.9	21.2	12%	12%	13%	4.8%	4.8%	4.8%
Hugo Boss	43.00	5.5	5.1	4.9	1.1	1.0	1.0	13.4	12.1	11.2	19%	20%	20%	6.1%	6.5%	6.8%
Inditex	31.25	16.2	12.1	11.2	3.4	3.2	3.0	28.0	25.5	23.8	21%	27%	27%	2.5%	3.4%	3.8%
KappAhl	20.02	6.0	5.6	5.8	0.4	0.4	0.4	10.6	10.5	11.0	7%	7%	7%	5.2%	5.0%	5.0%
Lululemon	253.86	36.7	29.5	25.3	9.3	7.7	6.6	67.8	52.0	43.9	25%	26%	26%	0.0%	0.0%	0.0%
Nike	103.37	22.7	20.6	17.7	3.3	3.0	2.8	40.1	34.3	29.6	15%	15%	16%	0.8%	0.9%	1.0%
Under Armour	16.76	7.3	6.3	5.2	0.6	0.6	0.5	48.9	36.0	26.9	8%	9%	10%	0.0%	0.0%	0.0%
Median		9.7	9.2	8.7	1.3	1.3	1.2	24.1	21.1	17.5	13%	14%	15%	2.3%	1.9%	2.4%

Luxury, e-commerce, and food retail company valuations

		EV	//EBITD	Ą		EV/S			P/E		EBIT	DA mar	gin		DY	
	Price	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021	2019	2020	2021
Luxury goods																
Estee Lauder	214.89	15.6	13.9	12.6	3.3	3.0	2.8	41.0	36.2	32.4	21%	22%	22%	0.8%	0.9%	1.0%
Hermes Internetional	711.00	26.5	24.2	22.1	10.3	9.5	8.8	48.7	43.7	39.8	39%	39%	40%	0.7%	0.9%	1.0%
Kering	596.40	14.2	12.9	12.1	4.9	4.5	4.2	24.2	20.8	19.1	35%	35%	35%	1.9%	2.2%	2.4%
LVMH	421.55	15.4	13.7	12.6	4.1	3.8	3.5	28.9	25.9	23.3	27%	27%	28%	1.6%	1.8%	2.0%
Moncler	38.65	15.5	14.6	12.9	5.8	5.1	4.6	27.0	25.2	22.6	37%	35%	36%	1.2%	1.3%	1.5%
Median		15.5	13.9	12.6	4.9	4.5	4.2	28.9	25.9	23.3	35%	35%	35%	1.2%	1.3%	1.5%
E-commerce																
Asos	3428.00	26.8	18.8	14.2	1.1	0.9	0.8	-	63.4	40.8	4%	5%	6%	0.0%	0.0%	0.0%
boohoo.com	325.50	44.7	30.4	24.1	4.3	3.0	2.4	-	58.1	46.5	10%	10%	10%	0.0%	0.0%	0.0%
Zalando	47.78	27.9	24.0	19.7	1.7	1.5	1.3	-	-	69.1	6%	6%	6%	0.0%	0.0%	0.0%
Median		27.9	24.0	19.7	1.7	1.5	1.3	-	60.7	46.5	6%	6%	6%	0.0%	0.0%	0.0%
Retail																
Dino	167.00	23.8	18.0	13.9	2.2	1.7	1.3	40.6	29.9	22.5	9%	9%	10%	0.0%	0.0%	0.0%
Eurocash	19.82	7.3	6.9	6.6	0.1	0.1	0.1	67.2	40.0	27.8	2%	2%	2%	5.2%	3.0%	3.8%
Jeronimo Martins	16.66	10.3	9.1	8.5	0.6	0.5	0.5	19.7	19.4	18.2	6%	6%	6%	2.0%	1.9%	2.0%
Carrefour	15.70	5.1	4.7	4.3	0.2	0.2	0.2	13.4	12.0	10.9	5%	5%	5%	3.2%	3.6%	3.9%
AXFood	194.65	10.4	10.0	9.8	0.9	0.9	0.9	24.4	23.5	23.0	9%	9%	9%	3.6%	3.6%	3.7%
Tesco	252.10	8.0	5.5	5.4	0.4	0.4	0.4	17.8	14.8	13.8	5%	8%	8%	0.0%	0.0%	0.0%
Ahold	22.81	6.4	6.4	6.2	0.5	0.5	0.5	14.0	13.2	12.7	8%	8%	8%	3.3%	3.5%	3.7%
X 5 Retail	2177.00	5.9	5.3	5.6	0.7	0.6	0.6	24.2	15.4	12.2	12%	12%	11%	4.7%	5.7%	6.7%
Magnit	3750.00	5.9	5.1	5.4	0.6	0.6	0.5	33.7	13.8	11.4	11%	11%	10%	6.2%	6.1%	7.8%
Sonae	0.84	8.4	7.9	6.5	0.7	0.7	0.7	11.3	9.9	9.8	9%	9%	10%	5.5%	5.9%	5.9%
Median		7.7	6.6	6.4	0.6	0.6	0.5	21.9	15.1	13.2	9%	8%	8%	3.4%	3.6%	3.8%

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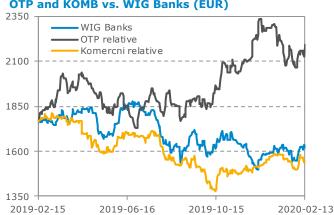
WIG sector index performance



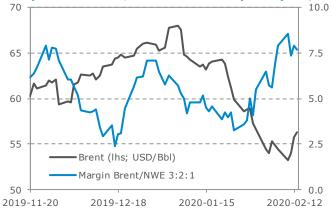
WIG IT vs. MSCI Europe Software & Services (USD)



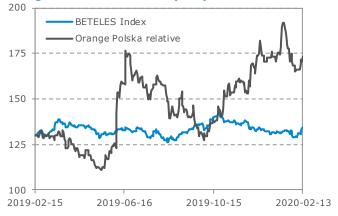
OTP and KOMB vs. WIG Banks (EUR)



Brent price and Brent/NWE 3:2:1 crack spread (USD, rhs)



Orange Polska vs. BETELES (EUR)



LME copper prices



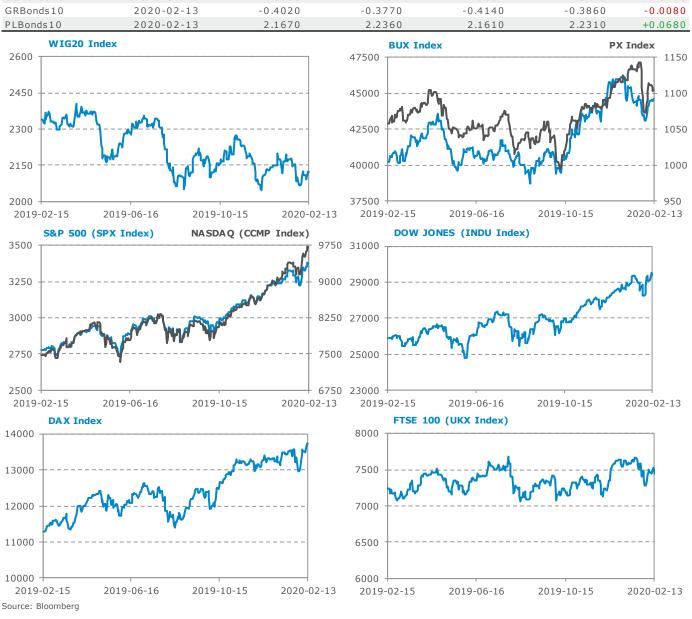
KGHM vs. sector (USD)



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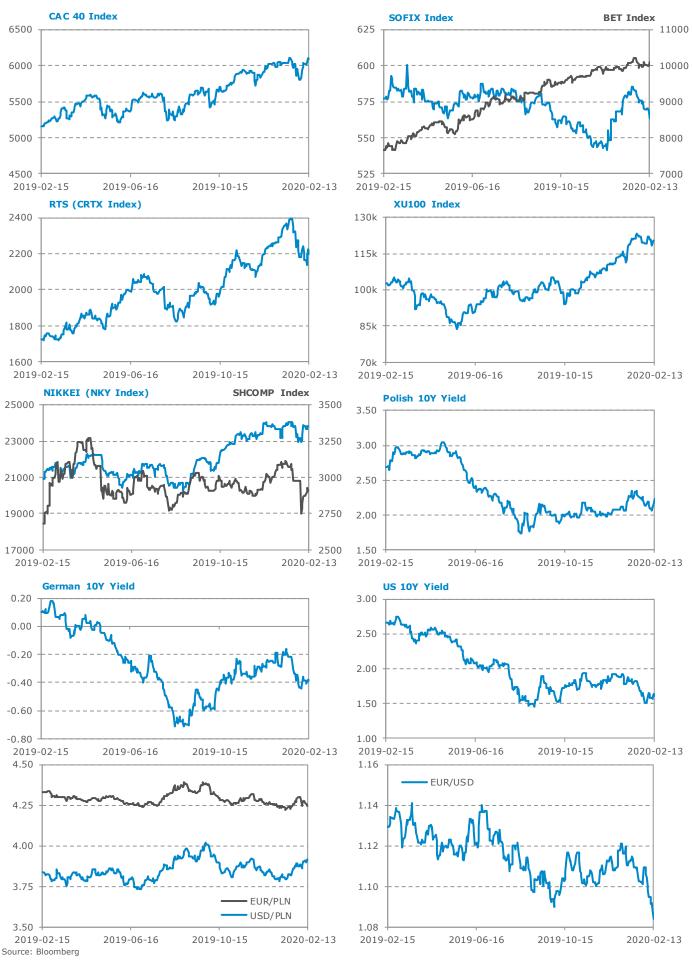
Global Market Overview

Index	Date	Open	Maximum	Minimum	Close	Change
DJIA	2020-02-13	29,436.03	29,535.40	29,345.93	29,423.31	-0.43%
S&P 500	2020-02-13	3,365.90	3,385.09	3,360.52	3,373.94	-0.16%
NASDAQ	2020-02-13	9,657.04	9,748.32	9,650.02	9,711.97	-0.14%
DAX	2020-02-13	13,695.93	13,745.43	13,576.96	13,745.43	-0.03%
CAC 40	2020-02-13	6,076.92	6,098.26	6,028.28	6,093.14	-0.19%
FTSE 100	2020-02-13	7,534.37	7,534.37	7,406.94	7,452.03	-1.09%
WIG20	2020-02-13	2,125.22	2,125.22	2,096.14	2,120.07	-0.29%
BUX	2020-02-13	44,483.80	44,795.62	44,261.56	44,629.51	+0.33%
PX	2020-02-13	1,104.42	1,106.41	1,100.75	1,104.10	+0.11%
RTS	2020-02-13	2,210.25	2,210.40	2,179.59	2,195.75	-1.20%
SOFIX	2020-02-13	568.67	570.15	562.67	563.46	-0.92%
BET	2020-02-13	10,000.18	10,095.99	9,999.45	10,095.99	+0.96%
XU100	2020-02-13	120,000.40	120,811.60	119,472.50	120,540.50	+0.41%
BETELES	2020-02-13	133.72	134.14	132.64	134.14	+0.14%
NIKKEI	2020-02-13	23,849.76	23,908.85	23,784.31	23,827.73	-0.14%
SHCOMP	2020-02-13	2,927.14	2,935.41	2,901.24	2,906.07	-0.71%
Copper (LME)	2020-02-13	5,733.50	5,814.50	5,725.00	5,790.00	+0.45%
Crude Oil (Brent)	2020-02-13	55.82	56.55	54.87	56.38	+0.32%
USD/PLN	2020-02-13	3.9102	3.9255	3.9069	3.9167	+0.17%
EUR/PLN	2020-02-13	4.2517	4.2613	4.2451	4.2461	-0.13%
EUR/USD	2020-02-13	1.0874	1.0889	1.0834	1.0841	-0.30%
USBonds10	2020-02-13	1.6053	1.6241	1.5661	1.6173	-0.0160
GRBonds10	2020-02-13	-0.4020	-0.3770	-0.4140	-0.3860	-0.0080
PLBonds10	2020-02-13	2.1670	2.2360	2.1610	2.2310	+0.0680



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List of abbreviations and ratios contained in the report:

List of abbreviations and ratios contained in the report:
EV - net debt + market value (EV = conomic value)
EBIT - Earnings Before Interest and Taxes
EBITDA - EBIT + Depreciation and Amortisation
PBA - Profit on Banking Activity
P/CE - price to earnings with amortisation
MC/S - market capitalisation to sales
EBIT/EV - operating profit to economic value
P/E - (Price/Earnings) - price divided by annual net profit per share
ROE - (Return on Equity) - annual net profit divided by average equity
P/BV - (Price/Book Value) - price divided by book value per share
Net debt - credits + debt papers + interest bearing loans - cash and cash equivalents
EBITDA margin - EBITDA/Sales

OVERWEIGHT (OW) – a rating which indicates that we expect a stock to outperform the broad market NEUTRAL (N) – a rating which indicates that we expect the stock to perform in line with the broad market UNDERWEIGHT (UW) – a rating which indicates that we expect the stock to underperform the broad market

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BUY - we expect that the rate of return from an investment will be at least 15%

ACCUMULATE - we expect that the rate of return from an investment will range from 5% to 15%

HOLD - we expect that the rate of return from an investment will range from -5% to +5%

REDUCE - we expect that the rate of return from an investment will range from -5% to -15%

SELL - we expect that an investment will bear a loss greater than 15%

Recommendations are updated at least once every nine months.

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assumptions in the model.

Relative – based on a comparison of valuation multipliers of companies from a given sector; simple in construction, reflects the current state of the market better than DCF; weak points include substantial variability (fluctuations together with market indices) as well as difficulty in the selection of the group of comparable companies.

Economic profits – discounting of future economic profits; the weak point is high sensitivity to changes in the assumptions made in the valuation model.

Discounted Dividends (DDM) – discounting of future dividends; the weak point is high sensitivity to changes in the assumptions as to future dividends made in the valuation model.

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