

PNE (PNE3 GY) | Utilities/Renewables

August 14, 2024

Earnings expected to accelerate in H2

Project development is currently progressing well. 10 wind farms with a capacity of 226 MW are currently under construction; a further 118 MW were awarded in tenders by the Federal Network Agency in H1 2024. In Q2, 42.6 MW of new turbines were commissioned in PNE's IPP portfolio and the IPP portfolio was increased to 412 MW. As the completion or sale of many projects is still pending, the good operating performance is not yet reflected in the result.

Accordingly, PNE's profit in Q2 was relatively low. However, the FY target has been confirmed (EBITDA of EUR 40 to 50 m), which points to a strong H2. The wind development pipeline (excl. US) grew from 9.0 GW at the end of Q1 to 9.3 GW, the PV pipeline was flat at 6.1 GW. PNE had already announced in June that it had sold its US business; it mentions the payment of a single-digit EUR million amount. As well as possible additional performance-related payments over the next 5 years. Unchanged investment case: PNE's earnings focus will shift to electricity generation. Here, the company's own capacity is to be more than quadrupled by 2027. The stability of earnings should continue to increase. The development activities with the larger but also more volatile value creation are thus sensibly flanked.

- H1 EBTIDA EUR 8.7m (H1 2023: EUR 18.1m).
- Valuation: We calculate a fair value of EUR 9.8 per share for PNE's development business. This results from our pipeline valuation approach. For the generation and services businesses, we calculate a fair value of EUR 6.1 per share based on peer multiples.

Fundamentals (in EUR m) ¹	2021	2022	2023	2024e	2025e	2026e
Sales	118	126	122	340	387	391
EBITDA	33	35	40	50	72	84
EBIT	9	6	6	13	27	31
EPS adj. (EUR)	0.33	0.20	-0.13	-0.03	0.11	0.16
DPS (EUR)	0.08	0.08	0.08	0.04	0.04	0.04
BVPS (EUR)	3.00	3.11	2.77	3.52	3.65	3.79
Net Debt incl. Provisions	369	451	685	623	543	572
Ratios ¹	2021	2022	2023	2024e	2025e	2026e
EV/EBITDA	31.0	58.8	43.6	34.7	22.7	19.9
EV/EBIT	109.4	335.8	303.0	136.0	60.9	53.7
P/E adj.	25.7	109.4	-110.4	-468.1	131.2	91.6
Dividend yield (%)	0.9	0.4	0.6	0.3	0.3	0.3
EBITDA margin (%)	27.7	28.1	32.8	14.6	18.6	21.4
EBIT margin (%)	7.9	4.9	4.7	3.7	7.0	8.0
Net debt/EBITDA	11.3	12.7	17.2	12.6	7.5	6.8
PBV	2.8	6.9	5.0	4.1	3.9	3.8

¹Sources: Bloomberg, Metzler Research, ²Sources: ISS ESG, Metzler Research

Buy



unchanged

Price*

EUR 14.38

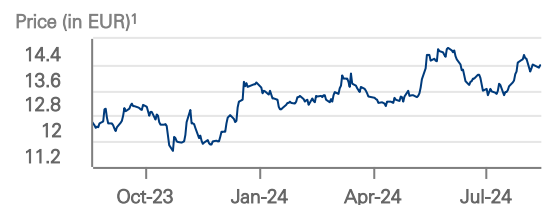
Price target

EUR 15.90 (16.10)

* XETRA trading price at the close of the previous day unless stated otherwise in the Disclosures

Market Cap (EUR m) ¹	1,098
Enterprise Value (EUR m) ¹	1,720
Free Float (%) ¹	26.6

Metzler ESG analysis based on ISS ESG data²



Performance (in %) ¹	1m	3m	12m
Share	4.5	-2.2	12.2
Rel. to TecDax	8.8	2.3	7.9

Changes in estimates (in %) ¹	2024e	2025e	2026e
Sales	0.0	0.0	0.0
EBIT	0.0	0.0	0.0
EPS	0.0	0.0	0.0

Sponsored Research

Utilities/Renewables Research Team

Author: Guido Hoymann

Financial Analyst Equities
+49 69 2104-398
Guido.Hoymann@metzler.com

Nikolas Demeter

Financial Analyst Equities
+49 69 2104-1787
Nikolas.Demeter@metzler.com



company note

H1 result

H1 EBITDA was EUR 8.7m. Earnings in the Electricity Generation segment increased by 11% and in the Services segment by 9%. As the completion or sale of many projects is still pending, the good operating performance is not yet reflected in the Project Development result. However, the company is confident that it will be able to catch up in the second half of the year.

EURm			H1 2024 / H1				Q2 2024 /	
	H1 2024	H1 2023	2023 (%)	Q1 2024	Q2 2024	Q2 2023	Q2 2023 (%)	
Revenues	60.6	57	6.1	31.4	29.2	24.9	17.3	
EBITDA	8.7	18.1	-51.9	8.5	0.2	9.5	-97.9	
<i>EBITDA Margin (%)</i>	14.4	<i>31.7</i>		<i>27.1</i>	0.7	<i>38.2</i>		
EBIT	-6.9	2.0	.	1.1	-8.0	1.2	.	
<i>EBIT Margin (%)</i>	-11.4	<i>3.5</i>		<i>3.5</i>	-27.4	<i>4.8</i>		
EBITDA by segment								
Project development	-14.6	9.6	.	13.4	-28.0	15.7	.	
Services	5.0	4.6	<i>8.7</i>	2.5	2.5	2.6	-3.8	
Electricity generation	31.5	28.3	<i>11.3</i>	20.1	11.4	13.3	-14.3	
Consolidation	-13.2	-24.4	.	-27.5	14.3	-22.0	.	
Pipeline Wind	9329	8622	8.2	9794	9329	8622	8.2	
Pipeline PV	6108	5468	11.7	7511	6108	5468	11.7	
Own generation capacity (MW)	412	346	19.1	370	412	346	19.1	
Electricity generation (GWh)	380	325	16.9	247	133	112	18.8	

Sources: PNE, Metzler Research

Outlook 2024 confirmed: EBITDA of EUR 40 to 50m.

Pipeline update

The onshore wind pipeline (excl. US) grew by 3% q-o-q or 18% y-o-y; the PV pipeline (excl. US) was unchanged q-o-q or +12% y-o-y.

In total, PNE's onshore wind and PV pipeline amounted to 15.4 GW in H1 2024. On top of this comes the 2.5 GW offshore pipeline.

PNE's development pipeline (in MW, 30.06.2024)

Technology / Country	Development phase				Total
	I - II (Exploration and development)	III (Planning)	IV (Construction until handover)		
Wind onshore	8003	1100	226	9329	
Germany	1669	713	215	2597	
France	347	165	11	523	
UK	0	43	0	43	
Italy	0	0	0	0	
Poland	1902	0	0	1902	
Romania	0	0	0	0	
Sweden	300	0	0	300	
Spain	210	0	0	210	
Turkey	629	71	0	700	
Canada	295	0	0	295	
Panama	224	68	0	292	
South Africa	2427	40	0	2467	
Total Wind onshore	8003	1100	226	9329	
PV	13712	1499	226	15437	
Germany	556	124	0	680	
France	197	23	0	220	
Italy	450	75	0	525	
Poland	448	125	0	573	
Romania	765	49	0	814	
Spain	1041	3	0	1044	
Canada	402	0	0	402	
South Africa	1850	0	0	1850	
Total PV	5709	399	0	6108	
TOTAL	13712	1499	226	15437	

Source: PNE

PNE's development pipeline (in MW, 31.03.2024)

Technology / Country	Development phase				Total
	I - II (Exploration and development)	III (Planning)	IV (Construction until handover)		
Wind onshore	7728	1044	276	9048	
Germany	1712	623	265	2600	
France	330	199	11	540	
UK	0	43	0	43	
Italy	0	0	0	0	
Poland	1391	0	0	1391	
Romania	0	0	0	0	
Sweden	300	0	0	300	
Spain	210	0	0	210	
Turkey	629	71	0	700	
Canada	505	0	0	505	
Panama	224	68	0	292	
South Africa	2427	40	0	2467	
Total Wind onshore	7728	1044	276	9048	
PV	5756	383	0	6139	
Germany	556	118	0	674	
France	147	23	0	170	
Italy	412	65	0	477	
Poland	448	125	0	573	
Romania	765	49	0	814	
Spain	1041	3	0	1044	
Canada	522	0	0	522	
South Africa	1865	0	0	1865	
Total PV	5756	383	0	6139	
TOTAL	13484	1427	276	15187	

Source: PNE

company note

Valuation

We value the project development business and the generation and services businesses separately.

We estimate an EBITDA 2025 of EUR 75m for the generation business and EUR 8m for the services business. Applying an average producer peer multiple of 9.9 x EV / EBITDA 2025e, we derive a fair value of EUR 6.1 per share for these two activities.

For the valuation of the developer business, we apply the pipeline approach. We believe that this approach is now well established in the market. It is also, in our opinion, entirely plausible, as pipelines have a high degree of fungibility, as project rights can be sold relatively easily and are also increasingly traded.

For the valuation of wind pipelines, we refer to four large pipeline sales in the last 3 years by Nordex (Metzler recommendation: BUY/ pt. EUR 16.4), BayWa (Metzler recommendation: under review), Vento Ludens/Wind2 and Siemens Gamesa/SSE. In all four cases, the buyers paid around EUR 150m per (pipeline) GW. We have taken into account the rise in interest rates since then and their estimated impact on project profitability by reducing this multiplier by 10%. We apply the transaction multiple to PNE's European onshore wind pipeline (6.3 GW). For the PV-pipeline we apply a lower multiplier of EUR 40m per (pipeline) GW; the development process of PV projects is simpler compared to wind projects. We reduce the pipelines by the capacities needed for the expansion of the IPP portfolio. We calculate a value of EUR 9.8 per share for the developer business.

Sum-of-the-parts valuation reveals upside

	Bloomberg Ric	Share price in local currency (14. August 2024)	EV/EBITDA 2025e
PNE Generation & Services - Peer group valuation			
Boralex Inc.	BLX CN	35	9.6
EDP Renovaveis	EDPR PL	14	10.4
Voltaia	VLTA FP	10	11.8
Oersted	ORSTED DC	425	7.7
Average			9.9
PNE Generation & Services			
EBITDA 2025e (EURm)	83		
Peer-Group Multiple	9.9		
Fair EV (EURm)	821		
Net debt 2025e (EURm; our assumption: Net debt allocation 2/3 to Generation / Services; 1/3 to Project Development)	353		
Fair value Generation & Services (EURm)	468	per share (EUR):	6.1
PNE Project Development - Pipeline valuation			
Wind-Pipeline (30.06.2024 in GW; Europe only)	6.3		
- wind-projects for own portfolio (IPP; in MW)	0.5		
Wind-Pipeline (net)	5.8		
Multiple (EURm/pipeline GW)	135		
Fair EV Wind (EURm)	786		
US Business (earn out)	20		
Fair EV PV pipeline (net) Europe (in EURm); GW-Multiple EUR 40m	130		
Net debt 2025e	190		
Fair value Project Development incl. (EURm)	747	per share (EUR):	9.8
TOTAL fair value	1215	per share (EUR)	15.9

Sources: Bloomberg, Metzler Research

company note

Key Data

Company profile

CEO: Per Hornung Pedersen (Interim-CEO)

CFO: Harald Wilbert

Cuxhaven

PNE offers the entire value chain of development, project planning, realization, financing, operation, sales and repowering of onshore wind farms in Germany and abroad. Offshore, PNE develops wind farms until they are ready for construction.

Major shareholders

Morgan Stanley (44.2%), Active Ownership Fund (11.99%), Enkraft (4.96%), Samson Rock Capital (7.93%), JP Morgan Chase (4.3%)

Key figures

P&L (in EUR m)	2021	%	2022	%	2023	%	2024e	%	2025e	%	2026e	%
Sales	118	7.3	126	7.2	122	-3.7	340	179.5	387	14.0	391	1.0
EBITDA	33	23.9	35	8.5	40	12.7	50	24.2	72	45.7	84	16.2
EBITDA margin (%)	27.7	15.5	28.1	1.2	32.8	17.0	14.6	-55.6	18.6	27.8	21.4	15.0
EBIT	9	13.4	6	-33.1	6	-7.3	13	120.1	27	113.1	31	15.4
EBIT margin (%)	7.9	5.6	4.9	-37.6	4.7	-3.7	3.7	-21.2	7.0	86.8	8.0	14.3
Financial result	-10	10.2	18	280.7	-14	-181.1	-16	-10.8	-15	6.3	-14	6.7
EBT	3	211.7	24	688.9	-9	-135.9	-3	62.5	12	476.7	17	42.7
Taxes	-22	-499.2	10	145.1	-0	-104.3	-1	-137.1	4	456.8	5	43.2
Tax rate (%)	-715.5	n.a.	40.9	n.a.	4.9	n.a.	31.3	n.a.	29.7	n.a.	29.8	n.a.
Net income	25	n.m.	14	-42.9	-8	-158.2	-2	71.4	8	456.8	12	43.2
Minority interests	-0	35.4	-1	-74.7	1	270.3	0	-100.0	0	n.a.	0	n.a.
Net Income after minorities	25	n.m.	15	-40.7	-10	-164.3	-2	75.5	8	456.8	12	43.2
Number of shares outstanding (m)	76	0.0	76	0.0	76	0.0	76	0.0	76	0.0	76	0.0
EPS adj. (EUR)	0.33	n.m.	0.20	-40.7	-0.13	-164.3	-0.03	75.5	0.11	456.8	0.16	43.2
DPS (EUR)	0.08	100.0	0.08	0.0	0.08	0.0	0.04	-50.0	0.04	0.0	0.04	0.0
Dividend yield (%)	0.9	n.a.	0.4	n.a.	0.6	n.a.	0.3	n.a.	0.3	n.a.	0.3	n.a.
Cash Flow (in EUR m)	2021	%	2022	%	2023	%	2024e	%	2025e	%	2026e	%
Gross Cash Flow	24	247.1	25	4.2	78	216.7	35	-55.6	54	55.1	65	20.8
Increase in working capital	0	n.a.	34	n.a.	-241	n.a.	65	n.a.	80	n.a.	50	n.a.
Capital expenditures	2	0.0	2	0.0	3	30.0	1	-61.5	1	0.0	1	0.0
D+A/Capex (%)	1169.4	n.a.	1461.0	n.a.	1314.3	n.a.	3693.3	n.a.	4529.0	n.a.	5282.0	n.a.
Free cash flow (Metzler definition)	24	134.7	-11	-146.2	-166	n.m.	99	159.4	133	34.6	14	-89.6
Free cash flow yield (%)	3.7	n.a.	-0.7	n.a.	-15.7	n.a.	9.0	n.a.	12.1	n.a.	1.3	n.a.
Dividend paid	3	0.0	6	100.0	6	0.0	6	0.0	3	-50.0	3	0.0
Free cash flow (post dividend)	-61	28.8	-115	-88.1	-192	-67.0	62	132.5	80	27.4	-29	-136.7
Balance sheet (in EUR m)	2021	%	2022	%	2023	%	2024e	%	2025e	%	2026e	%
Assets	827	24.6	920	11.3	1,102	19.7	1,028	-6.7	1,020	-0.8	994	-2.5
Goodwill	63	0.0	64	1.8	64	0.0	63	-1.7	63	0.0	63	0.0
Shareholders' equity	222	10.6	232	4.7	208	-10.3	261	25.4	271	3.8	282	4.1
Equity/total assets (%)	26.8	n.a.	25.2	n.a.	18.9	n.a.	25.4	n.a.	26.6	n.a.	28.4	n.a.
Net Debt incl. Provisions	369	39.4	451	22.3	685	51.8	623	-9.1	543	-12.8	572	5.4
thereof pension provisions	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.
Gearing (%)	166.3	n.a.	194.3	n.a.	329.1	n.a.	238.4	n.a.	200.3	n.a.	202.8	n.a.
Net debt/EBITDA	11.3	n.a.	12.7	n.a.	17.2	n.a.	12.6	n.a.	7.5	n.a.	6.8	n.a.

Structure

EBITDA by division 2023



Sources: Bloomberg, Metzler Research

ESG discussion

PNE's project portfolio offers clear benefits for the environment through its contribution to combating climate change and transitioning to a sustainable energy system. ISS attributes the somewhat below-average performance in the 'Social' score primarily to the lack of data on the company's health and safety management structures in its overseas projects. PNE intends to prepare additional data in this regard and make it available in the foreseeable future.

company note

Disclosures

Recommendation history

Recommendations for each financial instrument or issuer - mentioned in this document - published by Metzler in the past twelve months

Date of dissemination	Metzler recommendation *		Current price **	Price target *	Author ***
	Previous	Current			
Issuer/Financial Instrument (ISIN): BayWa (DE0005194062)					
16.07.2024	Buy	Not rated	16.24 EUR		Demeter, Nikolas
10.05.2024	Buy	Buy	23.65 EUR	38.00 EUR	Hoymann, Guido
02.04.2024	Buy	Buy	25.15 EUR	38.00 EUR	Hoymann, Guido
10.11.2023	Buy	Buy	32.35 EUR	52.00 EUR	Hoymann, Guido
Issuer/Financial Instrument (ISIN): Nordex (DE000A0D6554)					
25.07.2024	Buy	Buy	13.47 EUR	16.40 EUR	Hoymann, Guido
18.06.2024	Buy	Buy	12.50 EUR	16.40 EUR	Hoymann, Guido
14.05.2024	Buy	Buy	14.52 EUR	16.40 EUR	Hoymann, Guido
11.04.2024	Hold	Buy	12.74 EUR	14.90 EUR	Hoymann, Guido
01.03.2024	Hold	Hold	10.53 EUR	9.90 EUR	Hoymann, Guido
12.02.2024	Hold	Hold	9.50 EUR	9.10 EUR	Hoymann, Guido
22.01.2024	Buy	Hold	9.08 EUR	9.10 EUR	Hoymann, Guido
15.11.2023	Buy	Buy	10.90 EUR	14.50 EUR	Hoymann, Guido
12.10.2023	Buy	Buy	10.83 EUR	14.80 EUR	Hoymann, Guido
Issuer/Financial Instrument (ISIN): PNE (DE000A0JBPG2)					
18.06.2024	Buy	Buy	13.76 EUR	16.10 EUR	Hoymann, Guido
08.05.2024	Buy	Buy	13.42 EUR	16.10 EUR	Hoymann, Guido
28.03.2024	Buy	Buy	13.50 EUR	16.10 EUR	Hoymann, Guido
14.11.2023	Buy	Buy	12.10 EUR	18.00 EUR	Hoymann, Guido

* Effective until the price target and/or investment recommendation is updated (FI/FX recommendations are valid solely at the time of publication)

** XETRA trading price at the close of the previous day unless stated otherwise herein

*** All authors are financial analysts

BayWa

6. Metzler, a company affiliated with Metzler and/or a person that has worked on compiling this report has reached an agreement with the issuer in the past twelve months about the provision of investment services according to Appendix I section A and B of guideline 2014/65/EU by the European Parliament and the Council or there was an obligation to pay or receive compensation within the same timeframe based on the same guideline.
13. Metzler, a company affiliated with Metzler and/or a person that has worked on compiling this report has reached an agreement with the issuer relating to the production of investment recommendations.

PNE

company note

- 13 . Metzler, a company affiliated with Metzler and/or a person that has worked on compiling this report has reached an agreement with the issuer relating to the production of investment recommendations.

Compiled: August 14, 2024 11:15 am CEST

Initial release: August 14, 2024 11:15 am CEST

company note

Disclaimer

This document has been prepared by B. Metzler seel. Sohn & Co. AG (Metzler) and is addressed exclusively to eligible counterparties and professional clients. It is thus not suitable for retail clients.

This document is based on information which is generally available and which Metzler believes to be fundamentally reliable. Metzler has not verified the accuracy or completeness of the information, however, and thus provides no warranty or representation in respect of the accuracy or completeness of the information, opinions, estimates, recommendations and forecasts contained in this document. Neither Metzler nor any of its shareholders or employees are liable for damage or any other disadvantage suffered due to inaccurate or incomplete information, opinions, estimates, recommendations or forecasts as a result of the distribution or use of or in connection to this document.

This document does not constitute or form part of any offer to buy or solicitation of any offer to buy securities, other financial instruments or other investment instruments. Neither does it take account of the particular investment objectives, financial situation or needs of individual recipients nor does it constitute personal investment advice. Metzler does not act as investment advisor or portfolio manager in preparing and publishing this document. Recipients must make their own investment decisions in accordance with their specific financial situation and investment objectives, based on independent processes and analyses, taking sales or other prospectuses, information memoranda and other investor information into account, and consult with an independent financial advisor where necessary. Recipients should note that any information regarding past performance should not be relied upon as an indication of future performance and should therefore not form the basis of any decision whether or not to invest in any financial instruments.

The information, opinions, estimates, recommendations and forecasts contained in this document reflect the personal views of the author at the time of publication on the financial instruments or issuers that form the subject of this document and do not necessarily reflect the opinions of Metzler, the issuer or third parties. They may also be subject to change on account of future events and developments. Metzler has no obligation to amend, supplement or update this document or to otherwise notify recipients in the event that any information, opinions, estimates, recommendations or forecasts stated herein should change or subsequently become inaccurate, incomplete or misleading. The model calculations contained in this document, if any, are examples showing the possible performance and are based on various assumptions (e.g. regarding earnings and volatility). The actual performance may be higher or lower, depending on market trends and on the correctness of assumptions underlying the model calculations. Accordingly, actual performance cannot be guaranteed, warranted or assured.

Recipients should assume that (a) Metzler is entitled to acquire orders for investment banking, securities or other services from or with companies which form the subject of research publications and that (b) analysts who were involved in preparing research publications may, within the scope of regulatory laws, be indirectly involved in the acquisition of such orders.

Metzler and its employees may hold positions in securities of the companies analysed or in other investment objects or may conduct transactions with such securities or investment objects.

This document is provided for information purposes only and may not be copied, duplicated, forwarded to third parties or otherwise published, in whole or in part, without Metzler's written consent. Metzler reserves all copyrights and rights of use, including those relating to electronic media. Insofar as Metzler provides hyperlinks to websites of the companies cited in research publications, this does not mean that Metzler confirms, recommends or warrants any data contained on the linked sites or data which can be accessed from such sites. Metzler accepts no liability for links or data, nor for any consequences which may arise as a result of following the links and/or using the data.

This document is subject to the laws of the Federal Republic of Germany. Venue of jurisdiction for any disputes shall be Frankfurt am Main, Germany.

By accepting this document the recipient declares his/her agreement with the above provisions.

Information in accordance with Regulation (EU) No. 596/2014, Delegated Regulation (EU) No. 2016/958 and section 85 (1) of the German Securities Trading Act (*Wertpapierhandelsgesetz*)

Persons responsible for this document

The company responsible for preparing this document is B. Metzler seel. Sohn & Co. AG, Untermainanlage 1, 60329 Frankfurt am Main, Germany, which is subject to supervision by the German Federal Financial Supervisory Authority (*Bundesanstalt für Finanzdienstleistungsaufsicht; BaFin*), Marie-Curie-Straße 24–28, 60439 Frankfurt/Main, Germany, and by the European Central Bank (ECB), Sonnemannstraße 20, 60314 Frankfurt/Main, Germany.

Key information sources

The sources of information referred to when preparing research publications include publications by national and international media, the European Central Bank and other public authorities, information services (such as Reuters and Bloomberg), the financial press, published statistics, information published by rating agencies, annual reports and other information provided by the issuers.

Valuation criteria and methods

Valuations are based on standard and acknowledged methods of fundamental and technical analysis (e.g. DCF model, peer-group analysis, sum-of-the-parts model, relative-value analysis). The valuation models are affected by macro-economic values such as interest rates, exchange rates, commodities prices and economic performance, as well as by market sentiments. Detailed information on the valuation principles and methods used by Metzler and the assumptions on which they are based is available at www.metzler.com/disclaimer-capital-markets-en.

Sensitivity of valuation parameters: risks

The figures on which the company valuations are based are date-specific estimates and thus carry inherent risks. They may be adjusted at any time without prior notice.

company note

Irrespective of the valuation principles and methods used and the assumptions on which they are based, there is always a risk that a particular price target is not achieved or that the assumptions and forecasts prove inaccurate. This can, for instance, be the result of unexpected changes in demand, management, technology, economic or political developments, interest rates, costs, the competitive situation, the legal situation and other factors. Investments in foreign markets and instruments are subject to additional risks, as a result of changes in exchange rates or in the economic, political or social situation, for instance. This outline of risks makes no claim to be exhaustive.

Definition of categories for investment recommendations

The categories for investment recommendations in research publications by Metzler have the following meanings:

Shares:

BUY	The price of the analysed financial instrument is expected to rise in the next 12 months.
HOLD	The price of the analysed financial instrument is expected to largely remain stable in the next 12 months.
SELL	The price of the analysed financial instrument is expected to fall in the next 12 months.

Bonds:

BUY	The analysed financial instrument is expected to perform better than similar financial instruments.
HOLD	The analysed financial instrument is not expected to perform significantly better or worse than similar financial instruments.
SELL	The analysed financial instrument is expected to perform worse than similar financial instruments.

Summary of investment recommendations

A list of all investment recommendations for each financial instrument or issuer published by Metzler in the past twelve months can be found at www.metzler.com/disclaimer-capital-markets-en.

The quarterly quotation of the number of all investment recommendations given as “buy”, “hold”, “sell” or similar for the past 12 months as a proportion of the total number of investment recommendations made by Metzler and the quotation of the proportion of these categories relating to issuers to whom Metzler has provided services within the meaning of Annex I sections A and B of Regulation 2014/65/EU within the past 12 months can be accessed and downloaded at www.metzler.com/disclaimer-capital-markets-en.

Planned updates of this document

This document reflects the opinion of the respective author at the time of its preparation. Any changes of factors can cause information, opinions, estimates, recommendations and forecasts contained in this document to cease to be accurate. No decision has as yet been taken as to whether, and if so when, this document will be updated. If an investment recommendation is updated, the updated investment recommendation replaces the previous investment recommendation upon publication.

Compliance arrangements; conflicts of interest

All analysts are bound by Metzler’s internal compliance regulations which ensure that the research publications are prepared in accordance with statutory and regulatory provisions. The analysts are classified as working in a confidential sector and are thus required to observe the resulting statutory and regulatory provisions. This is monitored on a regular basis by the Compliance department and external auditors. The Compliance department ensures that potential conflicts of interest do not affect the original result of the analysis. Metzler has a binding Conflicts of Interest Policy in place which ensures that relevant conflicts of interest within Metzler, the Metzler Group, the analysts and staff of Metzler’s Capital Markets division and persons associated with them are avoided or, if they cannot be avoided, are appropriately identified, managed, disclosed and monitored. A detailed description of Metzler’s policy for avoiding conflicts of interest is available at www.metzler.com/disclaimer-capital-markets-en.

Details of the conflicts of interests to be disclosed under regulatory requirements are published at www.metzler.com/disclosures-en.

Remuneration

The remuneration of the Metzler staff members and other persons involved in preparing this document is in no way, either in whole or in any variable part, directly or materially linked to transactions in securities services or other transactions processed by Metzler.

Prices

All prices for financial instruments stated in this document are, unless otherwise stated, closing prices for the trading day preceding the respective stated publication date on the market which we regard as the most liquid market for the respective financial instrument.

Scope of application

This document was prepared in the Federal Republic of Germany in line with the legal provisions valid there. It may therefore be possible that this document does not comply with all provisions relating to the preparation of such documents in other countries.

company note

Metzler Capital Markets

B. Metzler seel. Sohn & Co. AG
Untermainanlage 1
60329 Frankfurt/Main, Germany
Phone +49 69 2104-extension
Fax +49 69 2104-679
www.metzler.com

Mario Mattera

Head of Capital Markets

Research	Pascal Spano	Head of Research	4365
	Guido Hoymann	Head of Equity Research	398
		Transport, Utilities/Renewables	
	Stephan Bauer	Industrial Technology	4363
	Nikolas Demeter	Transport, Utilities/Renewables	1787
	Felix Dennl	E-Commerce, Retail	239
	Oliver Frey	Software, Technology, Telecommunications	4360
	Alexander Neuberger	Industrial Technology, Small/Mid Caps	4366
	Jochen Schmitt	Financials, Real Estate	4359
	Thomas Schulte-Vorwick	Basic Resources	234
	Pál Skirta	Mobility	525
	Veysel Taze	Software, Technology, Telecommunications	4361
	Uwe Hohmann	Equity Strategy	366
	Eugen Keller	Head of FI/FX Research	329
	Juliane Barthold	FI/FX Strategy	1748
	Leon Bost	FI/FX Strategy	527
	Stoyan Toshev	FI/FX Strategy	528
Equities	Mustafa Ansary	Head of Equities	351
		Head of Equity Sales	
Sales	Eugenia Buchmüller		238
	Hugues Jaouen		4173
	Alexander Kravkov		4172
	Gerard O'Doherty		4189
	Jasmina Schul		1766
Trading	Sven Knauer	Head of Equity Trading	245
	Alex Cotar		246
	Elyaz Dust		248
	Stephan Schmelzle		247
	Thomas Seibert		228
Corporate Solutions	Dr. Karsten Iltgen	Head of Corporate Solutions	510
	Stephan Averdung		514
	Thomas Burkart		511

company note

	Christoph Hirth		513
	Adrian Takacs		512
Fixed Income (FI)	Sebastian Luther	Head of Fixed Income	688
FI Sales	Minush Nori	Head of Fixed Income Sales	689
	Silke Amelung		289
	Kyriakos Ioannidis		686
	Claudia Ruiu		683
	Simon Tabath		280
FI Trading/ALM	Burkhard Brod	Head of ALM	659
	Bettina Koch		291
	Susanne Kraus		658
	Christian Bernhard	Head of Fixed Income Trading	266
	Dirk Lagler		685
Foreign Exchange (FX)	Özgür Atasever	Head of Foreign Exchange	281
FX Sales	Tobias Martin	Head of FX Sales & Trading	614
	Steffen Völker		293
FX Trading	Rainer Jäger		276
	Sebastian Wilkes		613
	Andreas Zellmann		610
Currency Management	Dominik Müller	Head of Currency Management	274
CM Advisory	Achim Walde	Head of Advisory	275
CM Operations	Simon Wesch	Head of Operations	350
	Tessa Feller		1696
	Florian Konz		1773
	Sergii Piskun	Senior Quantitative Analyst	237