### The Platform Group (TPG GY) | Retail

### Q3/24: Broadly in line print. FY24 outlook confirmed

The Platform Group AG (TPG) released Q3/24 results last Friday, with sales and adj. EBITDA broadly in line compared to our estimates. Also, its FY24 guidance, calling for EUR500-520mn in sales, GMV of EUR880-900mn and an adj. EBITDA in the ballpark of EUR29-32mn, was confirmed. We are mindful that TPG is now present in 23 sectors. In all, sales in Q3 were +44% yoy and reported to EUR140mn, driven by an acceleration of the active customer base (+18% yoy), number of partners (+11% yoy) and orders (+46% yoy). Below topline, adj. EBITDA amounted to EUR7.0mn, implying a margin of 5.0%, +370bps yoy, supported by cost efficiencies on the personnel and marketing side. As a result of positive earnings momentum, backed up by three concrete M&A targets for Q4/24 and Q1/25, coupled with an undemanding valuation, TPG trades at a 27% discount on a 2yr fwd PE vs. our peer universe comprising both online retailers & serial acquirers, we reiterate our Buy recommendation with an unchanged price target of EUR13.

**Risks to our rating:** 1) intensifying competition, 2) weaker macro and 3) personnel cost inflation weighing on profitability

**FY24 Guidance:** TPG expects to generate 1) EUR500-520mn in sales, 2) a GMV of EUR880-900mn and 3) an adj. EBITDA in the ballpark of EUR29-32mn

**Valuation:** We continue to value TPG using a DCF approach (PT: EUR13)

Fundamentals (in EUR m) <sup>1</sup>	2021	2022	2023	2024e	2025e	2026e
Sales	134	172	464	512	578	624
EBITDA	2	14	47	50	59	66
EBIT	-1	9	39	41	48	54
EPS adj. (EUR)	-0.27	1.10	1.48	1.46	1.55	1.79
GMV	n.a.	266.3	693.4	884.9	1,210.2	1,457.2
DPS (EUR)	0.00	0.00	0.00	0.00	0.00	0.00
BVPS (EUR)	8.24	7.37	4.72	5.57	7.12	8.91
Net Debt incl. Provisions	9	22	72	96	63	63
Ratios <sup>1</sup>	2021	2022	2023	2024e	2025e	2026e
EV/EBITDA	91.6	3.5	3.8	4.9	3.6	3.2
EV/EBIT	-285.2	5.4	4.6	6.0	4.4	3.9
P/E adj.	-80.3	4.0	4.2	5.1	4.8	4.2
Dividend yield (%)	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA margin (%)	1.2	8.2	10.1	9.7	10.2	10.7
EBIT margin (%)	-0.4	5.3	8.4	7.9	8.2	8.7
Net debt/EBITDA	5.7	1.6	1.5	1.9	1.1	1.0
PBV	2.7	0.6	1.3	1.3	1.0	0.8

<sup>1</sup>Sources: Bloomberg, Metzler Research

November 25, 2024

unchanged

Duy		u u	ichanyeu					
Price*		EUR 7.4	.48					
Price target EUR 13.00 (unchanged)								
	trading price herwise in the		of the previou	us day ur	nless			
Market (	Cap (EUR m) <sup>1</sup>				149			
Enterpris	se Value (EUR	m) <sup>1</sup>			245			
Free Floa	at (%) <sup>1</sup>				20.1			
Price (in	EUR) <sup>1</sup>							
12 10 8 6 4	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	- marken	And		·~~			
	Jan-24	Apr-24	Jul-24	Oct-	24			
Performa	ance (in %) <sup>1</sup>		1m	3m	12m			
Share			-8.8	-16.1	37.0			
Rel. to S	DAX		-5.1	-12.1	34.4			
Changes	in estimates	(in %) <sup>1</sup>	2024e	2025e	2026e			
Sales			3.2	4.7	4.6			
EBIT			10.3	9.0	8.8			
EPS			33.5	9.9	9.5			

Buv

#### **Sponsored Research**



Author: Felix Dennl

**Financial Analyst Equities** 

+49 69 2104-239 Felix.Dennl@metzler.com

#### Q3/24: In line results. FY24 guidance confirmed.

Headline results	TPG reported Q3/24 results last Friday, broadly in line our expectations. Sales in Q3 came in +44% yoy (MTZLe: +47% yoy) and reported to EUR140mn, driven by an acceleration of partners (+11% yoy), the active customer base (+18% yoy) and number of orders (+46% yoy). We are mindful that TPG is now present in 23 sectors. Below the top-line, adj. EBITDA amounted to EUR7.0mn (MTZLe: EUR7.3mn), implying a margin of 5.0%, +370bps yoy in the third quarter on the back of cost efficiency measures on the personnel and marketing side, partly offset by higher distributional expenses. FY24 guidance, calling for EUR500-520mn in sales, GMV of EUR880-900mn and an adj. EBITDA in the ballpark of EUR29-32mn, was confirmed.
Sales	Sales in Q3 expanded by 44% yoy, primarily driven by a rising number of active customers (+18% yoy), partners (+11% yoy) and orders (+46% yoy).
Gross profit	Gross margin in the third quarter stood at 35.0%, +100bps yoy whereby the superior top-line expansion (+44% yoy) offset the higher cost base (+42% yoy).
OpEx	Our maths suggests that OpEX rose by 30% yoy in Q3 in absolute terms. We pre- sume that this was mainly driven by higher distribution expenses (+47% yoy), due to increased freight and logistics cost as well as marketing (+38% yoy) given an acceleration in campaigns and commercials on social media platforms. However, OpEx fell by to 28.0%, measured as a % of sales, -270bps yoy in the third quarter. Efficiencies were achieved with respect to personnel costs (-20bps yoy), marketing (-30bps yoy) and other operating expenses (-240bps yoy), while distribution expenses trended higher (+20bps yoy).
Adj. EBITDA	The aforementioned drivers, alongside EUR0.85mn of adjustments, EUR3mn worth of PPA and EUR0.7mn in deferred tax & consolidation effects, drove an adj. EBITDA of EUR7.0mn, implying a margin of 5.0%, +370bps yoy in the third quarter.
FY24 guidance	FY24 guidance, calling for EUR500-520mn in sales, GMV of EUR880-900mn and an adj. EBITDA in the ballpark of EUR29-32mn, was confirmed.

#### The Platform Group AG - P&L

EURmn	Q3/23	9M/23	Q3/24	9M/24	Q3/24E	9M/24E
GMV	102	469	166	608	170	612
% change	n.a.	n.a.	63%	30%	67%	31%
Sales	97	285	140	371	143	374
% change	n.a.	n.a.	44%	30%	47%	32%
Other income	2	15	4	20	6	22
as % of sales	2,5%	5,3%	2,6%	5,4%	4,2%	6,0%
Cost of Goods Sold	(66)	(200)	(94)	(260)	(100)	(265)
Gross profit	33	100	49	131	49	132
Gross profit margin	34,0%	35,2%	35,0%	35,4%	34,6%	35,2%
Marketing expenses	(7)	(19)	(9)	(24)	(10)	(24)
as % of sales	6,9%	6,6%	6,6%	6,4%	6,8%	6,5%
Distribution expenses	(8)	(22)	(11)	(29)	(11)	(29)
as % of sales	7,8%	7,6%	8,0%	7,8%	8,0%	7,8%
Personnel expenses	(5)	(16)	(8)	(20)	(9)	(22)
as % of sales	5,6%	5,6%	5,4%	5,4%	6,5%	5,8%
Other operating expenses	(10)	(17)	(11)	(19)	(9)	(17)
as % of sales	10,5%	5,9%	8,1%	5,1%	6,3%	4,4%
EBITDA	3,2	27,1	9,8	39,8	10,0	40,0
EBITDA margin	3,3%	9,5%	7,0%	10,7%	7,0%	10,7%
Adj. EBITDA	1,3	14,5	7,0	24,6	7,3	24,9
Adj. EBITDA margin	1,3%	5,1%	5,0%	6,6%	5,1%	6,6%
Net income from continued operations	3,9	20,3	6,6	28,3	7,0	28,7
Minorities	(1,1)	(2,9)	(2,0)	(2,8)	(0,5)	(1,4)
Net income attributable to TPG shareholders	2,8	17,4	4,7	25,5	6,5	27,3
EPS from continued operations	0,20	1,02	0,30	1,39	0,33	1,42

Capital Markets

Source: Metzler Research

### Snippets from the call

Business update	TPG has embarked on a series of acquisitions this year: 1) Jungherz (bike parts), 2) 0815 Group (B2C / B2B platform), 3) Angermeier (forest equipment), 4) Wehrmann (machine plaform), 5) Winkelstraat (luxury platform) and 6) concluded the final migration of ViveLaCar/Cluno (car subscription platform).
TPG One	The company has been working on its platform to elevate the ability to handle product, connect parters faster and enter industries more quickly. 'TPG One' will carry a new Application Programming Interface (API), Computer-Managed Instruc- tion (CMI) and frontend. Its roll-out is expected in January 2025.
M&A Pipeline for Q4/24 and Q1/25	Three M&A targets are currently in TPG's pipeline. The first two are based in Ger- many. On the one hand, a B2C commerce company in the Optics space and a B2B finance platform on the other. We have been given to understand that the due dili- gence has been completed for both and an SPA is envisaged for January 2025 and December 2024, respectively. Moreover, TPG is looking into a US-based B2C com- merce firm in the luxury space.

#### Changes to our estimates

We have updated our model following the Q3/24 release. For FY24 our top-line figure rises by 3% on the back of a higher than previously anticipated acceleration in the Consumer Goods division, putting us marginally above the mid-point of the full-year outlook. Together with a lifted gross margin estimate, due to less discounting and delisting of lower priced products, our adj. EBITDA increases by 7%. As a consequence, our estimates for the outer years (FY25-FY26) expand by 5% at sales and adj. EBITDA level.

Capital Markets

#### Changes to our estimates

		FY24E			FY25E				
EURmn	Old	New	% change	Old	New	% change	Old	New	% change
Sales	496	512	3%	552	578	5%	596	624	5%
% growth	15%	18%		11%	13%		8%	8%	
Adj. EBITDA	28,9	30,9	7%	39	41	5%	44	46	4%
Adj. EBITDA margin %	5,8%	6,0%		7,0%	7,0%		7,4%	7,4%	
Source: Metzler Research									

#### Valuation

#### DCF valuation derives fair value of EUR13

Our DCF includes three stages. Within our model, the first stage (FY24-FY26E) incorporates our detailed forecasts, while the second phase (FY27-FY30E) accounts for the transition period. The final pillar is represented by our terminal value calculation. Our terminal growth rate is 2%.

Sales growth: We view 1) under-penetration of e-Commerce in certain sectors (i.e. furniture and DIY), 2) growth of partners on TPG's platform (i.e. networking effect) and 3) M&A as the main top-line drivers.

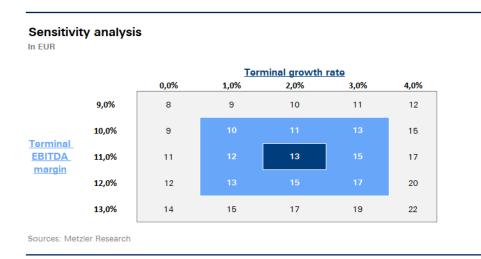
EBITDA: We assume on-going margin progression at TPG. While we expect the company to face headwinds with respect to higher marketing and freight expenses, which will weigh on profitability in the short-term, we see opportunities to capitalise on automation (Consumer Goods) and scaling efficiencies (Freight & Industrial Goods) to drive improvements in personnel expenses measured as a % of sales.

WACC: Our WACC comes in at 9.6% and is based on the following parameters: 1) risk-free rate of 2.0%, 2) market risk premium of 7.0% and c) a beta of 1.5. The cost of equity amounts to 12.8%, while the pre-tax cost of debt is 5.0%.

#### DCF valuation - The Platform Group AG

	FY24e	FY25e	FY26e	FY27e	FY28e	FY29e	FY30e	TV-year
Revenue (in EURm)	512	578	624	658	688	713	735	750
% change yoy	18,4%	12,9%	7,9%	5,5%	4,5%	3,7%	3,1%	2,0%
EBIT (in EURm)	41	48	54	56	60	63	66	68
Margin (in %)	7,9%	8,2%	8,7%	8,5%	8,7%	8,9%	9,0%	9,0%
Adjusted Taxes (in EURm)	-4	-14	-16	-17	-18	-19	-20	-20
Tax rate (in %)	-10,0%	-30,0%	-30,0%	-30,0%	-30,0%	-30,0%	-30,0%	-30,0%
NOPLAT	37	33	38	39	42	44	46	47
D&A (in EURm)	9	12	12	13	14	14	15	15
in % of sales	1,8%	2,0%	2,0%	2,0%	2,0%	2,0%	2,0%	2,0%
Less: Maintenance Capex (in EURm)	-15	-17	-19	-24	-25	-26	-27	-28
in % of sales	-3,0%	-3,0%	-3,0%	-3,7%	-3,7%	-3,7%	-3,7%	-3,7%
Less: Investment Capex (in EURm)	-14	-16	-19	-22	-23	-24	-24	-25
in % of sales	-2,8%	-2,8%	-3,0%	-3,3%	-3,3%	-3,3%	-3,3%	-3,3%
Less: Change in NWC (in EURm)	-3	-3	-7	-26	-28	-29	-29	-23
Free cash flow	19						39	32
Present value FCF (in EURm)	19	13	16	25	24	23	22	17
Implied equity value and fair value per share				WACC As	sumption	5		
Enterprise value (in EURm)		362		Beta				1,5
Less: Net debt (in EURm)		-92		Risk-free rate				
Less: Minorities (in EURm)		-4		Market risk		7%		
Less: Pension provisions (in EURm)		-4		% share of Equity				64%
Equity value (in EURm)		262		% share of	Debt			36%
# of outstanding shares		20		Cost of Eq	uity / Debt			11.4% / 5
Fair value share price (in EUR)		13		WACC				9,6%

Our DCF model is sensitive to our selected input factors. Hence, we provide a sensitivity analysis of our estimated fair value vs. the terminal growth rate and our terminal EBITDA margin:



#### We cross check our DCF with a peer valuation

Our selected peers include pure play fashion e-tailers (incl. Zalando), e-Commerce platforms (i.e. Amazon) but also serial acquirers (i.e. Addnode, Jack Henry and Lifco) given that acquisitions constitute a core part of TPG's strategy. In our view, accounting for this variability of peers ensures a more credible comparison. On a 2yr fwd P/E TPG is trading at a 27% discount vs. peers.

#### Peer group analysis

					Market Cap		ales		
Company	Ticker	Rating		Price			CY26		CY26
AddLife AB	ALIFB SS	Not rated	SEK	132,0	1.405	2,0x	1,9x	25,5x	21,8x
Addnode Group AB	ANODB SS	Not rated	SEK	100,8	13.560	1,9x	1,9x	26,3x	23,2x
AO World PLC	AO/ LN	Not rated	GBp	1,1	738	0,5x	0,5x	19,0x	14,4x
Amazon.com Inc	AMZN US	Not rated	USD	197,1	1.978.351	3,1x	2,8x	28,3x	23,9x
Indutrade AB	INDT SS	Not rated	SEK	270,2	8.555	3,2x	3,0x	27,7x	25,1x
Jack Henry & Associa	tes JKHY	Not rated	USD	172,5	12.012	5,2x	4,9x	28,7x	26,5x
Lifco AB	LIFCOB SS	Not rated	SEK	318,2	12.560	5,5x	5,2x	36,6x	33,1x
Zalando SE	ZAL GY	Buy	EUR	29,4	7.767	0,6x	0,6x	26,7x	20,3x
Mean	-	-	-	-	-	2,6x	2,4x	27,4x	23,5x
Median	-	-	-	-	-	2,5x	2,3x	27,2x	23,6x
Platform Group AG	TPG GY	Buy	EUR	7,5	149	0,4x	0,3x	6,9x	6,4x

METZLER

Capital Markets

\* As of 5:45pm \*\* Calculation based on LTM sales and 24m fwd sales Source: Bloomberg, Metzler Research

Risks

Limited track record limited so far: TPG has been trading on the stock exchange since November 2023. Although the company has delivered solid results over the past couple of months, including two guidance increase for FY24, its track record remains limited so far.

**Personnel cost inflation:** Key pillars for profitability expansion, according to our modelling, are improvements with respect to automation and scaling benefits regarding personnel expenses. Should these not materialise, this could imply downside risk to our reported EBITDA estimates, as we expect both distribution and marketing costs to rise in the coming years both in absolute terms and as a % of sales.

**Debt:** While TPG has demonstrated its cash generating capabilities, we view a reduction of its current leverage ratio as critical. By FY25, TPG wishes to improve its net debt / EBITDA ratio (excl. IFRS16 liabilities) to a 1.5-2.3x.

## Key Data

#### Company profile

CEO: Dr. Dominik Benner CFO: Reinhard Hetkamp Wiesbaden, Germany The Platform Group AG (TPG) is a software specialist, which focuses on connecting small and medium retail enterprises (SMEs), operating in both B2C as well as B2B, to >50 online stores that are either owned by TPG or third parties.

#### Major shareholders

Benner Holding GmbH (70%), Paladin Asset Management (9.9%)

#### Key figures

Key figures			0.000		0000	o.:					0000	
P&L (in EUR m)	2021	%	2022	%	2023	%	2024e	%	2025e	%	2026e	%
Sales	134	n.a.	172	28.5	464	170.1	512	10.2	578	12.9	624	7.9
Gross profit on sales	51	n.a.	48	-6.5	146	203.2	183	25.4	210	14.7	229	9.0
Gross margin (%)	38.4	n.a.	28.0	-27.2	31.4	12.3	35.7	13.8	36.3	1.6	36.6	0.9
EBITDA	2	n.a.	14	789.0	47	231.4	50	6.5	59	18.9	66	12.2
EBITDA margin (%)	1.2	n.a.	8.2	591.8	10.1	22.7	9.7	-3.4	10.2	5.3	10.7	3.9
EBIT	-1	n.a.	9	n.m.	39	326.7	41	4.3	48	17.5	54	13.2
EBIT margin (%)	-0.4	n.a.	5.3	n.m.	8.4	58.0	7.9	-5.4	8.2	4.0	8.7	4.9
Financial result	-1	n.a.	-0	78.9	-6	n.m.	-4	40.8	-2	46.6	-2	9.7
EBT	-2	n.a.	9	555.5	32	268.5	37	13.2	46	24.1	52	14.3
Taxes	-0	n.a.	1	447.3	-0	-144.0	4	n.m.	14	271.9	16	14.3
Tax rate (%)	12.2	n.a.	9.3	n.a.	-1.1	n.a.	10.0	n.a.	30.0	n.a.	30.0	n.a.
Net income	-2	n.a.	8	570.6	33	311.0	33	0.7	32	-3.5	36	14.3
Minority interests	0	n.a.	1	n.a.	1	-24.4	4	323.5	1	-72.5	1	-9.1
Net Income after minorities	-2	n.a.	7	497.0	32	373.1	29	-8.8	31	6.0	35	15.1
Number of shares outstanding (m)	6	n.a.	6	-0.8	17	180.9	20	15.1	20	0.0	20	0.0
EPS adj. (EUR)	-0.27	n.a.	1.10	500.3	1.48	34.8	1.46	-1.0	1.55	6.0	1.79	15.1
DPS (EUR)	0.00	n.a.	0.00	n.a.	0.00	n.a.	0.00	n.a.	0.00	n.a.	0.00	n.a.
Dividend yield (%)	0.0	n.a.	0.0	n.a.	0.0	n.a.	0.0	n.a.	0.0	n.a.	0.0	n.a.
Cash Flow (in EUR m)	2021	%	2022	%	2023	%	2024e	%	2025e	%	2026e	%
Gross Cash Flow	1	n.a.	-2	-260.8	22	n.m.	42	91.4	44	2.7	49	12.6
Increase in working capital	-15	n.a.	4	n.a.	82	n.a.	-3	n.a.	-3	n.a.	-7	n.a.
Capital expenditures	-18	n.a.	-1	94.2	-75	n.m.	-30	60.3	-34	-12.9	-37	-11.7
D+A/Capex (%)	-11.5	n.a.	-471.0	n.a.	-10.5	n.a.	-31.0	n.a.	-34.5	n.a.	-33.3	n.a.
Free cash flow (Metzler definition)	-2	n.a.	-7	-339.4	-135	n.m.	15	111.4	13	-15.0	19	43.6
Free cash flow yield (%)	-1.2	n.a.	-26.4	n.a.	-126.5	n.a.	10.3	n.a.	8.7	n.a.	12.6	n.a.
Dividend paid	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.	0	n.a.
Free cash flow (post dividend)	-2	n.a.	-7	-339.4	-135	n.m.	15	111.4	13	-15.0	19	43.6
Balance sheet (in EUR m)	2021	%	2022	%	2023	%	2024e	%	2025e	%	2026e	%
Assets	96	n.a.	84	-12.7	284	237.7	312	9.6	358	14.9	405	13.0
Goodwill	11	n.a.	16	44.7	44	167.0	51	17.0	60	16.3	69	15.4
Shareholders' equity	51	n.a.	47	-7.7	82	73.1	115	40.6	147	27.8	183	24.9
Equity/total assets (%)	53.0	n.a.	56.0	n.a.	28.7	n.a.	36.8	n.a.	40.9	n.a.	45.2	n.a.
Net Debt incl. Provisions	9	n.a.	22	144.3	72	224.0	96	34.1	63	-33.9	63	-0.2
thereof pension provisions	0	n.a.	2	429.5	3	55.8	4	16.1	4	12.9	4	7.9
Gearing (%)	17.7	n.a.	46.8	n.a.	87.6	n.a.	83.6	n.a.	43.2	n.a.	34.5	n.a.
Net debt/EBITDA	5.7	n.a.	1.6	n.a.	1.5	n.a.	1.9	n.a.	1.1	n.a.	1.0	n.a.
	2.7											

#### Structure

#### Sales by Division 2023

Consumer Goods	58%
Freight Goods	
Industrial Goods 14%	
Service & Retail Goods 14%	

Sources: Bloomberg, Metzler Research

**METZLER** 

### Disclosures

#### **Recommendation history**

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

**METZLER** 

Capital Markets

Date of dissemination			Current price **	Price target *	Author ***
	Previous	Current			
Issuer/Financial Instru	ument (ISIN): 1	The Platform Gro	oup (DE000A2QEFA	.1)	
26.08.2024	Buy	Buy	8.92 EUR	13.00 EUR	Dennl, Felix
03.06.2024	n.a.	Buy	8.92 EUR	13.00 EUR	Dennl, Felix
					tment recommendation is updated the time of publication)
		** XETRA tra herein	ading price at the cl	ose of the pre	vious day unless stated otherwise
		*** All author	s are financial analy	/sts	
		The Platform G	iroup		
		worked	on compiling this re	port has reacl	r and/or a person that has hed an agreement with the is- ent recommendations.
		Compiled: Nov	ember 25, 2024 08	:08 am CET	

Initial release: November 25, 2024 08:08 am CET

## 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 (Wertpapier-handelsgesetz)

#### 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, relativevalue 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.

METZLER Capital Markets

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/disclaimercapital-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-marketsen

#### 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.

#### 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

METZLER Capital Markets

Research	Pascal Spano	Head of Research	4365
	Guido Hoymann	Head of Equity Research Transport, Utilities/Renewables	398
	Stephan Bauer	Industrial Technology	4363
	Nikolas Demeter	Transport, Utilities/Renewables	1787
	Felix Dennl	E-Commerce, Retail	239
	Oliver Frey	Technology	4360
	Alexander Neuberger	Industrial Technology, Small/Mid Caps	4366
	Jochen Schmitt	Financials, Real Estate	4359
	Thomas Schulte-Vor- wick	Basic Resources	234
	Pál Skirta	Mobility	525
	Veysel Taze	Technology	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	0.40
Sales	Christian Hollendieck		249 4173
	Hugues Jaouen Alexander Kravkov		4173
	Gerard O'Doherty		4172
	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

	Christoph Hirth Adrian Takacs		513 512
Fixed Income (FI)	Sebastian Luther	Head of Fixed Income	688
FI Sales	Minush Nori Silke Amelung Kyriakos Ioannidis Claudia Ruiu Simon Tabath	Head of Fixed Income Sales	689 289 686 683 280
FI Trading/ALM	Burkhard Brod Bettina Koch Susanne Kraus Christian Bernhard	Head of ALM Head of Fixed Income Trading	659 291 658 266
	Dirk Lagler	Head of fixed income frading	685
Foreign Exchange (FX)	Özgur Atasever	Head of Foreign Exchange	281
FX Sales	Tobias Martin Steffen Völker	Head of FX Sales & Trading	614 293
FX Trading	Rainer Jäger Sebastian Wilkes Andreas Zellmann		276 613 610
Currency Management	Dominik Müller	Head of Currency Management	274
CM Advisory	Achim Walde Eugenia Buchmüller	Head of Advisory	275 238
CM Operations	Simon Wesch Tessa Feller Florian Konz	Head of Operations	350 1696 1773
	Sergii Piskun	Senior Quantitative Analyst	237

METZLER Capital Markets