



Borussia Dortmund GmbH & Co. KGaA

Time to reassess

05/09/2017

Buy (Buy)
9.40 EUR (7.00 EUR)

Close 01/09/2017 7.41 EUR
 Bloomberg: BVB GY WKN: 549309
 Sector Media

Share price performance

52 week high 7.56 EUR
 52 week low 4.20 EUR
 Compared to Prime All Share
 YTD 32.8%
 1 month 19.5%
 12 months 59.2%



Share data

EV (m EUR; 2017) 695.0
 Market Cap (m EUR) 682.1
 No. of shares (m) 92.0
 Free float 60.8%

Next event

Quarterly Results 14/11/2017

Change in model

	Sales	EBIT	EPS
2017/18e	57.5%	431.6%	535.8%
2018/19e	21.6%	-71.5%	-72.6%
2019/20e	30.7%	-54.1%	-55.0%

Analyst

Christoph Schlienkamp, Investmentanalyst DVFA
 Phone: +49 (0)211 4952-311
 christoph.schlienkamp@bankhaus-lampe.de

See end of document for disclaimer.

After the transfer window closed on 31 August it is now time to reassess the Borussia investment case. According to our calculations, the adjusted value of the squad improved by € 96 m yoy. We also took the higher brand value of Borussia into account and now arrive at a price target of € 9.40 (old: € 7.00). Thus, we clearly confirm our BUY recommendation.

INVESTMENT CASE

The current transfer period showed very clearly that the transfer values of the players are considerably higher than the IFRS book value. According to our calculations, as of 30 June the book value of the whole squad was € 145 m. This is exactly the amount that FC Barcelona paid for player Ousmane Dembélé alone. Even though the value of the squad increased by € 96 m yoy, there is still room for improvement in future. The current management team understands perfectly how to develop young players and increase their transfer values significantly. Dembélé is one example, Toljan, Dahoud, Sancho could be the names of the future.

CATALYSTS

Important for the business case is to be successful in the three core competitions: Bundesliga, DFB Cup and Champions League. A loss/win or elimination/next round in the cup competitions has a higher impact on all business segments though.

VALUATION

We currently calculate an adjusted value for the squad of € 386 m. After a considerable reduction in debt in recent years, Borussia Dortmund has systematically decreased its debt ratio. In our model, we project a net liquidity of € 43 m as per end of the fiscal year. The independent brand valuation and strategy consultancy, Brand Finance, put the brand value for Borussia Dortmund at US\$ 519 m in early 2017, which should be taken into consideration for the valuation. Based on the current US dollar rate, this corresponds to a value of € 437 m. In summary, we arrive at a fair value for the share of € 9.40 and thus confirm our BUY rating.

in m EUR	2015/16	2016/17	2017/18e	2018/19e	2019/20e
Sales	376.3	405.7	543.5	425.5	457.5
EBIT	36.4	10.7	119.7	10.1	24.1
EBIT margin	9.7%	2.6%	22.0%	2.4%	5.3%
Net financial debt	4.3	13.0	-43.0	-43.5	-57.2
Free cash-flow	6.1	5.8	61.2	9.6	19.3
EPS (in EUR)	0.32	0.09	1.03	0.07	0.18
DPS (in EUR)	0.06	0.06	0.10	0.06	0.06
Dividend yield	1.0%	0.8%	1.3%	0.8%	0.8%
EV/Sales	1.5	1.7	1.2	1.5	1.4
EV/EBIT	15.5	65.2	5.3	63.2	25.9
P/E	19.1	83.0	7.2	102.8	41.9

Source: Company information, Bankhaus Lampe Research estimates

Our company valuation is primarily based on the adjusted value of the professional squad, the company's core asset. Transfermarkt.de, the leading valuation platform for German professional football, calculates a value for the BVB squad of € 392 m (as per 01/09/2017). However, for the analysis it should be kept in mind that the transfer value of players with contracts expiring within a year drops to zero in mid-2018. We do not regard these players as assets anymore since they will then no longer generate transfer income. Of the current squad, this only concerns Roman Weidenfeller, Dominik Reimann and Neven Subotic whose contracts expire on 30/06/2018. They are currently valued at € 6 m. We currently calculate an adjusted value for the squad of € 386 m. After a considerable reduction in debt in recent years, Borussia Dortmund has systematically decreased its debt ratio. In our model, we project a net liquidity of € 43 m as per end of the fiscal year.

The independent brand valuation and strategy consultancy, Brand Finance, put the brand value for Borussia Dortmund at US\$ 519 m in early 2017, which should be taken into consideration for the valuation. Based on the current US dollar rate, this corresponds to a value of € 437 m.

In summary, we arrive at a fair value for the share of € 9.40 and thus confirm our BUY rating.

Fair Value per share

	Enterprise Value [€ m]
adj. value of the squad [mn €]	385.9
Net liquidity	43.0
Brand Value	436.9
Total	865.8
Num. of shares [mill.]	92.00
Discount	0%
Fair value per share [€]	9.41

Source: Company information, Bankhaus Lampe Research

Sensitivity of fair value per share

Change in adj. Value of the squad or Brand Value		
+50 m	9.95	
+25 m	9.68	
0 m	9.41	
-25 m	9.14	
-50 m	8.87	

Source: Company information, Bankhaus Lampe Research

Our P&L estimates based on the following segment model have changed as follows:

Bankhaus Lampe

EUR m	2017/18e old	2017/18e new	Change	2018/19e old	2018/19e new	Change	2019/20e old	2019/20e new	Change
Sales	345.0	543.5	57.5%	345.0	425.5	23.3%	---	457.5	---
EBIT	22.5	119.7	431.8%	22.5	10.1	-55.1%	---	24.1	---
EBIT margin	6.5%	22.0%	15,5 PP	6.5%	2.4%	-4,1 PP	---	5.3%	---
EPS (€)	0.16	1.03	544.9%	0.16	0.07	-54.9%	---	0.18	---
DPS (€)	0.06	0.10	66.7%	0.06	0.06	0.0%	---	0.06	---

Source: Bankhaus Lampe Research

EUR m	2016/17	2017/18e old	2017/18e new	Change	2018/19e old	018/19e new	Change	2019/20e old	2019/20e new	Change
Bor. Dortmund	405.7	308.7	543.5	76.1%	314.4	425.5	35.3%	---	457.5	---
Broadcasting	125.8	111.0	144.0	29.7%	111.0	144.0	29.7%	---	174.0	---
Advertising	87.4	88.0	88.0	0.0%	90.0	89.0	-1.1%	---	90.0	---
Merchandising	39.5	42.0	39.5	-6.0%	43.0	39.5	-8.1%	---	39.5	---
Transfers	77.3	0.0	200.0	---	0.0	80.0	---	---	80.0	---
Match operations	43.9	39.2	40.0	2.0%	41.4	41.0	-1.0%	---	42.0	---
Catering/others	31.9	28.5	32.0	12.3%	29.0	32.0	10.3%	---	32.0	---

Source: Company information, Consensus FactSet, Bankhaus Lampe Research

Our estimates compared with the FactSet Consensus are as follows:

BHL vs. Consensus	2017/18e			2018/19e			2019/20e		
	BHL	Consensus	Delta	BHL	Consensus	Delta	BHLe	Consensus	Delta
Sales	543.5	405.7	34.0%	425.5	556.0	-23.5%	457.5	---	---
EBIT	119.7	10.7	1022.7%	10.1	99.1	-89.8%	24.1	---	---
EBIT margin	22.0%	2.6%	19,4 PP	2.4%	17.8%	-15,4 PP	5.3%	---	---
EPS (€)	1.03	0.09	1010.5%	0.07	0.79	-90.9%	0.18	---	---
DPS (€)	0.10	0.06	66.7%	0.06	0.08	-25.0%	0.06	---	---

Source: Company information, Consensus FactSet, Bankhaus Lampe Research

RISK TO OUR INVESTMENT CASE

The risk to our investment case is mainly linked to the fact that sporting success cannot be relied upon. The elimination in a cup contest would impact the brand value negatively, while going to the next round is positive. Additionally, a higher bid than expected for a player could drive the squad value up, while an injury of a highly valued player could drive it down.

And in numbers, there can be a larger deviation to our forecast as transfers are not predictable.

Key figures

Borussia Dortmund GmbH & Co. KGaA – Income statement

in m EUR	2015/16	2016/17	2017/18e	2018/19e	2019/20e
Sales	376.3	405.7	543.5	425.5	457.5
Own work capitalised	0.0	0.0	0.0	0.0	0.0
Total sales	376.3	405.7	543.5	425.5	457.5
Material expenses	-25.7	-25.9	-26.5	-27.0	-27.5
Personnel expenses	-140.2	-177.9	-186.8	-196.2	-206.0
Unusual or infrequent items	0.0	0.0	0.0	0.0	0.0
Other operating result	-123.7	-127.7	-145.5	-127.2	-132.9
EBITDA	86.7	74.1	184.7	75.1	91.1
Depreciation	50.2	63.4	65.0	65.0	67.0
EBITA	36.4	10.7	119.7	10.1	24.1
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.0	0.0	0.0	0.0	0.0
EBIT	36.4	10.7	119.7	10.1	24.1
Financial result	-2.1	-1.5	-1.0	-0.5	-0.5
Income on ordinary activities	34.3	9.1	118.7	9.6	23.6
Extraordinary income/loss	0.0	0.0	0.0	0.0	0.0
EBT	34.3	9.1	118.7	9.6	23.6
Taxes	-4.9	-0.9	-23.7	-3.0	-7.3
Net income from cont. operations	29.4	8.2	94.9	6.6	16.3
Net income from discount. operations	0.0	0.0	0.0	0.0	0.0
Minority interest	0.0	0.0	0.0	0.0	0.0
Net income (adj.)	29.4	8.2	94.9	6.6	16.3
No. of shares	92.0	92.0	92.0	92.0	92.0
EPS	0.32	0.09	1.03	0.07	0.18

Source: Company information, Bankhaus Lampe Research estimates

	2015/16	2016/17	2017/18e	2018/19e	2019/20e
Gross margin	93.2%	93.6%	95.1%	93.7%	94.0%
EBITDA margin	23.0%	18.3%	34.0%	17.7%	19.9%
EBITA margin	9.7%	2.6%	22.0%	2.4%	5.3%
EBIT margin	9.7%	2.6%	22.0%	2.4%	5.3%
EBT margin	9.1%	2.2%	21.8%	2.3%	5.2%
Net profit margin	7.8%	2.0%	17.5%	1.6%	3.6%
Tax rate	14.3%	10.0%	20.0%	31.0%	31.0%

Source: Company information, Bankhaus Lampe Research estimates

Growth rates yoy	2015/16	2016/17	2017/18e	2018/19e	2019/20e
Sales	36.3%	7.8%	34.0%	-21.7%	7.5%
EBITDA	55.9%	-14.5%	>100%	-59.3%	21.3%
EBIT	>100%	-70.7%	>100%	-91.5%	>100%
EBT	>100%	-73.4%	>100%	-91.9%	>100%
Net income (adj.)	>100%	-72.1%	>100%	-93.0%	>100%
EPS	>100%	-72.1%	>100%	-93.0%	>100%

Source: Company information, Bankhaus Lampe Research estimates

Borussia Dortmund GmbH & Co. KGaA – Balance sheet

Assets (in m EUR)	2015/16	2016/17	2017/18e	2018/19e	2019/20e
Fixed assets	302.8	354.9	354.7	351.7	348.7
Property, plant and equipment	188.4	184.7	181.0	178.0	175.0
Intangible assets	65.3	141.5	145.0	145.0	145.0
Financial assets	0.1	0.1	0.1	0.1	0.1
Other long-term assets	49.0	28.6	28.6	28.6	28.6
Current assets	121.8	123.7	149.0	144.5	158.2
Inventories	10.2	9.0	9.0	9.0	9.0
Accounts receivable	51.1	48.8	50.0	50.0	50.0
Other current assets	8.8	16.7	17.0	17.0	17.0
Securities	0.0	0.0	0.0	0.0	0.0
Cash	51.7	49.3	73.0	68.5	82.2
Total assets	424.5	478.6	503.7	496.1	506.9
Equity and liabilities in m EUR					
Shareholders' equity	309.5	312.3	401.7	399.1	409.9
Shareholders' equity (before minority)	309.5	312.3	401.7	399.1	409.9
Minorities	0.0	0.0	0.0	0.0	0.0
Non-current liabilities	36.2	25.4	22.0	17.0	17.0
Pension provisions	0.0	0.0	0.0	0.0	0.0
Other provisions	0.0	0.0	0.0	0.0	0.0
Long-term financial debt	19.0	8.7	5.0	0.0	0.0
Other long-term debt	17.2	16.7	17.0	17.0	17.0
Current liabilities	78.8	140.9	80.0	80.0	80.0
Short-term debt	37.1	53.6	25.0	25.0	25.0
Other accruals short-term	1.4	1.2	0.0	0.0	0.0
Accounts payable	14.6	63.6	30.0	30.0	30.0
Other liabilities	25.7	22.6	25.0	25.0	25.0
Total equity and liabilities	424.5	478.6	503.7	496.1	506.9

Source: Company information, Bankhaus Lampe Research estimates

Borussia Dortmund GmbH & Co. KGaA – Balance sheet structure

Assets	2015/16	2016/17	2017/18e	2018/19e	2019/20e
Fixed assets	71.3%	74.1%	70.4%	70.9%	68.8%
Property, plant and equipment	44.4%	38.6%	35.9%	35.9%	34.5%
Intangible assets	15.4%	29.6%	28.8%	29.2%	28.6%
Current assets	28.7%	25.9%	29.6%	29.1%	31.2%
Inventories	2.4%	1.9%	1.8%	1.8%	1.8%
Accounts receivable	12.0%	10.2%	9.9%	10.1%	9.9%
Cash	12.2%	10.3%	14.5%	13.8%	16.2%
Equity and liabilities					
Shareholders' equity	72.9%	65.3%	79.8%	80.4%	80.9%
Non-current liabilities	8.5%	5.3%	4.4%	3.4%	3.4%
Pension provisions	0.0%	0.0%	0.0%	0.0%	0.0%
Long-term financial debt	4.5%	1.8%	1.0%	0.0%	0.0%
Current liabilities	18.6%	29.4%	15.9%	16.1%	15.8%
Short-term debt	8.7%	11.2%	5.0%	5.0%	4.9%
Accounts payable	3.4%	13.3%	6.0%	6.0%	5.9%

Source: Company information, Bankhaus Lampe Research estimates

Borussia Dortmund GmbH & Co. KGaA – Cash flow statement

in m EUR	2015/16	2016/17	2017/18e	2018/19e	2019/20e
Net income (adj.)	29.4	8.2	94.9	6.6	16.3
Depreciation	50.2	63.4	65.0	65.0	67.0
Amortisation of goodwill & intangible assets	0.0	0.0	0.0	0.0	0.0
Change of provisions	1.4	-0.2	-1.2	0.0	0.0
Other	2.2	-108.1	0.0	0.0	0.0
Operating Cash-flow before changes in w/c	83.3	-36.6	158.8	71.6	83.3
Change in inventory	-0.8	1.2	0.0	0.0	0.0
Change in accounts receivable	-21.4	2.3	-1.2	0.0	0.0
Change in accounts payable	-8.2	48.9	-33.6	0.0	0.0
Change in other working capital positions	-17.7	-11.0	2.1	0.0	0.0
Operating Cash-flow	35.2	4.8	126.0	71.6	83.3
Capex, excluding maintenance	-9.8	0.0	-64.8	-62.0	-64.0
Payments for acquisitions	-35.0	0.0	0.0	0.0	0.0
Financial investments	0.0	0.0	0.0	0.0	0.0
Income from asset disposals	14.9	1.0	0.0	0.0	0.0
Income from financial investments	0.8	0.0	0.0	0.0	0.0
Cash-flow from investing activities	-29.1	1.0	-64.8	-62.0	-64.0
Free cash-flow	6.1	5.8	61.2	9.6	19.3
Capital measures	0.0	0.0	0.0	0.0	0.0
Increase/decrease in debt position	-2.5	-2.6	-32.3	-5.0	0.0
Purchase of own shares	0.0	0.0	0.0	0.0	0.0
Other financing Cash-flow	-1.0	0.0	0.3	0.0	0.0
Dividend paid	-4.6	-5.5	-5.5	-9.2	-5.5
Cash-flow from financing activities	-8.1	-8.2	-37.5	-14.2	-5.5
Increase/ decrease in liquid assets	-2.0	-2.4	23.7	-4.6	13.8
Effects of exchange rate changes	0.0	0.0	0.0	0.0	0.0
Cash at beginning of period	53.7	51.7	49.3	73.0	68.5
Change in total cash and cash equivalents	-2.0	-2.4	23.7	-4.6	13.8
Cash at end of period	51.7	49.3	73.0	68.5	82.2

Source: Company information, Bankhaus Lampe Research estimates

Borussia Dortmund GmbH & Co. KGaA – Ratios

	2015/16	2016/17	2017/18e	2018/19e	2019/20e
Per Share Data					
EPS	0.32	0.09	1.03	0.07	0.18
Book value per share	3.36	3.39	4.37	4.34	4.46
Free Cash-flow per share	0.07	0.06	0.67	0.10	0.21
Dividend per share	0.06	0.06	0.10	0.06	0.06
Valuation ratios					
EV/Sales	1.5	1.7	1.2	1.5	1.4
EV/EBITDA	6.5	9.4	3.5	8.5	6.9
EV/EBIT	15.5	65.2	5.3	63.2	25.9
P/E	19.1	83.0	7.2	102.8	41.9
Price to book (total equity)	1.8	2.2	1.7	1.7	1.7
Dividend yield	1.0%	0.8%	1.3%	0.8%	0.8%
Profitability ratios					
EBITDA margin	23.0%	18.3%	34.0%	17.7%	19.9%
EBIT margin	9.7%	2.6%	22.0%	2.4%	5.3%
Net return on sales	7.8%	2.0%	17.5%	1.6%	3.6%
Return on capital employed (ROCE)	10.0%	2.8%	27.7%	2.4%	5.5%
Productivity ratios					
Capital turnover	92.9%	86.0%	70.6%	89.5%	82.6%
Operating leverage	4.9	-9.0	30.1	4.2	18.4
Sales per employee (in thousands)	535,219	579,560	776,429	607,857	653,571
EBIT per employee (in thousands)	51,821	15,226	170,934	14,445	34,431
Number of employees (in thousands)	0.7	0.7	0.7	0.7	0.7
Financial ratios					
Equity ratio	72.9%	65.3%	79.8%	80.4%	80.9%
Net financial debt (in m EUR)	4.3	13.0	-43.0	-43.5	-57.2
Net debt / Equity	1.4%	4.1%	-10.7%	-10.9%	-14.0%
Interest cover	0.0	6.9	0.0	0.0	0.0
Net debt / EBITDA	0.05	0.17	-0.23	-0.58	-0.63
Working Capital (in m EUR)	46.6	-5.8	29.0	29.0	29.0
Change Working Capital (in m EUR)	30.3	-52.4	34.8	0.0	0.0
WC /sales	12.4%	-1.4%	5.3%	6.8%	6.3%
Stocks in days of sales	10	8	6	8	7
Trade debtors in days of sales	50	44	34	43	40
Trade creditors in days of COGS/Material cost	14	57	20	26	24
Cash conversion cycle	46	-5	20	25	23
Invest. (property/plant/equity) / Depreciation	19.6%	0.0%	99.7%	95.4%	95.5%
Others					
Sales CAGR (last 3 years)	7.2%	15.9%	25.3%	4.2%	4.1%
EBIT CAGR (last 3 years)	-17.6%	-16.7%	108.7%	-34.8%	31.3%
Net income CAGR (last 3 years)	-16.6%	-11.0%	157.9%	-39.1%	25.6%
Pay out ratio	18.8%	67.2%	9.7%	83.2%	33.9%
Free cash-flow (in m EUR)	6.1	5.8	61.2	9.6	19.3
Free cash flow yield	1.1%	0.8%	9.0%	1.4%	2.8%

Source: Company information, Bankhaus Lampe Research estimates

Disclaimer

Analyst declaration

The relevant research analysts, as named on the front cover of this research report, certify that (a) all of the views expressed in this research report accurately reflect their personal views about the securities and companies mentioned in this research report; and (b) that no part of their compensation was, is or will be directly or indirectly related to the specific recommendation(s) or views expressed by them in this research report.

Rating system

Shares are rated based upon analyst forecasts with regard to the performance of the share during a period of twelve months. The rating "Buy" within this general concept means that the share's forecast performance is at least 10%. "Hold" means a price movement in a bandwidth of -10% to 10%. "Sell" means that the share's forecast performance is less than -10%.

Explanation of valuation

Unless shown otherwise, the stated upside targets are based upon either a discounted cash-flow pricing or upon a comparison of the performance ratios of companies that the respective analyst considers to be comparable, or upon a combination of these two analyses. Analysts modify the result of this fundamental assessment to incorporate the potential trend in market sentiment.

Overview of changes in our recommendations/price targets in the previous twelve months for: Borussia Dortmund GmbH & Co. KGaA (BVB GY), Close (01/09/2017): 7.41 EUR, Analyst: Christoph Schlienkamp (Investmentanalyst DVFA).

Date of publication	Price at recommendation	Rating	Price target
06/12/2016	4.76 EUR	Buy	7.00 EUR

The distribution of recommendations in our investments universe is currently as follows (date: 01/07/2017)

Rating	Basis: all analysed companies	Basis: companies with investment banking relationships
Buy	49.0%	75.0%
Hold	46.0%	25.0%
Sell	5.0%	0.0%
Under Review	0.0%	0.0%

Prevention and dealing with conflicts of interest

The measures taken by Bankhaus Lampe KG within the framework of its management of conflicts of interest in order to prevent and handle conflicts of interest are based, among other things, on the functional separation of sensitive business units, the establishment of confidentiality units by setting up information barriers, the establishment of organisational regulations regarding the treatment of confidential and sensitive information both inside and outside the confidentiality units and the monitoring and limitation of private securities transactions conducted by employees working in sensitive areas of Bankhaus Lampe KG. Conflicts of interest that cannot be avoided despite the measures taken are disclosed. Compliance with the internal and organisational provisions to prevent and handle conflicts of interest is monitored by the independent Compliance unit.

Conflict of interest

Disclosures of potential conflicts of interest relating to Bankhaus Lampe KG, its affiliates and subsidiaries in the following companies named in this research report are valid as of the end of the month prior to the publication of this report (updating this information may take up to ten days after the month comes to an end).

Potential conflicts of interests may exist in the following companies named in this research report.

Company	Disclosure
Borussia Dortmund GmbH & Co. KGaA	---

Responsible regulatory authority:

Federal Financial Supervisory Authority – Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin), Marie-Curie-Str. 24-28, D-60439 Frankfurt

Declaration of liability

The information in this study is based on public sources which the author(s) believe(s) to be reliable. Nevertheless, neither Bankhaus Lampe KG, nor its affiliated companies, nor the legal representatives, supervisory board members and employees of these companies can assume any guarantee for the correctness, completeness and accuracy of the information. All opinions and evaluations expressed in this study only reflect the current opinions and evaluations of the author(s), which do not necessarily correspond to the opinions and evaluations of other spheres of business of Bankhaus Lampe KG or its affiliated companies. All opinions and evaluations can be changed at any time without prior notice. They may differ from views set out in other documents, including research, published by Bankhaus Lampe KG.

This study is directed to institutional investors with registered offices in the European Union as well as in Switzerland, Liechtenstein and the United States of America, to whom the Bank has deliberately made it available. Its contents are for information purposes only and are not to be regarded as an offer or invitation to buy or sell financial instruments. Private investors who come to know the contents of this study should, before making a concrete investment decision, consult the investment adviser of their bank on whether any recommendation for a certain investment decision contained in this study is suitable for them in view of their investment objectives and financial conditions. The adviser may not share the views contained herein on the financial instruments and their issuers.

The completion and publication of this study is subject to the law of the Federal Republic of Germany. Its publication in other jurisdictions may be restricted by applicable laws or other legal regulations. Persons with residence outside the Federal Republic of Germany who come into possession of this study must inform themselves about any applicable restrictions that they are obligated to observe. They are recommended to contact the authorities of their country that are responsible for the monitoring of financial instruments and of markets in which financial instruments are traded, in order to find out whether there are any restrictions on acquisition regarding the financial instruments this study refers to. This study may neither be reprinted, in whole or in part, nor transferred to an information system, nor stored in any way whatsoever, be it electronically, mechanically, via photocopy, or by any other means, except with the prior written approval of Bankhaus Lampe KG.

Additional information for clients in the United Kingdom

Publications in the United Kingdom are distributed by Lampe Capital UK (Services) Limited, 2 Savile Row, London W1S 3PA, United Kingdom and this report is only directed at persons who are investment professionals under Article 19 of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005 and the investment or investment activity to which this report relates is only available to and will only be engaged in with such persons. Persons who do not have professional experience in matters relating to investments should not rely upon the contents of this report.

Additional information for clients in the United States

This research report has been prepared and approved by Bankhaus Lampe KG, a full-service bank in Germany. Bankhaus Lampe KG is not a registered broker/dealer in the United States and therefore is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts.

The research report is distributed solely to "major U.S. institutional investors" within the United States. Lampe Capital North America LLC assumes responsibility for the distribution of this research report within the United States on behalf of Bankhaus Lampe KG in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended.

Any US recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through Lampe Capital North America LLC. Lampe Capital North America LLC may be contacted in writing or by phone: Lampe Capital North America LLC, 712 Fifth Avenue, 28th floor, New York, NY 10019, U.S. phone: +1-212-218 7410. Lampe Capital North America LLC is a wholly owned subsidiary of Bankhaus Lampe KG. Under no circumstances should any US recipient effect any transaction to buy or sell securities or related financial instruments through Bankhaus Lampe KG.

Bankhaus Lampe KG, Jägerhofstraße 10, D-40479 Düsseldorf is responsible for this study.

Further information may be obtained from Bankhaus Lampe KG.

05 September 2017

Contacts

HEAD OF CAPITAL MARKETS & ADVISORY

Ute Gerbaulet

+ 49 (0)211 4952-656

ute.gerbaulet@bankhaus-lampe.de

HEAD OF EQUITY

Ralf Menzel

+ 49 (0)211 4952-282

ralf.menzel@bankhaus-lampe.de

EQUITY SALES CONTINENTAL EUROPE

Ulrich Klingmüller

+ 49 (0)211 4952-784

ulrich.klingmueller@bankhaus-lampe.de

EQUITY SALES IN GB

Yusuf Bilgic

+ 44 (0)203 405 4318

yb@lampe-capital.com

EQUITY SALES IN US

Björn Kahl

+1 212 218 7411

bjorn.kahl@lampe-capital-us.com

EQUITY SALES TRADING CONTINENTAL EUROPE

Nils Carstens

+ 49 (0)211 4952-758

nils.carstens@bankhaus-lampe.de

EQUITY SALES TRADING IN GB

Chris Ford

+ 44 (0)203 405 1083

cf@lampe-capital.com

EQUITY SALES TRADING IN US

Kim Last

+1 212 218 7412

kim.last@lampe-capital-us.com

Bankhaus Lampe Research

Jägerhofstraße 10

D - 40479 Düsseldorf

research@bankhaus-lampe.de

📞 + 49 (0)211 4952-678

📠 + 49 (0)211 4952-494